

Preface

Anybody know what's the lethal dose of lorazepam? Will alcohol lower the threshold?

How do you handle telling people about your illness? I am an open person in general, and it's hard not to be able to talk to my friends about something that naturally occupies a fair bit of my mental time. On the other hand, once you tell someone, you can't untell them, and I don't want to lose my credibility, and I don't want people to think I'm 'crazy', or even worse in my opinion 'emotionally unstable'.

—Anonymous Postings to Internet Depression Newsgroups

On the 10th of July 1996 Etienne Mureinik, a prominent South African legal academic aged 44, booked a room in a Johannesburg hotel. He specifically requested one on the top floor, as it happened the 23rd. A few hours later he jumped from the window to his death. The media noted with a kind of wistful puzzlement his accomplishments and apparently bright future, and remarked that he had been under treatment for 'clinical depression'. There was virtually no further discussion; depression did not become an issue in the media, and nobody—at least in public—even raised the possibility that his suicide might have been a natural and reasonable response to his condition.

My reaction was quite different. I felt empathy, envy, and irritation at the lack of public understanding of what had happened, or willingness to confront it. Here was a man with the nerve to go and do it— what I had been wanting to do on and off since I was a teenager, more intensely as the years progressed.

The common view is that suicide is 'cowardly', a cop-out or betrayal of responsibility to self and others. In practice it may often be the latter; but anyone who thinks it either cowardly or self-betraying is seeing darkly through the glass of conventional religion or morality, has never experienced major depression, or both. The moral stigma usually attached to suicide in the depressed can be due only to a lack of understanding of what the overused word 'depression', in its proper medical and experiential sense, really means. Not that this lack of understanding is in itself blameworthy, as things are; some states of mind are simply unthinkable to those who have not experienced them, and because of this (literally) unspeakable.

I wrote this book under a kind of compulsion. It arose from my growing interest in the destructive and mysterious illness I was (and still am) caught up in, and from an attempt to understand it and myself. But another, perhaps 'altruistic' motivation seems to have crept in: to help give some more public prominence to serious depressive illness, clarify what it is and what it is like to have it, and try defusing the stigma that so often attaches to it. Why shouldn't depressives come out of the closet? Why should we lack the courage that homosexuals once needed, and often still do? Why do we so characteristically brood about death and ways of achieving it? I do not counsel suicide, though I certainly defend it as an appropriate response to certain conditions of living. But I think it important, both for the families and friends of depressives, and for depressives themselves, many of whom are mired in a slough of incomprehension,

to communicate something of what it is like to suffer from this potentially lethal disease. Or this terminal disease, since virtually all of us who have it will die with it, if not of it. And to make it clear why so many of us periodically desire nothing in the world more than death, and why some insist on achieving it.

I make no pretense at pioneering: many well-known victims, like Art Buchwald, Patty Duke, Kay Jamison, Joshua Logan, Spike Milligan, William Styron, Stuart Sutherland, Mike Wallace and Lewis Wolpert have 'come out', and there are already a number of excellent and accessible books, all with quite different emphases, different degrees of sophistication, aimed at different audiences. But mood disorders are peculiarly personal and idiosyncratic illnesses. Our brains (what Samuel Beckett aptly called 'the seat of all the shit and misery') are after all the most individual part of us. In fact they *are* us; and despite the common features, everyone's story is different, and the more stories known the better. Mine for instance differs from the others I have read, and most I have come across in person, in that I managed without two things that have apparently been vital to many others. Whatever success I achieved in staying alive and functional, and in the end getting considerably better, was managed entirely without psychotherapy or counselling of any kind, and religious belief or practice. I made it entirely through very sporadic advice from fine doctors, the support of my wife and a few select friends, reading and thinking, and medication. My formal treatment was deliberately drugs only, so I have some personal knowledge of the advantages and limitations of this approach.

I and countless others have survived largely through the at least partial pharmacological repair of shattered selves, assisted by family and friends and good doctors. But as Kay Jamison notes in perhaps the finest nontechnical book on one variety of this illness (*An unquiet mind: a memoir of moods and madness*, 1995), 'the road from suicide to life is cold and colder and colder still'. Many make it, many do not; the world is full of seemingly 'cured' depressives who lovingly hoard their suicide stash ... just in case.

In the end survival is often a matter of hanging on, even in the worst moments, to the possibility of remission. Chronic depression, like advanced cancer, is usually not cured but only held at bay. You somehow have to fight the bleakness and fatigue that come from repeated and terrifying mood-swings and the accompanying feeling of disintegration. And, paradoxically, you have to combine into some coherent and supporting vision two clear facts: (a) when you feel bad you're going to feel OK again; and (b) when you feel OK you're going to crash again. Perhaps the most debilitating thing is that the constant knowledge of (a) often does very little to counteract the equally certain knowledge of (b). It sometimes boils down to a simple question: how long can I bear this? For many the answer is first 'not much longer', and finally 'no more'.

This is in part a rather grim book, about a common and often fatal affliction. The bulk of the available literature suggests that the lifetime incidence of major depression (at least one episode) worldwide is a little over 5% of the population; this is almost certainly low, due to rampant underdiagnosis and the number of depressed people who do not get medical assistance (some studies have reported up to 15% incidence). The lower figure may look rather insignificant at first until one considers that 5% of the world's population is 300,000,000. That's a lot of sufferers from depression. The WHO has recently predicted that within 20 years depression will

be the world's major health problem. The lifetime attempted suicide rate for the US population at large is about 1%, compared to 18% for chronic unipolar depressives, and 24% for manic depressives. Baldly, if you suffer from a serious depressive disorder you are between 18 and 24 times more likely at least to attempt suicide than if you don't. And some 70-90% of suicides in the US and UK appear to be associated with depression. A grim book yes, but not at all hopeless: I am still here after all, writing it, uncured but changed, and for the moment at least in incomparably better shape than when I began it.

My altruistic aim is to encourage understanding and perhaps empathy for other sufferers through a description of my own experience. This may also help some victims to understand just what it is they have, to realize they are more typical and less crazy than they may think, and that they are not uniquely damned—idiosyncratic and original as their disease may seem. This often can be comforting; I was certainly heartened by reading about the experiences of three depressives who went public: Spike Milligan, in his collaboration with the late Irish psychiatrist Anthony Clare (*Depression and how to survive it*, 1994), the American psychologist Kay Redfield Jamison (*An unquiet mind*), and the novelist William Styron (*Darkness visible*, 1991). Reading these books I looked dimly into a mirror and found I was not the only one there. And I number among my friends in the strange freemasonry of the seriously depressed more than a few who seem to have been helped by knowing what I have gone through, and who have helped me by telling me their stories. Perhaps another report, out of the same depths but from a different kind of narrator, with a different story and course of illness, will be useful both to victims and those who have to face the harrowing and often uphill battle of living with them. To others it may be at least of clinical and philosophical interest. But this is not a self-help manual, and the altruistic intent is only a small part of what I eventually found myself doing.

This book is a hybrid—autobiography surrounding and sometimes intertwined with a core of science and philosophy. Chapters 1-2 and 6, 7, 9 are primarily about my experience, or more generally the life of the disordered mind as perceived by itself and others. Chapters 3-5 are the intellectual rather than experiential centre, and more technical than the others, because their subject matter is. Chapter 8 stands alone, as an extended philosophical and moral consideration of suicide. This has resulted in the book falling into three genres, perhaps not completely unified. But the subject matter seems to have dictated this structure: depression is singularly opaque without detailed description of what goes on in the depressive's mind, and incomprehensible (in terms of cause and treatment) without some elementary neuroscience and medicine. And because the problem of suicide is so overwhelming a part of the experience for many, this issue must be dealt with honestly. I have tried to keep the technical parts as accessible as possible, at times perhaps to the point of oversimplification, but I hope not inaccuracy. That is always a risk when a non-professional (I am not a medical person but an 'educated layman') seeks to write about a medical topic in detail.

The writing of this book took me nearly 15 years; or rather I wrote it once starting in about 1994, and except for a good deal of the purely autobiographical material rewrote it extensively in 2008, and added one chapter (6) dealing with what happened to me at the end of

that period. Because of this, there is sometimes a kind of chronological uncertainty: there are passages which may not represent the present me, but an earlier (and who knows, perhaps subsequent) one. The intertwinedness of the disease/person relationship is an important point: it is possible to *become* one's depression in a peculiarly intimate way, without realising it, or realising it but not caring. There may then be a certain lack of unity, an overlapping and intercutting of 'voices' in this book; as there seems in general to be in a life, though not necessarily this dramatic. There is also (I hope) a third voice, a 'neutral' and expository one, in the places where it is appropriate.

There are also some polemical threads running through this structure. Aside from the stigmatisation of psychiatric illness, there are other harmful attitudes I will have a good deal to say about. One is the New Age idiocy of condemning the 'medicalisation' of psychiatry. It is as if it were supposed to be magic, instead of simply doctoring—like any other kind, but unfortunately concerned with disorders of the least understood bodily system. Related to this is the common and nearly hysterical mistrust of drugs in treating mental disorders. This frequently accompanies a 'pharmacological Calvinism', a moralistic dislike or fear of medication in general. There is a general public anxiety (usually misplaced) about 'addiction', 'dependence', 'loss of autonomy', and a misguided view that illnesses of the mind should be treated by 'mental' means only. Drugs are seen to be at best only 'crutches'; taking them undermines the search for insight and understanding that alone can really 'cure' these diseases successfully. This is dangerous; as Kay Jamison has said, to treat depression without drugs 'verges on malpractice'. (Of course it is possible to overmedicate or choose medications unwisely, and especially in the case of children and adolescents there can be dangers in drug treatment—though perhaps not as serious as some of the more alarmist journalism would have it. Almost nothing is.)

It will be clear from the above that I subscribe entirely to the often criticised 'medical model' of depression. I do not subscribe to the paranoid belief that depression and similar illnesses are simply the results of dysfunctional living or society, turned into (fake) disease by the pharmaceutical companies so they can make money selling drugs. Depression is a cluster of *physical* brain diseases, as discrete and unmystical as cancer, and therefore its treatment is a medical matter. Whatever the role of friends and therapists, the central figure in the attack on depression should be the psychiatrist, in my estimation anyhow preferably the psychopharmacologist

Another matter that arises from time to time, though it does not have a chapter to itself, is the strange and complex relation between depressive illness, particularly bipolar disorder (or to use its older and better name 'manic depression'), and artistic and intellectual creativity. As a professional academic and writer, I have found that my own experience of manic depression has clarified some very strange things about living with my brain. It has allowed me to understand why we often feel a kind of perverse affection for our disease, and are unwilling to be as fully treated as we could be. In some circumstances cure may be worse than death.

But perhaps the key theme is dissolving the distinction between the 'physical' and the 'mental', between 'mental illness' and 'brain disease'. People seem to have a primitive fear of

‘mental illness’; someone ‘on antidepressants’, or more euphemistically, ‘on medication’, is at best suspect, not fully trustworthy, probably intellectually compromised, likely to do who knows what. And since depression does not usually present with obvious physical signs, there is a widespread tendency (philistinism based on ignorance) to treat it as a moral defect, a failure of character. How many depressives have been told ‘pull your socks up’ or ‘snap out of it’? This is as fatuous as telling a diabetic to stop being a wimp and put his pancreas in order. As William Styron notes in *Darkness visible* (62-3), the seriously depressed are ‘walking wounded’:

[...] in virtually any other serious sickness, a patient who felt a similar devastation would be lying flat in bed, possibly sedated and hooked up to the tubes and wires of life-support systems, but at the very least in a posture of repose and an isolated setting. His invalidism would be necessary, unquestioned and honourably attained. However, the sufferer from depression has no such option and therefore finds himself, like a walking casualty of war, thrust into the most intolerable social and family situations. There he must, despite the anguish devouring his brain, present a face approximating the one that is associated with ordinary events and companionship [...] But it is a fierce trial attempting to speak a few simple words.

The stigma that grows out of the attitude Styron deprecates even at times affects doctors, and produces a strange and unprofessional pussyfooting. I have known several people who presented to their GPs with obvious signs of depression, and were told that what they had was a ‘chemical imbalance’ (of course they did) which could be treated easily; the word ‘depression’ was never mentioned, and the doctors then wrote scripts for the patients without saying that the drug prescribed was an antidepressant. The patient could of course find out by reading the package insert, but few do, and it rarely if ever says on the box what a drug is for.

The public lack of understanding also shows itself in the puzzlement that suicides like Mureinik’s evoke. He seems to have a bright future, no obvious sources of unhappiness: what does he have to be depressed *about*? And that is precisely the wrong question. Most often depression is not ‘about’ anything at all, and it is this very lack of aboutness that makes it so disabling. As a sufferer, nearly a connoisseur, of depressive states, I am almost tempted to say snobbishly that the finest, purest depression is what it is precisely because of this lack of object. It is no more about anything (at least anything current) than cancer or flu are about something. It just *is*. As Virginia Woolf wrote in her diary (28 September 1926),

Intense depression: I have to confess that this has overcome me several times since September 6th (or thereabouts). It does not come from something definite, but from nothing.

Chronic depressive disorder, as opposed to so-called ‘reactive’ depressions triggered by bereavement or other stressors, may once have been about something; but by the time it reaches crisis level it usually no longer is. Even when it does seem to be about something, the aboutness is curiously abstract and unconvincing.

I use my friends rather as giglamps: there's another field I see; by your light. Over there's a hill. I widen my landscape.

—Virginia Woolf, *Diaries* (2 September 1930)

This book is dedicated to the memory of my late wife and best friend Jaime, who lived through and carefully read and commented on the first draft, but died several years before this revision. It is also dedicated to my doctor Jeff Peimer, who is partly responsible for my being alive to write it; to Meg Laing, who maintained an unshakeable faith in me and this project over many years, and spent far too much of her time and energy tearing it and me apart and trying to make us both better; and to Kirsten Morreira for being a depressed and brilliant and unembarrassable friend and listener and commentator.

I could not have written this without medical help—and not just in the trivial sense of being kept alive to do it. A number of imaginative and patient doctors and psychotherapists have devoted time and energy to discussing things with me, and some have read at least parts of this book in one of its innumerable drafts. Special thanks then to François Daubenton, Dave Kibel, Bruce Lakie, Jeff Peimer, Roger Melvill and Bob Werman for being encouraging and pouncing on errors. And to Ian Laing, Dion Opperman, Hein Pierneef, Felix Potocnik, Esther Sapire and James Temlett for telling me things you can't find in textbooks, freely discussing technical, clinical and ethical matters, and at least trying to save me from one or another medical *faux pas*. Ian Laing, combative bugger that he is, was especially helpful (perhaps unknowingly) on a couple of gloriously tipsy Edinburgh evenings. In several fits of polemic induced as I recall by copious amounts of The Macallan (10-year old) I learned a great deal about how laymen should talk—and more important, argue—with doctors, without sounding too much like idiots.

Thanks also to a legion of fellow-victims, some of whom I've exposed to an indecorous amount of self-description, and who have done the same to me. And to many friends, depressive and not, who have coped with me in my less pleasing moods; and have done more than they know by just being good friends, saying or writing the right things at the right time, and shutting up when appropriate. So diffuse but no less sincere gratitude to my (sometimes unsuspecting) support-crew: Debra Aarons, Sylvia Adamson, Judith Ayling, Kate Brett, Claire Cowie, Christiane Dalton-Puffer, Lara Davison, Ana Deumert, Lyn Holness, Meg Laing, Kirsten Morreira, Vaunda Parsonage and Lisa Treffry-Goatley.

Though I began by setting down what I thought was my story and reflections, some of this crew seem to have got in as well. At times I felt I was writing something more like a novel, dialoguing with a set of reflective, enlightening and often critical voices. Some of them indeed became actual characters; they are interwoven for the reader in footnote and quotation, and for me in perpetual subliminal conversation. I thank those initials scattered through my text for allowing themselves to be quoted and weaving their stories into mine.

While I was trying to find out what the audience for this book was, whether it made sense at all, should be finished and was worth exposing to the world, I was helped and encouraged by

friends who took the time to discuss and comment on it while it was in progress, often at heroic length: especially Debra Aarons, Ana Deumert, Meg Laing, Lisa Treffry-Goatley and Roly Sussex. Meg Laing in particular was (and is) my indestructible support, stylistic conscience, copy-editor and fiercest of critics. I also owe an immense intellectual debt to my colleague Peter du Preez, whose profound and deliciously readable *A science of mind: the quest for psychological reality* (1991) opened me to new ways of thinking about selves and persons, in particular as rhetorical and social constructs, and not just as brains and diseases.

Special thanks as well to Sue King and GlaxoWellcome for inviting me to speak at their Neurology Weekends in 1999 and 2000, treating me to superb food, wine and conversation, and a chance to continue my education. And to April McMahon and Selwyn College, for arranging a week or so of irresponsibility and relative solitude in the glorious surroundings of Cambridge and its bookshops. This mini-sabbatical gave me the leisure to walk endlessly, read at will, talk to almost nobody, and let my mind free-wheel and try to make some sense of its eternally looming chaos. Much of the overall structure of this book seemed to come to me effortlessly among the Buddleias, watching the peacefully belching cattle in the water-meadows by my favourite pub, *The Granta*, or in Selwyn's expansive gardens.

And finally my endless gratitude to the late Jaime Lass for tolerating my moods far beyond the call of duty for over four decades, for close, sympathetic and critical reading, and for a firm and stylish editorial hand and a sharp sense of what's over the top and what isn't. My worst breaches of decorum, my worst self-indulgent one-liners, can be blamed only on my not doing as I was told. I suppose I don't have to add but will that all errors and infelicities are mine alone.

Diep River, 2009

1 A JOURNAL OF THE PLAGUE YEARS

Wer Selbsterkenntnisse hinterläßt, wird beim Wort genommen. Welche Tollkühnheit, angesichts der Herzlosigkeit künftiger Geschlechter.

—Elias Canetti, *Die Fliegenpein* (1992)¹

Prologue: self-introduction

This chapter and much of the rest of the book are, as a friend put it, ‘the autobiography of a disease’. What is the reader to make of this? The writer of this autobiography-by-proxy is the person with the disease. How credible a witness and commentator can I be if I try to step outside my own condition and report on it? This is a description of a ‘mental illness’. Can I reliably describe—from an ostensibly ‘sane’ position—my own long-term residence in the abysses of something close to madness?

What is required of the reader is a willing suspension of disbelief, or enough charity to accept provisionally both my integrity and present clarity of mind. I can only assert that I am equipped to be reasonably objective, and in much better shape than the person, the Once and (maybe) Future Me, described below by the Present Me, using some of the Former Me’s utterances as documentation.

You meet me first in a state close to disintegration. It is vital then that you start with some knowledge of my credentials, of my normal functioning—in short who I am other than the subject of a kind of clinical report. I am not a doctor, scientist or philosopher, rather a somewhat specialised version of the ‘educated layman’ I write for. But I have a long personal experience of my subject, and I am a professional academic: a scholar, writer and teacher by trade. In summary, I am a manic depressive personally and an academic with strong scientific interests professionally. This not only accounts for the particular flavour and texture of this somewhat idiosyncratic book; it also provides the experience and technical resources to write it.

To start from the beginning, which some people have suggested is a good idea: I was born in the late 1930s in a lower middle-class part of Brooklyn, of Belorussian and Polish ancestry, and educated in state schools. Being the oldest male child of a Jewish lineage I was expected to become a doctor, an imposed decision which I was at least ambivalent about. After a not brilliant early undergraduate career during which I was constantly switching subjects from science to humanities and back, I finally as it were became myself in my last two years, and then ended up getting a PhD in English Language and Literature from Yale in 1965. I subsequently taught at Indiana University (where I switched from English to linguistics), then at the University of Edinburgh in the 70s and early 80s, and became Professor of Linguistics at the University of Cape Town in 1983, where I have been ever since. During this period, I became especially

¹ ‘Whoever leaves self-revelation behind will be taken at his word. What a rash thing to do, considering the heartlessness of future generations’. All translations mine.

interested in neuroscience and evolution, and in addition to ordinary courses in linguistics, I taught courses in Language and the Brain (a topic on which I also lectured to medical groups), and on human evolution. After my retirement in 2002 as Distinguished Professor of Historical and Comparative Linguistics, I became an Honorary Research Fellow of The University of Cape Town, and later Collaborating Scholar at the Institute for Historical Dialectology of the University of Edinburgh, and in 2007 a Fellow of the University. I am currently engaged mostly in research on early Middle English with a colleague in Edinburgh.

There are my qualifications and a sketch of the present professional me. But I do not emerge from a psychological nowhere, and some more intimate autobiographical context might be helpful at the outset. This way the reader can see some of what lies behind the character revealing pieces of its later life. Let me begin with a quotation from a fine memoir by Mary Warnock (2000):

The supreme difficulty of writing about one's self [...] is the risk of self-deception. It is of no help to decide to stick to the facts, because, notoriously, one may describe the facts to suit one's self. One may misremember; or, more disastrously, may obscure by words rendered meaningless by repetition, how things actually were. Nevertheless, I am pretty well certain of some things, and one is that I had, on the whole, a supremely happy childhood, which has never lost its hold over me[...]

The comment about self-deception is true of anybody. The one on childhood contrasts starkly with my experience. My childhood has never lost its hold either, but it is a very different kind of hold. I recall it as implacably wretched and grim (if with some bright episodes); I thought wistfully of death (later suicide) from the time I was old enough to know what it was. On the surface, compared with what some children go through it was not self-evidently horrible. My family was middle-class and educated, with enough money for food and clothes and doctors and books and music. I was not physically abused (beyond paternal kickings, or the standard schoolyard beatings-up suffered by the short and spectacled). But my father, a narcissist and bully, was an overshadowing darkness. Our values and aspirations were different from the beginning, and nothing I could do was good enough. He wanted a normal athletic, outgoing child who would become a doctor and marry a Jewish Princess; he got a sedentary eccentric loner and subversive who became an academic and married the half-gentile artist daughter of a deceased and rather poor doctor. My childhood and adolescence were constant warfare, which I normally lost, years of perpetual frustration, failure and powerlessness. My mother, a vague and ill-defined character, had no power (or desire?) to intervene, and indeed, though she lived well into the 1970s I barely remember her. I have one sister six years younger than me. As so often in dysfunctional families, we were never companions in adversity—our job was self-preservation. I last saw her for a couple of hours in 1977, after a 20 year hiatus, and we have not communicated since. I do not know if she is alive.

There was not a great deal outside the family either. A few good friends conferred a potent if episodic grace, but mostly those parts of my life that were tolerable or exciting and pleasurable took place in my head. I lived for music and reading, and knowing things and

thinking about things, and talking when I could. I had no personal recourse, no real support, until at the age of 20 I married—a girl from a different kind of pathological family, a middle-class battered child brought up by a sociopathic mother who was almost certainly a murderess. She was (though we were both too ignorant to know it then) also a serious depressive; when we first met she was fresh from a suicide attempt, and made another shortly after we were married. We started life together as orphans in an ill-defined storm, at a point in our development when we should not have been let outdoors unsupervised—but half a century later, in spite of difficulties and near-impossibilities, we seemed to have achieved a productive and good marriage, or at least one as good as two serious depressives could. She died of cancer in 2005. For now let us just accept the wisdom of that old Latin saying, *ex nihilo nihil fit* (out of nothing, nothing comes).

Discovery

The ‘morbid melancholy,’ which was lurking in his constitution, and to which we may ascribe those particularities, and that aversion to regular life, which, at a very early period, marked his character, gathered such strength in his twentieth year, as to afflict him in a dreadful manner. While he was at Lichfield, in the college vacation of the year 1729, he felt himself overwhelmed with an horrible hypochondria, with perpetual irritation, fretfulness, and impatience; and with a dejection, gloom, and despair, which made existence misery. From this dismal malady he never afterwards was perfectly relieved; and all his labours, and all his enjoyments, were but temporary interruptions of its baleful influence.

—James Boswell, *Life of Johnson* (1791)

In late 1994 I finally realised that the cluster of symptoms that had begun in my childhood, increased in my teens, and had been plaguing me increasingly over the past two or three decades, had reached a point where either I got medical attention or died. I was beset by long periods of untriggered, subjectless, unremitting bleakness and despair, unable to work or enjoy any of the things that defined my existence—life, books, music, pictures, ideas, friends—or to think of anything except pain and guilt and death and misery. These episodes alternated with blind rages, attacks of claustrophobia, paranoid fantasies, fits of hatred, vengefulness, anxiety and panic. As time went on, my life was filled not only with these violent moodswings, but with chaotic mixes of mania and depression, rage and fury against a constant background of despair. I became hypersensitive to noise and the tiniest irritation: anything that irked me, even momentarily—being stuck in traffic, the sound of a neighbour’s lawnmower, children shouting in the street—could provoke vivid, persistent, near-hallucinatory fantasies of murder and revenge. I would picture myself blowing the offender away with a shotgun, visualizing with a chilling mixture of mad rage and cold forensic interest the possible effects of a 12-gauge on a human thorax two yards distant. I even thought of wild things like hiring hitmen to get rid of my enemies (not, in the Cape Town of the 1990s, an impossible dream).

These episodes would be accompanied by hyperventilation, tremor, palpitations, and a sense of imminent explosion. I was irritable and unpleasant, badgering and endlessly nagging my

wife with florid and pessimistic visions of disaster every time she even suggested something as seemingly harmless as a change in the garden. I was graceless and edgy, grossly obscene in the most inappropriate situations. I recall once getting an e-mail from my Dean about student dissatisfaction with some course, and simply answering ‘Well fuck the students’. My normally short fuse had shortened to the point of pathology.

It became increasingly difficult for anyone (myself included) to live with me. I was haunted by a conviction, persisting as background even in the lucid intervals between episodes, that I was worthless, useless, finished, better off dead from everybody’s point of view. Each morning brought the dismal realization that I had twelve or more hours to go before I could get down to serious drinking and finally take a sleeping pill, so the world and I would go away for a few hours, with luck until maybe 4 or 5 AM—unless I woke earlier from nightmares and either lay in the dark and thought about suicide or turned on the light and tried to read to keep my mind off itself. My response to full awakening was invariably dreary and overwhelmingly depressing: ‘Oh shit, another day’.

I finally brought myself to go to the doctor, or rather was brought to the point of going by my wife Jaime. I was imprisoned by a stifling inability to act, mired in self-pity and misery, in the seductive embrace of a dark and melancholy love-affair with my own disease. There cannot be many other illnesses you can have this love-hate relationship with. It was only later that I learned how typical this was.²

The day I saw the doctor was one of my lucid ones, a calmish interregnum between what had become continual and often terrifying moodswings, during some of which, as the description above suggests, I was barely sane. A doctor seeing me with my symptoms at their most florid might well have thought seriously about involuntary hospitalisation. If total lack of control of one’s mood and the contents of one’s thoughts and marginal control of one’s actions can be called madness, then I was mad at the time (and often later). But this was a ‘good day’; I was articulate enough to describe my symptoms clearly, answer questions intelligibly, and give the doctor a reasonable history and self-description. Unfortunately, though, because I was coming out of a depressive episode at the time, I misleadingly focussed exclusively on that; it took some time before we realised that the other end of my moodswings was part of the same disease.

The encounter was not very satisfactory for either of us. I informed the poor doctor that all I was interested in was a quick-fix, palliative pharmacological intervention, and that I was totally unwilling to see a psychiatrist. Whether that was a sensible decision or not is another question (see chapters 4-5). But I had a stiff-necked aversion even to the idea of talk-therapy, or to any kind of treatment that would require work on my part; I just wanted a pill that would make my bad moods go away. But I did manage to describe how I was feeling, and got a diagnosis.

² My depressed friend L commented on this passage in an early draft: ‘It’s also the total familiarity of it—depression is something that no one can disrupt and take away from you (unlike good & healthy moods which seem to be at the mercy of every shmuck who cares to ruin your day!)’

The doctor agreed to the limitations, and prescribed Luvox (fluvoxamine)³. It did lift my mood a bit, but had some nasty side-effects, which in the end I refused to tolerate. It is typical of depression that your tolerance thresholds shoot down almost to zero. The doctor consulted with a specialist psychiatrist, and he suggested another drug of the same general type, citalopram (Cipramil, Celexa), which was if anything even worse.

With my weakened tolerance for anything, I went into total rejection mode, and decided to stop all medication. Boringly typical, as I found out later; the wretchedness of the non-medicated state, often including withdrawal symptoms if you have been taking the right kind of medication before, is a fine excuse for self-pity. The doctor was not happy, and suggested I at least keep some stopgap around in case in my unmedicated state I deteriorated. He prescribed Xanor (US Xanax, alprazolam), a cousin of Valium. It is mainly used for treating anxiety, but may have mood-elevating effects (and in any case I had severe anxiety attacks as well). This was also not a success.

I went to see him again, and from my condition and what I said he decided I was beginning to get out of hand, and should see a specialist psychiatrist. I agreed; this was not after all going to go away by itself. But in my state of mixed mania, depression, anxiety and confusion I was not sure that on the day I would be able to produce an intelligible account of what had been going on. So one lucid afternoon I did some reflecting and wrote the psychiatrist a letter, to guarantee the existence of a coherent history. Writing letters to doctors before seeing them is an odd but useful habit. At least it prevents evanescent but important symptoms from disappearing into the void. In any case, depression can produce episodic confusion and memory-loss, so written records may be all the history there is. For the doctor, information about time-sequences, the content of fantasies (particularly suicidal or homicidal ones), or the duration and frequency of highs and lows, can be extremely valuable. As can self-description, especially if, as is sometimes the case with me, one writes more lucidly than one can talk.

Perhaps this letter, together with extracts from a journal I kept over the next five years, will give a better picture than 'emotion recollected in tranquillity'.⁴ I leave the letter and journal material more or less unedited (except for judicious trimming); the disorder, repetitiousness, obsessive self-absorption and insalubrious language are themselves part of the disease (as well as of me).⁵ For those who like to read closely and have an eye for subtext, it may be interesting

³ A drug related to Prozac (see chapter 5). When I mention drugs I will give their chemical as well as proprietary names (the latter with an initial capital), as these may vary in different countries (e.g. American *Anacin* is British and South African *Anadin*, American and British *Effexor* curiously lacks one *f* in South Africa). For drug details see Chapter 5.

⁴ For my way of working at least. Stuart Sutherland (1998) has written a fine history of his own manic depressive disorder in the 'standard' past narrative format, which would be a good complement to mine.

⁵ Am I distinct from my disease? Why do I call it 'mine'? Is it mine in the sense that my hand is, or that my house is? Do I possess it or it me? And is 'me' just one thing, or a couple or an infinity? Some hints appear in this chapter, and I will make a serious attempt at an answer in chapter 7, when the necessary background has accumulated.

to note the ironic distance I attempt to keep between myself as author and myself as subject, even in writing originally meant only for my own eyes, as record and perhaps amateur therapy. Maybe this was defensive, to downgrade my condition into something more acceptable and tractable, at least weakly controllable by language, the tool I depend on most in engaging with the world and myself. The plethora of quotations is a function of my tendency to see the world through literature. This may even be a virtue. The things I quote often capture states of feeling better than I could, and the quotations are there because they came to me at particular times, and are part of the story.

Phase Two

We must never presume that another person's reality is just naturally going to be the same as ours.

—Gail Godwin, *The good husband* (1994)

Here is an edited version of the letter I wrote the psychiatrist at the end of 1994. I decided that he would spend several of his weeks and a good deal of my money getting my history, and the story would likely be useful since Dr P says I am an accurate and detailed introspector. So why not produce a minihistory? I did, and the psychiatrist was (or politely said he was) happy with it. It enabled him to approach the interview with questions ready to ask, and elicit some interesting and useful material, even a diagnosis and semi-prognosis. The letter contained things I have never been able to say as clearly anywhere else, and the details of psychic states are revealing.

Dear Dr H

As you will recall, I have been referred to you by Dr P, who has been treating me for depression. I suspect it's pretty unconventional for a potential patient to write an unknown doctor a long letter before being seen, but it may be useful for you to have certain information in a more orderly form than I might give it to you in person.

1. Background

I think I've been in a steadily worsening depression for the past 30 years or so, maybe longer. Certainly in a particularly bad form since about 1989 or 1990, clearly deteriorating, and reaching crises in 1990, 1992, and 1994. I have long-term mood swings, from rather manic to very seriously depressed. The depressive episodes are much more frequent and longer.

The manic side ranges from what might be called 'normal' (for me— verborrheic, joky, a touch of the cheap comedian), to verbally hyperactive, incessantly punning and saying outrageous or obscene things for a laugh (or not), arguing and deliberately trying to shock or offend people. The other side is very different, and black: an oppressive pessimism and fatigue, a feeling that the world is going down the drain and me with it, that nothing will ever come right, and why bother anyhow. Summary: pessimists are lucky because they never get disappointed and can be surprised only pleasantly; optimists always risk disappointment.

One feature of this blackness at its (frequent) worst is an invincible insistence that my cynical, nihilistic vision of the world is an obvious empirical truth, and nothing anybody can say can possibly convince me

otherwise, even when one little rational part at the back of my mind knows that I'm talking shit while they're being sensible. At moments like this I sometimes have the sense of observing my own behaviour from outside, and being rather put off by it, but quite unable to interfere. It's as if 'I' know perfectly well that the 'Other One' is talking crap, but have no power or even inclination to stop him/me from continuing. In the course of one of these little tirades I can see myself getting more and more dramatic, and in some weird way convincing myself that things are worse than they actually are, but not being able either to shut up or look at the world differently. Sort of a helpless self-dramatisation that I come to believe in while I'm in the midst of inventing it. For short periods I can visualize myself as 'That One', wondering idly why he's saying such silly things. But on the other hand feeling that whatever the facts of the matter, he (the pessimist talking to my friends while I observe) has really got his finger on what's wrong.

I am consumed with two (perhaps erroneous but no less powerful) beliefs: (a) that I'm 'finished' (burned out, nothing more to say, might as well give up, my work is deteriorating, my powers failing, haven't published a book since last year); and (b) that somehow continuing to do anything at all is maintaining a fraud I've managed to get away with all my life.

My really blackest periods used to occur either after I'd just finished a major work (*post partum* depression?), or when about to go overseas, when I suddenly am overwhelmed with a feeling that I don't have anything to say, that I'll be 'found out', embarrassed. I am also increasingly now becoming fatigued and depressed at the beginning of each new term, thinking of teaching again, running my department, going through all that boring and stressful routine. Now these episodes are no longer so periodic, but more a constant backdrop, with the elevated moods the exceptions.

2. Current Situation

For some time my wife had been urging me to see somebody about all this, and in the past five months or so it has got so much worse that I finally did. The symptoms that finally triggered my acting were the following:

(a) When I was in the UK in September, I gave up smoking, because I was having to talk a lot and was losing my voice. (I had been a 20-a-day Camel Plain smoker for 40+ years.) This seemed to go OK, but as a kind of compensation (?) I was drinking much more than usual, which is rather a lot anyhow, and alcohol was having less and less effect. In fact I found it almost impossible to get drunk, and was, during the three weeks I was abroad, putting away anywhere from a glass to half a bottle of wine at every meal and 3-6 double whiskies before bed time, which I felt were necessary to get me to sleep. I was also taking Rohypnol [flunitrazepam] before bed, and still sleeping very badly. (I haven't been able to go to sleep without chemical aid for about the past 20 years, and normally have to get drunk to sleep at all.)

(b) When I got home, I was overwhelmed with a feeling that I couldn't work any more (I have a couple of books half-finished, deadlines looming for publishers), and I felt like just giving up. I thought of early retirement (technically possible but financially stupid), sick leave, suicide, simply abandoning everything since I couldn't do any decent work, and what was the point of going on?

(c) This is all I presume endogenous. But this has also been a very stressful time for me exogenously as well. My wife had breast cancer and a mastectomy in 1986; then early in 1993 a local metastasis, and radiation, which left her depressed and unable to work for about a year (she is a painter). And just recently she had another metastasis, this time in the cerebellum, and is currently recovering from surgery. So even though my state of mind antedates all this, knowing that my wife has advanced cancer, and the usual

unpleasantnesses connected with (even others') serious illnesses must have been pretty powerful stressors.⁶

(d) I finally went to see Dr P because my depression was getting even worse than usual. I was unable to concentrate, read, write or think very well, was having memory problems, becoming irritable and unpleasant, and totally unable to support my wife as I should have, merely serving as a source of extra stress. The world had taken on a lack of 'colour'; nothing I normally used to respond to was as attractive as before, I was unable to be moved by music, appreciate scenery, or to have any emotions except very black ones. It was as if the light had gone out of the world. It was an effort to bother shaving or putting on shoes (though I did manage to go to work, with enormous effort, and do what I was supposed to, often rather badly). I would notice a piece of paper on the floor and wait a week before getting up the energy to pick it up and put it in the bin.

Worse, and more frightening, I was starting to drink very heavily. I consoled myself with the thought that I couldn't really be an alcoholic, because I only get drunk once a day, before bed, except on weekends. This was however to change. I began to want a drink earlier and earlier in the day, eventually by a couple of hours after breakfast. At this point I did not yield. I was so depressed and/or agitated that even people other than my wife could tell.⁷

I also began to think more seriously than usual about suicide (which I suppose I've thought of nearly every day of my life since I was a teenager), and considering (easily, since I'm not religious) how nice it would be just not to be there any more, and not have to live with myself and the world.⁸

At any rate I decided that since my wife is still post-op and not herself, and we have a large house and a lot of animals, there's no way I could kill myself before she's OK, can drive and manage the house, and has got back to work. Also, that however bad I feel, there are problems with life insurance that would make it unacceptable to commit suicide in any way that would deprive her of what as beneficiary of some good life-insurance she would get if I predeceased her; so this is on hold. I think I'm enough in control, however shitty I feel, not to do things that would be morally repugnant and irresponsible and traumatic for her. At least I hope so, but I can't be sure.

3. Pharmacological Adventures

I saw Dr P on 17 November, and he prescribed Luvox. At first the results were good; the depression lifted, and I had a sense that the way I'd previously been looking at the world was somehow 'inappropriate'. I lost some of my rage, and began to feel a bit sunnier, a sense of coming out of a storm, onto a bright upland, I was beginning to be able to listen to music again.

But after about a week I was getting agitated and twitchy, couldn't sit still, couldn't read or write, was

⁶Note the callous self-absorption of this remark. At its worst depression is perhaps the ultimately self-regarding disease. All footnotes to 'documentary' material are later reflections or amplifications added in the process of trying to make a book, to provide extra information for the reader

⁷Like many depressives I somehow managed to hide my condition most of the time, except at home where I self-indulgently let my hair down. Almost everyone who knew me and found out I was seriously depressed was shocked..

⁸ This is a characteristic depressive attitude, even before the disease has blossomed. My friend L commented on a mention of suicide in an early draft: 'I can't imagine not periodically planning death, but I suppose there are those who barely consider it (& even stranger still, some who never consider it). For a long time I thought this was just a way of being, but I've come to realise that it's a way of depression'. Another friend remarked, of a mutual acquaintance who was rather shocked by talk about suicide, and said he'd never had such thoughts: 'I can't respect anyone who's never contemplated suicide'.

constantly getting up and walking around aimlessly or in stereotyped circles. Every time I had an episode like this, I wanted a drink, and this worked; I was having a large whisky every couple of hours starting about 11 in the morning, and on some days I put away half a bottle or more by bedtime. Yet at no time did I feel drunk, tipsy, vague, or ataxic: I just drank because it would quiet the twitching and agitation and anxiety. At Dr P's suggestion I cut the dose of Luvox by half, and this did no good.

I also felt a sense of 'alienation': the cheerful, sensible, undepressed (if twitchy and agitated) person inside my skull wasn't me, and I didn't even like him very much. There was the underlying 'real' depressive me, and this other, and we were sharing the same brain; there was a nightmarish feeling that I'd somehow lost my autonomy and was being taken over by this other person with my name, but not me. I felt nostalgic for my depression; the depressed person was the real me, the one I've known all these years, that I felt at ease with.

At any rate I finally told Dr P that I was not willing to live this way, and he put me on Cipramil, which was even worse than Luvox, and precipitated incapacitating anxiety attacks. I stuck it for a bit and then told him I was simply not prepared to fart about with fancy designer psychotropics any more, but would stick to alcohol, which at least I've been familiar with for the past 40 years.

So I went off everything, but Dr P prescribed Xanor, to have around just in case. It did very little. A dose of 1mg knocked me out, and while unconscious is better than depressed, I was totally dysfunctional. I eventually went back shortly after Christmas, and told him that Xanor was really not doing anything, and having tried two antidepressants I didn't want to try any more. He cleverly talked me into being a bit more experimental just in case, suggested I try a drug of another chemical class, and put me onto Aurorix [moclobemide, Manerix, Depnil]. This had no effect for a while, then began to lift the depression a bit (but nowhere near as powerfully as Luvox). But I was still agitated and twitchy, couldn't concentrate, and just bloody uncomfortable. I found that as with Luvox, when these side-effects came on (which they appeared to do cyclically, especially starting in mid afternoon), the effective solution was to drink. And again I was drinking a huge amount, often starting in the morning, and continuing all day. I've always *wanted* a drink at certain times of day; now I *needed* one, got tremors when I hadn't had one for a couple of hours. I was beginning to be afraid I was turning into a lush.

I went to see Dr P again, and he suggested that instead of drinking, I take .5 mg of Xanor when the side-effects got bad. I began this regime on 4 January; and simply took .5 mg along with the Aurorix twice a day. I succeeded in not drinking at all before about 3 in the afternoon, and then having maybe two or three whiskies between then and bedtime.

On the other hand the depression has now returned periodically, as bad as or worse than before. In the past three days I've had dramatic crashes, normally late in the afternoon, and feel an immense desire to give up and just go to bed and read detective stories and drink myself into insensibility. I have not done so, and have even, in a fit of discipline, sometimes not had wine with lunch. I have however started smoking again, because the combination of depression, side-effects, trying to keep more or less off the booze, and life in general is stressful enough that I have to have something.

Anyhow, if this is of any use, I'm pleased. I look forward to seeing you on Thursday, and hope you don't regard this overlong screed as impertinent or pre-empting you; that was not the intention.

I saw Dr H on 12 January 1995. The visit was useful and marginally hopeful. Good questioning revealed that however long and black the depressions are they are part of complex and unpredictable mood alternations also involving highs, what are called in the trade 'cycles'. That is, I constantly went from one mood state to another, depressed to 'level' to manic to depressed. Some of these highs are enraged and as black as the depressions; but the 'good' highs, especially in company, are delightful (for me at least), and I get outrageous, hypervocal, pun excessively, say silly and funny but sometimes shocking things, and am even more obscene

and bizarre than usual. But they are also the times when I get ideas and work and lecture best, and seem to be the best company.

He asked if I behaved ‘irresponsibly’ during highs (spending, sexually indiscreet, etc). It seemed to me that I did not (except verbally): I shop more when I’m depressed. Then he asked whether highs or lows are commoner. It seemed that lows were. Manic episodes are more or less figures against a depressive ground. I can conjure up fairly convincing (semi-artificial) highs when depressed if I have to, e.g. when teaching or giving a paper or having to be sociable. But I pay for them with following depressions, or at best an inability to wind down afterwards, which often ends in a panic attack. So most people do not notice when I’m really depressed, and I manage to carry off everyday life more or less. But not well. And it’s a strain.

The official diagnosis was bipolar (manic-depressive) disorder, primarily depressive, superimposed on a ‘cyclothymic temperament’. The prognosis he said was unclear. Given current signs and treatment, the possibilities seemed to be: (a) I could continue in a ‘stable’ state of moderate to severe alternating depression and hypomania (relatively mild non-psychotic highs), with the edge taken off the depression and the frequency of depressive episodes diminished; (b) the cycling (and intensity) could get worse; or (c) I could crash into a noncycling depression, which would fail to respond to anything of the kind I’ve taken so far.

Would psychotherapy, I asked Dr H, be any use as an adjunct? I had told him a good deal about my family life, and my father. As I put it, resurrecting everybody’s favourite pop-Freudianism, I have cut off my father’s balls by getting one more degree than he has, but am still a mess; is there reason to suspect any kind of ‘verbal’ therapy might be of use? His answer was no. And in any case he is a ‘biological psychiatrist’, interested in conditions that are clearly neurochemical in origin, and he was sure that this was my problem. Other psychiatrists have very different opinions.

I saw afterwards that I misread his comment, or at least its implications. He meant that *now* the disorder was purely neurochemical, not that it always was. It had clear ‘external’ historical antecedents too, in fact the whole texture of my childhood and my first depressions was probably ‘adaptive’ response to trauma. It was only later that it became ‘autonomous’. His point was not that the depression did not start off at least partly as a response to an environmental stressor, but that mine was so far advanced that its antecedents were now therapeutically irrelevant.

One possibility to think about would be adding lithium as a mood-stabilizer (indeed for many, perhaps most doctors it is the drug of choice). However he said it can level the cycles too much, which may pose problems for people who live in their heads (artists, scientists, scholars). If they create only during highs, lithium may depress or disable that creativity. He has treated artists with lithium who have to go off it for months before undertaking any work. I did not propose to risk that, and subsequent experience seems to have shown I was right.

That is, lithium might level the moodswings, but I was not that worried about the highs, even when they turned into rage or craziness. My goal was to diminish not even the frequency or length of the downswings, but their severity. If I could be depressed but functional, with

hypomanias at appropriate times, that would be bearable. If there was any risk of lithium levelling out my moodswings at the cost of destroying my basic creativity and eccentricity, I thought then (and still do) that I would opt for cycling or suicide rather than smoothness.

Progress, Regress, Progress ...

What follows is a series of extracts from a journal (or part journal, part philosophical treatise and collection of mini-essays for myself) that I kept sporadically for the next few years. These, being written on the battlefield, chart better than a tailor-made narration the course of my disease. I present the extracts with repetitions and wanderings intact, as a picture of what a cyclic mood disorder is like from the inside. If you get dizzy and bored from the constant cyclings and changes of mood and mind, the account is accurate; so did I.

15 January 1995. On Aurorix about 3 weeks, and it's beginning to kick in. Less depressed, aside from two major crashes. Dr P says there will be more, this is to be expected. Dr H also says Aurorix won't prevent the cycling, but ease the downswings, and maybe make them less frequent. Seems so at the moment. Both doctors say six weeks is about the proper time for the neurochemical fuckups to be more or less as reordered and stabilized as they're going to be, so we'll see in another three weeks or so.

17 February 1995. Most of this month crashes at about weekly intervals; today was the first in two weeks, the longest period in ages without at least one bad downswing.

Drinking a lot again. Today fourth day off cigarettes (nasty bronchitis), feel dreadful. Got into a rage over nothing this afternoon, and have had three double whiskies so far (between 1.0 and 6.30), pretty much the pattern I'm getting back to. Probably have another three or four before bed. Wonder if I should start smoking seriously again?

Main worry is the unpredictability of the crashes: one minute I'm fine, the next either the black blanket drops over my head, or I'm in an irrational rage. I have an uneasy feeling that I'm not quite sane, and might go off the handle at any minute, and do God knows what. I've had this on and off for years, but more now; thinking about it revives old memories that begin to connect. I remember back in Edinburgh over two decades ago having to leave a concert (St Matthew Passion in the McEwan Hall of all things), because I was convinced that if I continued sitting there in the middle of a row of people I would start yelling or laughing or take off my pants or something. It's an indescribable feeling of being on the edge, though of what isn't at all clear. It's more frequent now, especially in public places where there are a lot of people, though I can repress it on long flights or railway journeys, as long as I'm tanked up on Xanor and booze. I manage to travel and live by always getting aisle seats on public transport, sitting near the door at lectures, at the end of restaurant tables, like a cat looking for a safe place in a new territory, ready to flee at the slightest sign of danger.

20 February 1995. First day of term, and successful. Manage somehow a good deal of the time to control things when I have to. This suggests that along with the illness itself there's an element of self-indulgence (or yielding to fatigue). Lurking somewhere in the confused shitheap that my mind appears to be is a residual self-control, and I can at least sometimes disguise the disease even when I'm in a bad state, if social constraints force me to. Though I do lecture badly, even incoherently at times, am short-tempered, say silly, obscene, irrelevant things, and the effort of disguise leads to crashes afterwards.

4 April 1995. Keep off smoking for a couple of weeks at a time and then regress. I suppose I'm sort of 'stable': I can work (though not at my best), am beginning to read again, and still drinking too much. Depressions now cycle unpredictably, really bad crashes no more than once a week or so, which I suppose is good. But I live in constant fear of them, and the anxiety itself can sometimes trigger one.

Jaime's condition doesn't help. She is taking it all coolly as usual; but it's not clear what her life-expectancy is, and she's a support I can't do without. If she dies before me it doesn't matter (except for making sure the animals are taken care of) whether I kill myself or not, since insurance is not a problem. I wish I had her strength; she lives with the knowledge that she might get a brain tumour any day, and the next one might kill her, and simply devotes herself to doing better and better work. I fuck off and pity myself.⁹

One of the great 'advantages' of depression, and part of the reason I felt nostalgic for it when it first started to lift (aside from the unpleasantness of having to live with my double) is that it does provide an excuse for self-pity. And this can be pleasant indeed. I find one song running through my mind constantly, partly because the music is so exquisite, and partly because of the sentiments:

Flowe my teares fall from your springs,
Exild for ever, let me mourne
Where nights black bird hir sad infamy sings,
There let mee live forlorne.

Downe vaine lights shine you no more,
No nights are dark enough for those
That in dispaire their lost fortunes deplore,
Light doth but shame disclose.

Never may my woes be relieved,
Since pitie is fled,
And teares, and sighes, and grones my wearie dayes
Of all joyes have deprived.

⁹ Note this typical depressive self-absorption: it took a very long time before *her* possible reaction to all this really became an object of my concern. For a while I was the only person living in my world.

Harke you shadowes that in darknesse dwell,
 Learne to contemne light,
 Happie, happie they that in hell
 Feele not the worlds despite.

—John Dowland, ‘Lacrime’, *The second booke of songs or ayres* (1600).

6 May 1995. Returned from trip to UK without any major crashes, but minor episodes. Have been thinking about what depression and its treatment can teach you about the mysteries of ‘personality’. People meet me, and find me not changed; this is the same old R, perhaps a bit less ‘down’ than last September, but still the same person I’ve known for 10 or 20 years. And yet. The appearances may (roughly) be the same, but the infrastructure isn’t; or the infrastructure is tottering, and being maintained in a completely different way.

A personality is a chemical artefact: you *are* the state of your neurochemistry (what else could you be). And yet again. They think they see ‘the old R’, but in fact they’re seeing a self on the verge of disintegration, held up and together only by drugs, alcohol, cigarettes, and fragments of a former will to survive that’s manifestable only because of this outside chemical support network. My neurotransmitter systems are no longer ‘mine’ (in the sense that they work away as they’re supposed to without intervention from anybody); they have to be jollied along and monitored and boosted and suppressed. So my ‘personality’, even though it may *look* the same—if a bit more manic and edgy—is being maintained in a different way: I now have to watch it, coddle it, the way I’d nurse a sprained ankle. It’s like wearing a chemical prosthesis.

So more and more of my time is taken up with introspection and self-monitoring. Is a crash coming? If so, what kind and how should I handle it? Drink? Get away and be alone? Go for a walk? Give in and wait for it to pass? And now, even on pretty good meds, because this is the shape of my illness, there are three states to monitor: suicidal depression, mania, and near-panic anxiety, each of which can surface at any time, and each of which requires a different local, emergency approach.

10 July 1995. More downs and a couple of enraged ups. Manic attacks horrifying in retrospect, once I’ve cooled down, breathing less than once a second. (Is/was this really me?) I weave a tissue of conspiracy out of the events and persons of the world. Every irritation is a personal affront, my prerogatives are being eroded, people are not just assholes or idiots or nuisances but *enemies*. Crystalline if fragmentary images of murder, violence, destruction recur ceaselessly, like a tape-loop run over and over. Those people who play their bloody hi-fi outdoors at top volume eight feet from our boundary wall—how would the fuckers like it if I tossed over a grenade? Viscera and limbs flying through the air like demented birds. Rambo-like images well up: there I am, short, middle-aged, balding (the embarrassing black comedy emerges only when I think back after my mind has cleared), but somehow with a stark and mythic dignity nonetheless, an armed and triumphant Jahweh-Thor-Zeus, blowing away the white trash over the

wall with an AK-47.¹⁰ So much for manias. In hypomanias, less distressing for me even at their worst than manias or depressions, different things happen, but clearly the reverse of my coin, recognisable as modes of me. My sense of humour, normally a bit dodgy anyhow, seems to detach itself from feeling. Extreme elevation of mood sets me apart from my (underdeveloped at best) human or empathetic self, I can visualise or talk about anything, there's no emotional response or tone, only funniness. Or perhaps better a pure and chaste verbality, divorced from affect. It's hard or impossible to refrain from what others would think of as at best inappropriate, at worst disgusting and sick. Holocaust jokes, cancer jokes, death jokes, discussing farts and vomit at the dinner table. I'm amused by the idea of driving around the streets of a partly third-world city like Cape Town, surrounded by grotesque poverty, in a BMW with a bumper sticker that says 'Fuck the poor'. Even writing that now, in what sort of mood I don't know, but not an extreme one, I find it funny.

My normally half-quiescent anarchic and tasteless streak takes over, and depending how far it does my audience regards it as anything from hilarious to repulsive, and I seem to lose my judgement about which it will be. I delight in offending, and can observe myself doing it, but the temptation is irresistible. A somewhat straight-laced Born-Again doctor prescribes Tagamet for my stomach: I ask him, 'Will it make me grow tits?' (as I know from reading it might). I could have asked if it would cause breast enlargement, but I wanted to say 'tits' to watch his reaction. No, that sounds too premeditated. The impulse and the desire to observe and the act seem simultaneous.

August 1995. Managed to write a paper for a conference in Manchester. It was a surprising success, got through the two weeks without a major crash. Though I did get a good number of attacks of 'social claustrophobia', and found myself on the edge of panic in rooms full of people, and had to get out and go for long walks alone or go to bed for a couple of hours and drink. Thought I was being subtle, but found out later that people had noticed.¹¹

This disease has a potent self-reinforcing logic. It's partly a *propositional* illness; you manage somehow to convince yourself that you're finished, useless, might as well be dead, will never work again, the world is a pile of irremediable shit, everything is darkness, even while

¹⁰ The theme of revenge, either violent or sadistic, often dominates both depressive and manic fantasies. A very depressed friend who was having a hard time with her head of department wrote me: 'It is bad to think that if Prof X died a slow and painful death (soon) of stomach cancer (with secondaries in the liver and testicles) that one might be less depressed. Very mature, Dr A'.

¹¹ My friend M wrote me a few years later about how people do notice. This was in reference to another conference where I was feeling exceedingly depressed nearly the whole time, but had to put on a good show, and work my acting ability to its highest pitch: 'Your eyes had a guarded quality to them and at times you made them opaque. Not sure you did it deliberately or even if you knew/know you can do that [...] But in X (and this was what really gave away that you were having a bad time) I noticed that even when you were apparently being funny and nonsensical and your 'usual self', your inner eyes were closed. Looking inside I suppose [...] Not connecting. Shut off and looking inside not out'. This is an elegant and subtle observation, and the phenomenon is common.

knowing that maybe it isn't 'really' true, but powerlessly watching yourself convince yourself and trying to convince others that it is. It may of course *be* that the world is this way (certainly the empirical evidence suggests it); but the difference between depressives and non-depressives is that we take the evidence more seriously. We refuse to allow any counterevidence to affect our judgement, and want to convince others. This may be a sanity-saving move: if the world really isn't shit I'm crazy, but if it is I'm a connoisseur.

This 'knowing what's true' but not being able to *feel* or act on it is constant. The disease is 'mine', but somehow separate from me; I argue with it, the two of us have conflicting views of the world, there's a subtle and subliminal dialogue between us. Many depressives seem to visualize their illness as a kind of *Doppelgänger*. Dr Johnson personified his as 'the black dog', which kept him closest company when he was alone:

The black dog I hope always to resist, and in time to drive [...] When I rise my breakfast is solitary, the black dog waits to share it, from breakfast to dinner he continues barking, except that Dr Brocklesby for a little keeps him at a distance [...] Night comes at last, and some hours of restlessness and confusion bring me again to a day of solitude. What shall exclude the black dog from a habitation like this?

It's not always true though that solitude brings on depression; for me it's often the only relief. I have to get away from people to survive. When I'm really depressed I don't want to talk to anyone, I snap at people, answer in a monotone if at all. Though sometimes company can be usefully distracting.

But solitude is comforting—encysting, uterine, even imprisoning, but familiar, as is depression itself. Even if the things going through your mind are unbearable, at least they're yours. Like Dowland's hell, 'light doth but shame disclose'. Maybe prisoners get used to their prisons, even come to be unable to function outside of them. What would happen if I were 'cured'? Would I be me still?

Die Welt die hält dich nicht, du selber bist die Welt,
Die dich in dir mit dir so stark gefangen hält.¹²

—Angelus Silesius (1624-77)

Dr P says interestingly that depression is the only contagious psychiatric illness; one of the things they taught him is that a classic diagnostic sign of major depression is that the doctor becomes depressed while talking to the patient.

October 1995. Despite the endemic self-centredness, occasionally someone else's concerns break through, teach you something, give you a rudimentary feeling of worth and engagement. L, a

¹² 'The world contains thee not, thou art thyself the world,/That thee in thee with thee so mightily holds captive'. Virtually untranslatable with any grace, but that's what it means.

young colleague of mine, also suffers from severe depression, and I've seen from the outside now something of what I must look like. At least in her case I was able to get her to see a doctor, tell her I've been there, I know it, there's nothing so horrible as the bleak despair and total emptiness that overtake you in a major crash, but they're cyclic, and this too will pass if you just hang in there. What hypocritical shit—if I believe this for her, why not for me?

I think I may have contributed to saving her life, as Jaime has done for me; but the seriously depressed are always teetering on the verge of suicide. It takes a lot of perspective when you're looking out from the bottom of hell with no visible stairway to think you'll ever see daylight again. L said to me one day 'I wouldn't be here if it weren't for you'. I'm not 100% sure I did her a favour; after 20-odd years of a worsening case, even with treatment, I have mixed feelings about trying to survive, but on the whole I think it can be done, and in the case of talented people with work to do probably ought to.

Fortunately, after you've survived enough episodes you toughen a bit, develop a knack (if you're lucky and skilful, as I seem to be) for seeming yourself in public and getting through necessary performances. Maybe there is a gift, though—it sharpens your ability to dissimulate. At least if you're in a downswing. Some manic episodes are wonderful, because your creativity is heightened, you become hyperfluent and ideas start to flow, even others see you surrounded with a kind of loony charisma, and if you can keep to that level and not disperse into irrational rage or obscenity you are your best self. And as this episode suggests you develop an uncanny ability to spot others with the stigmata: it takes one to know one. I just walk into the office and see L, and can tell from her face before she's said a word where she is, as she can with me. It's a special fellowship, with its own cryptic passwords. 'Bad day?' 'Roger, you look like shit'.

December 1995. Depressions getting worse again. Think almost constantly about suicide. Jaime says she'd fall apart and die without me, and this is probably the only thing that's kept me alive. Went to doctor, finally. He knows I won't try lithium, so didn't even suggest it. Rather increase Aurorix to 450 mg. I'm now back to smoking properly, and don't intend giving up again.¹³

19 February 1996. Downhill again. JP says up Aurorix to 600 mg, the maximum. Seems to be working rather better, in some ways. Still black depressions but rather less frequently. Sometimes remissions as long as three or four days with no mood changes at all.

I wonder if anybody who hasn't experienced depressive illness can have a clue what it's like, except maybe those who treat them or live with them. It's ill-understood, except by

¹³ An over-subtle interpretation could take smoking as a kind of delayed suicide, like other risk-taking behaviour. But I think it is the drug, not the idea of croaking from cancer or emphysema a decade on, that I'm in love with. Dr P however considered it, along with my drinking, an index of self-destructiveness. Who knows? Now 15 years later that I have emphysema I still don't know, but my suspicion is that it was the pleasure and addiction that counted.

psychiatrists and those unfortunate enough to come in direct and intimate contact with it.¹⁴ True depression clearly isn't the same thing as 'being depressed', which is something just about everybody experiences at some time or other; it goes away and often does not come back. Like grief or loss, it is (or can be) something you 'work through'. Chronic depressive illness doesn't seem to be like that: you don't work through it. It consists largely of untriggered, arbitrary episodes, not a 'response' to anything, but a dark ferocious metabolic disorder with its own arcane cyclic logic. On second thoughts it *is* also a response to external stressors, or can be: any bump in the ideal smoothness of life can also trigger an episode.

I was trying to think how to describe the inside of this condition to somebody who has no idea. Finally hit on this: imagine the worst physical pain you've ever had, and think of it recurring at unpredictable intervals, only imperfectly susceptible to pain-killers while it lasts, perhaps continuing unabated for weeks at a time. Now try to imagine how, in that state, you'd convince yourself that it will end and everything will be OK again—especially when you know perfectly well that even if it goes away, after some unpredictable period it will come back again and that there will be more remissions and it will come back again, and this will never stop as long as you live. And you'll never know when you go to bed at night whether it will be there in the morning, or when you're walking down the street in bright sunshine, whether the black cloud will suddenly descend out of nowhere and make you want to walk in front of the nearest car.

Beauty is but a flowre,
Which wrinckles will deuoure,
Brightnesse falls from the ayre,
Queenes have died yong and faire,
Dust hath closde Helens eye,
I am sick I must die,
Lord haue mercy on me.
—Thomas Nashe, *In time of pestilence* (1600)¹⁵

Keats knew it too ('Ode on melancholy'):

¹⁴ A psychiatrist I know told me once that 90% of his colleagues suffered from depression and were taking antidepressants, at least periodically. He thought this was good: psychiatrists, he said, should be 'wounded healers'.

¹⁵ I do not know whether Nashe was a depressive or not (sometimes I think everyone in the 16th and 17th centuries was); but the falling of light out of the air is a familiar experience, and many people I've talked to have had the same feeling, the same kind of response to that line, and to the ones from Keats quoted after. 'Melancholy' was of course something of a fashion in late Elizabethan and Jacobean times. Hamlet, with his 'inky cloak [...] and customary suits of solemn black' is a perfect icon; 'this most excellent canopy the air [...] appeareth no other thing to me than a foul and pestilent congregation of vapours' (II.ii). Another is Dowland, whose motto was 'Semper Dowland, semper dolens' (always Dowland, always doleful). For an excellent account of this fashion, and a fine cultural history of melancholy, see Solomon 2002: chapter VIII.

And when the melancholy fit shall fall
Sudden from heaven like a weeping cloud,
That fosters the droop-headed flowers all,
And hides the green hill in an April shroud [...]

It takes great friendship and humanity and patience to deal with somebody in this condition; Jaime and one or two friends who are also depressives or have depressive partners are about the only ones who can cope with me in my blackest moods, and it's asking rather a lot of mere friends to bear it. It's not fair on a wife either; if I were her I'd throw me out on my ass.

Even in remission this disease has had a major effect on my character. (Or did my character just become more clearly defined by the disease?) I'm now almost permanently edgy, prickly, brittle, cynical, dismissive, more argumentative even than I used to be when I was (sort of) 'normal'. It's harder than ever to suffer fools (and being a university staff member that's part of your job description). Finally decided to quit all university committees, and not go to any Faculty or Senate meetings, because I couldn't keep my temper when people said stupid things, and was getting publicly more and more sarcastic and obscene. There seems to be a convention that you don't say 'fuck' or 'shit' at Faculty meetings, and I am finding it almost impossible to adhere to. Once I could be combative for a good cause and keep my temper in the interests of the cause; now the provocation of meetings largely populated by self-important windbags and brainless pricks simply tips me over the edge.

It sometimes seems that 'temperament' or 'personality' and psychiatric illness are not really distinct. In me anyhow. It's rather as if they're fuzzy bands on a spectrum with 'normal' at one end and psychotic or close to at the other. The form the illness takes reflects the carrier and vice versa. It's *me*, even in remission, who's manic-depressive.

June 1996. Just read William Styron's *Darkness visible*. One of the subdued delights of encountering others with lethal depression is that you become less unique. You find people who have your symptoms or similar ones, and sometimes survive. Your bizarre experiences are not the marks of a private madness; most of them are commonplace. We all get the stigmata, in more or less the same places. As I found from Styron's description, the sense of impending madness and fragmentation, loss of memory, the horrid feeling of being dissociated and 'shadowed' by your other self, the recurrent panic attacks, are not atypical.

13 July 1996. At the moment on the upside after a very bad manic episode followed by four days of mixed mania and depression, mostly as usual the latter. The only thing that kept me from finding a way out was the effect it would have on Jaime. Though I was more seriously on the verge of suicide than ever before, and except for certain contingencies might have succeeded. I found myself (that's accurate: there seemed to be no premeditation, it was like emerging from a fugue) carefully laying out all the medications in the house on the kitchen counter, reading the package inserts, and trying to work out what I could overdose on. It's tricky when there's nothing lethal available, and you have to start calculating interactions, and wondering if you could

successfully engineer a fatality, not just end up a vegetable. Cool and careful, along with a desperate frustration at not knowing enough chemistry or medicine to do the bloody job right. Let's see, Aurorix is a monoamine oxidase inhibitor, and this means it can interact dangerously with certain classes of drugs. What do we have in the house? Well Xanor isn't much good, it doesn't interact and I don't know how much I'd have to take to ensure respiratory depression. What else? How about Valoid (an anti-emetic): it can raise your blood pressure, and shouldn't be taken with MAO inhibitors. Promising. And how about Actifed (an over-the-counter hayfever remedy)? Well, that contains pseudoephedrine, which belongs to a class of drugs I've been warned not to take with Aurorix. So maybe a box of Actifed and some Valoid, washed down with booze ... Pity they don't print the lethal doses along with the other information.

But I bloody don't know. How dreary if all this care were to result in an imperfect stroke, and I had to remain alive but helpless, aphasic or hemiplegic? Then what chance would I have of a successful suicide? I'd have to lie there begging people to kill me, adding insult to injury. Or maybe worse, the embarrassment of a total flop, barfing it up and ending up feeling wretched all for nothing (though I've read that clever intending suicides do take an anti-emetic first, and then wait a while: so the Valoid might also prevent my losing whatever else I take). Better not risk it after all. Shit.

Curious how unfraught the beginning of this pharmaceutical search operation was. I was calm, almost euphoric, because I was finally *acting*. The 'balance of my mind' wasn't 'disturbed' (it seemed), this was rationality of the highest order, I felt a luminous certainty that I was doing a correct and sensible thing. At least to start with, until I began to reflect both on the difficulties of the task I'd begun with such self-deluding high hopes, and the knowledge that since I'd promised Jaime not to kill myself, this would, if successful, have been a gross betrayal. As well as ambiguities about death itself; what if dying should prove more of a handful than I thought? Death yes, dying, well I don't know. Even in this suicidal euphoria enough Old Biology remains to scare you. I remember out of nowhere a line of Hölderlin: 'Er erschreckt uns,/Unser Retter der Tod'.¹⁶ Christ, am I turning into a fucking German romantic?

How different my atheist fears of dying (but not oblivion) from a religious hesitation. There the fear is of the future, not 'passing over', but what you might find when you get there. For the atheist or tough-minded agnostic there's no 'there'—that's the great attraction. It may be hard to conceive pure nothingness, not-being, but you can't be depressed if you don't exist. The religious, even the unreflective mild knee-jerk believers in an afterlife, have a different problem. Hamlet (a classic manic depressive—not I think a sufferer from an Oedipus complex who could not kill Claudius because he too wanted to sleep with his mother) contemplates suicide in the famous Act III soliloquy, but his action is aborted by trepidation about distant consequences. Who wouldn't kill himself, in the face of all the shit in the world,

¹⁶ 'He terrifies us, our saviour Death'.

But that the dread of something after death,
The undiscover'd country from whose bourn
No traveller returns, puzzles the will
And makes us rather bear those ills we have
Than fly to others that we know not of [...]

Dreams too, not just the future, are Hamlet's sticking-point. Death is sleep, but sleep brings dreams, and 'there's the rub'. He fears the unknownness behind the curtain: 'For in that sleep of death what dreams may come/When we have shuffled off this mortal coil/Must give us pause'.

Like most depressives I have perpetual insomnia. Either I can't get to sleep, or can't stay there. But not being able to sleep is complicated: sometimes I just can't feel tired enough, others I'm terrified of falling asleep, no matter how much I want to, how exhausted I am. I take pills, drink, lie in bed reading escapist things, but rouse myself as I nod off out of a subliminal fear that once I let go and do sleep, however much I want to, I'll start dreaming. That's worse than insomnia.

I usually have nightmares (interspersed with occasional silly and pointless 'ordinary' dreams). Almost every one, even the little hallucinatory semi-dreams you have on falling asleep and waking, is a nightmare, drenched in terror, anxiety and guilt. At unpredictable intervals They come to hang me for some Kafkaesque unknown crime, and I wake sweating and breathless and tachycardic just as the trap is about to be sprung. No one has a face except me. Or claustrophobia: I crawl through unending narrow tunnels to unopenable windows, navigate the labyrinths of uncountable caves. Or anxiety and guilt rather than fear of my own death: commonplace trains to catch, as in so many people's dreams, but I have to gather up a houseful of cats, and it's too late for that crucial train, and fuck knows what will happen if I miss it. Or saturated with irremediable guilt, realising I've moved away and left the cats to starve in a locked shed or cellar, and I'm forced to see them wasting away as if I was there, every detail sharp and killing. They look at me piteously out of huge eyes, but have lost their voices.

Fragments of these dreams remain with dreadful clarity for days or weeks, the most striking replaying themselves endlessly on a compulsive loop. Usually I forget, but there'll always be a new crop, and even when I can't remember the content I remember the feeling. I was like this as a child, I recall: unlike the usual kids who don't want to go to bed because they want to stay out and play, I was afraid of lying awake, or of dreams. I still have a phobia about anaesthesia.

Aus dem Reich der Kröte,
 Steige ich empor,
 Unterm Lid noch Plutons Röte
 Und des Totenführers Flöte
 Gräßlich noch im Ohr.¹⁷

—Elisabeth Langgässer, 'Frühling 1946'.

As I reflect my sickness grows older. Perhaps it was with me from birth? My autobiography is episodic and gapped, but little of it feels different from these dreams.

For several days after the aborted suicide-attempt I had a recurrent semi-hallucination, seeing myself from above, lying in foetal position on the railroad tracks just a minute or so's walk from here at night, the headlight of a train bearing down on me. The vision did little but provoke reflection: what would it feel like, could I bear it, would I be brave enough not to get out of the way at the last minute? My cooler and more cowardly self decided this wishful vision was not going to become a reality, and it eventually faded and stopped coming round, except in a kind of dilute and greyish poor photocopy.

This is all so typical. The idea of suicide is never very far away, but it's mostly 'passive suicidal ideation': nothing comes of it except a kind of prospective nostalgia for death. I keep recalling Keats' line 'I have been half in love with easeful death'. During a bad spell you do of course, in the odd lucid moments, know perfectly well that it will go away; but you're perpetually tempted by the idea of suicide in upswings as well, because that's the one sure way of seeing to it that the downswings won't return. What's most demoralizing is the fatigue: how many more of these cycles can I actually endure? I know each bad time will end (though in the middle of a four or five-day downswing it's hard to believe, except intellectually); but I know that the good spells will end too, and the whole fucking circus will go on forever until I die of something else or end it myself.

O lovely appearance of Death,
 No sight upon earth is so fair;
 Not all the gay pageants that breathe
 Can with a dead body compare.
 In solemn delight I survey
 A corpse when the spirit is fled;
 In love with the beautiful clay
 And longing to lie in its stead.

—George Whitefield (1740-70)

Everything is corrupted by bleakness and hopelessness and self-disgust. The future stretches out

¹⁷'Out of the toad's kingdom/I rise up,/Under my lid still Pluto's redness/And the Death-guide's flute/Still ghastly in my ear'.

in imagination with a nauseating and chilling sameness, like climbing one of Escher's impossible stairways in the dark. Everything is blackness and death and decay and emptiness, and even in the best times this image of what will happen again hovers over your shoulder, just in range of your peripheral vision.

25 July 1996. For some reason I've been obsessively listening to late Mozart. The fact that I can listen to music again is hopeful; indeed I've been listening more and more and better and better, even in the midst of depressions, at least my greyer ones. But why this music in particular?

Is it a coincidence that Mozart was probably a manic-depressive, who had his worst episodes from 1788 on, the very years whose music I keep listening to? And what I tend to gravitate toward is the minor-key music, especially the late string quintets. I put on a CD of the G-minor quintet, and Jaime remarked that it reminded her of Francis Bacon's paintings, it was 'clotted and depressing'. Can it be that we recognize each other not only in person but in the disembodied products of our minds? I don't know why, but Mozart even at his most tragic and distressing as in these late works is somehow consoling.¹⁸ If he could do *that* in what I read as a state very much like mine, and not dissolve into self-pity (though there was a lot of that in his letters from that period), and kill himself, then I should be able to hang in there and do *something*.

Late 1996. A psychiatrist my wife is seeing told her he was disturbed that I was in the midst of such a major depression and was treating it totally with drugs, without seeing a therapist. Dr P had yielded to my insistence on taking the pharmacological route only (whatever he thought of it—I still don't know), and the issue hadn't come up. So I phoned this doctor and asked him to recommend somebody, just as a trial. I respect his judgement, and it was at least possible that I was missing out on something that could be helpful.

Went to see recommended psychiatrist, and decided after one session that this was not for me. He was very personable and bright, and soon lured me into talking about things I had no wish to discuss, and trying to tie my present situation up to things in my distant past (parents, all that shit). I suddenly realised that I was not at an appropriate age to do the work necessary to dig up what might have caused the depression in the first place. (My dysfunctional family and wretched childhood would probably be enough to drive anybody over the edge anyhow, so there's nothing contemptuous of psychiatrists in the phrase 'all that shit'.) I simply could not be convinced that knowing *why* I was fucked up would have any utility in undoing it, or that as long as the drugs were more or less working I should bother. Let the dead bury their dead (weird attitude for a professional historian). Odd isn't it that I should short-circuit my endemic curiosity, especially about the past, just here. Maybe that itself means that I should have persevered. Or not. Before you empty the septic tank you ought to know where to put the shit.

¹⁸ H.C. Robbins Landon (1989: 195) calls this music 'troubled, alarming and even dangerous'. For the diagnosis of Mozart see Davies 1984, 1987.

What should have been a therapeutic session was transmuted into a fencing-match; I turned out to be as clever as he was, and began parrying his questions, untying the knots he tried to tie me into. Though I liked him personally, and admired his cleverness, I found the whole situation enormously distasteful. I simply don't have the temperament for 'therapy'; I couldn't bring myself to play the game, get involved in the kind of discourse he apparently wanted. That was my one and only encounter with the non-pharmacological side of treatment; I may have been unfairly dismissive and impatient, but I'm convinced I did the right thing, for me. Drugs or nothing.

In fact this seems to be my general attitude (due to the depression, or just general craziness?). I smoke too much and take decongestants, I drink too much and take drugs for gastritis.

January 1997. After a fairly long remission, things getting worse again, this time for external reasons. The new stressor was the discovery of my wife's fourth malignancy; another return, in the right cerebellum, of the 1986 model breast tumour that had been followed by two secondaries, one in approximately the site of the original, and one in her left cerebellum, which required six hours of surgery, during which she stopped breathing. She has retained an optimism about her future which has in no small way contributed to her survival. But her condition affected me perhaps worse than it did her. (What arrogant and self-pitying shit. Even if it were true, how could one know?) I became more and more depressed, again unable to work or do anything except brood and pity myself, not even really think of her, as I should have been doing.

Went into a kind of suicidal reverie again. Gave up the idea of drugs, and returned to the classics: look at all those lovely veins on my wrists (not to mention the arteries), and right there in the medicine cabinet are clean unused razor-blades (in a fit of nostalgia I'd started using an old-fashioned double-edge safety razor), waiting in their pretty little waxed paper packets. For some reason I thought drearily of having to put away all the shirts hanging over the bathtub (we're so controlled by cultural imagery it's hard to conceive slitting your wrists anywhere else), and this stopped me for a moment. I then sat on the back steps, looking into the garden and dreaming of razor-blades, and was about to go into the house and tell Jaime to hide them; then for some reason, as inexplicable as the original, the impulse subsided (though the image sometimes returns when I'm shaving, now with a fancy new razor that you couldn't cut your wrists with). Curiously, even the sharpest knives don't tempt me at all: why?

There's a compelling seductiveness in the idea of suicide, pleasant, restful, consummating, not just desperate. Spenser's Despair, extolling the virtues of suicide to the Red Cross Knight:

Who trauels by the wearie wandring way,
 To come vnto his wished home in haste
 And meetes a flood, that doth his passage stay,
 Is not great grace to helpe him ouer past,
 Or free his feet, that in the myre sticke fast?
 Most enuious man, that grieues at neighbours good,
 And fond, that ioyest in the woe thou hast,
 Why wilt not let him passe, that long hath stood
 Vpon the banke, yet wilt thy selfe not passe the flood

He there does now enioy eternall rest
 And happie ease, which thou doest want and craue,
 And further from it daily wanderest:
 What if some little paine the passage haue,
 That makes fraile flesh to feare the bitter waue?
 Is not short paine well borne, that brings long ease,
 And lays the soule to sleepe in quiet graue?
 Sleepe after toyle, port after stormie seas,
 Ease after warre, death after life does greatly please.

—Edmund Spenser, *The Faerie Queene* (1596), l.ix.39-40

16 January 1997. In hindsight, it was only Jaime's urging and saying to me that she didn't think she could survive without me that prevented another serious and maybe successful attempt. Finally dragged myself out of the house and into the car and went off to the doctor (driving aggressively and sloppily: just my depression and general disorder, or another concealed suicide attempt?). I told him what kind of state I was in (in fact I didn't have to: he took one look at me and immediately decided to try another drug). I went off Aurorix and on to Effexor [venlafaxine].¹⁹ In about a week I'd begun to return to something approaching normalcy (as far as I ever achieve it); Jaime remarked that for the first time in over a decade she recognized the man she'd married forty years ago.

May 1998. A surge of energy seemed to generate around March. I began to enjoy teaching again, invented a new course for the first time in years. I tend to be rather hypomanic while teaching; I go on and on in (what to me is) an amusing and slightly flippant way, find it hard to stop talking long enough to listen. May either be brilliant or talking crap, but my critical faculties cut out in these moods.

Went off to Edinburgh, Glasgow, Oxford and Cambridge in late April to lecture and see friends and colleagues, and maintained this kind of mood for most of the time. I seem to have got back much of the crazy and verbally wild spark I once had, and the lectures and (drunken, or even sober) interactions with friends went down well. Though still, after more than a couple of

¹⁹ It's not uncommon for antidepressants to stop working; there's even a medical name for this phenomenon —'poop-out'.

hours in company, I'd feel a slight edginess and approaching panic, and I'd invent excuses to take a walk 'to clear my head', or suddenly get very tired (from all that travelling, you know) and go to bed.

Ran into a colleague in Oxford who I hadn't seen in ages, and we chatted about this and that, at our ages (sixty-plus) naturally about illnesses, who's sick in whose family. She'd heard about Jaime's cancer (in the academic world there's as little privacy as anywhere else), and I casually mentioned that I've found out I'm manic-depressive. She looked at me in a rather startled way and said 'You mean you didn't *know*?' The reason I was an effective speaker, as far as she could tell, was precisely that I tended to go into hypomanias in public. Why didn't anybody else notice? Or were they too polite to tell me? Or did they just assume that nobody could be like that without knowing? Or was the entertainment good enough value that it mightn't be wise from anybody's point of view to go poking about?

This trip was a success, which buoyed my mood. I managed to get rid of a number of old incubuses that had been my constant company for ages, while I wallowed in the depressive's characteristic intellectual constipation. Finished editing a volume about a decade overdue, got off writing a book I didn't want to, got commissioned to write some things I did want to. In a fit of mild elation I phoned Jaime from Cambridge, told her all the bits of good news, and how fine I was feeling. With her typical wry humour and knowledge of me and my condition she said 'Well, when you get home the shit'll hit the fan'. It hasn't yet, but both parties are still there, and they're bound to meet again one day.

September 1998. Off to Europe for more conferences, and a disappointment. Shit and fan have met. I'm more fragile and less controlled than I thought, especially at the manic end. Had a distressing experience in Cambridge; giving a paper at a conference, all of a sudden I found myself departing from what I'd intended to say, or rather capitalising in a bizarre and contentious way on parts of it, and once again watching 'myself' doing something 'I' (the author as it were, not the performer) thought was silly, off the point, and slightly embarrassing. The Other was back again. I launched into a long diatribe on a number of things only marginally related to my topic (though I did manage to establish enough of a connection so the audience didn't start throwing vegetables or looking at their laps). It was tasteless and out of key with the rest of the paper, even if thematically related, and I hadn't expected it at all. Managed to bail out before things really got absurd, though one of the other participants said 'Roger, that was over the top even for you'. For a while felt a bit phobic about going to conferences: what if it happens again, but worse? I suppose if I were on lithium this sort of thing wouldn't happen, but then again I probably wouldn't have written the paper at all, or at least it would have been duller.

October 1998. There was a long remission, but Jaime was right. The shit won't stay away forever. The Cambridge episode wasn't a really bad one, and was over quickly; but I wonder each day (probably unscientifically and foolishly, and fate-temptingly) when I'm going to 'pay' for my good hypomanias and levels with the mother of all depressions or manias. For some

reason good episodes evoke the economic metaphor of ‘tradeoff’—as if there’s only a certain amount of good mood you’re allowed, and when you’ve exhausted your month’s quota it’s shit-time again. In the meantime, ‘stable’ (or ‘resting comfortably’ as nurses say when they either don’t want to give information or haven’t any). I retain this precarious condition with the aid of Effexor, Xanor, Imovane,²⁰ three or so litres of whisky a week and getting properly drunk at least every night, and 20+ cigarettes a day. I hope this regime will work as well as it has so far, medically dubious as it may be. But it’s turned out to be necessary; some of us are creatures of habit, I seem to be a creature of addiction and pharmacology.

Does anybody alive now remember Tennessee Ernie Ford? Sometime in the 50s he recorded a song called ‘Sixteen tons’, which contained a description of the hero’s fighting equipment that fits mine of my illness and addictions: ‘One fist of iron, the other of steel/If the right one don’t get you then the left one will’.

But you have to make sure that the right one *can* get you. There are strategies one learns or works out in this strange world. I’ve now accumulated enough in the way of second-best pharmaceuticals (the best are too hard to get hold of), and information on dosages and the like to put myself down if necessary. I rather doubt now if I’ll have to; but the knowledge of this gold-hoard waiting is calming and makes the future seem brighter. The desperation that comes from knowing you won’t be able to commit suicide relatively decently if the time comes is depressing itself; when that lifts, much of the worst of the depression itself does too. As the Boy-scouts say, ‘Be Prepared’.

Late November 1998. Interesting how others’ well-meant curiosity and concern about one’s state produce either resentful silence or streams of verbiage. My friend M tends to worry about me. Not surprising. She’s also ferociously intelligent, perceptive, humane and curious, and asks me things about myself that I’m not always willing to expose. She’s also much more open to experience and less emotionally constipated, coldly rational, and morally absolutist than I am. And she has never been depressed, though her mother was. I can’t remember now precisely what sparked off our November exchange, but on rereading the letters I find that some important points come out more clearly in this uncrafted dialogue than they would in an audience-free monologue. I think I may have made some flippant remarks about suicide, and my rotten family, and this set it all off. In a way the letters were a bit shocking, and clarifying: the arguments give a sharp picture of the barriers between the depressed and the ‘normal’, and the way a depressive personality can be so wrapped in its temperament and mood that the boundaries between intellect and emotion become blurred or nonexistent. It also says something about the relation of life-history to temperament and maybe to disease. These letters seem to belong here, a point where diary for a moment becomes dialogue and I see myself a little as one other sees me.

²⁰Chemical name zopiclone, a hypnotic.

1. Dear M,

Glad I made you think. Depression is black, and because it's black, things are black and white. Does that make sense? Some manias are black too.

As for childhood, well I grew up in a small family with an ineffectual mother and a manic depressive father (as I now see, looking back and knowing more than I did then), and childhood for me is simply an image of cruelty, anxiety and desire for death. I find myself exceedingly surprised that I didn't commit suicide before I was 16 or so. And that I haven't yet. But that has taken work. Maybe this is upsetting; don't worry, I'm not in danger (if that's what it is) at the moment—though I can talk about the subject with some equanimity because I've been on the verge twice seriously, and a lot of other times less so.

Come to think of it, there's a whole world you probably (and luckily) don't know about: you'll find some unpleasant bits of new information in the book,²¹ which doesn't pull punches. It was however very difficult to write the personal parts, as you might imagine.

You are the only person besides Jaime and one seriously depressed colleague I ever talk about this kind of thing with. You can take that as a compliment. I feel that whatever I say, however weird, you'll figure out a way of understanding it. That's a gift.

2. Dear R,

Your childhood sounds grim. I'm interested in perceptions of childhood, because I think that a lot of childhood misery, if it doesn't involve obvious things like physical abuse, is not actually recognised as such until afterwards. Children tend to take things as they come, and if not normal then at least as just the way things are for them. Intelligent kids will know they are miserable, frustrated, not regarded positively, denied things that make life enjoyable or even bearable, but may not figure out until their teenage years that this could have been different, or that it is not necessarily their own fault, especially if they are being told a lot of the time that it is. When the blame shifts from self to parent, then it's difficult to recognise that parental misery—for whatever reason—may also be to blame. Not that the recognition necessarily helps, but it can explain. Does your present realisation that your father was/is a manic depressive make you any less angry with him?

Do you remember your childhood as *only* ghastly? Your achievements involve intellectual and moral discipline that I think can only be built up from very early on. It suggests that some of the time or in some environments, perhaps outside the family, you were getting on with life pretty positively and, even if it functioned as escape, it argues for a personality made of stern stuff.

I'm glad you are not about to do away with yourself. Sometimes I have this feeling that if we can all just keep you talking and thinking you'll continue to have an interest in what might happen next. Which is probably, if we're honest, what keeps most of us ticking along and not doing away with ourselves. That and inertia, of course. I don't believe that for myself, I may say. I do actively enjoy life. I also have kids which makes a difference.

²¹ M and I had been discussing the gestation of this book during the year, and I had sent her a few fragments of things I was going to put in, as well as general remarks on depression.

Thank you for telling me I understand. It is hard work sometimes [...] I'm trying not to let the things you say upset me.

3. Dear M,

I suppose at least some of my self-discipline comes from trying to avoid going mad as a child, as you say. Am I any less angry at my father? Even if my diagnosis is correct, no. He's a shit anyhow, above and beyond anything that might be mitigating, and I don't propose to do enough careful analysis to decide.

You don't really have to get into a tizz about me; strangely enough I can take care of myself. In fact an intellectual interest in what's wrong with me is one of the things that keeps me in reasonable nick, since at least I'm not (now—I was once) in a fog, and I can be 'clinical' much of the time.

4. Dear R,

I don't nowadays get into too much of a tizz about you. I worry if you go totally silent without warning, but then I'm usually more anxious that something might have happened to Jaime. Comes to the same thing really. You've succeeded in minimising the worry because you say you would tell me if I need to know, and I believe you. You may think it's hard to communicate your knowledge of what depression is like from the inside. But as far as I'm concerned you do a very good job of it. It all makes sense to me. But then for a non-professional who is also a non-sufferer I do probably think about it more than most. I find it very interesting and also quite revealing about the supposedly fully healthy mind too.

I'm sorry your father is a lost cause. Mine was wonderful. I miss him a lot, sometimes agonisingly.

5. Dear M,

I was reading this [letter 2] again this morning. Don't please get the feeling you have to 'watch over me', or keep up my interest by saying things so that Old R will hang in there. First if I caught you doing anything that obvious I'd tell you to fuck off, and second it isn't necessary. I'm not as fragile as you might think, & while I don't usually find life a barrel of laughs, I find parts of it very nice indeed, and don't intend killing myself at the moment. In fact as long as I can remain stable I don't think I will. Though of course if I do decide to (and it will be a decision, not a moment's frivolous impulse), I won't tell you in advance.

But that's not an issue: I'm not terminal, but quite stable if moodswingy as usual. Why am I telling you all this, painting the lily? I suppose it's because you seem edgy. Remember that suicide and quality of life are issues that intelligent depressives think about all the time. Life itself isn't anything so great—after all I'm only here because two people happened to fuck in 1936, and I didn't ask them to, not of course having been there till 9 months afterwards. No I am not suicidal at present, nor have I been seriously for more than a year.

Some day I'll explain this messy business to you, as it's very complex and poorly understood by people who haven't seriously sat there with a razor blade or 2000mg of amitryptaline and tried to decide if this was indeed precisely the right time.

6. Dear R,

I'm not exactly edgy. The word seems wrong in tone somehow. And I'm not complaining since it caused

you to explain further which was valuable.

By the way, were the two people who happened to fuck in 1936 proud of you? Did you ever know, ask or wonder?

I don't of course share your deterministic nihilism—if that's what it is. It's not that I think there is necessarily a 'purpose' to life. In fact I find that notion quite unhelpful. Life is its own purpose if at all. But I do think that part of what *Homo sapiens* carries in his genetic make-up and evolutionary history is a sense that he can make a difference (for good or bad) to the quality of life of other humans and other creatures. If that is an illusion, it's an illusion I'd rather have than the apparent alternative that nothing much matters. I imagine that the negative expression of what constitutes or gives point to life is stronger in you when you are down. Perhaps it then becomes an intellectual habit of description even when you are enjoying it more.²²

The capacity for a particular person to make life bearable for a particular other person—whether they want to, or intend to, or even see themselves as willing to, or not—cannot be lost sight of. It is that I think that often makes survivors of someone else's suicide see the act as an ultimately selfish one. It isn't always so, of course. But it is always self-centred (in the broadest sense) because it doesn't give weight to any other connection than that between the self and life/death. As you might have gathered, I have had in the past—a long time ago—some experience of being such a survivor which I have never fully sorted out because much of it remains ambiguous and always will be.

7. Dear M,

Sure, suicide is in a sense ultimately 'selfish', but who owns your self other than you? It's also an expression of a kind of ultimate freedom: I never asked to be conceived or born, so I'm here under duress.

I've also been in the aftermath of suicides, in one case a 'rational' one, where the thought of the repetition of certain experiences that were bound to come was unbearable, and the other where the causation was more or less unknown. When it's serious it comes down to a matter of who you owe more to, yourself or others, and that can be difficult.

Jaime and I have of course discussed this in some detail, as the option is on the horizon for both of us. I know the kind of effect a suicide can have on survivors (why didn't I do enough, etc.); this is expected, normal, and irrational. You can *understand* a suicide if but only if you really have a gut feel for what it's like to want very seriously to die. You have to have found life utterly unbearable and been dreadfully upset at your inability, for one reason or another, to die, to get the full flavour. This is not being morbid, but coldly factual.

Back to family. Were the two fuckers proud of me? Yes, at times, but I couldn't care less. I have a very cold and hard attitude to them, or rather to the one who's alive. When my mother died, I actually went back to New York to her funeral (largely to avoid being disinherited, which is now almost certainly going to happen anyway, & I don't give a shit), but was totally unmoved by her death, only irritated at the mushy

²² A beautifully perceptive (though at the time infuriating) remark. The 'emotional' and 'intellectual' interpenetrate anyhow, but in depression the boundaries get fudged, and you think you are being rational when in fact you are reflecting your 'standard' moods, even while not actually having them. They remain as a kind of natural clothing for everything you say and think regardless of how you feel.

undisciplined weeping Jews I was surrounded with. I had spent many years *in partibus infidelium*, and getting back to that East European hothouse was dreadful. Stayed in NY 36 hours and then shot off back to Edinburgh. Remember that old poem: 'If a man who turnips cries,/ Cries not when his father dies,/ 'Tis a proof that he would rather/ Have a turnip than a father'. More or less how I feel.

8. Dear R,

You are very vehement for someone who couldn't care less.

No one owns your self. Selves aren't subject to ownership. If you genuinely think that the capacity and 'right' to do away with yourself is ultimate freedom then you have a more naive idea of freedom than I give you credit for. Freedom and responsibility are not two different things. And responsibility is meaningless if it only comprises oneself. Nor I think is it ultimately meaningful to suggest that one has a 'right' never to have existed. It's to do with connections again and the inescapability of people being connected to you willy nilly. Tough but true.

I know you have a sense of moral discipline which is higher than most. But you have a defensive isolationism from other human beings which you don't seem to have from the rest of the natural world. I would bet that your responsibility to the animals in your care would give you pause before you decided to top yourself. But it's also pointless to deny the 'reality' and validity of any concomitant feelings. You've been in the aftermath of two different suicides. How did you feel? Accepting and matter of fact? Perhaps about the rational one. What about the one where the cause was unknown? Regret and mourning and loss are real and debilitating and incapacitating.

I'm not sure how much more I have to say on this at the moment. I do understand, at least intellectually, about the nature of depressive despair and how it can colour thought to the extent of instigating self-destruction.

Without being in the least jolly hockey sticks and pull yourself together about it, I would like to suggest that the healthy, stable mind/body combination does not normally have suicidal thoughts, and that while many people for many and complex reasons may have suicidal thoughts, the pursuit should be primarily of a way to create or recreate health, not be accepting of the 'rationality' or coldly factual perception of the good sense of suicide. The healthy psyche sees nothing rational in suicide and having the rational steps pointed out may well take them on board and accept them as a logical sequence, but finds it allowable to question some of the original premisses. I think it's better that you should talk about these things when you are not depressed because you are more likely to acknowledge that you are not just yourself an island, and that as a connected human being others' views on the matter (coming not from irrationality but from a different rationality) could just be worth consideration.

During this exchange it was hard to know whether to be irritated by her perceptiveness and prescriptiveness, or just intellectually interested, pleased she understood, or what. Is my self-image so far from my behaviour, so 'invented'? Whose clarity of vision counts? Or is it a case of you are right and I am right? And as usual, does it matter?

March 1999. Weather is lovely, typical Cape summer transiting to autumn. Suddenly out of nowhere the bloody wheel again. The internal climate escapes its usual match to the external. The moors are calm and sunlit, not black and stormy like my 3rd-rate Heathcliff imitation, the

sun shines indifferently when I'm immersed in near-terminal gloom, and when I'm not. Why do internal and external weathers fail so perversely to correspond, create a comforting symmetry? (Silly romantic question: a sign of my inner state that I can ask it without blushing.)

It's that time of year again, and I'm not the only one; my equally nutty friend L sends me an e-mail message:

hello dear, how are you? strange days indeed. hysterically hot, & all sorts of strange undercurrents, overcurrents & middlecurrents. i've just been lying low like an overweight alligator in shallow waters. woke up on wednesday with a strange tiredness in my bones, a kind of weak tiredness [...] d'you ever get that? Have just been trying to sleep it off. it's an old familiar heaviness that hopefully will soon fuck off whence it came.

my sleep pattern is somewhat screwed at the moment, & recently I've been experiencing occasional bouts of nocturnal buzzing (what is **that** about?) Last weekend i got up at 4 a.m. on Sunday & started writing emails. Have you noticed any strangeries with your neurochemicals? Perhaps it's an autumn-winter thing?

Black mind, white sun. Nature pursues its secret business without me. The natural world's indifference, its unconnectedness even when you're part of it, is never clearer than in the depths of a depression. Greenery, flowers, bees, butterflies, birds, sunlight become a personal affront. I am separated from them by a vitreous wall, as I am from wife, friends, music, life.

But autumn is coming after all, this peak of southern summer is a decline, the days shorten quickly, and my brain has decided to note *that*, not the beautiful things, which in any case are corrupted by my mood. The lovely little black butterflies that are Cape Town's icon of late summer fail to charm and signal the comfort of natural cyclicity, but wear mourning. Eggs pour from ovipositors, copulation thrives, making only new food for next year's predators. Cold drifts through the last heat of summer, and I think idly or perhaps not of my neatly stacked boxes of amitryptaline tablets, my dosage notes, my anti-emetic-and-whisky adjuvant package, first aid for Last Things. I fall asleep dreading the morning's waking half-dreams, my heartbeat is irregular, maybe I should give up my blood-pressure meds too, just to help things along?

The intricate loveliness of nature dissolves in the crunching of mandibles. Half-mantises blindly detumesce as their lovers eat their heads, paralysed spiders, now unsalvageable, have been dropped at random by depleted wasps. The depressed eye is elegantly selective.

I'd forgotten prophylaxis in the silly neglect of euthymia. Double your Effexor says Dr P, at least through April. I did, managing at first only to increase the side-effects and provoke black hypomanias, but then again the veil lifted, and there was 'I' after all, or one of me anyhow, under all that crap.

Late April, 1999. The weather holds. The breath that kills blows nearly in vain. I function, fail to lose my temper, my anxiety for the moment has decreased to almost nothing. For the first time in ages, on 150 mg Effexor daily, I manage to have stable mood for weeks at a time. Let's say

double Effexor plus yet more whisky. It's not the water of life for nothing:²³ for all its potential destructiveness it stabilises life and me.

18 July 1999. Whoops. Here we go again, this time up and upper. Past week or so unable to sleep much beyond 5, get up full of racing and not always coherent ideas, work through till lunch, feeling of pressure and anxiety that I can't get things down fast enough. Nervous and ticcy, slightly bad-tempered, but creative, able to spend ridiculous amounts of time sitting in front of the computer till my knees lock. Edit over and over, titivate, reorder, read three books at a time. Start writing verse, parodies of 18th-century heroic couplets, Yeats, Middle English poetry, Latin biblical pastiches including a psalm-fragment on my ulcer. Too many postings to Internet discussion groups on all kinds of subjects, including the size of lions' testicles and whether Neanderthals' burying their people and cats' burying their shit are symbolically equivalent.

Dr P had told me to start cutting down on my double Effexor dose, which I duly did, but I'm still wired and loquacious, twitchy but sort of happy in a nervy way. I feel as if I have some kind of movement disorder, everything I do is exaggerated, jerky, I delete things by accident, hit the wrong icon with the mouse, knock over glasses, spill painkillers all over the counter opening the container just a bit too grandiosely and fast, fast. Bang into walls turning corners, half-miss doorways. Drink during the day to keep my hypomania up, at night to help the sleeping pills get it down. Not comfortable, but better than 'normal', because I'm me again.

At times like this I think well any amount of shit is worth it, if only the slightly ambiguous good times were predictable, and if only I don't disperse into utter silliness, or fall off the edge into whichever of my private abysses is waiting. Today my obverse image is abysses not fans.

22 July 1999. Still manic, but now also depressed and irritable. Sleep completely fucked, one morning up at 4, the next at 8, next at 5. Engage in scholarly debates on Internet groups, satiric and disapproving, manage to conjure up cheerfulness with colleagues at university and while teaching, but come home and kick the dog (figuratively: it's my wife who gets it). Will no one rid me of this turbulent me?

Epilogue

Not long ago I was chatting with L; she's very like me in some ways, cycling from one or another absurd manic state to the blackest funk. We were, typically for gossiping depressive friends, exchanging symptoms—reminded me of a bunch of old ladies in a sauna showing off their hysterectomy scars. Got onto the subject of Dr Johnson's 'black dog', and the next day she sent me this priceless e-mail message:

²³ *Whisky* was borrowed in the 18th century from the Scots Gaelic *uisgebeatha*, literally 'water of life'.

i was thinking about our black dog conversation. when you're feeling ok do you ever find yourself reluctant to admit to feeling ok? i have this theory that articulating ok sends an instant message to god's beeper. so there they all are: j.c., apostles, varieties of angel & god, hanging out, shooting pool, drinking a few beers, & the beeper goes. god says, 'oh, L just told someone that she's feeling ok, boys, we better nip that in the bud.' and god pokes L with a celestial cattle-prod. & the ok is gone.

possibly, just possibly I'm a little paranoid; depression is a familiar animal, joy, contentment & the other major food groups are anxiety-provoking because of their tenuousness. oh, i suppose i should say 'apparent tenuousness'. which brings to mind a woody allen quote i find rather pleasing: what if everything is an illusion and nothing exists? in that case, i definitely overpaid for my carpet.

What an exquisite summary. Everything is encapsulated here: the watchfulness, the pessimism, the fear of 'punishment' for good moods, and above all the need—whatever other kinds of therapy you're undergoing—for a crazy and nihilistic sense of humour. I sometimes think the only things that keep me at all sane are irony, the struggle for detachment, and an anarchic and tasteless sense of the amusing. Here is the narrator of Thomas Bernhard's wonderful novel *Alte Meister*,²⁴ quoting one of the great depressives in literature, the bitter old man Reger:

You have the power to make the world into a caricature, he said, the highest spiritual power, he said, which is the one power necessary for survival. In the end we can only control what we find laughable, only if we find the world and life laughable can we progress, there's no other, no better method, he said.

It's not always that easy, and for many—sadly—impossible. But it does help keep a good number of us alive and functional, if less pleasantly for ourselves and others than might be.

²⁴ 1988: 121-2. Bernhard's odd, repetitious style is almost impossible to render effectively in English, but this is pretty accurate. I'm indebted to Niki Ritt for giving me *Alte Meister* as a present, and telling me that if I read it I would understand Austria and Austrians. But as an unexpected spinoff, the book and its stylistic excesses also helped me understand myself in some interesting new ways. See chapter 7 for more on this remarkable book and some comment on depression as a style and rhetorical stance *vis-à-vis* the self and others.

2 THE FACES OF MOOD DISORDER

The Mind lives on the Heart
 Like any Parasite—
 If that is full of Meat
 The Mind is fat.

But if the Heart omit
 Emaciate the Wit—
 The Aliment of it
 So absolute

—Emily Dickinson, c. 1876

Mood disorders

What we now call depression has been recognized since the beginning of clinical description. It was described by Hippocrates of Cos in the 4th century BC, and was known from late antiquity virtually to the present as ‘melancholia’. Originally, as the name suggests, it was thought to stem from an excess of ‘black bile’ (one of the four ‘humours’ supposed to make up the human body—the others are blood, phlegm and yellow bile). The relation between mania and depression was also recognized, and the concept of bipolar illness, in a descriptive framework not unlike the modern one, has been current since the 1st century AD, though it went out of fashion, at least in America, for the first half of the 20th century.¹

How do you know if you’re depressed? Or manic? To those who are as some of us like to say ‘members of the Club’ this question sounds as fatuous as ‘How do you know if you have diarrhoea?’ You look at the empirical signs, that’s all. But far more people can recognise diarrhoea than can recognise depression, and often the seriously depressed may walk around for ages (or forever) without knowing what is wrong with them, or indeed if anything really is, if it is not just the case that life is like that. This holds to a lesser degree for mania and hypomania: these are harder to recognise (and more often denied by people going through them than depression), but once you know they are obvious.

Somewhat helpfully, the Internet is infested with nearly identical little quizzes that purport to tell you if you are depressed or manic, and usually give you a numerical score and a brief assessment; if your numbers are at the wrong end they tell you to see a mental health professional (often ‘urgently’). These quizzes are mostly not bad; I have looked at all I can find, and seen little that is eccentric or misleading. If you wonder whether you are depressed (or manic for that matter), it is not a bad idea to take one, just to get an idea of what to look for. And such quizzes, as a form of elementary education, can be of assistance to friends and family: if you

¹ See the historical surveys in Goodwin & Jamison 1990: chapter 3, Solomon 2002: chapter VIII.

think X might be depressed or manic, this is a simple way to get some elementary information. Just take the quiz as it were ‘for’ X giving what you think would be his answers. The comments on your score will tell you perhaps that you are ‘moderately depressed’, or ‘severely manic’, and will stress that this is not a diagnosis but an indicator, and if you score at all manic or depressed you should ‘see a health professional’.²

The terms ‘mood disorder’ and ‘affective disorder/illness’ tend to be used interchangeably, though some psychiatrists have tried to make distinctions. So McHugh & Slavney (1998: 72) take ‘affect’ as the more general category, and ‘mood’ as more specific.

Affect is a broad term encompassing moods, emotions, motivations, and such feelings as pleasure, confidence, depression, and discouragement. Attempts to replace it with other words are usually unsatisfactory. *Mood* describes a relatively persistent, dominating affect; *emotions* are more fleeting affective events; and *feeling* is a word confused with bodily sensation. The term *affect* is needed because it encompasses this whole sphere of psychic life.

This unfortunately does not quite match non-technical usage; *mood*, *moodswing*, *moody*, *moodiness*, etc. are everyday terms, and not only do not necessarily connote, but may be opposed to, ‘relatively persistent’. The background to technical usage is always ordinary speech; echoes remain, no matter how much professionals try to purge their language of the vernacular taint. ‘Affective’ may be more ‘technical’, but ‘mood’ is two syllables shorter (not a trivial advantage), and so commonly used in psychiatry that I have no hesitation keeping it. The colloquial sense of shifting and non-persistence is worth retaining anyhow, since at least some disorders are characterised precisely not by persistence but by evanescence and instability. Others of course are characterised by persistence, but ‘mood’ will do for both.

In terms of what the victim feels or outsiders observe, ‘moods’ in the psychiatric sense are relatively long-lasting or recurrent, highly enhanced, ‘abnormal’ (even ‘crazy’) versions of certain commonplace emotional states. The psychiatric concept of mood can be best understood by analogy with everyday usage: one is in a good or a bad mood, and moods include contentment, happiness, euphoria, sadness, anxiety, irritability, anger, fear.

‘Disorder’ means long-term dysregulation. Not only are particular moods so intense that they appear ‘inappropriate’ to observers, or irrelevant to the situation at hand; the deviations from ‘normality’ may last longer (but not necessarily: intensity rather than duration may signal the abnormality). The *DSM-IV* (*Diagnostic and statistical manual of mental disorders*, 1994, which is supposed to be the bible of psychiatric diagnosis) defines a major depressive episode as a depressed state lasting at least two weeks.³ If you are ‘normal’, imagine being profoundly

² Just Google ‘depression quiz’ or ‘mania quiz’. Most of these are rather crude, but they may be at least indicative.

³ This is a faulty definition: would some of the states described in chapter 1 not count as ‘major depression’ if they lasted only 11 days, or even 2? Duration is a less useful criterion than the *DSM* makes it out to be. I will often use their classifications, since they are fairly well known and count as part of a ‘formal diagnosis’, but I

depressed for two weeks, and you can get some idea. Of course everybody has mood changes—spells of irritability, anger, sadness, euphoria. Mood disorder proper is distinct from these everyday shifts, as hayfever is from a few sneezes. It has also been claimed to be distinct from relatively short-term responses to what the jargon calls ‘life events’, like losing a parent or partner or a beloved pet, being made redundant, finding out you have cancer. The relation between the mood-alterations provoked by these occurrences and long-term pathologies seems self-evident, but some psychiatrists distinguish between ‘reactive’ depression provoked by a psychic assault like the above and ‘endogenous’ depression—apparently unprovoked, coming from inside. There is no empirical support for this distinction,⁴ and mainstream psychiatry treats both the same way. The difference is like that between arthritis brought on by injury and arthritis brought on by years: anti-inflammatories will help both, and clinically they may be identical. If there is any distinction at all, it would seem to be that strictly ‘traumatic’ or ‘reactive’ episodes of depression, with no underlying depressive illness, may be self-limiting and non-recurring. But they can look and feel just the same, and will respond to the same treatment as chronic or recurrent depression.⁵

The mood-changes experienced by people with no psychiatric illness can be ranked along scales like depressed-to-elated, happy-to-angry, calm-to-anxious, etc. These are often triggered by external experiences (traumas, good luck). They can also reflect internal physiological states, as in the disarrangements of mood that may accompany menstruation (PMS), where the bloodstream’s altered hormonal landscape triggers changes in brain chemistry. Or they may just occur with no apparent reason at all (e.g. ‘getting up on the wrong side of the bed’).

Chapter 1 was not a general (or fully generaliseable) description of depression. It was simply part of the story of one person’s experience of a particular kind called ‘bipolar disorder’, traditionally and I think better ‘manic depression’; as distinct from a purely depressive (‘unipolar’) disorder, where the alternations (if any) are between simple nondepressed and depressed mood. From a classificatory point of view, mood is best thought of not as a collection of discrete states, but rather a *range* or as psychiatrists say ‘spectrum’ of possible states, with ‘centres’ that might be ranked along a scale, say from the ‘lowest’ to the ‘highest’, and named.

will take them with a few pinches of salt. For research purposes they are useful; clinically there is room for doubt. I would rather trust the intuitions of an experienced psychiatrist than the rigid and formulaic definitions of the *DSM*. They are coarse and according to many psychiatrists I have talked to not that helpful. They tell me their patients just don’t appear in there, but are richer and more complex.

⁴ See Maj 2008. Some also distinguish between ‘psychological’ depression and depression brought on by ‘biological’ causes. The arguments in chapters 3-5 will show that this is meaningless. Mind and mood are as ‘biological’ as digestion and sex.

⁵ This raises the possibility (which some may find abhorrent) that even grief and bereavement may be treated as medical conditions. My own experience suggests they can and should. Having suffered both depression and bereavement I am not entirely sure I could even tell the difference except for some of what you think about, and antidepressants help relieve both. See Kendler *et al.* 2008. For an interesting model showing grief and major depression as regions on a ‘spectrum’ see Pies 2008.

Names and definitions tend to make us feel secure; this can sometimes be dangerous, or at best unproductive and circular (see the final section of this chapter). But if we do not take names too seriously, we can use them safely as rough pointers. This is about as good as words get. So I have not defined ‘mood’ in a respectable scientific way. Let us just say that *mood is the brain’s interpretation in the language of psychology of certain aspects of its own electrochemical and structural landscape.*

But even if mood itself is an elusive notion, a sensible ranking—say from the worst possible mania to the worst possible depression—is not only possible but useful. One good model is the Fieve Mood Scale (Fieve 1997). This is designed for self-rating rather than medical diagnosis, but includes most of the basic signs and terminology given in the standard psychiatric sources. This scale conveniently takes zero as notional ‘normal’ mood, and assigns positive numbers to the ‘up’ states from normal to manic, and negative ones in a parallel way for ‘down’ states from normal to depressed. Depressed states are on the negative end of the scale, manic-depressives jump from positive to negative and back or vice versa, and manic states are at the positive end.⁶ This gives a scalar representation of the mood spectrum, and makes explicit the problematic boundaries separating the ‘normal’, the merely uncomfortable, and the horrible and dangerous. Here is a modified version of the scale, listing typical signs:⁷

The Fieve Mood Scale (Modified)

+5. *Manic Psychosis.*⁸ Incoherent, violent or paranoid, delusions and/or hallucinations; high risk-taking, some depressive features.

+4. *Mania.* Elated, hyperactive, can’t stop talking, little need for sleep, distractable, racing uncontrolled thoughts; irritability and anger, rage when provoked, poor judgement, sexual and financial risk-taking.

+3. *Hypomania.* Energetic, expansive, full of ideas, speech ‘pressured’, rapid, punning and odd associations common; enhanced libido, sexual and financial risk-taking but less than in mania,

⁶ ‘Mixed states’ also commonly occur, which have both manic and depressive components; I will return to them later as they are a subtle and complex matter.

⁷ See Fieve 1997: Appendix A for the original version. I have added a number of criteria that in my experience are typical of the named and numbered states. The Fieve-Dunner mood scale (Fieve, 228) is similar, but does not name the states in the standard way and is more clinically oriented. There are many other scales and inventories and questionnaires that psychiatrists use in establishing patient profiles and the state of a mood disorder, but the one I give here seems most useful for this book, and introduces the main terminology.

⁸ ‘Psychosis’ implies the presence of hallucinations or delusions, or general disconnection from what is sometimes called ‘consensual reality’. A hallucination is a false or erroneous sensory experience; a delusion is a false belief. Joan of Arc’s ‘voices’ were hallucinations; her conviction that she was divinely called to be the saviour of France was a delusion

compromised judgement, irritability, less than normal need for sleep. Overall less intense than mania proper, and patient can still function relatively normally at work and socially, often better and more creatively than when not hypomanic.

+2. *Hyperthymia*. Energetic, productive, successful, sociable, sometimes irritable; a ‘high’, but neither pathological nor distressing.

+1. Top of normal. Just a little better than usual.

0. *Normal*. No depression, mania, compromised social or professional function, no explicit awareness of mood, or evidence of anything unusual to outsiders.

-1. Bottom of normal.

-2. *Hypothymia*. Low-keyed, perhaps withdrawn, functioning normally otherwise; efficient, conscientious, perhaps obsessive or compulsive behaviours, perfectionism. In Fieve’s words, ‘doing okay’.

-3. *Dythymia*. Mildly depressed, loss of interest or pleasure in ordinary activities (‘anhedonia’), loss of energy; poor self-image; disturbed eating or sleeping; lowered libido; general pessimism.

-4. *Major Depression*. Depressed mood, anhedonia, disturbed eating and/or sleep patterns; hopelessness and feelings of despair and unfocussed psychic pain, guilt, uselessness, fraudulence;⁹ quasi-paranoid feelings of having injured people when one has done nothing at all; difficulty concentrating or making decisions; uncontrolled weeping; low energy, sometimes to the point of stupor; suicidal feelings; anxiety or panic; lowered or absent libido.

-5. *Delusional Psychotic Depression*. Delusions and/or hallucinations in addition to symptoms of major depression; total withdrawal or extreme agitation.

Not all the signs associated with a given spectrum region may be present at the same time; e.g. there may not be depressive features in a manic psychotic state, there may not be financial or sexual risk-taking in hypomania. These are catch-all but not irresponsible categories. They provide good general pictures of the states associated with the terminology, and I will use the terms for reference throughout. States +1, +2 and -1, -2 are so close to normal variations of mood

⁹ These feelings of being wicked or fraudulent appear to be episodes of delusional thinking driven by underlying mood; they are called ‘secondary delusions’. In chapter 1 I describe my feelings of fraudulence and being ‘finished’; a depressed friend of mine wrote me and told me that she was ‘a piece of shit, a monster’; another wrote ‘I’m a fucking wreck, used goods, broken, are you tired of me’.

that they do not seem very useful categories. Certainly very few clinicians would try and treat them.

Fieve calls both +5 and -5 ‘medical emergencies’; patients typically require hospitalization, voluntarily or (perhaps more often) not.¹⁰ Suicide is certainly possible in both, though not exclusively: suicides or suicidal attempts may occur in moments of extreme clarity and relatively elevated or neutral mood after a major up- or downswing, as a kind of prophylactic against further occurrences (‘rational suicide’), or just because the easing of the depression restores enough energy for the sufferer to act.

Useful as the scale is, like any human classification it is imperfect. It seems to have an excessive numerical precision, but this can be bypassed by remembering that it is really a spectrum or cline, and there are no sharp ‘boundaries’. Assigning an absolute value like ‘+4’ to a mood-state is a pseudo-quantitative convention, not the recognition of a piece of ‘reality’. ‘A state of +4’ is not the same kind of object as a lump in a breast. Numbering can also be a bit of a cheat in more subtle cases, rather like trying to decide whether a picture is ‘real art’ or ‘merely illustration’; the real world is rarely unequivocal. The scale may also be over-subtle (at least for a lay victim); my own experience suggests that while +5 and -5 are pretty clear, the areas on both scales clustering around 3-4 are a fudge or continuum, and one may be vacillatingly depressed or hypomanic for a long time, over a range appropriately conceived as a kind of ‘average’ of these states. I would be inclined to view +3 as ‘mild hypomania’, rather than giving it a special name and number, and the dysthymia/depression boundary is obscure and shifty. In my experience both ‘hypothymia’ and ‘dysthymia’ could characterise a remission in an episode of major depression, or a prelude to one. Or, to capture the inner feeling of these states in a very personal but I think accurate way, dysthymia is a deep sadness or blankness or inertia you can live with, while major depression is that plus overwhelming pain you cannot live with (but have to most of the time).

The normal usage of most victims¹¹ of mood disorders (which counts, since we tend to talk about ourselves a lot), classifies more coarsely; so do some psychiatrists. Anything from -3 down is ‘depressed’, and anything from +3 up is ‘manic’; the space in between seems to me to cover the usual mood-range of the undisordered. Except when I am referring to formal diagnostic criteria I will use the terms in this looser way.

Applying this scale to myself, I am somewhere between hypothymic and dysthymic a good deal of the time, but can work and function socially. When I can’t, I have crossed over to the dysthymia/major depression borderline. But my work and social performance (as writer,

¹⁰ Whether the risk of suicide is *always* an ‘emergency’ in the sense that it entitles others to take your life into their hands is a complex question: perhaps to most people the answer is self-evident, but others (mainly the potentially suicidal?) may find it difficult and equivocal. See chapter 8.

¹¹ I use the word ‘victim’ deliberately; I do not like the kind of politically correct language that characterises anybody who lives through a lethal disease as a ‘survivor’. That is too optimistic for us, and uninformative: if we are still alive of course we are survivors, but that does not give us any moral *cachet* or touch of heroism. We are victims or sufferers or casualties; that is the kind of language that seems appropriate.

lecturer, raconteur, drinking companion) in those states is routine, to me at least often boring. It is only when I reach the higher positive numbers that I really get interesting ideas, and begin to think and talk and write freely and creatively (to some observers crazily, to the more charitable, eccentrically). As I move a bit higher, though, there may be danger signs like silly lapses of judgement, suggesting a shift too high toward manic; it is in these states that I have to be very careful in the presence of attractive women, and try to control the urge to nonstop, often offensive talking. In other words, I seem to be at my best—for the purposes most important to me—when I am unstable and verging on or just over the pathological side of the positive. At times I go over the top, and then can become dysfunctional. So far I do not think I have ever had a true full-blown manic psychosis, but there is still time. I do have a tendency to hallucinate, but I seem so far always to recognise hallucinations for what they are, and not attribute outside-world ‘reality’ to them; I may have come closer to psychotic depression, judging from the episodes of paranoia described in chapter 1. I have also now begun to have frequent non-euphoric ‘mixed’ hypomanias, in which I am unhappy and dark but energised and creative; I will return below to this kind of quite common mood state, which a purely linear scale cannot represent.

Types of Mood Disorder: The *DSM* model

Not every depressive *episode* prompts the diagnosis ‘a case of depressive illness’. The physical-illness parallel shows up some interesting properties of psychiatric diagnosis as well. It is not that the latter is so different that it requires totally different methods; but rather that it is extremely subtle and complicated, and we know less about the compromised organ—the brain—than most others. And many standard diagnostic techniques, like blood-work and scans, are simply not very helpful, because we do not yet know precisely what to look for.¹²

Say a patient comes to the doctor in an obvious state of severe depression: lowered mood, feelings of guilt and worthlessness, inability to concentrate or to enjoy anything, suicidal impulses. It would seem that strictly speaking, depressive disorder proper cannot be diagnosed on this evidence alone, though the *state* certainly looks depressive. Certain other information is needed: how long has the patient been like this? Is this the first episode? Are there any likely immediate chemical causes, like alcohol, cocaine or amphetamine use? Is the patient taking opiates or tranquillisers? Are there signs of reduced thyroid function? Many conditions that are not depression proper can mimic it: psychoactive drugs and endocrine disorders can have a significant effect on mood, as can many cancers.

So the doctor—ideally—would be interested not only in the current episode, but other aspects of the patient’s history (including family history) and present life, habits and general

¹² There are now intriguing developments in brain-imaging, showing metabolic and anatomical correlates to depression, and some interesting biochemical and immunological indicators. These are not yet clinically useful, though they do deepen our understanding of the condition. See chapter 4 for discussion.

health. Except in cases of desperate misery where it would be smarter to treat first and wait for the lab results, it would seem to be counterproductive to start immediately with antidepressants when the primary problem is a thyroid disorder. But we do not live in an ideal world with limitless time for taking histories and limitless money for doctors' time, and this is not the way it usually happens. Certainly not with GPs, who are the usual first resort. There isn't the time, and these are not the protocols medical students learn, Nobody thought of looking at my thyroid functions till over a decade into my full-blown disease. Experienced doctors just saw mood disorder and treated it.¹³ And they were right and I am not chastising them.

So the standard formal diagnosis of mood disorders is based on a rather mechanical checklist, which generates diagnoses. The doctor recognises symptom-clusters or 'episodes', and then on the basis of their time-scales, degree if any of cycling, presence of psychosis, etc. groups the episodes into a 'disorder'. So we begin with a classification of mood *episodes*, which 'serve as the building blocks for the disorder diagnoses'. There are three main types:¹⁴

Major Depressive Episode: 'Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure'. The symptoms are: (1) 'depressed mood most of the day, nearly every day'; (2) 'markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day'; (3) 'significant weight loss when not dieting or weight gain [...] or decrease or increase in appetite nearly every day'; (4) 'insomnia or hypersomnia [excessive sleep] nearly every day'; (5) psychomotor agitation or retardation [speed-change in thinking and/or movement] nearly every day'; (6) 'fatigue or loss of energy nearly every day'; (7) 'feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day'. (8) 'diminished ability to think or concentrate [...] nearly every day'; (9) 'recurrent thoughts of death [...], recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan'. On my first visit to the doctor, only categories (3) and (5) were missing, so I was quite easy to identify, with a good seven out of nine, two above the minimum.¹⁵

¹³It turned out that my thyroid was not a major problem, but that is not the point.

¹⁴ Any unattributed quotations are from *Diagnostic criteria from DSM-IV* 161-197. This is a condensed guide to the full volume, but will serve here. As with the Fieve scale above, I have partly quoted and partly paraphrased and condensed. Some readers may be disturbed by the plethora of apparently subjective and judgmental terms like 'excessive' or 'inappropriate'. Assessment of these requires diagnostic tact and sensitivity; the purpose is not to set up rigid 'norms' for human behaviour, but rather to define these as polar notions, adjusted for the personality of the patient. Not all doctors are good at this, and the less well the doctor knows the patient (and the less sensitive or more rushed the doctor is), the greater the danger of taking symptoms the patient has adjusted to pretty well as pathological. The criteria are or should be simply pointers for the diagnostician, not absolutes: there are degrees of dysfunction, and the idea is not (at least in original intention) to promote a *Brave New World* or 1984 imposed 'normality'.

¹⁵The fact that I felt the need to write this sentence suggests on reflection that there may be a fundamental

Manic episode: A ‘distinct period of abnormally and persistently elevated, expansive, or irritable mood, lasting at least 1 week (or any duration if hospitalization is necessary)’.¹⁶ At least three of the following symptoms must have persisted (a fourth is needed if the mood is ‘only irritable’): (1) ‘inflated self-esteem or grandiosity’; (2) markedly decreased need for sleep; (3) unusual talkativeness or ‘pressure to keep talking’; (4) ‘flight of ideas or subjective experience that thoughts are racing’; (5) ‘distractibility’; (6) increased ‘goal-directed activity’ (social or sexual), psychomotor agitation; (7) ‘excessive involvement in pleasurable activities that have a high potential for painful consequences’.

Mixed episode: The criteria for both major depressive and manic episodes (except for duration) are met ‘nearly every day during at least a 1-week period’. As with the two others, the disturbance is severe enough to make the patient socially or occupationally dysfunctional, or to necessitate hospitalization, or has psychotic features. These episodes raise serious questions of diagnosis and theory. They may be described by patients and doctors as ‘black manias’ or ‘agitated depressions’. Many psychiatrists are unhappy with the *DSM* definition; it is unobvious and does not match the kind of mixtures one actually finds (e.g. ‘black hypomanias’, where the requirement that genuine mania be present excludes one major type of bipolar disorder: so-called Bipolar II, which does not allow for full mania except under special circumstances: see below.) In the most recent thinking, the central property of mixed states is that ‘depressed mood predominates but activation and agitation are present’ (Schneck 2009: 127). This is less restrictive, and encompasses a much richer range of patients, what the doctor really sees.

Under the *DSM* definition my mixed states, which are commoner nowadays than any other kind, would not be so classified—though that is what my very experienced psychiatrist calls them—because they are ‘merely’ hypomanic and I can work and socialise during them. But they are undoubtedly agitated, energised, often creative and have depressive affect. So what else could they be but ‘mixed’?

These are the three most extreme and disabling episode types, as it were the negative and positive poles of the Fieve scale (or a mixture). The in-between states are treated by the *DSM-IV* in the appropriate manner: thus a *hypomanic* episode is rather like a weaker version of a manic one, but has to persist only 4 days, ‘is associated with an unequivocal change in functioning that is uncharacteristic of the person when not symptomatic’, is not severe enough to require hospitalization, does not cause social or occupational dysfunction, and there is no psychosis. As mentioned above, however, there is no provision for a ‘hypo-mixed’ state, which is needed.

The *DSM* specifications for duration have been criticized by many clinicians. In

silliness to the numerical criteria. Or that I am scientifically shallow, of course.

¹⁶ This is a rather odd criterion, since different doctors might hospitalise under different conditions, some might be more reluctant than others, etc. A doctor’s contingent choice hardly counts as a rational diagnostic sign.

particular, the mania and hypomania specifier ‘most of the day, nearly every day’. This simply does not fit with the fact that manic episodes often only last a few hours rather than days. Nor is it consistent with the frequent high function of the hypomanic; at least I am capable of doing difficult and careful academic work during a hypomania (either euphoric or black—and so are others I know). And I have certainly had undoubted major depressive and hypomanic episodes that lasted no longer than a couple of hours or at most a day or so.

The Disorders

The episodes are organized into larger sequences called ‘disorders’. These fall into a number of types, depending on severity, recurrence, persistence and degree of cycling between states. They can be further characterized as chronic or not, having catatonic features (immobility or stupor), or melancholic ones (lack of reactivity, anorexia). As with other disorders, there is a set of ‘severity/psychotic/remission specifiers’, which define the status of the disease at a particular point. For instance, the severity scale runs from Mild to Moderate to Severe; the psychotic scale is two-valued, Without Psychotic Features and With, and the remission scale includes Partial and Full Remission. This provides a fair-sized set of diagnostic criteria.. Whether the average GP or even psychiatrist uses the *DSM* criteria formally when diagnosing and treating depression is probably answerable only by taking a poll. I would think that GPs sensitive to and interested in their patients’ psychic states, and who work in systems liberal or well enough financed to allow them to talk to them for more than five minutes, know the criteria and use them at least informally. The story may be different with psychiatrists, who typically have more time for assessment and more specialised training and experience. But clinically (or even for highly experienced patients with no special training) one generally ‘just knows’ what depression looks like. I and many of my depressed friends have often sent other, undiagnosed friends to doctors, and none of us seems to have been wrong yet.

The whole classificatory system takes up nearly 30 pages just in the *DSM* digest; I will discuss only the major and least subtle types. Anyone interested in the details should go to the full *DSM-IV*, read some psychiatry textbooks, and compare the *DSM* system with that in the *International Classification of Diseases (ICD-10)*.¹⁷ I now assume all the *DSM* hedges: symptoms are not better accounted for by drugs or other disorders, either physical in the conventional sense or psychiatric.¹⁸

¹⁷ For a detailed summary and study of the *ICD* criteria, see Sartorius 1991.

¹⁸ The exclusion of other psychiatric disorders is important, as both manic and depressive episodes can occur in schizophrenia and other psychotic conditions. Some neurological disorders that are ‘physical’ in the crude sense, e.g. some forms of epilepsy, Parkinsonism, and various senile dementias may also present with affective symptoms. But these can often be treated successfully as if they were ‘ordinary’ mood disorders..

The Unipolar Disorders

(i) *Major Depressive Disorder, Single Episode*: As the name suggests, this is simply defined by a major depressive episode not better accounted for by other disorders or stressors, and there has never been a manic episode.

(ii) *Major Depressive Disorder, Recurrent*: There have been two or more separate major depressive episodes, and no manic episodes—though manic- or hypomanic-like episodes may be ‘allowed’ if they are the result of drugs: either extracurricular indulgences of the patient, or prescribed. Some antidepressants for instance can trigger (hypo)manic episodes (so-called ‘manic switching’), though this is commoner in the bipolar disorders discussed below.

(iii) *Dysthymic Disorder*:¹⁹ A rather milder disorder, like major depression but showing fewer of the specifying symptoms. The basic characterization is ‘depressed mood for most of the day, for more days than not’, but it requires only a minimum of two symptoms out of the group of (1) poor appetite or overeating, (2) insomnia or hypersomnia, (3) low energy or fatigue, (4) low self-esteem, (5) poor concentration or difficulty making decisions, and (6) feelings of hopelessness. There must not have been any major depressive episodes, and a proper narrative reconstruction ought to distinguish it from Major Depression in partial remission .

There are also other depressive disorders, informatively called ‘Depressive Disorder Not Otherwise Specified’: these include premenstrual dysphoric disorder (the famous PMS), minor depressive disorder, postpsychotic depression from schizophrenia, and finally ‘situations in which the clinician has concluded that a depressive disorder is present but is unable to determine whether it is primary, due to a general medical condition, or substance induced’. The last one, like dysthymia, indicates the importance of sensitive and intelligent history-taking and good communication between doctor and patient. It is not that the ‘real name’ of the disease matters because it is some kind of magical talisman (though many patients—and doctors—feel happier with ‘officially named’ diseases); rather that a sound judgement of severity and type of illness has implications for treatment, which in turn has implications for prognosis. The involuted and almost painful detail of the *DSM*’s schematics may just serve a useful purpose: if properly applied it can help prevent putting sticking-plasters on gunshot wounds or stitching mosquito bites.

The Bipolar (Manic-Depressive) Disorders

This complex group is defined by the alternation of opposed mood states, at roughly opposite ends

¹⁹ Dysthymia and certain other *DSM* ‘disorders’ might be better interpreted as signs of predisposing ‘temperaments’ which increase vulnerability to disorders, or *formes frustes* ‘fragmentary or not fully realised forms’ of more serious disorders: this position is taken convincingly for dysthymia in Kramer 1994.

of the scale. There are two conventional types, called Bipolar I and Bipolar II. I am not fully convinced that this distinction is all that useful; but the official difference is that in Bipolar I there are fewer episodes, with longer interludes, perhaps a long history of major depression with only one manic episode. Bipolar II is defined as ‘recurrent major depressive episodes with hypomanic episodes’, but without true manias, thus the less serious of the two. This would appear to leave a common kind of bipolar disorder like mine—with both major depressive and occasional manic episodes as well as hypomanias and mixed episodes—in a classificatory limbo. But there is the specifier ‘with rapid cycling’, which involves ‘at least four episodes of a mood disturbance in the previous 12 months that meet criteria for a Major Depressive, Manic, Mixed, or Hypomanic Episode’.²⁰ Since this can be applied to either Bipolar I or Bipolar II, I can now name myself, if with an amateur’s uncertainty: I appear to be a fully paid-up Bipolar II with rapid cycling. There is a simpler and more elegant definition of Bipolar II in Jamison (1993: 74): ‘major depressive illness with a history of hypomania’. This really says all that has to be said.

Ronald Fieve (1997) has suggested an extra classification, in which the ‘abnormal’ up episodes are actually the best part of the person’s life, where he is most creative, original, and functional. This enhancement of function, even if pathological, defines the person’s role in life or professional competence. He calls this Bipolar II_B, and gives it the epithet ‘the beneficial illness’.²¹ Among his examples of apparent victims (or beneficiaries) of this disorder are a number of extremely gifted and famous people: Handel, Rossini, van Gogh, Hemingway, Abraham Lincoln, Theodore Roosevelt, Winston Churchill, and Ted Turner (of CNN). Many other major figures have been retrodiagnosed (correctly, I think) by various authors as at least bipolar if not necessarily II_B. Mozart, Schumann, Hugo Wolf, Keats, Shelley, Byron, Gerard Manley Hopkins, T.E. Lawrence, Virginia Woolf, Robert Lowell, and Sylvia Plath.²² Whether a new classification is needed is arguable; but the idea is not only appealing but surely right. Many manic-depressives (I am one) feel truly alive only in their elevated (or mixed hypomanic) states, and essentially dysfunctional (though to different degrees and in quite different ways) both when ‘normal’ and when depressed. This raises the possibility that it could be a good thing for not all aspects of a bipolar (or for that matter unipolar) illness to be ‘cured’ or even treated at all; this is an important and neglected issue, which I will return to in chapter 5.

Anxiety frequently co-occurs with either (hypo)manic or depressive episodes. This may reflect a comorbid Generalized Anxiety Disorder; or the recurrent anxiety may be, as many

²⁰This seems rather conservative for the adjective ‘rapid’: I can do more than four in a *day*.

²¹ I was intrigued by this idea since it seems in general to fit my own condition: though the beneficial effects of my hypomanias can slip off into instability and disruption at times. Still, I wouldn’t trade them for all the lithium in the world, so maybe I have a *B* attached to my Bipolar Disorder a good deal of the time, with occasional (and unpredictable) lapses.

²²The classic study of the relationship between creativity and bipolar disorder is Kay Jamison’s *Touched with fire* (1993). This is a moving, exquisitely written and formidably well researched study, and nobody with an interest in either mind or art should miss it.

psychiatrists (including mine) think, a symptom of the underlying depression. It is interesting that many antidepressants are also anxiolytic, and many clinicians choose to treat anxiety with them, even when there is no obvious depression present (see Carey *et al.* 2008). Depression is a complex disease (or complex of diseases), and this is made worse by its frequent comorbidity with other disorders. (I have two friends who are both schizophrenic and depressed, one unipolar and the other bipolar.) Unfortunately a patient does not have to have just one disorder at a time, or have to be typical. It is of course nice to be typical, even typically mad, because it makes you easier to treat: doctors cut their teeth on the typical.

A most ingenious paradox: polarity, cyclicity and mixed states

I noted earlier that many psychiatrists find the *DSM* categories problematic. They lack specificity and/or subtlety, are often apparently arbitrary, are poor predictors of the course of illness, and provide no indications for treatment. But there are more serious conceptual difficulties. The characterization of mood on the Fieve scale is strictly linear: either you are on one end or on the other. The *DSM* criteria are similar: unipolar and bipolar disorder are distinguished, and mania and depression are opposite ends of a single scale. Yet as we saw, the *DSM*, self-contradictorily, also recognises an important category of ‘mixed states’. The issue is geometrical to begin with: if ‘up’ and ‘down’ are polar opposites on one scale, how can you have both simultaneously? Maybe there is something wrong with the idea of a purely linear scale?

In their classic book on bipolar disorder, Goodwin & Jamison (1990) suggest a radical revision of the unipolar/bipolar relation. They distinguish sharply between the conceptual categories ‘polarity’ (the opposition between the top and bottom of a mood scale) and ‘cyclicity’ or recurrence. They also suggest that depression and (hypo)mania may be best conceived not as points on the same linear scale, but as two separate but related spectra; this allows an individual to be positioned independently on both. Hence mixed states are no longer paradoxical but expected, falling out naturally from the categories provided by the theory. As they say (1990:78), ‘it is best to consider the depressive spectrum and the manic spectrum as independent and interacting in a variety of combinations and permutations’. Polarity then is not purely scalar, as on the Fieve or *DSM* interpretations, but much more complex and subtle. This does not by any means make linear scales useless; but it does limit their applicability and provides a much more densely textured and intricate picture of the disorder. The problem had in fact been noted by Emil Kraepelin (1921), in the first major work to define bipolar illness as a distinct clinical entity; but like many insights of this extraordinary psychiatric observer and theorist it took a long time to be fully appreciated (as it still is not in the *DSM* framework):

We observe also clinical “mixed forms,” in which the phenomena of mania and melancholia are combined [...] so that states arise, which indeed are composed of the same morbid symptoms as these, but cannot without coercion be classified either with the one or with the other [...] Further, it was seen that the mixed states, even when they appeared not as interpolations but as independent attacks, behaved with regard to their course and issue quite similarly to the usual forms, and lastly, that they might in the same morbid course

simply take the place of the other attacks especially after a somewhat long duration of the malady.²³

Goodwin & Jamison pick up Kraepelin's last point, and note some interesting properties of certain unipolar disorders that make them much less distinct from bipolar disorders than the usual classifications claim. This is his observation that for some patients mixed states may play the same 'role' (in terms of occupying 'slots' for recurrences) as either manic or depressive episodes.²⁴ The notion of specific recurrence patterns, with localised 'slots' that may be 'occupied' by any one of three episode types, of any degree of intensity, grows naturally from the proposed independence of polarity and cyclicity. That is, there is a 'cycloid' or 'cyclothymic' temperament, whose primary characteristic is simply recurrent moodswings; and this cyclicity may be largely independent of the actual *content* of the moodswings. Indeed, certain unipolar patients appear to show very high frequency of depressive episodes, no manias or hypomanias, have family histories of bipolar disorder, and, most interestingly, respond to lithium in much the same way as bipolar patients. This supports the claim that cyclicity and polarity are independent, and both have to be considered in diagnosis and treatment.²⁵

So the unipolar/bipolar distinction in its usual rigid form may not be as helpful as has been thought. If we distinguish carefully between polarity (itself a complex concept) and cyclicity, it is clear that the latter is more a matter of time-course and recurrence than the particular mood(s) involved. In some cases recurrent major depression with 'normal' or 'euthymic' mood as a baseline may be closer to manic depression than to non-recurrent or very infrequently recurrent major depression. And in many bipolar patients most of the 'up' states may be mixed, as seems to have become the case with me in the past year or so.

Mixed states are so common and so complex that suggestions have been made to diagnose in a quite different way from the rather coarse *DSM* criteria, and to recognise a spectrum of bipolar types, including not only pure depression and pure mania, but also mixed depression, mixed hypomania and mixed mania, and utilise a much more subtle range of treatment regimens, including mood stabilisers and antipsychotics in cases where before only antidepressants would have been used (Schneck2009).

So my rather shaky *DSM* characterisation of my state is not the only one: my condition is more complex than they allow, it is recognised in respectable professional literature, and I do not even represent a particularly rare species. Endangered, yes, but only individually: there are still plenty of us around.

²³ Quoted from Goodwin & Jamison 1990: 54.

²⁴ Similar ideas had been proposed in the 19th century for episodes of psychosis in epileptics, which were known as 'epileptic equivalents'.

²⁵ For discussion and references see Goodwin & Jamison 1990: chapter 4, especially 80ff.

Seasonality

Affective episodes are often associated with seasonal changes. For some authorities seasonal mood changes constitute a separate disorder, Seasonal Affective Disorder (SAD); for the *DSM*, seasonality is a ‘specifier’, i.e. a further diagnostic feature like rapid cycling or presence or absence of psychosis. The journal entries in chapter 1 show a seasonal element in my changes of mood: autumn and early spring depression, later spring and summer hypomania—though neither is fully regular. Most depressives show at least some tendency toward seasonal mood change, and perhaps the majority do not have more episodes of this kind than of the untriggered, season-independent ones, so do not fit the *DSM* criteria for SAD, which require that. So how much use is this specifier, defined so tightly? Perhaps it would be worthwhile to think of restricting the term SAD to those whose disorders are (almost) purely seasonally triggered, and assume that anybody with a recurrent mood disorder is likely to show some seasonality.²⁶

Strong mood seasonality is most common in high northern latitudes, where the dark cold winter/bright warm summer opposition is clearest, and appears to diminish toward the equator, as seasonality itself diminishes. The same sort of pattern is probable below the equator (though the research concentrates on the northern hemisphere); in my own case the subequatorial latitude of Cape Town (34°S) is ‘Mediterranean’, and sufficiently seasonal to provoke episodes at transitions.

Goodwin & Jamison (1990: 243-4) analyse 20 or so studies of the relation of suicide to season, and find that in the northern hemisphere the peak seems to be around May, with a smaller secondary peak in October; the few southern hemisphere studies show a similar pattern, with women more responsive to the autumn peak. They note that the seasonal influence appears to be somewhat reduced in industrialised countries (perhaps because of the high prevalence of artificial lighting and central heating, ‘which may insulate patients from risk factors for affective episodes’). One peculiarity in the picture is Iceland, which in a series of detailed studies shows no evidence of seasonality in mood change. Since this is quite unlike what I have observed (anecdotally) in frequent visits to Finland, and what many Finns themselves are highly conscious of, it may be due to some genetic oddity in Iceland’s extraordinarily homogeneous and genetically isolated population.²⁷

Some non-psychiatric ‘clinical’ portraits

Half a millennium ago: the diagnosis of depression as sin

The faces of mood disorder are not all modern faces. A superb early description of depression

²⁶ See Whybrow 1987: chapter 5 for a case-history of an almost purely seasonal depressive illness.

²⁷ Anon. 2000a. The latitude of Reykjavík is about 64°N; that of Helsinki 60°N.

appears not in a medical work, but in a 14th-century treatise on penitence, under the heading of a ‘sin’. In the Catholic tradition, there is a special set known as the Seven Deadly Sins; Pride, Anger, Envy, Lust, Avarice, Gluttony, and one usually translated as Sloth. This last is quite different from what that word normally suggests. Though slothful behaviour is involved, the profile of this sin, *Accidia* (or *Acedia*) in Latin, is very like a well-observed description of depressive illness. It also contains as a subtype the worst of all possible transgressions: the Sin Against the Holy Ghost, despair. It is not beyond imagining that some of the moral disgust and stigma with which depression is viewed by so many lay people is at least in part a hangover of this early Catholic tradition, with later Calvinist additions.²⁸

At the end of Chaucer’s *Canterbury Tales* (c. 1380) comes the *Parson’s Tale*. It is not a ‘tale’ at all, but a long prose homily (technically a penitential manual) on the Seven Deadly Sins. What is interesting for our purposes is the psychological portrait of the person guilty of (or as we would say now, I hope, suffering from) *accidia*. The framework is theological and passionately judgmental, the theological mindset alien (at least to non-Catholics like me); but the description itself is remarkably accurate, and clearly based on sophisticated observation, probably the fruits of a long tradition of sacramental confession and intensive pastoral counselling. I give the relevant passages in the original Middle English, with translations in footnotes.²⁹

Accidia is defined this way:

Thanne is Accidie the angwissch of troubled herte [...] Certes, this is a dampnable synne, for it dooth wrong to Jesu Christ, in as much as it bynymeth the service that men oghte doon to Christ with diligence [...] But Accidie doth no swich diligence. He dooth alle thyng with anoy, and with wrawnesse, slaknesse, and excusacioun, and with ydelnesse and unlust [...]³⁰

One of the early consequences is sloth, which is abominable, and can best, in the author’s judgement, be treated by breaking the state of inaction and doing things in the world:

Now comth Slouthe, that wol nat suffre noon hardnesse ne no penaunce. For soothly, Slouthe is so tendre and so delicaat [...] Agayns this roten-herted synne of Accidie and Slouthe sholde men

²⁸ Whybrow 1987: chapter 5 has a fine case-study of a contemporary theologian who interprets his own depression as a state of sin. The most detailed historical treatment is probably Jackson 1986. See also the summary of historical evidence from the Greeks to the present in Goodwin & Jamison, chapter 3.

²⁹ Text from Benson 1987. I have made one or two silent alterations of mistranscriptions. This treatise represents a tradition which would have been familiar to literate Christians of the time. The essential theological psychology goes back to the works of the 4th-century writer John Cassian. I like this particular example because it is in (a form of) English, and particularly vivid.

³⁰ ‘Accidia is the anguish of a troubled heart [...] This is surely a damnable sin, for it does wrong to Jesus Christ, since it takes away the service that men ought to do with diligence to Christ [...] But Accidia does no such diligence. (The man with) Accidia does everything with vexation, and with fretfulness, slackness and excuses, and idly and with lack of pleasure’.

exercise hemself to doon good werkes, and manly and vertuously cacchen corage wel to doon [...] ³¹

Sloth appears to be part of a sequence; if you let it go long enough, it leads on to despair:

Now comth wanhope, that is despeir of the mercy of God, that comth somtyme of to much outrageous sorwe, and somtyme of to much drede, ymagyning that he hath doon so much synne that it wol not availen hym, though he wolde repenten hym and forsake synne [...] this horrible synne is so perilous that he that is despeired, there nys no felonye and no synne that he douteth for to do, as shewed wel by Judas. ³²

This (theological and psychological) despair is accompanied by behavioural anomalies, including sluggishness and hypersomnia:

Thanne comth the synne that men clepen *tarditas*, as whan a man is laterde or tariynge er he wol turne to God, and certes that is a greet folie. He is lyke to hym that falleth in the dyche and wol nat rise ... ³³

Thanne cometh sompnolence, that is sloggy slombrynge, that maketh a man be hevvy and dul in body and in soule [...] ³⁴

From this point, things get worse; the end is complete dysregulation of affect and loss of the will to live:

Thanne comth a manere cooldnesse, that freseth al the herte of a man [...] thanne wexeth he slough and slombry, and soone wol be wrooth, and soone is enclyned to hate and to envye. Thenne comth the synne of worldly sorwe, swich as is cleped *tristicia*, that sleeth man [...] For certes, swich sorwe werketh to the deeth of the soule and of the body also; for thereof comth that a man is anoyed of his owene lif. Wherefore swich sorwe shorteth ful ofte the lif of man, er that his tyme be come by wey of kynde. ³⁵

³¹ ‘Now comes Sloth, that will allow no tribulation or suffering. For truly, Sloth is so tender and delicate [...] Against this rotten-hearted sin of Accidia and Sloth men should exercise themselves to do good works, and in a manly and virtuous manner acquire the courage to do well [...]’

³² ‘Now comes wanhope, that is despair of God’s mercy, that comes sometimes from too much outrageous sorrow, or excessive fear, imagining that he has done so much sin that repentance and forsaking of sin will not avail him [...] This horrible sin is so perilous that he that is in despair is not afraid to commit any felony or sin, as shown by Judas’. (The reference is to Judas’ hanging himself in despair after the betrayal of Jesus; the theme of suicide returns shortly.)

³³ ‘Then comes the sin that men call *tarditas*, as when a man is delayed or tarries before he will turn to God, and certainly that is a great folly. He is like one that falls in the ditch and will not rise [...]’

³⁴ ‘Then comes somnolence, that is sluggish slumbering, that makes a man heavy and dull in body and soul [...]’.

³⁵ ‘Then comes a kind of coldness, that freezes a man’s whole heart [...] then he grows sluggish and sleepy, and soon will be wrathful, and soon is inclined to hate and to envy. Then comes the sin of worldly sorrow, which is called *tristicia*, which slays a man [...] For surely such sorrow conduces to the death of the soul and also of the body; for it makes a man oppressed by his own life. Wherefore such sorrow shortens the life of man, before the

The point of this extensive observation is that major depression and its consequences were well known to the medieval church, but were not interpreted as illness—indeed, there was no framework for such an interpretation.³⁶ They were sins, but considered expiable (= curable) through complex rituals of confession, contrition and penance in an environment where the sacramental was psychologically real (priest as therapist, rather than today’s therapist as priest). But the diagnosis is coherent, and the symptoms grouped together under this one capital sin would now be seen as a syndrome characteristic of a particular mood disorder. This suggests how important the framework in which you view a human condition can be: the concept ‘mental disorder’ was simply not available in the theological psychology of the late Middle Ages—though there was a sophisticated knowledge of such entities.

Two literary portraits

Sensitive and well-trained doctors will generally be able to recognise depression. But what about ordinary people, the victims of the illness and their relatives and friends? What signs would identify someone who is depressed but might not know it, and suggest that medical attention might be in order? Are there physical postures and appearances, ways of speaking, thinking, patterns of activity (or the lack of it) that mark mood-disordered states? In this section I look at depression from the outside rather than the inside: what does a doctor see when a person with depression presents, and what might any outside observer see or hear?

A talented novelist can create compelling and accurate pictures of psychiatric disorder. For the lay person these may be more informative than clinical descriptions, since they are embedded in often passionate descriptions of whole lives and human interactions. One of the best I know is the depiction of the depressive priest Walter in Gail Godwin’s superb novel, *Father Melancholy’s daughter* (1991). In these quotations, the narrator is an adult remembering herself as a very bright and precocious little girl of six:

Daddy got depressed and had “depressions.” Sometimes they were just little, temporary ones, brought on by a disarranged day, or an unexpected surfacing of a parishioner’s ill will, or somebody criticizing him [...] Or, occasionally, just an item on the evening news would stoke Daddy’s melancholy certainty, always burning on its low blue pilot light, that the world was sinking daily to new depths of ignorance and brutality. These short-term flare-ups, or “mini-blues” as Ruth called them, trying to tease him out of them, usually lasted no longer than an hour or two, or maybe overnight. But both she and I worked very hard to forestall them, the way you treat a minor infection before it turns into something worse.

[...]

Daddy’s other depressions, the big ones that could last for months, came on suddenly and often for

natural end comes’.

³⁶ Mania and delusional psychosis on the other hand were generally interpreted not as sin, but as demonic possession, treatable by exorcism. In later periods they came to be identified with witchcraft.

no apparent reason. He'd just put his head down in his hands at breakfast and murmur, "Ruth, I think it's starting again." And Ruth would say, "Let me call Doc McGruder and get a prescription, before it gets too bad." "No," he'd say, "let's wait. It seems I ought to be able to vanquish this thing myself." [...] "Let's give it another few days," he'd say, his normally rich and rolling voice already gone flat and dull [...] (33-5) [...]

He somehow got his sermons written, only he had to start on them Tuesdays instead of Fridays, and every word he wrote down was written without hope or pleasure, every sentence reexamined and found wanting. "This is all counterfeit," he would announce [...] Then he would sit down in one corner of the breakfast nook and hide his face in his hands [...]

Ruth [...] would go through Daddy's latest sermon while he sat with his face buried, waiting for the worst. But the worst never came. "But this is very good, Walter," she would say. "I don't believe you could write a bad sermon if you tried." "Oh, come on, Ruth. You don't have to flatter me. It's worse than bad. It's fraudulent. I felt nauseated the whole time I was typing it. Disgusted by my own presumption." (36)

Walter calls his depression 'the Black Curtain'. To his six-year old daughter's question about whether the Black Curtain will be coming back he replies:

"It's not a question of the Black Curtain *coming back*, sweetie. The Black Curtain's always there. It's a place where I *go*."

"But why do you go there? You know you don't enjoy it."

"I certainly don't [...] Oh no, I do not enjoy it [...] why *do* I go there: I'm not sure myself. It's more as if I *wander* there, or get led there [...] and suddenly, before I know it, I'm behind the curtain again and everything is dark. I can remember perfectly well what it was like, back in the world of light and meaning, but, you see, once I'm behind the curtain I can't find my way back. What's worse, I sometimes don't even want to. I don't have the energy to want. And when I do want to, I haven't the slightest clue how to proceed. I think to myself, if only I'd left a trail. You know, the way people make marks on trees to keep from getting lost in the forest? But somehow I never do. Or, by the time I think to do it, I've already lost the will to start [...]"

A 'literary' portrait does not have to be fictional. Consider for instance this passage in Sylvia Plath's semi-autobiographical novel *The bell jar* (1963). The narrator is describing her condition just before a visit to a doctor for assessment (122-3):

I was still wearing Betsy's white blouse and dirndl skirt. They drooped a bit now, as I hadn't washed them in my three weeks at home. The sweaty cotton gave off a sour but friendly smell.

I hadn't washed my hair for three weeks either.

I hadn't slept for seven nights.

My mother told me I must have slept, it was impossible not to sleep in all that time, but if I slept it was with my eyes wide open, for I had followed the green, luminous course of the second hand and the minute hand and the hour hand of the bedside clock through their circles and semi-circles, every night for seven nights, without missing a second, or a minute, or an hour.

The reason I hadn't washed my clothes or my hair was because it seemed so silly.

I saw the days of the year stretching ahead like a series of bright, white boxes, and separating one box from another was sleep, like a black shade. Only for me, the long perspective of shades that set off one box

from the next had suddenly snapped up, and I could see day after day glaring ahead of me like a white, broad, infinitely desolate avenue.

It seemed silly to wash one day when I would only have to wash again the next.

It made me tired just to think of it.

I wanted to do everything once and for all and be through with it.

This could be simply an exquisitely observed literary evocation of major depression; but it is simultaneously a personal record or something very close. Not only do we know a great deal about the details of Plath's life; we also have two extraordinary poetic witnesses to it. One is her own verse, particularly the mature work written between 1956 and her death by suicide in 1963; the other is the tribute and quasi-biography by her one-time husband, the late Ted Hughes (*The birthday letters*, 1998).³⁷ I am no fan of 'psychobiography', either of the recently or anciently dead; I am even less happy with the idea of using art as a 'clinical' record of an illness, or a mere map of an artist's psyche. I agree with Kay Jamison's judgement (1993: 258) that

there must be a serious concern about any attempt to reduce what is beautiful and original to a clinical syndrome, genetic flaw, or predictable temperament. It is frightening, and ultimately terribly boring, to think of anyone—certainly not only writers, artists and musicians—in this limited way.

But without descending to demeaning and prurient exploitation, I think the work of gifted writers can capture the feel of major psychiatric illness much more compellingly than non-literary prose—as indeed Jamison does, since she uses poetic illustrations for precisely this purpose. Plath and Hughes show the reader something special about what the depths of depression and the peaks of mania are like. They give us the sufferer's self-portrait, and the outsider's depiction, by an equally gifted but not manic depressive poet who shared the most harrowing part of her life.

I hesitated at first about including this material; Hughes is just a few years dead, and there is something so raw about the *Letters* that it seems almost in bad taste to use them for an 'ulterior' purpose. Hughes himself had a strong distaste for the scholarly Plath-industry that grew up after her death, which I share in part (at least its voyeurism). I have tried to avoid this; I merely want to exemplify the particularities of a disease with the most potent expressions I know, ones that moved and harrowed me both with a sense of familiarity, and of frustration with my own lack of skill and imagination.

Throughout her poems and Hughes' the familiar themes of manic depression surface. When he first meets her she is manic, with the glow and charisma so often associated with 'good' (hypo)mania ('St Botolph's', *BL* 15):³⁸

³⁷ And now a long-term if often rather diffuse picture is available in Plath's journals (Kulkil 2000).

³⁸ All quotations from Hughes 1998, abbreviated *BL*, and Hughes 1981, abbreviated *SP*.

Taller
 Than ever you were again [...]
 And the face—a tight ball of joy [...]
 And your eyes
 Squeezed in your face, a crush of diamonds,
 Incredibly bright, bright as a crush of tears
 That might have been tears of joy, a squeeze of joy.

But he also sees her as deeply wounded ('Your Paris' *BL*, 37):

What walked beside me was flayed,
 One walking wound that the air
 Coming against kept in a fever, wincing
 To agonies.

This echoes Plath's own self-perception ('Street song', *SP*, 35-6):

By a mad miracle I go intact
 Among the common rout
 Thronging sidewalk, street,

 And bickering shops;
 Nobody blinks a lid, gapes
 Or cries that this raw flesh
 Reeks of the butcher's cleaver [...]

She hides her real self, as so many of us do, trying to seem 'normal' ('Street song', *SP*):

To ward off, at all cost, suspicions
 Roused by thorned hands, feet, head,
 And that great wound
 Squandering red from the flayed side.

But she was not always successful in concealment, at least in her own vision of herself in a poem written three years later (1959: 'The ravaged face', *SP*, 115):

Outlandish as a circus, the ravaged face
 Parades the marketplace, lurid and stricken
 By some unutterable chagrin,
 Maudlin from leaky eye to swollen nose,
 Two pinlegs stagger underneath the mass.
 Grievously purpled, mouth skewered on a groan,
 Past keeping to the house, past all discretion—
 Myself, myself!—obscene, lugubrious.

This is the raging, wounded, crucified 'hot' side of depression; the other side is cold, bleak,

attenuated, as in 'Frog autumn' (1958: *SP*, 99):

Summer grows old, cold-blooded mother.
 The insects are scant, skinny.
 [...]

 The sun brightens tardily
 Among the pithless reeds. Flies fail us.
 The fen sickens.
 [...] Our folk thin
 Lamentably.

But glorious as some of her manias are, they are not all brilliant and seductive; they too have a dark side. Their relationship is constantly battered by seemingly unaccountable outbursts of rage and noncommunication (Hughes 'The rabbit catcher' *BL* 145)

What had I done? I had
 Somehow misunderstood. Inaccessible
 In your dybbuk fury, babies
 Hurling into the car, you drove [...]

Your Germanic scowl, edged like a helmet,
 Would not translate itself. I sat baffled.
 I was a fly outside on the window-pane
 Of my own domestic drama.

Her terrifying engagement with sleep forms another strand ('Dream Life', *BL* 141):

As if you descended in each night's sleep
 Into your father's grave
 You seemed afraid to look, or to remember next morning
 What you had seen. When you did remember
 Your dreams were of a sea clogged with corpses,
 Death-camp atrocities, mass amputations.

When, that is, she was lucky enough to sleep at all; here she portrays her own grim wakefulness ('Zoo Keeper's wife', *SP* 145):

I can stay awake all night, if need be—
 Cold as an eel, without eyelids.
 [...]

 Should I stir, I think this pink and purple plastic
 Guts bag would clack like a child's rattle,
 Old grievances jostling each other, so many loose teeth.

By 1962, the year before her suicide (and who in such a state would not welcome death?), there are what we can see by hindsight as prefigurations ('The birthday present', *SP*, 206ff):

I do not want much of a present, anyway, this year.
After all I am alive only by accident [...]

Only let down the veil, the veil, the veil.
If it were death

I would admire the deep gravity of it, its timeless eyes [...]

There would be a nobility then, there would be a birthday.
And the knife not carve, but enter

Pure and clean as the cry of a baby,
And the universe slide from my side.

On 5 February 1963, six days before her death, she wrote what can now be seen as a decision made into a poem, with the calm of the committed suicide ('Edge', *SP* 272):

The woman is perfected.
Her dead

Body wears the smile of accomplishment,
The illusion of a Greek necessity

Flows in the scrolls of her toga.
Her bare

Feet seem to be saying:
We have come so far, it is over.

After too long a turbulence, the cool perfection of death. Unnumbered others of us have experienced, at least in prospect, something like this near-classical augury of release; probably a quarter have gone through to resolution. Few if any have captured the whole experience, including the moments before the end, in language so evocative as Plath and Hughes, though Hughes realised the inevitable conclusion only in retrospect ('The 59th Bear' *BL*, 94):

I had not understood
How the death hurtling to and fro
Inside your head, had to alight somewhere
[...].

Reflections on signs of depression

Together with the disorderly story in chapter 1, these observations, from the 14th century to the present, should help give some life and human richness to the somewhat arid terminology of psychiatric discourse. Gail Godwin's description of the change in Walter's voice is particularly

acute. I have noticed in myself and others that depressive states are often accompanied by a loss of laryngeal muscle tone, which results in a flat and unresonant voice quality, very different from the speakers's usual voice. Volume levels are lower, and normal pitch-movement may be lost or greatly reduced. The general effect is a kind of feeble monotone, very like a Parkinson's patient. This may be (and often is) accompanied by a more general motor retardation or a postural collapse: movements may be slow and clumsy, or in extreme cases (as in Plath's description) movement itself becomes nearly impossible, and the patient loses even the desire to keep minimally clean. This is typical of severe depression; it shows also in Walter's feeling of being 'trapped' behind his curtain: he simply hasn't the energy to try to find his way out, and can only wait passively for it to lift. Note also the kinds of thoughts these characters show, not dissimilar to some of mine in chapter 1, but more clearly focussed. Nothing is worth doing, anything that eventually gets done is of poor quality. Walter and Ruth judge his sermons from completely different points of view, and Walter feels 'fraudulent'; at least his judgements are off centre compared to those of the non-depressed people who surround him, and all his thoughts are unshiftable and even assertively negative.

Up until the point I wrote this I had noticed such signs in myself and to some extent in others; but what I had never seen was the actual birth and flowering of a major depressive episode right in front of me, in my own house, with all its physical accompaniments. In 2007 I saw this for the first time, and felt able to describe the situation from the outside: what does one see as a depression descends on someone, what are the physical and mental symptoms and their linguistic correlates? My depressive friend K came over one day to show me something she had written; we had a few drinks, and were sitting together, both in quite 'normal' or neutral moods, at opposite ends of the couch in my sitting room (the couch is a little under six feet long), and I was reading what she had brought and we were discussing it, but not looking at each other, since I was looking down at the paper. Then she suddenly went silent, which is odd for her, and I turned and looked at her. She was another person. Her eyes, which are usually quite sparkly, had gone what I could best describe as opaque and she was weeping slightly, silently; her posture, which is usually straight (she's a tallish, angular, rather fit-looking girl) had collapsed in on itself, and she looked as if she had no muscle tone at all. Her face, which is usually very mobile, was like a Parkinsonian mask. I asked her (inanely) if she was OK and she said No. I had known for a couple of years that she is depressed and on meds, but I had never seen her in anything but good moods. I then asked her if I should leave her alone (which would have been my preference) but she said No.

Then she remarked that all the colours in the room had gone dim. It was like the verse of Thomas Nashe quoted in chapter 1: brightness literally fell from the air for her. I have experienced this hundreds of times when crashing. But I have only felt it in me; I had never *seen* what it looks like in another person at the critical moment. It is really rather terrifying. I am so used to managing states like this from the inside that I had never thought very deeply about what they look like, and had never had to engage with anybody in quite this condition. So I asked her if she wanted me just to keep her company and be silent, or if she wanted to talk. It was the latter, and we talked rather sporadically with long pauses for hours. I felt like a first-year psych student who

hadn't read the textbook yet, so I just followed my intuitions. It was harrowing—she is very bright and articulate and insightful, and a sharp observer of internal states, and I kept feeling that everything she said was a description of me at my worst. So I used that as a kind of peg to hang discourse on, and we shared awfulnesses, which seemed to make her feel a bit better. She kept apologising for being foolish and embarrassing me, and I kept telling her she didn't have to, that I knew perfectly well what it was all about, and so on. Then I asked her if she wanted to try going to sleep; the couch is long enough and I could just throw a duvet over her and let her sleep it off if she could. But she didn't want to. Then after some hours she suddenly said 'the colours are coming back', so I heaved a large sigh to myself, and just waited. And within about half an hour the worst had passed, and she was OK but a little shaky and muted.

I asked her during the long talk if collapses like this happened frequently; she said she thought maybe the meds were beginning to fail, as it was happening a little more often, though it had periodically during the 5 years she had been on the current drug. Nothing unusual about that, one often has breakthroughs during treatment with a drug that is actually working. Then I asked her if it ever happened in public before, and she said yes, even at parties. I asked her what she did in such cases and she said she found a room to hide in and rolled up into a ball.

A few months later, after reading this description, K sent me an e-mail in which she said that she was surprised, she had thought the episode had lasted only a few minutes rather than hours. It made me reflect on what can happen to mind and time. In a major depressive episode your time sense may vanish, because all you are conscious of is misery, and that is timeless. There is no flow, just stasis. I have often had the feeling in bad episodes that I was not in the world any more, rather in a kind of timeless, featureless hell, where notions like the flow of time were irrelevant or not even conceivable. Endless and therefore without temporal extension, if that does not sound too paradoxical.

The terms 'sign' and 'symptom' are usually distinguished in medical discourse: a sign is what the physician sees, a symptom is what the patient experiences. Since at this point we are looking at depression from the outside, as observers, we can think in terms of signs, the outward manifestations of what is going on inside (whether the sufferer is even aware of it, which is not always the case). Perhaps the most extreme example of the sign/symptom dichotomy is the type of depressive known as a 'somatiser' (literally somebody who 'embodies' his symptoms so that they appear to be purely physical: see López-Ibor 1991). Such patients may respond with indignation to the idea that they are depressed, as people so often do at the slightest hint of anything 'mental' (or worse, 'merely mental') being wrong with them.³⁹ Very often patients who

³⁹ The stigma attached to the 'psychosomatic' is a relic both of the Christian tradition making *Accidia* a sin, and Freudian and post-Freudian notions of 'hysteria' and 'neurosis'. People would rather have what they think of as 'real' illnesses, since according to the folk consensus bodily decrepitude is somehow more respectable than mental. Many people seem impervious to any explanation or demonstration that a 'mental' problem can produce perfectly ordinary physical disease, for example through the mediation of bodily systems that react to stress. There are also cultural determinants; depressives appear to somatise more often in some cultures than in others, and somatisation may even be the primary presentation. See Wolpert 1999: chapter 4.

later turn out to be depressed may present with such apparent irrelevancies as gastrointestinal symptoms or physical pains that appear to have no discoverable organic source, like headaches, muscular pain, backache. If depression is eventually diagnosed (not everybody who suffers from vague and untraceable pains of course is depressed), this looks rather like a special case of ‘referred pain’: that is, the brain problem is referred to somewhere else, via a complex system of messengers and channels.

Since depression is, as we will see, a disease of a system or set of systems tightly connected to each other and the whole body, many of its presentations (as in somatisations) will be visibly physical. Posture may be affected: there is a highly characteristic ‘depressive droop’. Motor retardation will often be accompanied by loss of muscle tone, with slack shoulders, as if the effort of keeping them level is too much, and a characteristic facial expression. The corners of the mouth turn down, the facial musculature sags, as if gravity is forcing the entire face downwards. I experience this myself at the beginning of a severe depressive episode; my face feels slack and immobile, a mask incapable of expression.⁴⁰ I even look different in the mirror when I shave in the morning (if I bother to). This is often accompanied by pallor. Experienced doctors are aware of this expression, and can spot it immediately—as can other depressives. In the irritable phases of depressive episodes there is often a characteristic ‘puritanical, disapproving’ tightening of the lips as a primary response to being addressed on any topic. Obsessive rubbing of the face, especially the forehead and eyes, is common, particularly when the patient is seated.

In chapter 1 I might have given the impression that depressive episodes are ‘all down’, and (hypo)manic ones ‘all up’; the discussion of mixed states above should disabuse the reader of that simple view. In fact depressive illness can be extraordinarily paradoxical in its mixture of presentations. Often a depression will present with irritability and bad temper and momentary (or even extended) explosiveness as primary signs. A person mired in an almost catatonic depression may respond with rage to the slightest annoyances, like the telephone ringing, some minor disarrangement of household routine, having to wait in a queue. The difference between this irritability accompanying depression and that of mania or hypomania is that it is usually transient (though at times, without transition to a manic or hypomanic state, the irritability and anger can last for a day or more), and the depression proper quickly returns.

The intricacies and possible interactions with ‘base-line’ temperament are horrendously complex, and have led to new kinds of classifications. Aside from the mixed bipolar states discussed earlier, some clinicians identify ‘depressive mania’ (dysphoric mood with rushing speech and increased activity), ‘agitated depression’ (low mood, pressured speech, increased activity), and ‘depression with flight of ideas’ (low mood, speeded-up thought, decreased activity). These could all probably come under the heading of mixed states. There are also

⁴⁰ On reflection there is something very Parkinsonian about depressive immobility; even facial expressions resemble the classical Parkinson’s ‘mask’—the slightly downturned mouth, the near-total lack of expression except for a rather blank stare, the immense difficulty of producing any expression at all. It may not be a coincidence that the same neurotransmitter whose lack produces Parkinsonism (dopamine) is also dysregulated in certain depressions, or that some antiparkinsonian drugs may have mania as a side-effect.

classifications based on the interaction of temperament (assumed to be a stable ‘trait’ rather than a changeable ‘state’) and mood disorder (Carver 1997):

1. Depressive Mania: Depressive temperament + mania
2. Dysphoric Mania: Irritable temperament + mania
3. Depressive Mixed State: Hyperthymic temperament + depression
4. Labile Mixed State: Cyclothymic temperament + depression.

The title of this chapter was not chosen lightly. Depressive disorder, unipolar, bipolar, mixed, has many faces, probably more than we can recognize yet, and some of them have not been seen clearly enough for us to draw them accurately. But we know enough to sketch the depressive universe, and fill in reasonable pictures of some of its inhabitants. Recognition or diagnosis of depression however, as of any other disease, is only the beginning; once you know what you have (more or less) the question is what to do about it. And here we open a Pandora’s Box, a can of many-splendoured worms, whatever mixture of grisly metaphor you like. Much of the rest of this book will be devoted to the experiential, theoretical, scientific, therapeutic and philosophical issues that arise from decisions about what sort of action ought to follow a diagnosis, and what in fact is being diagnosed. I have said nothing so far about causality or mechanism, treatment or about the disordered system itself. These issues will emerge in the following chapters.

This will require a number of what may seem to be diversions, into neuroanatomy and brain chemistry, the endocrine and immune systems, evolution and genetics, the philosophy of science and the philosophy of mind. But it is impossible to go any further in an intelligent way without getting into this morass. Medicine is (or ought to be) based on science, and without some basic neuroscience we will have no context for observation or explanation; and without some philosophy we will fail to understand the implications of what the neuroscience tells us.

Philosophical epilogue: the perils of precision

I’ve specialised in the treatment of schizophrenia for twenty years, and I still don’t know what it is.

—Cape Town psychiatrist

The naming of things

This topic may seem somewhat off my main track, but it is central to major issues in diagnosis and therapy. The discussion is at first sight more about the philosophy of science than the diagnosis and description of depression, but this is only apparent. In any case the issues have already been raised implicitly, and I add some further discussion here for those interested in a more explicit treatment. Besides, these topics obsess me, and I am not one to forego the pleasure of indulging my obsessions.

As I suggested earlier in discussing the *DSM*, there is a kind of magic in names. The

‘proper’ names of things are so important that in some religious traditions there is a magical significance in the name(s) of the deity; in orthodox Judaism the name of God cannot be uttered in its proper form outside of ritual contexts, but must be given in paraphrase or substitution, often with the word ‘name’ added to it to show that it is a magical token by virtue of its naming. The commonest form of the name of God in secular mention rather than ritual use of a Jewish prayer is *Ado-shem*, literally ‘Lord-name’ (*-shem* is a form of the root *shm* ‘call, name’). God is often in fact referred to simply as *Ha-shem* ‘the name’. There is a general assumption that names either have or grant a special kind of reality: if you know something’s ‘true’ name you have power over it. And contrariwise, having a name for something often carries with it the conviction that the name must refer to something real—otherwise it wouldn’t *have* a name.⁴¹

This onomastic mysticism is not merely the province of the primitive, half-educated or naive; something similar underlies much scientific classification. Since ancient times there have been two contrary views of what human classifications (of natural objects, diseases, etc.) represent. One is called ‘nominalist’: our classifications are simply naming-systems that reflect our current needs, and do not necessarily correspond (at least in detail) to anything ‘out there’ in the real world. More technically, they are not isomorphic to the reality they purport to model. The contrary view, reflected most extremely in name magic, is ‘realist’ or ‘essentialist’. Its dominant form is the Platonic (and later Aristotelian) view that classificatory categories refer to ‘real essences’: the world is organised into discrete categories, and the scientist’s task, invoking Plato’s famous metaphor, is to ‘carve nature at its joints’. The ‘joints’ are assumed to be real things in nature, and our job is to find them.

The joints separate ‘natural kinds’. Each one occupies a unique pigeonhole, with no crossing of borders, no overlaps. If X and Y are natural kinds, then a given object must be either an X or a Y: there is no in-between or fuzzy choice, there are no clines in nature (Aristotle’s ‘principle of the excluded middle’). This view invokes two categories of being, form and matter. Form defines the ‘essence’ of a category; any individual example is a (more or less imperfect) manifestation in matter of that ideal form. An individual, besides being assigned to a natural kind on the basis of its underlying essence, may also have ‘accidental’ or non-defining properties. So for instance if the essence of Man is rationality, this is a real formal ‘property’, and ‘the rational animal’ is a ‘real definition’. But in addition to real properties there are also ‘accidents’. Man may also be defined as ‘the featherless biped’, but this is merely a ‘nominal definition’ (the sets of rational animals and featherless bipeds happen, contingently, to intersect). To clarify the ‘essence’ vs. ‘accident’ distinction, a one-legged man is still a man, and a kangaroo or a plucked chicken is not.

⁴¹ In the early 1990s, a ‘Witchcraft Conference’ was held in South Africa’s Northern Province, one of the poorest and most rural. There had been an outbreak of ‘witchcraft-related’ murders, including the burning alive of suspected witches. The courts trying these cases were western courts, and actions that took place in traditional tribal societies were being heard before magistrates working under Roman-Dutch law. One of the judges, when challenged on the matter of the existence of witches, remarked that they occurred in Shakespeare’s *Macbeth*; this meant that there must have been witches in Elizabethan England, so why not in 20th-century South Africa?

But what if nature is really more like a dish of rice pudding? Can it then have proper joints? This is parallel to a problem that has been exercising evolutionary biologists recently: the validity of the concept ‘species’, once thought to be the indispensable classificatory foundation of biology. Are species really ‘individuals’, or are they merely the accidental by-products of sexual reproduction? There are certainly organisms to which the concept does not really seem to apply: there are no ‘species’ of bacteria in the sense that there are species of birds or mammals.⁴²

Perhaps the most famous attack on Aristotelian essentialism is by the 17th-century English philosopher John Locke (*Essay on human understanding*, 1690, III.vi). Locke denies that categories are sharp-edged, and sees the world as a continuum rather than a set of discrete essences:

There are some brutes, that seem to have as much Knowledge and Reason, as some that are called Men [...] and so on till we come to the lowest and the most inorganical parts of Matter, we shall find everywhere, that the several Species are linked together, and differ but in almost insensible degrees.

Under this interpretation, classificatory decisions are ultimately just that: arbitrary or conventional stipulations about where to draw lines, not ‘recognition’ of real essences. Definitions therefore are always nominal. In the words of the philosopher Michael Ruse, we define things ‘by their agreement, or disagreement, with the complex idea’ that a given technical term stands for. He characterises the difference between the Aristotelian and Lockean approaches as ‘the objective approach, versus the subjective [...] The approach which *finds* natural kinds, and the approach which *makes* them’ (1993: 101).

This is not just a pedantic excursion; the problem of essentialism lies at the heart of psychiatric diagnosis. It should be clear by now that the *DSM* criteria are essentialist, as opposed to the more ambiguous and subtle categories discussed under the heading of mixed states and those listed at the end of the previous section. To put it another way, the *DSM* is category-driven, while other taxonomies may be theory- or observation-driven. This leads to a paradox: the *DSM* classification, intended as a clinical guide with the aim of producing uniformity of diagnosis, is actually more valuable as a research instrument than for its original purpose.⁴³ That is, if you are running a clinical trial of a drug for Bipolar II disorder, it is vital that all the subjects be ‘genuine’ Bipolar IIs, according to some prespecified criteria that investigators and readers of the final report will agree on and take to be significant. And the easiest and most convincing way to achieve this is an essentialist take on psychiatric disorders, so that ‘atypical’ subjects can be

⁴² For the argument that ‘species’ is not a fully respectable concept, see Smith & Szathmáry 1995: chapter 9. The inapplicability of the species concept to bacteria is discussed in Smith & Smith 1999.

⁴³ This is a fairly general problem in medical practice. One neurologist, in a discussion of ‘academic’ vs. ‘clinical’ medicine, told me that he has great difficulty in applying the results of clinical trials and classificatory schemes in his clinical work, because patients refuse to be statistical, but tend to be idiosyncratic. For him, statistical generalisations (recall that the *S* in *DSM* stands for ‘statistical’) tend at best to be heuristics: clinical diagnosis is probably as much ‘art’ as ‘science’.

excluded, producing clean and reliable statistics.

Of course the problem that this approach runs into, both in clinical practice and research, is the extreme complexity and variability of the human psyche. Clinical presentations may be as unique and variable as individual patients, and atypicality may be more typical than typicality—not compatible with hardline essentialism. This is particularly apparent in the emphasis on showing a particular number of signs out of a given cluster, and the time these symptoms have to last. Unfortunately, this can lead quite easily to *reductio ad absurdum*. For instance a Major Depressive Episode is supposed to last for two weeks; but there are episodes (I've had a good many) that meet all or most of the symptomatic criteria, but are much shorter. Am I to be diagnosed as say '*n* days short of Major Depression'? These problems are eventually picked up under rather poorly conceived and evasive headings like 'Not Otherwise Specified', or with special labels lower on the diagnostic hierarchy. But this may misconceive the nature of psychiatric illness. Given personal variability and people's unique and contingent life-stories, it may not be possible to use these criteria as anything more than rough indicators, rather than as 'real categories' in the world that can be given 'accurate' numerical values in a coding system (which automatically makes them 'real' in the name-magic sense). Sensitive and experienced clinicians (and researchers) are of course aware of these problems, and can circumvent them; but the classical 'memorise and regurgitate' mode of much medical teaching, and the diagnostic convenience of these essentialist pigeonholes, tend to elevate them to a greater importance than they really ought to have, and may lead less experienced clinicians to miss patients in need of help.⁴⁴

Disease, illness, disorder

The essentialist problem recurs at the most basic level of all: the decision as to whether a condition seen by a doctor is a treatable 'disease'. The tradition begun in the late 19th century by Emil Kraepelin, and continuing through the latest revision of the *DSM*, is 'universe-defining'; its concern is the classification of mental disorders (technically the production of a 'nosology'), and their grouping into coherent subclasses that make some sense of the protean conceptual wilderness of human behaviour. A look at the conditions included in successive editions of the *DSM* is instructive: certain 'mental disorders' in early editions are no longer part of this universe (e.g. homosexuality); and new ones have been added (e.g. Post-Traumatic Stress Disorder). Some of these decisions represent genuine accruals of new knowledge, and recognition of specific syndromes with repeating symptomatic profiles; others are not so much medical decisions proper, but reassessments based on social and ideological change. The identification of PTSD is an example of the first, the exclusion of homosexuality of the second. This is problematic for an essentialist universe: essences keep accruing and getting lost.

The apparent taxonomic luxuriance of the 'classifiers' led in the 1960s to a backlash, as

⁴⁴ For a useful discussion of these issues see McHugh & Slavney 1998: chapter 3.

radical as its target. The American psychiatrist Karl Menninger went so far as to claim, in a highly influential book (1963, quoted in Barondes 1999: 36), that

Perhaps there is only one class of mental illness—namely mental illness. We propose that all the names so solemnly applied to various classical forms and stages and aspects of mental illness in various individuals be discarded.

The consequences of this programme, if they had really been carried through and become the basis of psychiatric treatment, would have been deadly. There was an immense amount of detailed, intelligent observation and classificatory work done by 19th-century psychiatrists and neurologists, Kraepelin and his school, Freud, and others. In the light of this heritage, Menninger's judgement is conceptually equivalent to saying that 'perhaps there is only one kind of stomach disease—namely stomach disease'. In that case cancer of the stomach and ulcers are just 'stomach disease', and can be treated as a single entity. I am sure that a physician of Menninger's class would not have thought this way about 'physical' illness; the fact that he could treat mental disorders in this kind of philosophically high-handed fashion suggests that he himself suffered from a fairly serious case of dualism (see the following chapter for a definition and discussion).

The anti-classification movement of the 60s culminated in the bizarre 'anti-psychiatric psychiatry', one might call it, of Thomas Szasz. In a number of unfortunately rather influential works, Szasz carried the idea of there being only *one* kind of mental illness to its obvious conclusion: there's none at all. As he wrote (1961, quoted Barondes 1999: 37):

It is customary to define psychiatry as a medical specialty concerned with study, diagnosis, and treatment of mental illnesses. This is a worthless and misleading definition. Mental illness is a myth. Psychiatrists are not concerned with mental illnesses and their treatments. In actual practice they deal with personal, social and ethical problems in living.

This is not the whole of Szasz's position; he saw psychiatry with its stress on 'illness' and 'disease' as essentially a form of social control or oppression. This ideology is still unfortunately prevalent among some people today, and was bolstered by the Orwellian use of psychiatric facilities by the former Soviet Union. If there, why not here? But one could still, as with Menninger, see a danger: if conditions like the ones described in this book are merely 'personal, social and ethical problems in living', then the same description could be applied to sexually transmitted diseases or tuberculosis. There is a profound confusion here between certain accompanying and/or precipitating factors and a collection of symptoms, the 'condition itself'. I would not deny the possibility—in any country—of psychiatry being used as form of 'mind-control', for enforcing social norms. But this is not grounds for a blanket condemnation of the discipline, or an excuse, sanctifiable by Szasz's apparent humanitarianism, moral goodness, and/or political correctness, for incoherent and unscientific reasoning. His central claims—which like Menninger's, solve the terminological and conceptual problems by making the issue

vanish—would nowadays (I hope) not be taken seriously by any conscientious psychiatrist.

But even within the responsible psychiatric community there is still some odd, and I think ultimately vexatious, terminological debate, particularly on the question of whether a given syndrome does or does not represent a ‘disease’. Some psychiatrists make a fairly sharp distinction between ‘disease’ and ‘disorder’, and reserve the former term only for those conditions meeting particular criteria. For example, in the very widely accepted model exemplified by McHugh & Slavney (1998: chapter 4), something can be called a ‘disease’ proper only (a) if it is characterised by a ‘syndrome’, i.e. a cluster of specific symptoms that frequently co-occur; (b) if there is an identifiable neuropathology associated with it; and (c) if there is a known cause. In this framework a ‘toxic psychosis’ caused by alcohol abuse, with visible brain-damage, would be a ‘disease’, but the same syndrome in schizophrenia would not be. This is just playing with words—especially as many mood disorders associated with visible brain damage respond to the same kinds of drugs as those that have no such correlates.⁴⁵ I resort once more to my favourite rhetorical device, the *reductio ad absurdum*: if the argument is taken to its conclusion perhaps the majority of cancers would fail criterion (c), and would no longer be proper ‘diseases’. Perhaps ‘cell-replication disorders’? This debate is sterile, as debates about word-meaning almost invariably are. Words become more important as substantive issues become more tenuous. So I allow myself, throughout the book, to use the terms ‘disease’, ‘illness’, ‘sickness’ and ‘disorder’ more or less as synonyms.⁴⁶

⁴⁵ For example, patients with frontal lobe damage often show typical depressive symptoms, such as low mood, lack of drive and inability to complete planned actions. These symptoms can often be alleviated by drugs that activate the neurotransmitter dopamine, which is one of those involved in depression (see chapters 3-4). This would suggest at least a strong kinship between some syndromes resulting from mechanical damage and others where no ‘physical’ cause (in the sense of one that can be imaged) is apparent. For details see Gualtieri 1995. We will also see in chapter 4 that the right kind of neuropathology does occur in depression anyhow, even though it is not correct to separate the ‘mental’ or ‘behavioural’ from the ‘physical’.

⁴⁶ The issue of what a ‘disease’ is comes up as well in the context of the ‘Darwinian medicine’ movement, where symptoms or syndromes that can be shown to have evolutionary origins and perhaps some Darwinian advantage are removed from the category ‘disease’ in the strict sense. For a survey see Nesse & Williams 1995: chapter 14.

3 BRAIN, MIND AND BODY

The old [...] tradition, which is still in favour with many scholars [...] was based mainly on introspection. It considered mental events to be of a different nature than physical events. Yet it seems very hard to imagine how an immaterial mind could have arisen from a process of evolution by natural selection. Endowing the elementary particles that constitute matter with some kind of a psyche does not help much, and the conclusion is inescapable that mind is a product of brain organization in the same way that life is a product of molecular organization.

—François Jacob, *The possible and the actual* (1982)

The mind/body problem

[...]her pure, and eloquent blood
Spoke in her cheekes, and so distinctly wrought,
That one might almost say, her body thought

—John Donne, *The second Anniversarie* (1612)

Whatever one means by the term ‘mind’, it seems uncontroversial to say that depression is a disease of it—a ‘mental illness’.¹ What is controversial is the definition of ‘the mind’. Is it a separately existing non-material object, independent of the body? Or is it purely material, a part or function of the body (more narrowly of the brain)? It is obviously important, in a book about mental disorder, to take a position on this issue, and attempt some definition of what it is that the disease is located in, and therefore what steps might be most sensible for treating it.

This book, insofar as it deals with this and related issues, is set firmly within the paradigm of traditional Western reductionist science. I have only slight knowledge of other traditions; but I have sampled some, and made a deliberate choice because this is the approach I find attractive and convincing. This choice of course carries a set of biases; but they are respectable biases, those of contemporary neuroscience and biologically informed philosophy. I therefore have no hesitation about adopting them. So I take no account of alternative views, say Eastern or Christian (or religious of any sort), and exclude any concept that might be termed ‘spiritual’ or ‘metaphysical’ or having anything to do with ‘the soul’ or anything ‘immaterial’. Such a position in the treatment of mental phenomena may be unattractive or even perverse to many readers, so it requires some justifying argument. This chapter is mainly devoted to the kind of thinking that underlies the generally accepted view of mind among modern philosophers and neuroscientists, and a description of the machinery that the mind appears to be generated by or

¹Uncontroversial except to those who don’t ‘believe in’ mental illness, but consider it to be a misinterpretation of the results of society not being suitable for the so-called ‘mentally ill’ to cope with it, or a conspiracy foisted on us by Big Pharma, or an invention of those interested in subjecting others to ‘mind control’. I ignore such positions, and follow the conventional medical (and lay) consensus that there is such a thing. I know: I have one.

be part of.

Since antiquity, philosophers and scientists have been intrigued by mind. What is it, and where (if anywhere) is it? Thinkers divide into two main camps. The older and traditional one is the dualists, who think mind is something special, non-physical, and though in some way perhaps ‘resident in’ or ‘expressed through’ the brain, is independent of it, literally ‘meta-physical’. This picture of the mind has been sarcastically characterized by the English philosopher Gilbert Ryle (1984) as ‘the Ghost in the Machine’. Dualism is at the core of ‘folk psychology’, the commonsense if unreflecting view of more people than not. It underlies the widespread belief in a separate ‘soul’, ‘spirit’, or whatever is supposed by some to animate, and by some also to survive the death of, the body.

The other group, now the mainstream among philosophers and neuroscientists, is the non-dualists, often referred to also as monists, physicalists or materialists. Whatever their technical disagreements (and there are bound to be many in such a complex field), they all believe that in some sense or other the ‘mind’ *is* the brain, or that the brain’s activity (or the coordinated activity of the brain and the rest of the body) *is* the mind, and there is nobody else at home. This is a crucial issue, not only philosophically but medically. One’s position on it largely determines one’s construal of psychiatric illness, if not always one’s philosophy of treatment. Though many details of the emerging view are still unclear, recent work in neurobiology and philosophy appears to me to have shown that dualism is (or certainly ought to be) dead as a serious philosophical or scientific position.²

The modern version of this debate goes back to the 17th century, to Descartes. He distinguished between what he called *res cogitans* (‘thinking substance’ or mind) and *res extensa* (‘extended substance’ or matter).³ Descartes claimed an absolute and unbridgeable distinction between the two. *Res cogitans* is specific to humans: animals are merely clever machines, without mind or consciousness. But since our bodies are apparently controlled by our minds, there must be some interface where the two can meet. (Descartes thought it was the pineal body.) Cartesian dualism or ‘substance dualism’ and its children have been the source of enormous confusion and conceptual muddle, and are still a philosophical and medical plague.

How for instance, if the dualist claim is true, can there be ‘psychosomatic’ illness? If ‘mind’ is independent and non-material, how can it affect corporeal ‘matter’? Even more basically, how can this non-material whatever-it-is control the gross movements of the body?

² For a good picture of the non-dualist consensus see the (often quite different) treatments of the issue in Crick 1994, Dennett 1992, 1996, Cairns-Smith 1996, Pinker 1997, Damasio 1994, 2001. The most accessible of these are probably Pinker and Damasio; Dennett is difficult, subtle and technical, but well worth the effort. I do not want to give the impression that there is no serious philosophy still being done in the dualist mode: see Antonietti *et al.* 2008 for a series of essays criticising the anti-dualist position and advocating various forms of dualism.

³ *Discours de la méthode* (1637), *Meditationes de prima philosophia* (1641), *Principia philosophiae* (1644). English translations in Haldane & Ross 1967. For discussion, as part of the extended argument of what is perhaps the best available book on the history of concepts of mind, see Gregory 1984 [1993] : 463-8.

How does *intending* (whatever that means) to move your hand allow you to move it? Just saying it ‘does so’, mysteriously and in ways probably beyond our understanding, is not enough.⁴ Actually Descartes has a partial, though not very good solution. The nerves that activate muscles in humans, as in animals, are perfused by ‘animal spirit’, which is a kind of *res extensa*, operating mechanically, ‘tugging’ at nerves. It is only strictly voluntary movement (which by definition is possible solely for humans) that requires some way for the *res cogitans* to get in touch with the material nervous system, via the brain. But if there is any interaction between some hypothesised nonmaterial entity and the material body, it would as far as we know only be able to occur through the transfer of energy from the nonmaterial to the material. Since the nonmaterial by virtue of having no mass also has no energy, this would appear to violate the law of conservation of mass/energy, and therefore be impossible in terms of modern physics.⁵ I am not being anachronistic and criticising Descartes for not knowing modern physics; just noting that a now generally accepted property of nature probably makes dualism of his sort impossible.

A familiar demonstration of mind/body integration and mutual feedback, sufficient to make it pointless to distinguish the two, is the ‘placebo effect’. It is a well known (and still imperfectly understood) fact that a medication does not always have to be pharmacologically active to ‘work’. A placebo (Latin ‘I shall please’) is an inactive substance that nonetheless can have potent effects, provided that the person taking it does not know or believe that it is inactive, or on the contrary believes that it is active. Placebos are used as controls in testing medicines; in a standard clinical trial a new drug is tested against an inactive substance (e.g. an identical-looking sugar pill). No subject knows whether he is getting the real drug or the placebo. (In a properly designed ‘double-blind’ trial, neither do the investigators: they only find out which patients have received the active drug and which the placebo after the results have been tabulated.) But typically a good percentage of subjects receiving the placebo experience the effects the drug is supposed to have. So if a new antidepressant is being tested, the patients will be told that this is a trial for antidepressant effect, and sometimes as many as 30% of the placebo-controls will respond, even though the drug itself (*qua* drug) is clearly not doing anything. There are even ‘placebo side-effects’ (technically called *nocebo*, Latin ‘I shall harm’): if the trial population is warned that the new drug may cause nausea, a proportion of subjects may become nauseated.

But there are more striking indications of mind/body unity or inseparability—what might be called ‘metaphorical pathologies’. These seem to have a symbolic dimension; complex

⁴ Some philosophers, known in the trade as the ‘New Mysterians’, would rather not have such questions answered at all. They not only believe that mind cannot be grasped or explained physically, but do not *want* it to be. They are a kind of hangover from the romantic view that understanding things destroys their ‘mystery’, beauty, etc., and hence is undesirable. For a well written and eloquent attack on this position, and an (unconvincing) argument for the superior beauty of scientific understanding, see Richard Dawkins’ odd but fascinating *Unweaving the rainbow* (1998). Of course the two are complementary, not mutually exclusive.

⁵This, if properly developed, might be the strongest argument against a non-material mind, but I do not know enough physics to follow it up.

physico-chemical processes respond to ‘mental’ properties like imagery, thought, knowledge, fear, desire. A relatively simple example is the ‘conditioned immune response’: some hayfever sufferers will show allergic symptoms on seeing a plastic rose. Apparently the immune system and the parts of the brain that control it ‘know’ that roses cause allergy, and even in the absence of the pollen antigens that (chemically) provoke the response they appear to read the plastic replica as close enough to the real thing so that reaction is appropriate.⁶

But perhaps the most telling examples are those where attitudes or wishes apparently recruit huge portions of a person’s biology ‘in order to’ achieve some end. Consider for instance pseudocyesis or ‘false pregnancy’. In this disorder, a woman’s physical resources are utilised in extraordinarily complex ways to mimic a pregnancy, without there having been any fertilisation (or even intercourse), or any fetus *in utero*. Even doctors have been fooled. Here is a description by a clinical neurologist:

Some women who desperately want to become pregnant—and occasionally some who deeply dread pregnancy—develop all the signs and symptoms of true pregnancy. Their abdomens swell to enormous proportions, aided by a sway back posture and the mysterious deposition of abdominal fat. Their nipples become pigmented, as happens in pregnant women. They stop menstruating, lactate, have morning sickness and sense fetal movements. Everything seems normal except for one thing: There is no baby.⁷

The ‘mind’ acts on the ‘body’ powerfully enough to produce a desired (or not desired) condition, by coopting surrogate mechanisms. Much of the abdominal distension is produced by swallowing air and alterations in sphincter tone, leading to the retention of enormous quantities of gas in the digestive tract (hence the Victorian term ‘wind egg’.) A related phenomenon, even more bizarre, is the rare ‘couvade’ or ‘sympathetic pregnancy’ syndrome, in which the *male* partners of pregnant women develop abdominal distension, cravings for odd foods and may lactate and have morning sickness and labour pains (see Ramachandran 1999: 218).

On a dualist view, not only is the mind distinct from the brain, but the personality or self is a kind of ‘whole’, self-existent, a mixture of behavioural, temperamental and moral traits, independent of any physical ground. Such a belief would be necessary for instance to allow dead selves to return as ghosts, still possessed of all the unique personal attributes that were theirs in life. (I am deeply puzzled by the fact that even dualists who believe in ghosts are not disturbed by the fact that they often appear as *clothed physical bodies* with voices. Even a hard-core dualist ought to quail at the notion of a ‘spiritual larynx’.) Here is a story that should make us think very

⁶ On the plastic rose phenomenon and other examples of immune conditioning (even in animals), see Ramachandran 1999: 219ff.

⁷ Ramachandran, 213. See this chapter for further references, and a discussion of the physiological mechanisms involved. The labour pains often start precisely nine months after ‘conception’, and the symptoms disappear immediately after ‘delivery’. This is a complex and unresolved phenomenon: some (but definitely not all) instances may be due not to ‘mental’ phenomena, but to tiny endocrine tumours that produce prolactin (the hormone that induces lactation). Something like this must be the explanation of false pregnancy in dogs, which is not uncommon, and certainly does not involve (as far as we know) a bitch ‘wishing’ to have puppies.

carefully about the possibility of an independent and detached/detachable mind.

In the year 1848, Phineas Gage, a 25-year-old foreman working for the Rutland & Burlington Railroad in Vermont, was preparing a hole for blasting. A premature explosion drove a 3.5-foot iron tamping rod through his left cheek and frontal lobe. Surprisingly, Gage survived the accident; the rod was removed, and after treatment of infection he seemed to recover completely, and was perfectly functional. Except, interestingly, that his personality had changed radically. The former sober, well-organised, trustworthy and in all ways exemplary citizen turned into ‘someone else’. I can do no better than to cite the retrospective description given by his doctor, John M Harlow, some two decades later:⁸

The equilibrium of balance, so to speak, between his intellectual faculties and animal propensities, seems to have been destroyed. He is fitful, irreverent, indulging at times in the grossest profanity (which was not previously his custom), manifesting but little deference to his fellows, impatient of restraint or advice when it conflicts with his desires, at times pertinaciously obstinate, yet capricious and vacillating, devising many plans for future operations, which are no sooner arranged than they are abandoned in turn for others appearing more feasible. A child in his intellectual capacity and manifestations, he has the animal passions of a strong man. Previous to his injury, though untrained in the schools, he possessed a well-balanced mind, and was looked upon by those who knew him as a shrewd, smart business man, very energetic and persistent in executing all his plans of operation. In this regard his mind was radically changed, so decidedly that his friends and acquaintances said he was “no longer Gage.”

The naive dualist question would be: where did the Old Phineas go to, and where did the New Phineas come from? How does a self turn into another one? The non-dualist answer is that the Old Phineas ‘as a person’ was simply his undamaged brain, with two functional frontal lobes working together and with the rest of his brain; the New Phineas was what was left when the ‘downward’ control or inhibition that used to be exerted by the damaged frontal lobe was destroyed, to reveal ‘the other half’: a more primitive, disorganised, uninhibited Gage. ‘Unified’ selves are the products of fully functional brains. The effect of the brain damage was rather like a permanent state of drunkenness (Gage also took to uncontrolled drinking). There was of course no real ‘transformation’, no ‘new’ Gage at all; it was just that one of the physical structures underwriting the old Gage was gone, and all that was left was what the undamaged structure could do, and this was perceived as ‘someone else’.

The evidence then supports not just a ‘connection’, but an identity of the ‘mental’ and ‘physical’, at levels of complexity from the virtually reflex (allergy to plastic roses) to that of an entire personality. But there is also a major logical difficulty with the dualist view. The classical dualist image is of a little ‘self’ sitting inside the brain somewhere, and watching over, observing and interpreting the events going on in what Daniel Dennett (1992) calls the ‘Cartesian Theatre’. This observer is ‘you’. But if he does all these things, acting for all the world like a human observer and reporter and moderator, then *he too* must be conscious and have a self, so he has to

⁸ Harlow 1868, quoted in Valenstein 1986: 90. For a detailed study of the Gage case, see Damasio 1994.

have another Cartesian Theatre inside his head. And that of course requires another self-as-observer, etc., *ad infinitum*. Dualism leads to an infinite regress. These examples only scratch the surface of a tangle of very subtle and complex issues. The mind/body relation will continue to arise as a major theme throughout this book.

There is a solution, as we will see later; but for now it is worth simply noting that this debate has its therapeutic reflexes. It underlies the split between two theoretical extremes among psychiatrists. On one side are the nondualist ‘biological psychiatrists’, who see mental disorders simply as a special, complex, and as yet poorly understood and difficult subset of physical ones, i.e. mind disease is brain disease. On the other are many psychoanalysts and others who believe, even if there are biological ‘roots’ to mind, that talk therapies, treating the mind directly by communicating verbally with it, are the only appropriate therapeutic approach to the mental. (This is an expository caricature of course; there is a vast range of approaches in between. And anyhow the best psychiatrists do not let their theoretical stances get too much in the way, and will use drugs, which are about as physical as you can get, along with other therapies.)

But whether dualist or not, no sane person doubts, to put it as conservatively as possible, that ‘mental activity’ (not only mood, but consciousness, thought, intention) is at least *located*, even if contingently, in the brain, and that purely physical causes can produce mental effects. One’s consciousness, to take an everyday example, can be startlingly altered by drugs; probably the most familiar is alcohol. These may even produce states in which one ‘isn’t oneself’ (a temporary version of what we might all the ‘Gage Effect’). Even more extreme examples easily come to mind: e.g. the sensory derangements produced by hallucinogens, where people end up seeing and hearing things that ‘aren’t there’ but that their brains manufacture under chemical stimulus. Such drugs can produce hallucinatory and delusional states that mimic schizophrenia and other psychotic disorders. These effects must be mediated solely by the physical and chemical state of the brain—there are no other variables.

So our mental lives are at least *played out* in a physical arena, the brain. Even if one wants to reserve judgement on the dualism issue, it would seem that before talking in more detail about disturbances of psychological function we ought to know something about the brain, what it does and as far as we know, how it does it.

What Brains Do

[...] the ability to make sensations such as pain and hunger was perfected by natural selection because these sensations were useful [...] Now the ultimate means of production of any evolved function lies in material genes, in messages written in DNA molecules, and the only thing that DNA molecules can do is to organise other molecules. Therefore consciousness comes from an organisation of molecules. It is part of the material world, the world of molecular machinery, quite as much as the ability to contract a muscle or convert the energy of sunlight into fuel. They are all evolved functions. They are all on a par.

– A.G. Cairns-Smith, *Evolving the mind. On the nature of matter and the origin of consciousness* (1996)

Brains appeared quite early in the evolution of animal life. The most primitive multicellular organisms, like jellyfish, have nervous systems of a sort, but they are simple networks, with no central director. Certainly before the Cambrian Explosion c. 550 million years ago, proper brains developed, particularly in animals that moved about under their own steam, rather than being planted in one place or floating. The brain is normally at the front end, where among other things it integrates the complex and disorderly input from sense organs. Adaptively speaking, that is where a brain ought to be anyhow, since an animal's most important tasks are feeding, escaping predators and breeding. (Or as it is sometimes coyly put, 'the three F's: food, flight and reproduction'.)

The earliest brains, like those of earthworms, are little more than clots of nerve cells, simple bulges off a central nerve-cord rather than the immensely sophisticated devices found in 'higher' animals. But the more recently evolved an animal type is, it appears, the more complex its brain. We have exceedingly large brains; according to the average brain/body ratio in mammals, ours are about three times the size they ought to be. An adult body has about ten trillion cells in all, of which some ten billion are in the brain. The brain is also metabolically greedy: though it makes up only about 2-3% of total body weight, it uses 20% of the body's oxygen and glucose. And this rather unprepossessing mass of podgy, wrinkly material makes us what we are; it is a horrendously complex and as yet poorly understood organ, often said in enthusiastic textbooks to be 'the most complex object in the universe', which it might just be.

The brain is often modelled as something like a fantastically intricate parallel computing device. This serves for some purposes, but misses the important point that brain function is not digital. There are not just two states for any nerve cell, 'on' and 'off', but a huge number of possible finely graded states and state-transitions that can be provoked by neural activity. Some idea of the complexity of what neuroscientists have to model is given by David Horrobin (2001: 168):

Analogies, although almost always misleading to some degree, can be useful in conveying the scale of things. Imagine the largest supercomputer in the world. Imagine that at each switch point, instead of a digital 0 or 1, all open or all closed, about 100,000 variable positions were available. And finally imagine that the whole computer were bathed in a fluid containing well over a thousand different chemicals, each of which could modify the functioning of the switches and each of which could vary with time, with season, with stress and with a myriad other influences. You would then begin to get a feel for the complexity of the brain.

The brain's ten billion neurons are constantly engaged with each other and the rest of the body in an almost inconceivably elaborate dialogue. A standard estimate is that there are some ten trillion interconnections just inside the brain itself, let alone the rest of the nervous system. All of this activity is mediated by two primary kinds of processes: electrical impulses travelling down neurons, and chemical cascades triggered inside them and causing the release of special 'messenger' chemicals (neurotransmitters), which in turn may trigger the actions of other, more complex substances. These matters are crucial for understanding (as far as we can) mood and

mood disorder.

The brain has both receptive and/or interpretive, and executive functions. Both can be internal or external. For instance, via the inputs from external sensors (e.g. eyes, ears, skin) it monitors the outside world, and—within the capabilities given to it by evolution—constructs a representation (a simplified and species-specific picture or model) of this world. This may at first sound over-complicated: common sense would have it that the sense organs just register ‘what’s out there’. But this clearly cannot be true.⁹ For instance, ultraviolet radiation is ‘out there’, as we can tell indirectly every time we get sunburned; but we cannot see it, though bees can. Many flowers that appear monochrome to us actually have elaborate nectar guides and patterns for attracting insects that are visible only if photographed under ultraviolet light, but are surely part of the ‘outside world’ for the insects that pollinate them. We however cannot even *imagine* what UV ‘looks like’, because our brains have no wiring for interpreting it. Only a small part of the electromagnetic spectrum is available to our sense organs. Bats can echolocate with extraordinary precision: the high-frequency echoes bouncing off and discriminating between obstacles and prey are also ‘out there’, but only for bats.¹⁰

A brain perceives and models what it has to, given its ecological setting, and what its history has made it suitable for. Like any complex organic structure it is an adaptation (or suite of adaptations), and therefore a product of the demands of its evolution. But it perceives indirectly and ‘theoretically’, not directly. We think we see with our eyes; but in fact no photon gets any further than the retina; the impulses set off by light impinging on the retina travel through a complex set of pathways to the *back* of the brain, which is where we do our basic seeing, though the signals from the back go forward again, and are integrated in other places. These operations however are hidden from us; we have the illusion that our eyes are doing the work, even though it is really being done at the opposite end of the head in a moist and fleshy darkness, where no light can possibly reach. What we ‘see’ is coming back in the other direction, a reflection and processing of the interpretations the brain makes of the patterns sent to it by the light-induced firing of retinal neurons. A lot of the experiences we think are coming from the outer world are coming from the inner (and often inaccessible) one.

I will illustrate this with two phenomena, one so familiar that we normally pay it no attention, the other on first encounter close to surreal. First the familiar one. Think of some object in your house that is green. If you look at it in the morning it is green, and if you look at it in the afternoon or evening it still is (to you). But in fact as the day goes on the incident light becomes redder, and the wavelengths of the light reflected from the object make it ‘objectively’ redder

⁹ Smythies 1992 calls the notion that we simply perceive ‘what’s out there’ Naive or Direct Realism, as opposed to the more sophisticated Representational Theory, in which perceptions are representations constructed by the brain out of selective interpretation of sensory input and innate predispositions to make certain kinds of ‘theories’, to impose structure on that input.

¹⁰ See Thomas Nagel’s intriguing essay, *What is it like to be a bat?* (1974). For a slightly perverse but fascinating reply, Dennett 1992: chapter 14.

too. But your brain *knows* it is green, and as it were counterfactually holds its colour constant, until some threshold is reached where all colour disappears. The brain can be described as having ‘a theory of colour constancy’. But ‘you’ (whoever that may be) have no idea that your brain holds this theoretical position, and indeed there is no way for you to access it. Yet your brain is part of you, or you are part of the complex whole made up of your brain and the rest of you.

Damage to the visual cortex can often result in blindness, even though the eyes remain intact and functional. This by itself makes perfect sense; we can interpret it simply as a disruption of information-pathways, so the coded signal from the eye fails to get to the place (or from the place) where it is ‘seen’. It is even less odd if you think of the experience of ‘seeing stars’ when struck on the head: visual phenomena that are certainly not ‘outside’ (except in comic strips) are produced by jarring the brain.

But now consider the strange condition called ‘blindsight’. Certain patients with damage to the visual cortex appear paradoxical. They present with total blindness in one or both visual fields, depending on the lesion. They act blind in these fields, report being unable to see, to all intents and purposes cannot see at all. Yet when the (apparently blind) visual field is presented with some stimulus and the patient is asked to identify or locate it, the percentage of correct responses is significantly better than chance. When however the patient is asked about the identification, he says that he guessed, and is totally unaware of having ‘perceived’ anything. Nonetheless there clearly has been some kind of perception, or the percentage of correct responses would eventually cluster around the random mark. So the patient, with intact eye and damaged brain, is actually seeing, *but does not know that he is seeing*, and is unable to account for his own correct perception except as guessing. A complex brain system is apparently working properly, and the patient is performing what must be a ‘mental’ activity (‘this is a vertical line’). But there is no contact between this activity and the patient’s consciousness: two normally cooperating systems have been decoupled. The seeing, that is, is being done by what Ramachandran calls a ‘zombie’: an autonomous system working away on its own, just as it would if its connections to the higher cortex (where we *know* that we are seeing) were intact.¹¹ The inverse of blindsight, as it were, is the experience of detailed visual hallucinations, often of exquisite colour and great complexity, by all of us when totally blind, i.e. in dreams where there is no visual input from the outside. Rather than seeing (with the eyes) but not knowing it, we know that we are seeing, but not how. Here the optical cortex *does* connect with experience, but without input from the peripheral visual system. Less exotically, the same thing occurs when we recall the appearance of anything visual while conscious but not in its presence. Call up the image of a face or a picture. Right now: you can see it, but where is it?

The brain perceives more than the external world; it keeps a vigilant eye on the internal one as well, monitoring heart-rate, blood-pressure and temperature, blood-sugar and hormone levels, the pH of the stomach, the state of the immune system, the positions of joints, the relation

¹¹ The classic description of blindsight is Weiskrantz *et al.* 1974; for more details and neurological commentary see Ramachandran 1999: chapter 4.

of the body to gravitational forces. And—the executive function I mentioned above—not only does it receive these countless messages, it acts on them. If (via your eyes) it perceives an object hurtling toward your face it puts programs in operation that make you get your head out of the way. Certain properties of your blood chemistry make it send a complex series of messages to many places that result in your feeling hungry and trying to obtain food. If some threat suddenly arises, it activates a cascade of reactions which tell your pituitary to send a hormone to your adrenals, which in turn secrete a hormone that raises your heart-rate and blood-pressure, turns the stored glycogen in your muscles into glucose, shuts off your digestive, sexual and excretory functions, dries up your saliva, dilates your pupils and gets you ready for ‘fight or flight’.

None of this of course is really ‘mental’ (though there are emotions and feelings, even thoughts, that go along with many of these activities); but the mind is an inextricable part of this system, and a ‘mental insult’ can act like, or in fact *be*, a ‘physical’ one—if for no other reason than that the same machinery and processes are involved. (Think of the way you feel, physically, when grossly insulted or embarrassed or verbally threatened.) Most importantly, we are unaware of most of what the brain is doing, and there are many apparently ‘mental’ phenomena (like a blindsighter’s correct identification) that cannot be accessed by what we normally think of as ‘mind’—at least if we take that to mean consciousness.

I have so far considered only the brain’s relation to impinging stimuli; but of course the most definitively human part of its behaviour consists of its talking to itself, and generating thoughts, attitudes, moods, emotions, memories, desires, ideas, works of art. We know much less about how it does most of these things than we do about its receptive and executive functions; but enough to let us talk fairly intelligently about mood. Though I must warn the reader that the approach will be somewhat roundabout: mood is very complex, and there is a lot we do not know about it.

How the brain talks to itself and others

Even for the ‘normal’, mood is less under control than other aspects of mental state. It typically seems to be ‘imposed’ by external forces. This is unsurprising; from the point of view of consciousness, the unconscious activity of the brain *is* pretty much external. At least it is beyond our reach and control: we do not invent our dreams. The reason for this, as for so much of our behaviour and mental functioning, is broadly evolutionary. Mood is largely initiated by brain modules much older than those controlling the ‘higher’ functions—thinking, planning, the representation of a cognitively alive, conscious ‘us’. It has been suggested, half as metaphor and half as historical fact, that we really have three brains (Maclean 1990). First (and geographically lowest, closest to the spinal cord) is the old primitive reptilian brain: this consists of the brain-stem and a few higher structures, and controls breathing, heartbeat, arousal and certain stereotyped responses. Above this is a ‘primitive mammalian’ one, the palaeocortex, ‘emotional brain’ or limbic system (nothing to do with limbs: Latin *limbus* ‘border’). And spread over the top of this evolutionary complex is a high-powered newer mammalian brain or neocortex, the

fragile two-millimetre-thick convoluted layer that makes up most of the brain's surface. Our emotional lives are largely lived at the older levels, in structures we share with all other vertebrates; they move along trackways predating our emergence, using chemicals that may be nearly as old as life itself. Our conscious, cognitive lives, though coloured, manipulated and partly controlled by and partly controlling these older brains, are centred in the evolutionarily newest structures. But no part of the brain is isolated from the rest: chemical and electrical messages pass along trillions of connections among billions of neurons that connect just about every part of the brain with every other, and ultimately with the rest of the body. And there are numerous pathways projecting from the 'primitive' parts to the higher centres, and in the reverse direction. For convenience I will use terms like 'emotional' and 'cognitive' throughout as if they represented quite separate domains; but there is no cognition without emotion, and no emotion without cognition.¹²

Viewed from above, the brain is a roughly oval symmetrical object, divided into two wrinkled hemispheres by a groove running from front to back; it rather resembles a large, soft three-pound walnut, unclearly divided into a set of lobes. If we look at it from the side, at the bottom (in back) is a smaller and slightly brain-shaped structure called the cerebellum ('little brain'), which is mounted atop the brainstem, a swelling of the top of the spinal cord. From this aspect we see both the evolutionarily oldest and newest parts of the brain. The brainstem and cerebellum are ancient structures, concerned mainly with functions common to all vertebrates like control of breathing, heartbeat, fine movement, balance and orientation (though recent research implicates the cerebellum in language and learning as well). The lobes form the cerebral cortex or neocortex, which makes up some 60% of total brain weight. And roughly between the two, hidden from view by the cortex, is the old mammalian or limbic system.

It is often difficult to specify precisely what part of the brain does what. It seems that specific functions are not exclusively located in particular pieces of anatomy; but rather that these loci are crucial to the execution of these functions within an integrated whole-brain system. All discussion below concerning the localisation of function is to be taken in this sense. The legs are 'the organs of walking', no doubt; but they do not perform this function very well if detached from the hips and the spinal cord. It is also impossible to give an intelligible answer to the question 'Which part of the leg walks?' The flexings of the leg at hip, knee, ankle and toes are crucial—but it is the leg as a whole (or better as one of a pair), cooperating with our senses of balance and orientation and perception of gravity, that walks.

So the various structures are at least associated with particular functions, and are for the most part connected to other structures associated with different functions. And now, with sophisticated techniques of real-time brain imaging, we can often see what parts of the brain are active in performing a particular task, and how activity travels around it during performance. These techniques usually measure glucose uptake or blood-flow and oxygenation as a function of activity (the more work a part of the brain is doing, the more energy it uses).

¹²See Damasio 1994, Ratey 2001: chapter 6.

A brief sketch of the major parts of the brain might be in order, so that when they are mentioned again there will be something to look back to.

A. CORTICAL

(1) *Frontal lobes*. Behind the forehead. These are the ‘newest’ parts of the brain, more highly developed in humans than other primates. They control the ‘higher’ cortical functions: thinking, planning, much of consciousness and control of emotion. The most anterior portion, called prefrontal, seems to be concerned with ‘conscience’ and abstract ideas. The frontal cortex as a whole also controls certain kinds of memory, the perception of states of mood and emotion, awareness and arousal, planning of actions (including assessing their consequences), and maintenance of ‘personality’.

(2) *Temporal lobes*. Over the temples and ears. These orchestrate most of language and hearing, as well as aspects of face- and voice-recognition. The final integration of visual information and the identity of objects is achieved here by feed-forward transfer from more posterior parts of the brain (the so-called ‘what pathway’, which identifies objects as being particular things, drawing on temporal memory resources. The ‘how’ pathway, which identifies objects as being in particular places or moving in particular ways, but not ‘as’ objects, is in the parietal lobes).¹³ The temporal lobes are the primary seat for autobiographical memory, the kind that constitutes the ongoing narrative defining the ‘self’. Bilateral damage (especially the medial parts and certain underlying structures) leads to amnesias. Other functions include aspects of religious sensibility; electrical stimulation of the temporal lobes can produce visions and experiences that feel religious to the subject, and temporal-lobe epileptics are often inclined to hyperreligiosity.¹⁴

(3) *Parietal lobes*. Over the temporal lobe and meeting at the top of the brain. They integrate visual and other sensory information, generating a spatial map, recognizing objects ‘conceptually’ if presented from unfamiliar perspectives. They are also concerned with spatial orientation, direction-finding, face-recognition, voice recognition, arithmetical calculation and awareness of body position and orientation. A good deal of parietal function, like frontal-lobe function, appears to be integrative—gathering together bits of information from other parts of the brain and constructing perceptions.

(4) *Occipital lobes*. At the back of the skull. These deal with vision and related tasks. In addition to forming visual images out of fragments, they cooperate with the language centres in the temporal and frontal lobes in linguistic/visual tasks like reading.

¹³ On the what and where pathways, see Ramachandran 1999: 77-82.

¹⁴ See Ramachandran 1999: chapter 9, called ‘God and the limbic system’.

This description suggests that the right and left hemispheres of the brain do identical things. This is not the case: much function is ‘lateralised’, i.e. primarily centred in one hemisphere or another. Normally (in right-handed people and most left-handers) for instance language function is centred in the left hemisphere; the right hemisphere has some language capacity but not much. In general, the left hemisphere controls the linear and ‘intellectual’ functions of consciousness, the right the more ‘holistic’ and emotional. There is hemispheric disparity in mood disorder as well: dysfunction of the left frontal cortex is associated with depression, dysfunction of the right with mania.

B. SUBCORTICAL

The intricately convoluted neocortex, the site of the higher cognitive functions, is folded over a complex core of highly differentiated, evolutionarily older structures. This layered configuration is Maclean’s ‘triune brain’. The oldest part, the brainstem, controls basic arousal and automatic life-sustaining processes, like breathing and heartbeat; without it we would not be alive at all. It also receives primary sensory information via ancient input pathways, before passing them back to the cortex for processing. With only the brainstem but no other part of the brain functioning, we are in a ‘vegetative’ state: a working brainstem with no communication with any other part of the brain may keep some functions going, but the owner could no longer be called a person. This is not to say that the brainstem has no relation to higher functions; some of the crucial chemicals that mediate our emotional lives are produced there.

From the point of view of mood and emotional function, the most important set of structures is the newer but not newest ‘old mammalian’ brain, the limbic system. It is conventionally marked off from the rest of the brain by its own cortex, a region bounded at the front and above by the cingulate gyrus, at the sides by the hippocampus, and at the bottom by the hypothalamus; this structure in its entirety is often called the ‘limbic lobe’, and wraps round the brainstem. Its outer edges lie just beneath the neocortex, and some of the significant structures are located just beneath, or could be said to be part of, the temporal lobes. This ‘emotional brain’ as it is often called mediates a large number of functions, having to do, in general, with our emotional and sexual lives and what Peter Whybrow has called ‘housekeeping’— fine-tuning endocrine function, blood glucose levels, need for nourishment, temperature, heart-rate, blood-pressure, sexual desire, and adjusting the internal chemical landscape to sources of danger and other significant properties of the environment. As we will see, it is primarily limbic disturbances or dysregulations that underlie what the higher cortical centres perceive as mood disorders. The most important components of this system, for our purposes, are the thalamus, hippocampus, hypothalamus and amygdala.

(1) The *thalamus*¹⁵ is the primary integrating and distribution station for information coming in

¹⁵ Recall that the brain has two hemispheres, and though one says ‘the thalamus’, ‘the amygdala’, in each case there are two of these structures, right and left.

from outside, and has two-way connections with most of the rest of the brain. Different parts of it receive sensory input and pass it on to the relevant areas for further processing. The thalamus is also an important part, along with the hippocampus, of the system that establishes and retrieves memories. It may also be the primary enabler of consciousness; the intralaminar nuclei in its interior are involved in elaborate feedback loops with the rest of the brain, and probably play a major part in establishing the 40Hz ‘background oscillation’ of neuronal firing that is uniformly present except in the deepest sleep.¹⁶

(2) The *hippocampus* is primarily involved with memory and mood. It organises short-term memories into long-term memories that are stored elsewhere, and aids in their retrieval. It is also involved in orientation, particularly path-finding (not surprising, since this also involves short-term memory). Damage to the hippocampus appears in many amnesias and dementias; it is one of the areas that degenerates most severely in dementias of the Alzheimer type. It also, importantly for our purposes, shows damage in depressive disorders. It is intimately connected with mood, in that ‘normal’ mood requires an undamaged and fully functional hippocampus. Depressed patients typically show loss of hippocampal neurons, and often a smaller hippocampus than undepressed controls, and regeneration of hippocampal neurons (one of the actions of antidepressant medications) is associated with improvement of depression.

(3) The *hypothalamus*, at the base of the brain, secretes hormones that instruct the pituitary to send messages to glands like the thyroid, gonads and adrenals, and thus orchestrates a good deal of our endocrine function. It is also responsible for temperature regulation, hunger, water balance (hence thirst), the organisation of sleep, initiation of the stress response and sexual arousal. Hypothalamic dysregulations like insomnia, disordered eating, persevering stress are exceedingly common in mood disorders; I return to the function of the hypothalamus and the recipients of its messages below.

(4) The *amygdala* is primarily concerned with recognition, arousal, fear and aggression; Whybrow calls it an ‘emotional sentinel’. Among other things, it mediates fear and anxiety responses (whether desirable or not), stores traumatic memories (hence is activated in the flashbacks of Post-Traumatic Stress Disorder), and is part of the system that recognises the emotional tone of facial expressions and speech, as well as the difference between familiar and unfamiliar faces and voices. Damage to the amygdala can result in striking delusions due to the failure to identify the ‘familiar’: one of the most bizarre is the Capgras delusion, in which the patient is convinced that familiar people like parents, partners, children are clever replicas

¹⁶ Hz (‘Hertz’—after the famous 19th-century German physicist) = cycles per second. The ‘background oscillation’ consists of brain-wide waves of regular neuronal discharge at 40Hz; particular activity (such as attending to or intending something) recruits groups of neurons into faster firing. For discussion see Ratey 2001: 134ff.

inhabited by alien selves. The lack of emotional grasp of familiarity provokes this kind of story as a sort of ‘adaptive response’: if they *look* identical to my parents /wife/sibling and yet *feel* totally unfamiliar, they must be impostors.¹⁷

There are also limbic subsystems, projecting to higher cortical centres, which regulate ‘reward’ and ‘punishment’. The reward system (primarily activated by the neurotransmitter dopamine: see below) consists of a set of pathways connecting the hypothalamus and a region called the septum, just at the front of the limbic system, and with important projections to a small structure called the nucleus accumbens; the punishment system involves the brainstem and (most importantly) the amygdala. Both systems have an intimate two-way connection to the frontal cortex. The current view is that hyperactivation of the reward system is associated with elevated mood states, and the opposite for the punishment system. To state an important point in a preliminary way, our emotional lives are lived in the limbic system, but are generally perceived by the neocortex, particularly the frontal lobes. And by means of descending projections, the frontal lobes can act to inhibit or otherwise control the limbic system. Cortical-limbic balance constitutes a good deal of what might loosely be called ‘mental health’

Much pop-neurology literature tends to superimpose a kind of Freudian geography on the brain, equating the neocortex with ‘consciousness’ and the limbic system with ‘the unconscious’, thus making a neat division between a conscious brain and an unconscious one. This is simply wrong; even ‘higher consciousness’ is exquisitely sensitive to limbic disruption, and there is considerable evidence that the limbic system has its own kind of knowledge and cognitive functions, and is typically activated first in many processes that appear ‘conscious’, e.g. face-recognition. Victims of prosopagnosia (the inability to recognise faces), if shown sets of pictures of arbitrary unknown faces and ones that ought to be familiar, like those of family members, cannot consciously (i.e. ‘as far as they can tell’) distinguish one from another. But careful monitoring can show differential limbic response to the familiar ones, e.g. changes in skin-conductance (associated with emotional, i.e. limbic, arousal), and slight blood-pressure and pulse-rate rises—the signs normally picked up by so-called ‘lie-detector’ or polygraph tests. This is the same kind of ‘unconscious cognition’ that occurs in blindsight. As Pascal presciently said, ‘Le coeur a ses raisons, que la raison ne connaît pas’.¹⁸

Information flow in the brain

The brain is not just hardware and software; it is also ‘wetware’. Any information-transmitting

¹⁷ Severe limbic detachment may produce even more distressing delusions: perhaps the worst is the Cotard delusion, in which the patient becomes so divorced from a feeling of familiarity even with his own body that he draws the conclusion that he is dead. For discussion of these and other ‘reduplication misidentification syndromes’, see Weinstein 1996, Ellis & Szulecka 1996 and Young & Leafhead 1996. One of the overall functions of the amygdala and the rest of the limbic system may be to invest percepts with affective significance.

¹⁸ ‘The heart has its reasons, which reason does not know’.

system needs some kind of carrier for the information, and a channel to broadcast it on. In the nervous system the information-bearers are chemicals, generically called neurotransmitters and neuromodulators, and the channels are neurons. We will now take a brief look at the actual structures that carry the brain's messages, and some of the chemicals mediating this transmission.

The functional work of the brain is done by billions of neurons or nerve-cells: while there are many different kinds, they all share a basic structure. The cell body is more or less like that of any other cell, with a nucleus containing a full complement of genes, and all the other appurtenances. It puts forth a long process, the axon, which may extend several centimetres or more, and is the output end or terminal. At the cell-body end of the neuron are dendrites, little branching structures, which make innumerable connections (in total in the trillions) with the terminals of other neurons. The transfer mechanism is the sending of an electrical impulse down the axon, which causes complex chemical events at the junction of axon terminals from one neuron with dendrites from another. These junctions are called synapses. They are not direct physical connections, but tiny spaces (synaptic clefts), across which the inter-neuron signalling takes place. I will use the activity of a single neuron as a model, but practically nothing in the brain is done by one neuron: it is assemblies of neurons that act, triggered by other assemblies.

Let us call the neuron sending a signal the upstream or presynaptic neuron, and the receiver the downstream or postsynaptic neuron. At the end of the upstream neuron's axon at a given synapse is a terminal button, containing a number of tiny vesicles (little bubbles of fat) filled with neurotransmitting chemicals, which have been manufactured by the neuron. When a downstream neuron receives a sufficient number of specific kinds of inputs from upstream neurons, connecting to different dendrites, it fires; neurotransmitters are released into the synaptic cleft, and bind to structures on the dendrites of the next downstream neuron called receptors. These are protein-molecule 'locks', designed to accept certain chemicals as 'keys', on the basis of agreement in molecular shape.¹⁹

When a neurotransmitter binds to a downstream receptor, it triggers an impulse (the information it carries depending on the particular neurotransmitter involved, and the particular variety of receptor), and a complex series of events occur in the cell, signalled by the bound receptor.²⁰ I will not go into detail here, but it involves among other things the turning on of genes which produce a chemical cascade of proteins and other 'messengers' that eventuates in

¹⁹ The 'fit' is not necessarily exact, and much of modern pharmacology (and recreational drug use) depends on this. For instance, morphine, heroin and other opiates bind to receptors designed to accept morphine-like chemicals made by the body (called endorphins); the fit is good enough, and these drugs can compete with or mimic the effects of the body's own products. Many drugs work by binding to receptors for other chemicals and either blocking their normal receptivity by occupying them ('antagonists'), or enhancing their activity by having a stronger effect than the body's natural products ('agonists').

²⁰ The commonest type of receptor is a complex protein molecule, inserted in the external cell membrane and extending down into the cell itself. The outside structure is the 'lock'; in general the molecule binding to the receptor causes the internal part to send a signal or series of signals to structures within the cell. The substance that binds normally does not enter the cell itself. For a very clear if technical introduction to receptors and cellular signalling, see Downward 2001.

the downstream neuron firing (or not). When the downstream neuron has done whatever it is supposed to do, most of the effecting neurotransmitter is taken back out of the synaptic cleft by ‘transporter’ proteins through a gate in the terminal button (the ‘reuptake pump’). Within the neuron, and to some extent in the cleft, the excess is degraded by various enzymes, which turn the neurotransmitters back into simpler chemicals or precursors out of which they can be built again when needed. Many terminal buttons also bear ‘autoreceptors’, which recognize which neurotransmitter has been released, and in what quantity, and act as a feedback control.

So regulation of neural activity is largely controlled by chemicals that either tell neurons to fire (excitatory neurotransmitters), or tell them not to (inhibitory neurotransmitters). The rate of firing however is controlled not by a single neurotransmitter input, but normally by a cocktail of chemicals reaching the dendrites at one time. If the majority of the inputs are excitatory, the neuron will fire; if the majority are inhibitory, it will not. But at a certain threshold it will fire, and the inputs control the speed and organisation of its output. These chemicals however not only trigger the simple on/off activity of neurons: they *modulate* the signals, through a complex system of ‘messengers’ within the neuron that determine the kind of information that the current running down the axon imparts to the downstream neuron.²¹ Messenger activity controls the turning on and off of genes in the cell body of the downstream neuron, which plays a major part in determining the content of the received and transmitted messages. Activation of gene expression in the downstream neuron can result in instructions to carry a particular kind of content, and also in rewiring and restructuring of connections. ‘Arborisation’, the growth of new dendrites and connections is also possible (this happens whenever learning takes place, and as an effect of certain antidepressants for instance); there is also ‘pruning’, the removal of connections. A good deal of the brain’s circuitry is plastic, and is constantly changing.

There is another oversimplification here: our ideal neuron had a single axon, whereas real axons may divide into fantastically complex bundles of branches and sub-branches, each with its terminal buttons connecting with a different downstream neuron; and by the same token the dendrites of any neuron will be parts of many different synapses, often activated by different neurotransmitters (there may be more than 10,000 synapses on a single neuron). A given firing then may be triggered by a host of impulses from upstream neurons, using different neurotransmitters that act in synergy or opposition. And different synapses are of different ‘strengths’: i.e. they take different amounts of input to activate them.

There are many kinds of neurotransmitters, of different chemical structures, serving many different functions. The most important for our purposes are the so-called ‘bioamines’. Three of these appear to be crucially implicated in the maintenance of mood: serotonin, noradrenaline²²

²¹ Actually much of the modulatory and information-carrying work is done by other chemicals which interact with the major neurotransmitters: the term ‘neuromodulator’ is often reserved for neuropeptides (small proteins such as the various endogenous opioids), and other chemicals like nitric oxide and perhaps carbon monoxide.

²² A terminological confusion. In ‘British-speaking’ countries, (nor)adrenaline is the normal technical usage; in the US (nor)epinephrine is used instead. Actually both mean the same thing: *ad-ren-* is Latin and *epi-neph-*

and dopamine. There seems little doubt now of the central role played by these chemicals in depressive illness. Neurons carrying these transmitters project not only to other parts of the brain, but throughout the rest of the body as well, and control or influence many different physical and mental activities. In summary:

(1) *Serotonin* (amine)²³ helps control the flexibility of arterial walls, and receptors for it are found on platelets (tiny cell-fragments involved in clotting). Deficiency of serotonin uptake can lead to faster clotting time, and may be involved in coronary artery disease, hypertension, and immune dysfunction. It also helps regulate motor behaviour, the vomiting reflex, the setting of body clocks, the relaxation phase of sexual activity, appetite and mood. Serotonin dysregulations may lead to depression, sleep disorders, carbohydrate craving, altered pain thresholds and sexual dysfunction, impulsivity, anxiety, compulsiveness, aggressiveness and suicidality.

(2) *Noradrenaline* (amine) controls aspects of metabolic regulation and homeostasis, and regulates arousal; it is sometimes referred to as ‘the brain’s adrenaline’, and is a major actor in the stress response. It appears to increase the signal-to-noise ratio in the brain, so that impinging stimuli are sharpened. Noradrenaline dysregulation can lead to excessive pleasure-seeking, panic, hypervigilance, excitement, and decreased food intake, or on the contrary depression, lack of energy and alertness.

(3) *Dopamine* (amine) is involved in the control and initiation of voluntary movement (degeneration of dopamine neurons is the primary cause of Parkinsonism), feelings of reward and punishment, sexual excitation, the production of nausea and vomiting, and the establishment of memories. Dysregulation can lead to mania, psychosis (most antipsychotic drugs are dopamine antagonists), psychomotor slowing or speeding-up, involuntary movements or tics (Tourette’s syndrome is normally treated with a dopamine antagonist), sexual problems and alterations of the ability to experience pleasure.

A number of other neurotransmitters may be implicated in psychiatrically important phenomena:

(4) *Acetylcholine* (amine) is involved in attention, learning, memory, and the operation of the parasympathetic nervous system (see the next section). Deficiency of acetylcholine is one of the major chemical dysfunctions in Alzheimer’s disease.

Greek for ‘on or near the kidney’, which is where the adrenals are.

²³An amine is a simple organic chemical that has an ammonia-like nitrogen and hydrogen group attached to it.

(5) *Glutamate* (amino acid)²⁴ is the main excitatory neurotransmitter, and plays a part in arousal along with noradrenaline; it is also necessary for learning and the laying down of long-term memories, and most likely for the sustaining of positive mood.

(6) *GABA* (gamma-aminobutyric acid) is the major inhibitory neurotransmitter, preventing neurons from firing, or damping down their activity. GABA receptors bind opiates and alcohol, and are the main mediators of the effects of sedatives and tranquillisers.

As even the brief description above suggests, it is quite unreasonable to ask of a brain chemical X ‘what does X do?’ and expect a simple answer. This is an unbiological kind of question—one cannot even depend on a substance of great importance for the brain operating only in one place, or binding only one type of receptor. The proper kind of question is rather ‘What does chemical X do when it binds to receptor-type Y in location Z?’ For instance, there are about 15 different types of receptors for serotonin alone, in different places. Only one of these is primarily involved in mood. Others mediate serotonin’s effects on blood-vessel tone in the genitalia, the vomiting reflex system, and appetite and weight-regulation.

The amine systems are highly interactive. Serotonin, for instance, exerts a feedback control on the noradrenaline system. If the latter is hyperactive, as may be the case in anxiety disorders, serotonin reduces its activity; if it is underactive, as in some (perhaps all) depressions, serotonin stimulates it. Therefore a drug that primarily alters serotonin output or uptake will almost certainly affect noradrenaline as well. (Some serotonin neurons in fact synapse directly onto noradrenergic ones, and some bear noradrenaline receptors.) One of the more serious problems in understanding neurochemistry is the fact that very often the same neurotransmitter may have both excitatory and inhibitory effects, depending on the chemical ecosystem it is released in, and which receptors it binds to.

Returning for a moment to the ‘three brains’, the architecture of the amine systems themselves says something of considerable evolutionary interest. These substances are produced in three primary areas, all in the older parts of the brain. All of these (or close analogues) occur in the nervous systems of other vertebrates, and these posterior sources suggest that they are very ancient indeed. But these transmitters do not just stay in the older structures. Each main source has a complex set of projections (neurons activated by and carrying the transmitter) to other parts of the brain, including both the limbic system and the higher neocortical centres. Thus both ‘primitive’ and ‘advanced’ structures and functions are fed by the amines; this makes it unsurprising that depression, for instance, is a disease not only of the emotions but of the more ‘intellectual’ functions of the brain as well.

The point of this description is both simple and critical: the older or ‘primitive’ parts of the brain have upward projections to the most recent and highly evolved parts, so that the thinking, conscious or cognitive brain, the neocortex, is flooded with information and orders

²⁴An amino acid is a weak organic acid that is the main building block of proteins.

‘from below’. The reverse is true as well; the brain is full of bidirectional loops, e.g. thalamus-to-cortex/cortex-to-thalamus, etc. Very little traffic is entirely one-way. The whole brain is a single tightly-knit system, though its owner (to speak in the traditional way) is directly aware of only the tiniest fraction of what is going on inside it.

Stress and the autonomic nervous system: the hypothalamic-pituitary-adrenal axis

The brain, particularly the limbic system, controls much of the body’s endocrine activity. At the lower edge of the limbic region is the pituitary, often called in textbooks the ‘master gland’, since its signals control the functioning of other parts of the system. But the pituitary is not an independent agent; it is part of the limbic system, an outgrowth of the hypothalamus. This suggests that in principle at least some aspects of endocrine function should be related to mood or similar properties of the ‘psychological’ brain. And, less directly, perhaps (assuming the whole business is tightly enchainned, as bodily systems typically are), that anything controlled by endocrine glands should in principle be capable of responding to mental state, and vice versa.

One important example of this intimate enchainning, central to the understanding of depression, is the stress response. The term ‘stress’ has many different meanings. In everyday usage it is what you are under when you work too hard, your boss is a bastard, things are going wrong in your life, you are subject to anxiety, danger or trauma. True enough. But there is a good side to stress as well; what makes you feel miserable and helps give you ulcers and coronaries is the malfunction, under inappropriate ecological conditions, of ancient adaptive survival-systems. No animal is going to live long enough to reproduce if it is not wired with internal devices that mobilize it to escape predators and other dangers. I will return to these issues in chapter 4, in an attempt to answer the question of why the stress response appears to be capable of causing so much harm.

The stress response begins with the activation of the Hypothalamic-Pituitary-Adrenal (HPA) axis. This system controls the body’s (hence the brain’s), or the brain’s (hence the body’s) longer-term response to stress, both physical and mental. The stress response has two main stages, the first relatively simple, quick and short-term, the second more complex, slower and potentially long-term. When information passed to the hypothalamus results in the perception of some kind of threat (physical or psychological), a cascade of events is set in train preparing the body for survival under pressure: the ‘fight or flight’ response. The first stage is direct recruitment of the autonomic nervous system by the hypothalamus. The autonomic (‘self-regulated’) nervous system consists of two branches, the sympathetic and the parasympathetic. The former, when stimulated, dilates the pupils, inhibits salivation, peristalsis and bladder and sexual function, dilates the bronchi, raises heart-rate and blood-pressure, and increases the uptake of glucose by muscles. That is, energy, reactivity and alertness are maximized, and less important functions are temporarily put on hold. These effects are mediated by adrenaline and noradrenaline, produced by the adrenal medulla (the inner portion of the gland). The parasympathetic system, activated mainly by acetylcholine, does more or less the opposite, e.g. slows heartbeat, lowers blood-

pressure, stimulates the gut and bladder. The two work as complementaries, controlling the online regulation of body functions, under the instruction of hormonal messages from the limbic system and in some cases the spinal cord. (E.g. the parasympathetic system relaxes arteries and allows erection and lubrication; the sympathetic produces orgasm.)

The immediate autonomic activation is followed by a much more complex set of events, induced by another cascade of chemical signals. The aroused hypothalamus produces corticotrophin-releasing hormone (CRH), which is sent to the pituitary. CRH instructs the anterior pituitary to produce adreno-corticotrophic hormone (ACTH), which passes via the circulation to the adrenal cortex (the outside layer: the inner medulla has already poured out adrenaline), and tells it to release cortisol, often referred to, along with adrenaline and a few others, as a 'stress hormone'. This has a number of effects, all useful in the short term, but some potentially damaging in the long term. Cortisol maintains a continuing stress-reactivity, putting the entire body in a more stable fight or flight mode. It does this in a number of ways: partially suppressing insulin output so that more glucose is available for quick energy, releasing fatty acids from the liver into the bloodstream to produce energy, increasing blood-flow through vital organs, diverting white cells from the circulation to cut down on energy consumption, and acting as an anti-inflammatory agent. Ideally, when the situation triggering stress in the first place has gone, the body should return to its normal functional mode, and cortisol levels should drop. And indeed this is what generally happens.

If however stress is chronic, or the individual is particularly vulnerable, cortisol levels may remain high. This can lead to dysregulations of neurotransmission, and an extremely complex effect on the immune system, involving both partial hyperarousal and long-term suppression. But the overall long-term effect is partial inhibition of the immune response. In this sense cortisol acts rather like its chemical relatives, cortisone and other steroid hormones. The release of fatty acids into the circulation may also be dangerous in the long term, as this will raise general lipid levels, and increase the likelihood of coronary heart disease. So an abnormally prolonged or chronic stress reaction could potentially produce a great deal of damage (see the following section).

Recent research has shown that CRH, which used to be thought of as mainly a signal to get the HPA into gear, actually plays a far more complex and significant role. It displays considerable activity within the brain itself, and is not merely a hormonal messenger, but a neurotransmitter. It is found in a number of sites outside the hypothalamus, in particular the higher cortex, the amygdala, and the brain stem. The CRH neurons in the amygdala project back to the hypothalamus, and to the brain stem as well; in the brainstem they project to the regions that produce serotonin and noradrenaline. So release of CRH affects the amine systems, in particular sensitising them beyond their normal thresholds to stress-related trauma. We will see how important this is in the next chapter.

Stress, mind, immunity and death

Challenge is no longer the hovering of eagles, but [...] triggered by a rich imagination and personal memories. These abstract forms for many individuals cast shadows equally as terrifying as the presence of the primordial beast. What is remarkable in the human experience of stress is not the linking neurobiology, for that is in keeping with our primitive ancestry, but the myriad ways in which learning, experience, and social attachment can initiate the physiological arousal that leads to stress.

—Peter H. Whybrow, *A mood apart* (1997)

Here is a provocative and probably unfamiliar fact. In Israel, and among certain Jewish communities elsewhere, the normally steady death-rate among the elderly and chronically ill shows a marked fall just before Passover, and a compensatory rise (overshooting the norm) just after. The same thing has been observed, especially in elderly women, at the time of the Chinese Harvest Moon Festival. In the latter case, there is a 35% fall in expected death rate during the week before the festival, and a 35% rise in the week after, so that the expected annual rate is ‘normalised’. The interesting thing is that these strange rises and falls do not occur at these particular times of the year among non-Jews and non-Chinese. It turns out that in both instances the festivals are of particular symbolic importance, with a strong focus on family unity and reunion.²⁵

Well-studied cases like these make certain kinds of anecdotal reports rather more convincing than they might otherwise be. We are probably all familiar with occasions where people somehow mysteriously manage to die precisely on the anniversary of the death of a loved one. These rather creepy occurrences may be coincidences; on the other hand, as the evidence above suggests, they may well not be. And if they are not, they illustrate again the subtle interaction of mind and body. The mechanism is unclear; but if the evidence is really as good as it seems to be, then there is some way (undoubtedly not fully available to or controlled by the conscious mind) for a person to postpone, for particularly important reasons, effects that the mind/body somehow ‘knows’ are going to happen; and ‘let go’ of this control when the occasion for exercising it is over. (Recall the limbic-cortical-brainstem feedback loops.) Whatever the ‘will to survive’ and the ‘will to die’ may be, they clearly operate on a virtually seamless mind/body system: otherwise they would not be able to exert such powerful effects.

These are macro-effects whose actual mechanisms at finer levels of resolution are not accessible. But there are many studies that suggest what the possible mechanisms might be, and a great deal of statistical correlation that makes sense in the light of what we know about stress and its effect on the immune and other systems. Let us return to Israel, which during the Gulf War was bombarded by Iraqi missiles. On 18 January 1991 Saddam Hussein began a series of

²⁵ Martin 1997: 5-6. I have seen no studies suggesting a similar phenomenon among Christians at major holidays like Easter or Christmas, or Muslims at Ramadan. There is however some evidence that terminally ill people can postpone death for short periods for financial reasons. See Kopczuk & Slemrod 2001.

SCUD attacks. During the first, nobody was killed (in the whole series there were only two deaths); but on 18 January the overall Israeli death rate rose some 58%, particularly in those areas whose inhabitants knew or felt that they were within in range of the missiles (Martin 1997: 3-5). Virtually all the 'extra' deaths were due to cardiovascular events: heart attacks or strokes. This again supports a piece of conventional or cliché knowledge: it is possible to be scared to death. Clearly the physical effects were being mediated through the victims' 'states of mind': and there is nothing like a good dose of adrenaline and a rise in blood-pressure to wreck an already compromised heart, or burst a weakened blood-vessel. Stress can have effects very similar to those of inappropriate exercise: mental as well as physical activity can produce an 'adrenaline rush'.

Examples like these could be multiplied at will. I mention one more here, just to give a view of the longer term effects of cortisol-mediated stress, and the interrelations between mind and body via the immune system. This connection has now been so well recognized that there is now a medical speciality with an enormous and proliferating literature, called psychoneuroimmunology.

One particularly interesting set of observations emerged from the famous Three Mile Island reactor accident in Pennsylvania in 1979. Though there was originally considerable anxiety about a nuclear catastrophe, it turned out that the accident was well contained, and that no significant amount of radiation had been released even into the immediate environment. But there was a great deal of speculation and apocalypse-mongering in the media, and this plus the core of knowledge, expectation and apprehension that people quite properly have about anything nuclear, generated some interesting and startling effects.

Beginning in 1985, a series of studies were carried out on the inhabitants of an area within a five-mile radius of the Three Mile Island reactor. These people were compared to controls living considerably further away, in their own view outside the 'danger zone'. The first finding was that those within the danger zone had distinctly impaired immune function: e.g. fewer circulating white blood cells than expected and a loss of control over latent Herpes infections. They also displayed higher levels of anxiety, higher average blood pressure and pulse rates, and raised noradrenaline, adrenaline and cortisol levels. In addition, there was a short-term rise in all types of cancers in the study population, as high as 50% above expectation. It was clear that any radiation released was at levels far too low to have any carcinogenic effects (this was not a Chernobyl); but the actual mechanisms behind this enormous rise are still somewhat ambiguous, if clearly important. The consensus seems to be that there were two reasons for the increase: (a) a direct effect of stress-induced reduction of immune function (the immune system plays an important role in destroying certain potential cancers and controlling existing ones); and (b) a greater anxiety about health in general, which led to people being more suspicious and visiting doctors earlier than they might have, so that at least part of the effect was due to increased

diagnosis.²⁶ But overall the rise is far too high for that to be the only cause: as in most interesting things, a multicausal model would be more appropriate. Even lacking precise details, however, we can be sure that stress-related immune suppression played an important role.

A word of caution

I have argued here that there is nothing in the central nervous system that is not physical. The evidence overwhelmingly supports this view, as do general conditions on doing good science. That is, one must not invoke entities superfluous to one's explanatory goals,²⁷ and one must avoid the 'miraculous' and the metaphysical. This could be taken as indicating that I think (or anybody thinks) that the hard problems concerning the mind/body relation are solved. They are not. We have a good idea of what they are, but not a clue about the crucial mechanisms and relations.

We know an enormous and ever-increasing amount, in finer and finer detail, about the brain and central nervous system, neurotransmission, and the experiential and physiological correlates of neural activity. We have some idea of how the limbic system and higher cortex are organised, and how they relate to each other and the rest of the brain and body. But there is a crucial gap: we probably do not even know how to talk sensibly about the interface between brain activity and experience. We see the neural activity 'from below', and the phenomenology of experience (mood, thought, etc.) 'from above', but we have no more idea of what the interface between them looks like than Descartes did. This is probably the most glaring lacuna in our knowledge of ourselves, and the most exciting, important and frustrating area in neuroscience (and philosophy). As John Maddox, former editor of *Nature*, has written (1998: 276):

[...] the cruel truth is that the central objective of the now majestic research program in neuroscience remains beyond reach: there is only the most shallow understanding of how the brain, and the human brain particularly, engenders mind—the capacity to reflect on past events, to think and to imagine [...] That is not a scandal. The question is truly perplexing.

This has not of course been a 'conclusive' treatment of the mind/body relation. Given the amount of thinking and writing that has been done on the topic, as suggested in the tip-of-the-iceberg references to this chapter, it could not be. It is a beginning, though. The main point has been to show what the brain does and can do in relation to the rest of the body, and how phenomena that we generally consider 'mental' have their physical obverses, and probably for the most part vice versa, and that there is no evidence for the participation of anything nonphysical in the workings of the brain/mind. In the next two chapters I will begin once more

²⁶Martin 1997: 83-85, plus references. There is a detailed treatment of the relation between mood, attitude and cancer in his chapter 9.

²⁷That is, good science is guided by 'Occam's Razor', the principle enunciated by a mediaeval English philosopher that *Entia non sunt multiplicanda praeter necessitatem* 'Entities are not to be multiplied beyond necessity'.

to focus on depression itself, its possible causes and the major treatments. But this has not been merely an interlude—it is the conceptual basis for everything that follows, and the groundwork of what preceded. The attitude I want to encourage has been nicely summed up by the English neuroscientist Susan Greenfield (2008: 89):

For a neuroscientist, the old dualism of ‘mental’ and ‘physical’, indeed of ‘mind’ and ‘brain’, is as unhelpful as it is misleading. The mind, far from being some airy-fairy philosophical alternative to the biological squalor of the physical brain, *is* the physical brain— more specifically the personalised connectivity of that otherwise generic brain.

4 CAUSES AND CORRELATES

Cause and effect in the mental disorders isn't a simple matter. Asking *why* someone is depressed, for example, may be relevant if you're dealing with depression following a post-traumatic stress disorder, because it's useful for planning treatment. But what happened before an episode of manic-depressive illness may be quite irrelevant: the cause lies elsewhere, at a different level of brain organization.

—W.H. Calvin & G.A. Ojemann, *Conversations with Neil's brain* (1994)

Prologue

As I said in the last chapter, I am not a dualist: I do not believe that 'mind' in its fundamental constitution is any different from 'body' (though of course it is experientially). It follows that depression must be a physical disease. Therefore its immediate cause, what directly underlies the *experience* of the disease, is brain dysfunction. This may be both on the chemical level (disordered chemistry) and the structural (loss of or damage to brain tissue). These mechanisms have been empirically observed.

To unpack this further: judging from the way antidepressants and other drugs affect depression, there is clearly a neurochemical component. Judging from the way depressions can arise as reactions to life events there is clearly an element of stress-response and susceptibility to trauma, hence an environmental component. And judging from the way mood disorders frequently cluster in families, and are distributed over pairs of twins, there is a significant genetic component as well. Therefore there will not be a single 'cause' for mood disorder in general or any particular occurrence, but a multitude of causes (and underlying vulnerabilities) at different levels and located at different points in a victim's history, and involving different brain systems. But in the end, regardless of cause, current brain dysfunction is the basis of the depressive experience. This is what depression *is*, and this is where the apparently most successful treatment strategies are aimed, either directly as in drug treatment or indirectly as in psychotherapy. (For the argument that psychotherapy is also a physical treatment of brain dysfunction see chapter 5.)

On causes

A causal theory of an illness is the best foundation for treatment. It provides a framework for directed rather than trial-and-error research, and allows theory-based treatments to be devised and subjected—along with the theory—to rigorous testing. If you think that HIV infection is due to failure to pray to your ancestors, serious testing might well show that no matter how much you pray, unprotected sex with a carrier is still likely to infect you, and all the prayer in the world will not increase your CD4 count. But medicine does not live up to its ideals any more than other professions. It is common to develop successful treatments or preventives for illnesses whose causes are unknown, using medications whose effects are not understood. In the late 18th century, Edward Jenner capitalised on the uninterpreted observation that dairy-maids who had

contracted the relatively mild disease cowpox tended to be immune to the far more deadly smallpox. In 1796 he infected young James Phipps with material from a cowpox lesion, and performed the first (publicised) successful medical inoculation. This began a tradition of lifesaving vaccination, long before the germ theory of disease, almost a century before anyone even suspected the existence of viruses, and long before the existence of the immune system, let alone its complexity, had been imagined.

The history of medicine is full of these happy accidents, many of them still cornerstones of treatment, and still not understood. Clinical trials directed by theoretical knowledge or good hypotheses are clearly better than faith or random trial-and-error, or even than long-term empirical observation, though that often contributes massively.¹ But sadly, the more complex and subtle a disease process is, the less theoretical grasp we usually have of it. ‘Cause’ in any case is an equivocal and difficult notion; and psychiatric illness is so complicated, and our knowledge of the brain and how it interacts with the environment so imperfect, that here causation has a special obscurity. More of our treatments are products of serendipity than we would like. But we will need some idea of the conceptual intricacy of the notion ‘cause of an illness’, if we are to understand the point of the longstanding and often acrimonious debate on the causes of depression, and its treatment—or even how it can be treated at all.

Let us begin with a much simpler kind of disease: what causes malaria? The answer in antiquity, and until the discoveries of Sir Ronald Ross in the late 1890s, was ‘swamps’—or their noxious emanations (Italian *mal’ aria* ‘bad air’). The evidence was good: the Romans knew that draining swamps and shutting windows at night to keep out the bad air reduced the incidence of malaria. Now we would say that malaria is caused by a parasite of the genus *Plasmodium* transmitted by the bite of an infected *Anopheles* mosquito. The ancients were really keeping mosquitoes out of their houses by closing their windows at night, and preventing successful breeding by draining swamps. Their procedures worked, but not for the reasons they imagined.

But in fact they were right: swamps *do* cause malaria; but they were less directly right than we are when we say that plasmodia cause malaria via infected mosquitoes. But what does it mean to say that ‘plasmodia cause malaria’? The parasite itself does not cause the disease; what we call malaria is simply a byproduct of its activities. Baby plasmodia get into red blood cells and mature, and then burst out of them; the destruction of red blood cells and the chemicals released when they burst cause the periodic chills, fever and malaise that we define as ‘the disease’.

Mosquitoes need standing water to lay their eggs in; these hatch into larvae; the survivors pupate and turn into adults; the females feed on the blood of mammals or birds; and one who bites an infected host ingests plasmodia which mature inside her, and enter her salivary glands.

¹ Of course all the error in the world will not mark a trial as unsuccessful if there is a strong enough prior belief, and a technique for making the errors go away. People still pray to their ancestors or other beings for cures, dip all or part of themselves in magic waters, wear talismans, etc. With this mindset, 5000 unsuccessful trials are nothing; if by chance a cure and an act coincide, that is good enough, a ‘proof’. This is what distinguishes superstition or magic from science.

The next time she bites somebody she passes them on; and the result of their elaborate life-history in the body is the syndrome we call ‘malaria’. This is not even a particularly complicated example; it merely shows that many interesting phenomena result not from a simple juxtaposition of ‘causes’ and ‘effects’, but from *chains* of interrelated events and preconditions.

Philosophers distinguish two kinds of linear causes : *ultimate* and *proximate*. An ultimate cause is the beginning of a causal chain; a proximate cause is the nearest to the effect in question—*given the current limitations of our knowledge*. There are however degrees of proximalness and ultimality. We still have not asked why bursting of red blood cells causes these particular symptoms, so even the apparently proximate ‘bursting of red cells’ is not fully so. For practical purposes we may stop pursuing the ‘absolutely’ proximate and concentrate on what we do have, contenting ourselves with good working approximations, elliptical causal stories. It still makes sense to say that plasmodial infection causes malaria, or that the bite of an infected *Anopheles* causes malaria. The ‘right answer’ depends on whether the matter at hand is treating patients or controlling mosquitoes. Causality, ultimate or proximate, can be interpreted at different levels of resolution.

This however just scratches the surface. Printed across the top of a packet of cigarettes on my desk is a prominent health warning saying ‘Danger: Cigarettes cause cancer’. Is this true? Well, yes and no. This causal claim looks as if it were a ‘law of nature’, e.g. a statement like ‘loss of the body’s entire blood volume causes death’. But in ordinary untidy language-use it is not meant that way. What *is* true is that smoking hugely increases the risk of certain cancers; you are at least 60% more likely to get lung cancer if you smoke than if you do not, and something like 90% of lung-cancer victims are or have been smokers. But increase in actuarial risk is not the same thing as causation; you have no way of knowing whether or not *you* will get cancer, only that your risk is higher. Many smokers do not get it, and a good number of non-smokers do.

The health warning is not a causal claim at all: it is an admonition about gambling. The real message is that betting against the House is likely to fail in the long term. Read critically, it says only that under the appropriate (unspecified) conditions you have a particular (unspecified) risk of getting cancer. This is not a condemnation of the claim, rather of its (fairly typical) use of ‘cause’. We will see that there are elements in the story of depression that are actuarial in the same sense—the conditions are still not fully specified or even understood, but we have a good picture of what is actually happening and what is predisposing.

Similarly, an expression like ‘*Mycobacterium tuberculosis* causes TB’ still needs a more subtle interpretation. You can be exposed to the bacillus and not get infected (your immune system can dispose of it); or you can be asymptotically infected because your immune system makes antibodies quickly enough to prevent the disease from taking hold, though the bacteria are still hiding inside you; or you can come down with symptomatic TB. Causes are not, conceptually, only ultimate or proximate; we must also distinguish between *necessary* and *sufficient* conditions. The presence of *M. tuberculosis* in the body is a necessary but not sufficient condition for getting TB. Smoking cigarettes is neither a necessary nor sufficient

condition for getting lung cancer, though it is strongly predisposing. The loss of one's entire blood-volume is a sufficient condition for death, but not a necessary one. There are many ways to die—though all of them will finally involve your heart stopping. This is the one cause that is both necessary and sufficient.

Good science, as Sir Peter Medawar once said, is 'the art of the soluble' (1967). Good medicine might be 'the art of the usable'. Often we have to make do with quite imperfect approximations to both.

'Psychological causation': two classical theory-types

I will now look briefly at two purely 'psychological' accounts of the causes of depression. I do not think either of them tells anything near the whole story, but they are worth considering because of their high historical profiles, and their influence on current thinking and therapeutic practice. Both also make claims that contain elements of significant truth, and even when they are most erroneous or empty, that in itself can make us think about things we might otherwise have taken for granted.

Historicity

Much contemporary discourse about depression and other psychiatric illnesses is driven by a loosely 'Freudian' model of mental architecture and ultimate causality. Whatever psychotherapists have to deal with is a matter of the patient's personal history, and wherever it comes from, it currently inhabits The Unconscious. Depression is the result of 'repression', either of the memory of traumatic or unpalatable events or losses, or of unpalatable fantasies or 'unresolved conflicts'. In some neo-Freudian frameworks the problem is 'fixation', failing to mature past certain psychosexual landmarks, lack of proper attachment to a parental figure or defective nurturing. In Freud's later work it is anger—which ought to be directed against some Other but for certain reasons cannot be—turned against oneself. Depression is caused by events in one's personal, post-natal past that have left disguised traces, or by inappropriate strategies for dealing with the results of one's history. The therapist's task is to undo this damage by bringing hidden contents to light, to 'reconstruct' the psyche, to help the patient confront and neutralise the demons of the past.

A later development of this view, coming from the 'biological psychiatry' rather than the psychoanalytic tradition, derives depression not from repressed memories or conflicts, but at least partly from environmentally imposed and internalised trauma or stress. Childhood events, inside or outside the family, dysfunctional relationships with parents or other caregivers, abuse, often apparently 'forgotten', set the scene for later depressive episodes or chronic disorders. But not all depressions, whether 'reactive' or 'endogenous', acute or chronic, derive from *old* historical sources. Current stressors can have the same effects. A middle-aged person with no prior history of mood disorder may plunge into a shattering and potentially lethal depression

after the loss of a loved one, the breakup of a marriage or being retired.

Perhaps confusingly, these recent stressors produce an illness indistinguishable from the recognised forms of chronic depression—those that do not seem to be responses to some local, recent life-experience but originate in the distant past, or even apparently nowhere. The patient's symptoms give no information about what sort of event (if any) triggered the depression, or when. And most important, the *subjective* quality of the depressive experience appears to have no relation to the recency or nature of whatever might have induced it. This stress-response perspective is more narrowly historical, though the history may be temporally shallow. I will return to this later, as it is one of the most important causal factors in mood disorder. But not in precisely the way it is outlined above.

*Psychic archaeology and psychodynamics: the Freudian legacy*²

Sigmund Freud's brilliant speculative geography of the human mind has become a cultural commonplace; it still dominates our unreflecting knowledge, our stock of metaphors. This is true even if we have never read a word he wrote. In some ways this is unfortunate. Freud was a great poet, mythmaker and dramatist, and at times a supremely gifted clinical observer. The popular conception of mental structure has been irrevocably—and in some particulars correctly—changed by his fleshing out of a hidden world of autonomous mental activity that we are not conscious of. But whatever his cultural importance, he was not (except in his early days as a laboratory neurologist) a scientist in the conventional sense.³ The Freudian model of the psyche and its activities is essentially a work of art or prophecy. Psychoanalysis, like traditional healing or homeopathy, sometimes appears to work;⁴ but (a) there is no respectable theory behind it; (b) worse, there is no way of setting up controlled statistical tests that can distinguish genuine efficacy from placebo effect or natural remission; and (c) worst of all, in many respects it does not cohere with the rest of our knowledge of the world.

Freud created a rich and powerful mythology, in which the various parts of the psyche, dealing in the currency of an occult something called 'psychic energy', are personified and

² For useful if brief accounts of Freudian and post-Freudian theory see the articles 'Freud' and 'Freudianism: later developments' and their cross-references in Gregory 1987. For a devastating critique of Freudian theory and practice, richly illustrated with autobiographical and other examples, see Sutherland 1998.

³ According to one influential scholarly tradition, it is not even clear that Freud was always honest about reporting his own results, but seems to have cooked some of his data or even invented it to prove theoretical points. For a detailed and immensely readable study in this vein (with rejoinders from opponents), see Crews 1997.

⁴ Whether there is even a demonstrable placebo effect in psychoanalysis is problematic, as 'cure' and 'improvement' are ill-defined. See Medawar 1967, and Fieve 1997: chapter 11.

engage in titanic battles.⁵ The Ego, the Id, the Superego are locked in perpetual warfare; the analyst ‘treats’ the patient by forcing him to re-remember this (arguably imaginary) battle in his past, and through this understanding or re-remembering to demystify, come to terms with, and eventually tame the great mythical figures whose battles have left psychic scars—or at least get them to declare a truce. The same can be said of many of Freud’s followers: Jung in particular was as much a shaman and mythographer as Freud, and his great archetypal characters, Anima, Animus, Shadow, etc. are also participants in epic mythological conflicts.

Probably the most influential psychoanalytic treatment of depression is Freud’s famous essay, ‘Mourning and melancholia’ (1917). This is a typically Freudian mixture of insight and nonsense. The core (and true) insight is that melancholia (unipolar depression, or the depressive side of bipolar disorder) and mourning for lost ‘significant others’ share many features. Anthony Clare characterises these well as ‘a painful sense of despair over loss, a significant lack of interest in the outside world, a loss of the capacity to love and a marked reduction in activity’ (1994: 91). Freud notes however that in melancholia there is—compared to ordinary mourning—‘self-reproach and an irrational expectation of punishment’, as well as a vagueness about what the loss being (*ex hypothesi*) mourned actually is. According to Freud, the loss in melancholia is internal: ‘In grief, the world has become poor and empty; in melancholia it is the ego itself’.⁶

He gets the description mostly right (though mourning too is often accompanied by overwhelming guilt), but needs a mythology to explain it. The well observed parallel with ordinary mourning, once transformed into a cause, requires a loss that could be unconsciously mourned. Freud finds it in a (hypothetical) childhood or other relationship tainted by some failure of the loved one. This causes the emotion originally invested in the loved one to be projected onto the image that remains as a player in the unconscious drama, and the patient then identifies this internal character with himself:

If one listens patiently to a melancholic’s many and various self-accusations, one cannot in the end avoid the impression that often the most violent of them are hardly applicable to the patient himself, but that with insignificant modifications they do fit someone else, someone whom the patient loves or has loved or should love [...] The woman who loudly pities her husband for being tied to such an incapable wife as herself is really accusing her husband of being incapable, in whatever sense she may mean this. There is no need to be greatly surprised that a few genuine self-reproaches are scattered among those that have been transposed back. These are allowed to obtrude themselves since they help to make the others and make recognition of the true state of affairs impossible.

This is vintage Freud. The analyst knows (because the theory tells him) what the ‘true’ situation

⁵ This may sound unfair. After all, the details of neurotransmission and neuronal function were not yet known, and there was little if any way of describing mental function except through metaphor. What is problematic is the scale and ‘imperialism’ of Freud’s metaphorical world, the degree of personalisation, and the unsupported (and untestable) attributions of causal power that he gave to his metaphors. As well as (see below) aspects of his argumentative style.

⁶ This and the following quotation taken from Clare 1994: 91ff. and Barondes 1998: 34ff.

is, without requiring any specific empirical evidence from the case in question. The (generic) woman is really doing something other than what she appears to be doing, and the analyst comes equipped with this knowledge *a priori*. But there is an escape clause as well. *Some* self reproaches may be just that, but these are unimportant, only serving to mask the ‘true state of affairs’, so that the patient cannot recognise it; only the analyst can. But if this is the origin of depression, it would seem that manic depression is a problem, as the expressed affect is precisely the opposite. Freud realised this, but did not come up with a unified account until his *New introductory lectures on psychoanalysis* (1933). In manic depression,

the most remarkable characteristic is the way in which the super-ego— you may call it, but in a whisper, the conscience—treats the ego. The melancholiac during periods of health can, like anyone else, be more or less severe towards himself: but when he has a melancholic attack, his super-ego becomes over-severe, abuses, humiliates, and ill-treats his unfortunate ego, threatens it with the severest punishments, reproaches it for long forgotten actions [...] and behaves as though it had spent the whole interval in amassing complaints and was only waiting for its present increase in strength to bring them forward, and to condemn the ego on their account [...] It is a very remarkable experience to observe morality, which was ostensibly conferred on us by God and planted deep in our hearts, functioning as a periodical phenomenon. For after a certain number of months the whole moral fuss is at an end, the critical voice of the super-ego is silent, the ego is reinstated, and enjoys once more all the rights of man until the next attack. Indeed in many forms of the malady something exactly the reverse takes place during the intervals; the ego finds itself in an ecstatic state of exaltation, it triumphs, as though the super-ego had lost all its power or had become merged with the ego, and this liberated, maniac [sic] ego gives itself up in a really uninhibited fashion, to the satisfaction of all its desires.

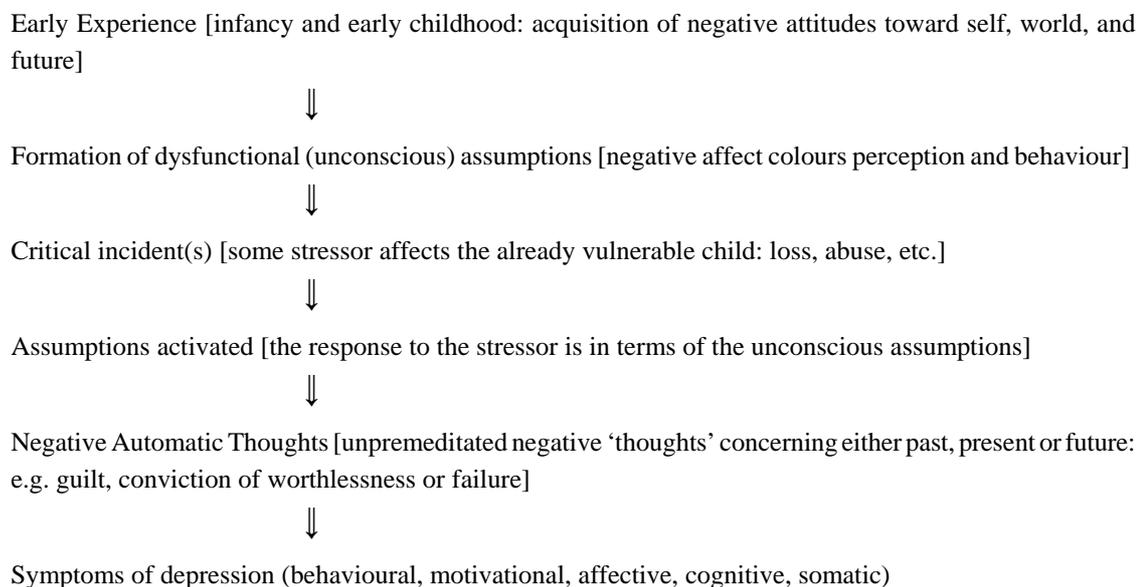
Such can't-lose argumentation led Sir Peter Medawar to remark that ‘the property that gives psychoanalysis the character of a mythology is its combination of conceptual barrenness with an enormous facility in explanation’ (1984: 66). Even though Freudian and neo-Freudian theory no longer dominate the psychiatric mainstream, much of the basic framework, some of the ‘actors’, and notions like ‘hidden content’, ‘repressed memory’ and ‘unconscious mind’ remain even in more sophisticated and empirically based causal theories, and the role of childhood ‘drama’ (correctly, though in other, quite non-Freudian ways) is still important.

Depression as ‘erroneous cognition’

There are probably as many ideas about the causes of depression as there are theoretical frameworks. Many are either rewordings of each other or of standard wisdom; but at least one, which has become therapeutically important, starts from childhood in a very different way. This is the ‘cognitive’ framework developed first by the American psychiatrist Aaron Beck, and now incorporated into the increasingly popular praxis called Cognitive Behavioural Therapy (CBT: Beck 1967, Beck *et al.* 1979, Scott & Beck 2008).

Beck’s most original idea is that depressive affect is the result of ‘erroneous’ or ‘faulty’ *thinking*; negative conceptual frameworks or ‘constructions of the world’ feed back into mood.

This is of course trivially true, but whether it is central to the origins of the depressive process is debatable. Beck's model does however make some novel points and produces a coherent scenario for the origin of depressive states. In summary:⁷



The central pillar is ‘an underlying theoretical rationale that an individual’s affect and behaviour are largely determined by the way in which he structures the world’ (Beck *et al.*1979). Depressive themes arise not from unconscious conflicts or biochemical dysregulations, but from the ‘primary triad’: (i) construing experiences in a negative way; (ii) therefore viewing oneself negatively; (iii) therefore viewing the future negatively. On this theoretical basis Beck and his followers constructed a therapy which claims to treat depression by correcting the patient’s ‘erroneous’ or ‘faulty’ assumptions about himself or the world. A contemporary practitioner gives this exposition of the causal narrative outlined above (Bolon 1998: 25):

Experience leads people to form assumptions (or schemata) about themselves and the world. These [...] subsequently organise perception and govern and evaluate behaviour, e.g. “I must do well at everything I undertake”.

Problems arise when critical incidents occur, which mesh with a person’s own system of beliefs, e.g. the belief that personal worth depends entirely on success could lead to depression in the face of failure.

These dysfunctional assumptions produce an upsurge of negative automatic thoughts, e.g. “I am a write off [sic], I will never amount to anything”.

They are negative in that they are associated with unpleasant emotions, and automatic in that they pop into people’s heads rather than being the product of a deliberate reasoning process. They may be interpretations of current experiences, predictions about future events, or recollections of past things.

These then lead to the symptoms of depression.

This raises a number of questions. How much of our thinking (even if we are not depressed) is

⁷ This diagram is based on one in Bolon 1998. Material in [] is added commentary.

rational anyway? Doesn't a great deal, perhaps most, of our everyday mental activity consist precisely of thoughts that 'pop into' our heads? How much 'deliberate reasoning' does the average person do in the course of a day, except for very special purposes? Aren't there plenty of people, depressed or not, who hardly ever do any, either through lack of interest or not being bright enough? Is the content of consciousness under 'our' control, in the sense that we are agents who dictate it?

The basic narrative is profoundly unhistorical—as well as unbiological, and in one major way descriptively inadequate. If depressive affect is due to misconstructions of the world, 'cognitivised' as it were out of mood disturbance due to traumatic or self-devaluing experience, how is it that nonhuman animals can suffer the classic signs of depression as well, and be treated effectively with the same drugs that work for people? Would we want to say that a dog becoming anorexic and anxious or huddling in a corner is a victim of his 'automatic negative thoughts', provoked by a poor self-image due to a bad puppyhood? If treatable depression, under conditions of adult stress, occurs in animals as distant from us as dogs, as it commonly does, then surely its origins are likely to lie—both historically and anatomically—much deeper than propositional cognition or ideation.⁸ In humans, it certainly is true that negative thinking can feed back to and influence mood (just as positive thinking can); but it would seem unlikely that purely neocortical processes could have much in the way of a long-lasting and 'constructive' effect on subcortically provoked emotional states.

A closer look at the relation between conscious thought and unconscious brain activity is interesting in this connection. In 1981 the neurophysiologist Benjamin Libet made a rather odd discovery about the temporal relation between self-perceived conscious intention and what the brain actually does. This has been a source of satisfaction to some and distress to others, because of the peculiar light it casts on 'our' relation to our brains. To simplify, Libet asked his subjects to perform some voluntary action (e.g. move a finger), and measured the 'readiness potential', the onset of an electrical pattern in the brain usually detectable before any complex action. This is apparently an index of what the brain is doing in relation to what the subject perceives as his intention. The results are neatly summed up by Susan Blackmore (1999: 226):

If you are a dualist you may think that the decision to act must come first [before the readiness potential]. In fact what Libet found was that the readiness potential began about 550 milliseconds [...] before the action, and the decision to act about 200 milliseconds [...] before the action. In other words, the decision to act was not the starting point—a finding that can seem a little threatening to our sense of self.

This may not appear directly relevant to the question of mood, but it is to the underlying problem of the relation between conscious and unconscious cognition. The frontal cortex (the primary site

⁸ Prozac is now as much a part of the veterinary medical armoury as of the human. I am grateful to Pieter Human for discussing with me in detail the use of antidepressants in his veterinary practice. I assume that nonhuman animals do not have propositional cognition of the kind we do; this may or may not be correct, but there is no hard evidence to the contrary.

for executive and planning activity) is not the only part of the brain that ‘makes decisions’, and its decisions may be later than those made elsewhere. In other words, we may make (apparently) ‘conscious’ decisions before we are conscious of having made them.⁹

Mood is not caused by cognitive activity in the usual sense—though it is often accompanied by it, and certainly influences it. If someone is *asked* why they are feeling awful, they may well be able, if they are articulate enough, to come up with *ad hoc* verbal descriptions of states of mind, simply because the context of inquiry is linguistic. These will naturally be presented as ‘thoughts’ or ‘reasons’ (judgements, interpretations, beliefs, evaluations, i.e. the ‘erroneous thoughts’ that Beck’s theory requires). But the brain does not appear to work this way: mood can only be interpreted by neocortex *after the fact*. The frontal lobes cannot have anything very interesting to say about mood until they get some subcortical input to base it on. *It is the body, the brainstem and the limbic system that tell the neocortex what to feel*, or at least give it the primary data.¹⁰

This idea was beautifully laid out, if in a somewhat speculative way, in a famous paper by the American psychologist William James (1884). In essence, rather than it being the other way round, ‘we feel sorry because we cry’ (190). According to his hypothesis, ‘the emotional brain processes not only resemble the sensorial brain processes, but in very truth *are* nothing but such processes variously combined’ (188). James has been vindicated by recent research. There is now a modern argument that both emotions and the bodily phenomena that generate them occur prior to any mood alterations or even perceptions of mood. This is summarised in Damasio (2003: 67-9). This book, by a neurologist and neuroscientist, presents, in a very accessible way, the most sophisticated theory of mood and emotion that I have come across. Damasio’s argument is based on the fact that the clinical and neurological evidence shows that in changes of mood, and especially in the onset of depression, the first reactions are in the brainstem and hypothalamus, then body posture and facial expression change, and *then* finally the person becomes conscious of the mood. So it seems that mood is a bottom-up not top-down phenomenon, which would appear to be bad news for the cognitive model. It just happens, as James had pointed out over a century ago, that we are acculturated to give priority to our mental experiences, and consider them to be causal, rather than what are visualised as their bodily ‘accompaniments’. And this is reinforced by the speed with which the enchainment phenomena occur, which was not available to measurement in James’ time.

In addition, the focus on ‘thought’ I think misses a crucial aspect of the way depression is *experienced* by a great many patients (rather than what they may typically say about it). It is perfectly possible, even usual, for the worst part of a depressive episode not to consist of ‘thoughts’ at all, not even feelings of unworthiness or guilt. The quintessential depressive

⁹These comments may be simplistic. For a detailed discussion of Libet’s work and its significance see Dennett 2004: chapter 7.

¹⁰To be fair, Beck does admit that ‘in some cases’ low mood may contribute to ‘negative thinking’, and this may be ‘a causal theory’, but is not the norm (Scott & Beck 2008: 641).

experience is not cognitive but *existential*: imprisonment in a quality of the world, objectless despair and blackness and pain, inability to feel pleasure, lack of will, lack of energy with no ideational content at all.

Let us say a cognitive therapist manages to convince me intellectually, regardless of what I happen to say and may (at the time) think or feel, that I am not a worthless human being and a total professional failure. That would have no effect whatever on my mood. Even in the depths of a depression I would still ‘know’ (at one level) how good I am, be able to admire my own work, my accomplishments, recognise my skills and abilities, feel guilty only for things I happen to have done that on reflection I would rather not have. But at least in a well matured depression like mine, no propositional or empirical evidence is binding on my beliefs or can alter my mood. *It is my mood that produces the thoughts*, and I may only half-believe them, or even not believe them at all, but I am depressed nonetheless.¹¹ Peter Kramer, as an experienced clinical psychiatrist, puts this point nicely (1994: 209f): ‘the distinguishing feature of the damaged sense of self is its poor responsiveness to evidence, even to evidence that is cognitively appreciated’.

But despite these theoretical and empirical problems CBT seems often to be therapeutically effective. The literature suggests that it can do a great deal by itself in minor depressions, and can support the work of drugs in more major ones, as well as lengthening the intervals between episodes, and may even work for major depression. As we have seen it is quite possible for a misunderstood or not understood medical technique to be effective. My concern here is not with the therapy but with the theory, since my topic here is causation, not treatment.¹²

The origins of the ‘medical model’: how drugs tell stories

The first significant breakthroughs in treating depression came in the 1950s, and then only through a series of lucky accidents and the equally lucky presence of scientists who understood their implications. These led to a radically new, if by no means universally accepted, understanding of these illnesses. This new understanding generated, for the first time, some reasonably effective therapies—and with them an approach that potentially brought ‘mental illness’ within the scope of ordinary laboratory science. It became possible in principle for psychiatry to gain some respectability as a part of ‘real’ medicine. This novel investigative and clinical paradigm led to an understanding of major aspects of what was thought then to be proximate causation; regardless of the fact that it still does not touch fully proximate causation, it is much closer than before. It was (and remains, I think) the most profitable direction for

¹¹ For a somewhat similar critique, Sutherland 1998: chapter 22.

¹² Beck has recently changed his mind on some issues and adopted a more holistic and complex view of depression, advocating the inclusion of work on stress and genetics into an enriched cognitive paradigm (see Moram 2008).

research, and ultimately therapy.¹³

The first serendipities involved the side-effects of drugs being used to treat other conditions.¹⁴ In the 1950s a new anti-tuberculosis drug called iproniazid was developed. Aside from killing TB bacilli, it often seemed to be a ‘psychic energiser’, stimulating patients’ appetites and generally making them feel healthier and happier, even to the point of euphoria, than treatment of the disease alone ought to have done.

Another discovery involved the reverse effect. Again in the late 1950s a new antihypertensive, reserpine, was introduced, and one of its major side-effects was depression. So we have two unrelated drugs, devised for unrelated conditions, which seem to be related to depression in opposite ways. One induces it, the other seems either to relieve it or to produce semi-euphoric states. The crux was that both, whatever else they were doing, were known to affect certain neurotransmitter systems—in particular those involving serotonin and noradrenaline. Iproniazid is a monoamine oxidase inhibitor (MAOI): it disables the enzymes that degrade amine neurotransmitters after they have bound to receptors. Thus, aside from its anti-TB action, it incidentally increases free intrasynaptic amines. Reserpine, on the other hand, lowers blood-pressure partly by depleting amines (especially noradrenaline) at presynaptic terminals. This is a nice coincidence: a drug that increases amine concentrations is a mood-elevator, and one that depletes amines can induce depression.

It would be sloppy to argue that just because a drug has chemical effect A and produces physical or psychological effect B, the whole secret of B must be the chemistry A. Heartburn is not caused by antacid deficiency. On the other hand it would be daft to dismiss such a correlation out of hand. These and related observations developed into the ‘Bioamine Theory’ of depressive illness: the claim that certain neurotransmitters, particularly serotonin and noradrenaline (and nowadays dopamine), are crucially implicated in the maintenance of mood, and that their depletion is *the* cause of depression. This relatively simple idea, now with many modifications, is still one of the bases of virtually all biological approaches to the treatment of depression.

Meanwhile, also in the 1950s, a Swiss company had developed a new drug called imipramine, which was intended as a treatment for schizophrenia, because it was chemically very similar to chlorpromazine (Thorazine), the first effective antipsychotic. It was ineffective against psychosis, but was mood-elevating, and was eventually tested successfully for depression. At this point two of the major classes of antidepressant had been discovered—Monoamine Oxidase Inhibitors (MAOIs) and Tricyclic Antidepressants (TCAs).¹⁵ A great deal of research and development followed, and new MAOIs and TCAs were tested and marketed, and showed

¹³ There is still a sizeable cohort of psychiatrists and other therapists who are not at all happy with these developments, and refer to this paradigm rather disparagingly as ‘the medical model’. The rest of this chapter should show why this disparagement is ill-founded.

¹⁴ The story of the discovery of these and other antidepressant drugs is well told in Healey 1998. See also the excellent chapter on antidepressants in Kramer 1994.

¹⁵ The name comes from their structure: they are built on a scaffolding of three rings of carbon atoms.

considerable efficacy. The MAOIs were used rather less—as they still are—because of cardiovascular and other side-effects, and the TCAs and some related drugs became the mainstay treatment of depression until the 1980s, though they were often poorly tolerated and could be fatal in overdose.

While the MAOIs and TCAs were effective against depression, there was nothing available for mania except sedatives (e.g. barbiturates or antipsychotics), and nothing at all for controlling the cycling of bipolar disorder. The first effective antimanic and mood stabiliser was also discovered by accident. In 1949 the Australian psychiatrist John Cade was testing the hypothesis that high levels of blood urea caused mania. For this work, he needed a soluble salt of uric acid, and injected guinea-pigs with lithium urate. The results were precisely the opposite of what he had expected: the guinea-pigs became lethargic, not manic. He ran some clinical trials of lithium salts with manic patients and published his results, and in 1954 the Danish psychiatrist Mogens Schou undertook a series of successful trials.

It took nearly two decades before lithium was generally accepted as a clinical resource; it was not widely used until the 1970s, but has turned out to be a highly effective mood-stabiliser. How it works is not yet fully understood, but it does have detectable effects on neurotransmission. Cade's accidental discovery led to the development of the most widely used and effective antimanic drug, and the first of the quite small group of drugs that can control cycling. By the 1950s, then, both poles of the mood disorder spectrum, and the alternations between them, had shown themselves susceptible to purely chemical intervention.

So depressive illness can be relieved by medications with known effects on particular biochemical systems (however primitively understood). Therefore depression, whatever the sufferer's psychological experience, is at bottom a 'medical' condition like any other. It must be at least proximately a neurochemical illness, since dysregulations of particular neurotransmitter systems can be targeted for symptomatic relief. We have learned a great deal since the 1950s; the current picture is much more subtle, complex and confusing. It is not just the amount of neurotransmitter present that is involved, but the number and type of receptors, differential sensitivity of pre- and postsynaptic receptors, and complex interactions between various neurotransmitters and between them and hormonal systems and various proteins in the brain, and between all of these and the outside world; and there is a major (less proximate but crucial) causal role for the stress and immune responses.

But one basic fact appears to remain, no matter how much we learn. The only effective and relatively quick relief of the major symptoms of depression is achieved by treatments based on a theory which makes no reference to a mind existing independently of the physical brain.¹⁶ Mind disease *is* brain disease—however unclear the relations between the two may be.

¹⁶This applies as well to electroconvulsive therapy (ECT), which is faster than medication. See below.

The biology of depression

[...] “biology” is not some substance that is segregated or localized inside the initial state of the organism at birth, circumscribing the domain to which evolutionary analyses apply. It is also in the organization of the developmentally relevant world itself, when viewed from the perspective imposed by the evolved developmental mechanisms of the organism. Thus, nothing the organism interacts with in the world is nonbiological to it, and so for humans cultural forces are biological, social forces are biological, physical forces are biological, and so on. The social and cultural are not alternatives to the biological. They are aspects of evolved human biology and, hence, they are the kinds of things to which evolutionary analysis can properly be applied.

—J. Tooby & L. Cosmides, *The psychological foundations of culture* (1994)

The late-onset paradox

For a little over half a century scientists studying the biology of mood disorders have largely agreed that dysregulation of amine systems is the central mechanism. In the beginning, the fact that drugs that increased amounts of free amines gave symptomatic relief was taken to illustrate the proximate cause: what we might call the ‘deficit theory’. It looked as if things were rather simple after all: getting more amines into the synapse should cure depression.

But research and clinical experience kept bringing up complications. One of the worst was the delay between the onset of reuptake inhibition and the onset of antidepressant effect. The theory predicts that once there is (say) more serotonin in the synapse the symptoms should start vanishing. But a drug like Prozac, for instance, may produce an increase of serotonin in the synapse within a day or so after the first dose, but usually takes anywhere from two to six weeks to show any antidepressant effect. The side-effects however come on almost immediately, often as early as the first day. Such delay occurs with most antidepressants, for most patients. (If the desired mood changes show up within the first few days, as does happen, we might suspect placebo effect, not the drug working.)

Why should this be? I will tell the story in pieces in the rest of the chapter, as it is part of a very complex cascade of chemical reactions within the brain and the individual neuron. But we can dispose of the simplest (for a while thought to be the only) reason now. When a cell that requires a particular chemical to function properly is deprived of it, it often ‘upregulates’ its receptors for it. To be anthropomorphic, the cell cannot find enough of the desired substance, so in an effort to get more it makes more receptors. Of course this is counterproductive: if you do not have enough of what you need, making more receptors is going to make the situation worse, not better, because there will be less to go round. But this is the only thing a downstream neuron can do; neural signals propagate in one direction. If a neuron is starved of a neurotransmitter and makes more and more receptors, the best way to make it stop is to satisfy its craving; and this is apparently what most antidepressants eventually do. They keep more neurotransmitter in the synapse by disabling the reuptake pump (TCAs and most modern drugs) or stopping the degradation process (MAOIs); and eventually the postsynaptic cell decides that there is enough,

and begins to dismantle ('downregulate') the extra receptors. It takes a fair amount of time and energy to build or dismantle receptors; and until there is a match between the amount of neurotransmitter and the number of receptors, there will be no 'balance', and the symptoms will not start to remit.

This theory stood as a placeholder for quite some time; but now that more is being learned about the internal chemistry of neurons, it is no longer adequate as a sole account. One problem is that downregulation of receptors also often occurs some time before antidepressant effect, even simultaneously with neurotransmitter increase. In the next few sections I will explore some of the less well-known markers of depression, and then begin to construct a causal chain that will incorporate the more sophisticated chemistry and the so-far neglected stories of life-experiences and genetics: depression may seem to fall from the air, but there is usually a long history behind it.

Biological markers: anatomy and metabolism

For more than two decades the depressed brain has been subjected to imaging studies (MRI, PET, etc.). The results of over 12,000 studies (Mamo & Kapur 2008) have been that depression has significant brain-level correlates. Blood-flow and glucose metabolism, receptor-occupation by neurotransmitters, density of receptors, even the gross anatomy of the frontal lobes, hippocampus and amygdala of depressed patients, differ from what would be expected in the nondepressed. Here are the results of an early but clear and relatively simple study (Drevets *et al.* 1997). This reports PET (positron emission tomography) studies of blood flow and glucose uptake, and CT scans of relevant portions of the prefrontal cortex in depressed (unipolar and bipolar) patients and normal controls.¹⁷ This paper concentrates on regions of the prefrontal cortex which control interpretation of emotion and response to stressors, and are particularly sensitive to amine neurotransmitters. Visible lesions in these regions (tumours, strokes, trauma) typically produce 'flatness' or lack of emotional response, impaired concentration, lack of motivation, and other depression-like symptoms. The main findings were: (a) depressed patients showed lower blood-flow and glucose uptake in the relevant areas than non-depressed controls; and (b) there were marked anatomical differences as well, depressed patients displaying considerable reduction of grey matter (neuronal cell-bodies) in at least one hemisphere. The most characteristic volume reductions are in the hippocampus and frontal lobes. A meta-analysis (statistical summary study of other studies) shows average 8% volume reduction in the left hippocampus and 10% in the right; and the amount of reduction appears to correlate with the number of prior episodes (Videbech & Ravnkilde 2004). There is also evidence for volume reduction in the amygdala, which mediates fear, anxiety and similar emotions (Pezawas *et al.* 2005). So even at the level of

¹⁷Oxygen- and glucose uptake are indexes of brain activity; the more work a particular region is doing, the more fuel it needs, hence the more glucose and oxygen. For discussion of recent imaging studies see Mayberg 2006, Mamo & Kapur 2008.

physical structure and visible metabolic activity, depressed and non-depressed brains look different.

Investigations of blood-supply to the frontal lobes of depressed and non-depressed patients, and more convincingly, the same depressed patients before and after antidepressant treatment, reveal a similar picture. Depressed frontal lobes have less blood-flow, i.e. deficient oxygenation, and non-depressed or treated depressed frontal lobes show increased blood-flow. Depressed patients also show unusual activity in the limbic system.¹⁸

Other aspects of brain function provide further clues to what might be going on in both unipolar and bipolar depression. The most interesting perhaps is the association with the right/left specialisation of the cerebral hemispheres. For instance, affective disorder often follows damage to the frontal or temporal lobes from strokes and other trauma. As Goodwin & Jamison report (1990: 507), 'most frequently associated with depression or mania were lesions located in the frontal or temporal lobes. Left-sided lesions tended to be associated with depressions and right-sided lesions with symptoms suggestive of mania'. Other studies suggest a disruption of the normal functional relation between the right and left hemispheres in depressive illness. This data is not yet clearly understood, but it strongly suggests some kind of structural localisation in mood dysfunction.

Biochemistry: amine dysregulation

The brains and nervous systems of depressives (at least during depressive episodes) are chemically different from those of the non-depressed. For example, it has been known for a long time that suicides, on autopsy, tend to show below-normal concentrations of serotonin and its breakdown products in their cerebrospinal fluid, and abnormal distribution of certain receptor-types. And since the commonest cause of suicide is generally agreed to be depression, here is a potential (if weak) corroboration of the amine theory.¹⁹ And nearly all effective antidepressants, whatever else they do, act either directly or indirectly on serotonin reuptake or degradation. There is another causal sequence lying behind the dysregulation of serotonin, involving the stress response; I will return to this in the next section. At this point I want to look at the two other neurotransmitters involved in depression, noradrenaline and dopamine.

The evidence for their role is somewhat less direct than that for serotonin. The picture is

¹⁸ See Goodwin & Jamison 1990: ch. 18, and d'Haenen 1997. There is a stunning colour plate in Goodwin & Jamison (Fig. 18-1), showing PET scans of glucose uptake in a rapid-cycling manic depressive patient. For an imaging study showing ways in which the structural anatomy of the depressed brain predicts antidepressant response see Costafreda *et al.* 2009.

¹⁹ This evidence, though frequently cited, may be ambiguous; see Smith & Cowen 1997. It is clearest when the suicide is violent, and associated with a violent, aggressive and impulsive personality. Smith & Cowen provide an excellent if highly technical coverage of what is known about the role of serotonin in depression. The best evidence for the correlation of serotonin concentrations with mood comes from baboons, which are highly social and easily studied animals, and show depressive behaviour in many of the same kinds of circumstances that humans do. For a thorough account and references see Sapolsky 2004.

further complicated by the fact that serotonin exerts a modulating influence on these chemicals as well, through projections from their sources in the more ancient parts of the brain. First, noradrenaline. As we saw in the last chapter, its primary functions involve arousal and alertness, and response to external or internal threat. There have been numerous observations of noradrenaline depletion in depressed patients and other primates. E.g. reserpine, which depletes presynaptic noradrenaline, precipitates depressive symptoms in nondepressed controls, and many antidepressants reverse the effects of reserpine. Contrariwise, some antidepressants that inhibit noradrenaline reuptake (even if they have no effect on serotonin) are effective against certain types of depression. It has also been shown that one of the most consistent effects of long-term antidepressant treatment is reduction in the number of postsynaptic noradrenaline receptors, suggesting that the therapeutic effect involves reversing an original shortage of noradrenaline. .

Dopamine, as we have seen, is involved in the limbic ‘reward’ system; hypothetically a decrease could lead to loss of pleasure and motivation (the typical depressive anhedonia). On the other hand, an excess could lead to excitability and increase in goal-seeking behaviours: thus dopamine would be a good candidate for involvement in bipolar disorder. There is some biochemical evidence to support this as well: reduced production or excessive metabolism of dopamine is involved in depression, especially when it is marked by psychomotor retardation—but not in agitated states or manias. (In fact some dopamine agonists used in treating Parkinsonism may produce mania as a side-effect.) Depletion of dopamine is associated with lowered mood, and excess with elevated mood. One of the most activating of all antidepressants, Wellbutrin, is a noradrenaline and dopamine reuptake inhibitor which does not affect serotonin, and a major sign of its dopaminergic activity is the fact that it can be used to help restore sexual function damaged by other antidepressants or by depression itself.

Stress and amine dysregulation

It now seems clear that stress is one of the major causes of amine dysregulation.²⁰ The causal pathway is somewhat indirect, and works primarily through the stress-reaction chain, or HPA. In summary, severe stress makes the hypothalamus release hormones that signal the adrenals to produce first adrenaline and then cortisol.²¹ Cortisol, in addition to mediating the long-term stress response, can, with excessive exposure, have complex effects on the brain. Among other things it dysregulates serotonin and other amine pathways. The shortage of amines in the synapse is largely a secondary effect of stress, due to long-term high cortisol levels in the brain. Excessive cortisol can damage neurons, especially in the hippocampus. And at least one of the genes that is involved in the serotonin system has sites that bind cortisol, which establishes a connection at

²⁰For a summary of the evidence see Sapolsky 2004, especially chapter 14.

²¹Actually it produces a number of chemically related hormones called glucocorticoids, but cortisol is the most important and I will use it to stand for the rest. For a thorough account of the role of glucocorticoids in stress reactions, Sapolsky 2004.

the micro-level (Pezawas *et al.* 2005). I will return to the significance of this gene later. There is also evidence that a neuroprotective protein called Brain-derived Neurotrophic Factor (BDNF), which is necessary for maintenance, growth and regeneration of neurons, is inhibited by cortisol. This inhibition may be the final step in the chemical cascade leading to depression; it is also significant that it is reversed by many antidepressants.²²

So given the interactions discussed above, one cause of neurotransmitter dysregulation appears to be stress, whether exogenous or endogenous. Recent research is finding increasing evidence for this. Both the adrenals and pituitaries of depressed patients tend to be enlarged, and there are abnormally high levels of CRH (the hormone that causes the adrenals to secrete cortisol, and also acts on the amine systems) in their cerebrospinal fluid. On autopsy, they tend to show more CRH-producing neurons than normal in the hypothalamus, and signs of stress-induced damage to the hippocampus.

This further supports what has for some time been the standard account of the genesis of mood disorders—the so-called ‘stress-diathesis’ model (‘diathesis’ = predisposition). Depression and related disorders result from the effects of chronic stress on neurotransmission and endocrine systems, superimposed on innate (genetic) predisposition or vulnerability. Amine dysregulation leading to BDNF suppression is the most proximate cause we know, and stress and its consequences the next one back in the chain of causation.²³

Recently more light has been cast on the relation between stress and depression, via the mediation of the HPA and the immune system. The epidemiological relation is fairly clear: it has been shown time and again that childhood abuse, poor parenting, neglect, and other early (or even later) trauma are risk factors for the development of mood disorders. One recent study has found that women with a history of childhood abuse have a four-fold greater risk for major depression than women without this history.²⁴

Finer scrutiny of the amine and CRH pathways shows an even more intimate connection with stress than previously supposed. CRH neurons in the hypothalamus project to the source of noradrenaline in the brainstem, so that stress can lead to hyperactivation of the noradrenaline

²²Shimizu *et al.* 2003. The role of BDNF has been shown strikingly in its ability to stimulate the regeneration of cells after brain damage (Wilson *et al.* 2008). The effect of antidepressant treatment on adult hippocampal cells (in a way implying BDNF stimulation) has been shown in Wang 2008. This is a mouse study, but regardless of the ethics mice have proved a useful model for human depression.

²³For a clear and well referenced account of the chemistry of depression, including a good treatment of BDNF, see <http://www.psycheducation.org/mechanism/MechanismIntro.htm>. For the stress connection in particular the most recent survey I know is Bartolomucci & Leopardi 2009.

²⁴See Kendler *et al.* 1993, McCauley *et al.* 1997, Mullen *et al.* 1996. However complex this whole account seems, it has really been just a sketch of a few of the many mechanisms probably involved in the genesis of different types of depressions, or even all depressions. For a detailed summary of our current knowledge of the structural, chemical and genetic factors involved in depression, see Krishnan & Nestle 2008.

system. This is probably why anxiety so typically co-occurs with depression, and why many antidepressants also have anti-anxiety effects. Both the CRH and noradrenaline systems are known to become hyperactivated after early-life trauma in humans and other primates.²⁵ Depression is often associated with immune dysfunction. Depressed patients tend to be more susceptible to infection than the nondepressed, and stress in general predisposes to raised cortisol and diminished immune response, and hence to infection.

Recent work on the immune system and depression reveals a complex, bidirectional relation. Stress enhances some immune functions and reduces others, and the activated immune response, through the release of certain ‘messenger’ chemicals called cytokines, can produce symptoms of stress and depression. The micro-level picture of depressive biochemistry looks rather like a combination of inflammatory disease (immune hyperactivation) and immunosuppression.²⁶

Depression and sleep architecture

Another clear instance of the brain- rather than mind-centredness of depression is its effect on sleep. There is more to the sleep disorders accompanying depression than just insomnia brought on by the nasty contents of the mind; depressive sleep has a characteristic physiological signature. Sleep is not just shapeless unconsciousness; it has an ‘architecture’, a sequence of well-known states. A night of typical sleep is divided into two basic types: one characterised by rapid eye movement (REM sleep), and another by lack of such movement (NREM sleep). An ‘average’ night’s sleep appears to be constructed this way:

(a) NREM Sleep

STAGE 1. ‘Drifting off’, dream-like imagery, normal vital signs (heart-rate, blood-pressure, respiration, temperature). Sleeper easily aroused.

STAGE 2. Irregularities (‘sleep spindles’, short irregular bursts of electrical activity) enter the EEG pattern. Arousal is more difficult than in stage 1.

STAGE 3. Transition to deep sleep. Vitals drop, skeletal muscles relax. Some dreaming may occur in this stage, which on average is reached about 20 minutes after stage-1 onset.

STAGE 4. Usually referred to as slow-wave sleep (SWS). The 40Hz neuronal ‘background

²⁵ See Maes 1997, which shows that depression shares many biochemical properties with ‘acute phase’ immunological response, and has many of the features of an inflammatory disease, along with immunosuppression. For more recent work, Sadek & Nemeroff 2000.

²⁶ This account is based on Sadek & Nemeroff 2000.

oscillation' stops. Vital signs drop to normal minimum, though gut motility increases. Skeletal muscles are relaxed, but motion is still possible, and sleepers tend to change position quite frequently. Arousal is difficult, and an aroused stage-4 sleeper is usually confused. This is the stage in which sleepwalking is most likely to occur.

(b) REM Sleep.

This normally begins about 90 minutes after stage 1 NREM onset. There are sudden EEG changes, and the sleeper appears to 'backtrack' through phases 4-1. Temperature and heart-rate rise, gut motility decreases, and oxygen consumption is greater than when awake. The eyes move rapidly under the closed eyelids (hence the name), but there is temporary paralysis of skeletal muscles. Most dreaming takes place during this phase. Typically NREM/REM cycles occur about every 90 minutes; after each REM episode there is a return to stage 4 NREM sleep. REM periods usually lengthen as the night progresses, starting out at roughly 5 minutes and ending up shortly before waking at nearly an hour.

Neurotransmission and hormone-release patterns alter during the different sleep phases. During deep sleep, particularly SWS, there is a rise in serotonin levels and a decrease in noradrenaline; in REM sleep, there is an increase in noradrenaline.

In depression, this architecture is disrupted in a characteristic way. First, the onset of sleep itself is delayed, and overall sleep-time is decreased, as is efficiency (there are frequent intrusions of wakefulness into deeper sleep). More specifically, the expected ratios between REM and SWS are virtually inverted. There is decreased 'REM latency' (faster onset), and more and 'denser' REM sleep than normal (faster than usual eye-movement). There is also an unusual asymmetry between EEG readings from the right and left hemispheres. These signs are partly corrected in patients undergoing antidepressant treatment. Other abnormalities have been recorded: a rise in temperature, increased ACTH and cortisol output, and decreased output of hormones expected to be at high levels (e.g. thyroid-stimulating hormone, testosterone, and growth hormone). While other psychiatric illnesses (e.g. dementias) also show sleep changes, they are not the same kind, and the particular pattern described here may even be diagnostic for major depression.

Depressed patients, particularly those who also suffer from anxiety, are likely to have sleep disorders (current estimates are that 85% have insomnia). Even depressives undergoing treatment are rarely able to sleep without some kind of help (unless they are taking sedating antidepressants). But most hypnotics, while they do get you to sleep, also disrupt sleep architecture. Alcohol and barbiturates suppress REM sleep, but not SWS; benzodiazepines tend to reduce SWS. In either case sleep is likely to be less restorative than if it was not at least partially drug-induced; but it is better to be able to sleep than not.²⁷

²⁷ On sleep and depression see the detailed treatment in Goodwin & Jamison 1990: chapter 19, and Berger & Riemann 1993.

Biological rhythms and cycling

Surely among the most abstract of concepts, the rhythmic organization of time is grounded in material reality. Biological functioning is itself organized into periods linked to the rotations of the earth about the sun and the moon around the earth [...] Although biological rhythms cycle in synchrony with these “celestial mechanics,” they are clearly regulated by endogenous processes.

—F.K. Goodwin & K.R. Jamison, *Manic-depressive illness* (1990)

The architecture of sleep is rhythmic—i.e. particular stages repeat in a predefined sequence, and the decreased REM latency and REM/NREM reversal characteristic of depression is clearly a disturbance of rhythm. The colloquial meaning of ‘rhythm’ is intuitively obvious, but many biological phenomena are rhythmic in a rather special sense. Let us define rhythm as ‘relatively regular recurrence’. A random list of biological phenomena that could be called rhythmic would include: the beating of the heart; mood-cycles in bipolar or recurrent unipolar disorder; the menstrual cycle or the recurrence of oestrus in other animals; hormonal changes during sleep; the timing of germination, flowering and seed-setting in plants; the timing of insect and amphibian metamorphosis; the onset of hibernation in bears; changes over the day in blood-sugar levels; rises and falls in libido; the 11-year cycle of predator and prey populations (possibly connected with sunspot activity).

Some periods are regular: menstruation in humans runs on a lunar clock, while hibernation and flowering run on solar clocks (the period is the year). But there are irregular periodicities as well, particularly in mood-cycles (as well as epilepsy and migraine); these may not be keyed to ‘external’ clocks, but to more complex and poorly understood internal period-setters.

The most important clocks are those that run on a roughly 24-hour cycle, the circadian (‘about a day’) rhythms: a typical example is the sleep-wake cycle, which when unimpeded has a period of around 25 hours, though in modern industrial societies we tend to shorten it by the way we organise our days. There are also infradian (‘below a day’) clocks, like those controlling blood-sugar and hormone levels; and ultradian (‘beyond a day’) clocks, like the lunar and solar cycles.

Some characteristic rhythms and periodicities in mood disorder can be illustrated by my own depression. These are difficult to observe when you’re in the middle of them, but after years of experience and a good deal of deliberate attention, I think I have a fairly clear picture, and feel confident about the following description. When I am in remission, the only rhythmic disturbances apparent are in sleep: even with medication I usually have trouble falling asleep no matter how tired I am, I start dreaming early, and wake early. (This is partly due to disruption of the normal rhythm by alcohol.) But when the disease breaks through, and a new cycle begins, different patterns appear. One of the first, very often but not always, is advancement of the circadian clock: my ‘morning’ begins about an hour earlier each day for a period of three to five

days. I wake up around 7.00, then the next day at 6.00, then at 5.00, then at 4.00.²⁸ When I start waking regularly at 4.00 and cannot get back to sleep, I know that a new episode is on the way (how bad or how long or what kind I cannot predict). A day or so before this retiming begins, I often have a feeling of vague disquiet, a kind of ‘aura’, a sense of foreboding and edginess, sometimes vague nausea and tremor. So the first hard sign that a new mood-cycle is beginning is often temporal: my internal sleep-wake clock becomes less and less ‘entrained’ to the circadian light-dark cycle, more autonomous, and eventually begins a ‘free run’: the clock becomes self-regulating, and disregards the external factors like temperature and light that would normally cue it.

Once I go into a full depressive episode, the overall mood landscape re-entrains itself to a new circadian rhythm: I wake early, in an affectively neutral state, but within about fifteen minutes I become more and more depressed and anxious. This persists for much of the morning, on some days into the afternoon, at which point my mood begins to lift, and may go back to ‘normal’, or only slightly dysthymic, or even hypomanic. Then there is another drop in mood in the afternoon, which may remain until evening, or sometimes persist until (and in dreams after) I go to sleep. When this kind of episode starts, it tends to go in whole-day units: I have largely depressed days, or sometimes the depression is replaced by anxiety and panic, or by black hypomania, or even by euphoria. That is, the episodes that are signalled by sleep disturbance may be simple recurrences of depression, or the beginnings of rapid-cycling bipolar sequences, or even long-lasting hypomanic states —but depression is almost always the first stage.

It is difficult to predict when these episodes will occur; but they are partly linked to an ultradian clock, since there are times of the year when they tend to be worse. The ratio of light to darkness (the ‘photoperiod’) certainly plays a part, as does the day-to-day rate at which the photoperiod changes (the closer to an equinox, the faster). I am at my most unstable in summer and early spring, and most likely to have long and suicidal depressions in the winter and late summer, and euphoric hypomanias in late spring and early summer. Occasionally the mood-shifts reverse, and I get manic at the onset of winter.

This effect is particularly clear when I travel, since most of my travelling is not of the jet-lag east-to-west type, but across the equator. So for instance if I fly from South Africa in May or June (our winter) in a rather depressed state, and arrive in European summer, within a day or so the clock seems to reset to the new photoperiod, and I tend to be normal or hypomanic most of the time. The reverse often happens when I fly south again: this is partly what lay behind my wife’s comment when I phoned her from Cambridge that when I got back to South Africa the shit would hit the fan again.

²⁸This advancement was much commoner when I was younger; as I age the cycling tends to become more disorderly and less obviously controlled by a circadian clock.

Proximate causation: reprise

The material in this chapter so far converges on a single critical point: whatever may have started a depression in the first place, the disease itself presents with the biochemical signatures of stress-related illness, immune dysfunction and amine and limbic system dysregulation. And there are physical signs in the brain and bloodstream, detectable by the standard procedures for investigating human biochemistry, brain function and structure, as well as characteristic sleep anomalies. This implies that since some signs of depression are detectable by non-‘psychological’ means, some treatments should succeed by targeting the anomalies that produce these signs. Whatever the higher-level (cortical or experiential) correlates of depression may be, stress-induced amine and HPA dysregulation appears to be involved in the final common pathway. All the endocrine dysregulations and anomalies in brain function (glucose uptake, lateralisation, cell loss) seem to be mediated by these systems. Disordered neurotransmission is the business end of mood disorder.

Life stories as causes

But indeed nothing happens at one moment rather than another. The history books will make it much more definite than it is.

—Virginia Woolf, *Diaries*, 18 February 1921

Escaping dichotomy

What is experienced psychologically as depression manifests physically as a distinct cluster of signs. Our understanding is grossly incomplete, but at least we have some information. A level of proximate causation seems to have been identified, which suggests where our primary therapeutic energies should be directed. But the stress connection, the epidemiology and the narratives that emerge from talk therapy suggest that we can go back a step. Life-stories must play a part in many if not most chronic depressions, since it is here that we find so many of the predisposing stressors. Can we tie together the ‘mental’, ‘environmental’ and ‘historical’ data and theory with what we know of the neurophysiology? We must eventually: it would be outlandish if the affective and cognitive symptoms and often the known histories of stress were unconnected with the biological markers. How can a psychological insult be transformed into or manifest as a physiological dysregulation, which in turn manifests as a psychological disease? If the biographically ultimate cause of a particular case of depression may be some kind of life event, e.g. bereavement, abuse, dysfunctional relation with a parent, there ought to be a coherent causal story.

But often this necessary theoretical coherence is ignored, or sidestepped by a dualist either/or exclusivity. Here is a characteristic example, from a popular book by the clinical psychologist Lauren Slater (1997: 65). The topic is schizophrenia, but the same misjudgement

occurs commonly in discourse about depression.

No one knows for sure why the schizophrenic has such a hard time with words, why so little of his language makes sense. Ask him how the weather is and he might tell you, *Frogs be flying a green way* [...] Is this mumbo jumbo due to a dysfunction of the parietal lobe [...] or to some other kind of neuronal collapse? Or is it due to the schizophrenic's mother, who, early on, tongue-tied him with an overbearing love? People cannot definitively say.²⁹

This reads almost like a parody of the extreme positions in the therapeutic and theoretical 'causation wars'. The psychoanalyst or psychodynamic psychologist targets (what may be) the ultimate biographical cause, and hopes to reduce the symptoms by disabling the original stressor through recall, understanding, cultivation of insight, etc. The psychopharmacologist tackles the symptoms themselves, regardless of what may have caused them, often without interest in possible causes, or even in the face of the impossibility knowing anything reliable about them.

I would argue that in many if not all cases, certainly with respect to depression itself (not its effects on the rest of living), the ultimate biographical cause is usually therapeutically irrelevant or nearly so.³⁰ It does not matter a whole lot if you broke your arm because you were inattentive and tripped on the stairs, or if a mugger broke it. A broken arm is a broken arm, and the emergency doctor will treat it as such, rather than letting you lie there and suffer while he asks you what deep-seated family conflict or sight of something nasty in the woodshed made you miss a step or wander into the wrong neighbourhood.³¹ The question of which kind of repair is best for a particular broken neurotransmitter system may still be open, but good psychiatrists will judge with care which one (often both) might be appropriate in a given case.

²⁹Incidentally, it is rather odd for a professional psychologist to attribute language problems to the parietal lobe, which is not involved. Perhaps she meant 'temporal' or 'frontal'?

³⁰ The major exception is where the ultimate cause is constantly present, e.g. a continuing abusive relationship or otherwise intolerable home life, loneliness, unemployment or extreme poverty. In such cases no treatment may be really effective until the environment is changed, since every therapeutic improvement will be undone by a return to the causal context.

³¹ Fieve (*Moodswing*, p. 201) notes that many patients are not interested in 'insight' into what caused their depression, but simply want symptomatic relief. He suggests that no more than about 30% of his patients are interested in a psychoanalytic or other type of understanding. These are the ones he refers to psychotherapists *after* they are stabilized on drugs. In a quantitative study of patients undergoing psychotherapy in Maryland (reported in *Psycholink* 3:10, November 1994, p. 8), 'few patients said they benefited from the psychoanalytic insights of the therapy'. The conclusion was that 'most patients undergoing psychotherapy do not want the type of lengthy, psychoanalytic, insight oriented psychotherapy favored by therapists'. Stuart Sutherland, himself a trained academic psychologist, notes in a number of places that the 'insights' gained through psychotherapy did him no good at all, though the ones he believed were of mild theoretical interest. I return to this matter in detail in chapter 5.

Life-events, stress and kindling

We have enough information now to trace, at least tentatively, the pathway from stressor to disease without dichotomising. Given our current state of knowledge and ability to intervene, the proximate cause of chronic depression is a disorder in one or more neurotransmitter systems, which affects brain metabolism and function. Your childhood (or other) experiences may, through imposing severe stress, have dysregulated your brain. It is your ‘psychological’ brain’s reading of its ‘physical’ counterpart’s malfunctioning chemistry and/or disordered structure that produces the effects or experiences we call depressive illness. In terms of brain function, the causal stressor, perceived by both the limbic system and higher cortex, has been transformed into a subcortical dysregulation that sends abnormal messages both to frontal cortex and to the rest of the body; these are what is experienced as depression.

We need then to articulate an inclusive middle way between purely psychodynamic or cognitive and purely neurochemical approaches; this ideally would allow the full richness and humanness of mood disorder to surface, and still be good reductionist, nondualist science. We need to know how, if depression can ultimately be caused by an early bereavement, a dysfunctional family, a pervasive feeling of lack of control or a monstrous childhood, this can become a chronic illness recurring *in the absence of the original stressor*; and how it can be reflected in and successfully treated as a neurochemical dysregulation, without reference to its history.³²

One influential view of how this comes about is Robert Post’s ‘kindling’ theory.³³ This is a well-argued but still somewhat speculative idea, since it has not been empirically demonstrated; but the argument is so good that many investigators accept it at least as an interim account. As the name suggests, kindling is an incremental process. The idea first occurred in some animal experiments involving epilepsy induced by the electrical stimulation of particular brain regions. One kind of seizure is essentially due to a ‘weak point’ in the brain’s circuitry that responds to some stimulus with neuronal hyperexcitation and continuous, uncontrolled firing. As the stimulus is repeated over time, the relevant brain region becomes increasingly sensitised to it. The seizure-threshold is lowered, so that it takes progressively smaller stimuli to provoke a seizure. Finally, this region becomes so hyperreactive that its circuitry locks onto some periodic mechanism, and the seizures become autonomous. The result is a full-blown recurring epilepsy that goes its own way without the need for any stimulus.

Arguing from an elaborate and sophisticated analogy, Post suggested that a similar

³² The following should be read with one caveat in mind: the causal chain includes a pre-existing vulnerability to depressive reactions to stressors. Not everybody going through the same experiences reacts the same way, and what eventually throws one person into a suicidal depression might be shrugged off by another. The hidden variables are temperament and other genetic predispositions (see below).

³³ Post 1992. There is a very detailed and lucid discussion of kindling in Kramer 1994: chapter 5. For critical discussion and the suggestion of other, related mechanisms, see Monroe & Harkness 2005.

kindling may produce chronic depressions.³⁴ Say you are constantly subjected to unavoidable and irremediable stress by events in your childhood that lower your self-image and sense of status and worthiness, and put you in a constant state of (perceived) ‘danger’. An example would be abuse, physical or psychological or both, by a tyrannical parent or group of peers. We know from work on other social primates, both in the wild and in captivity, that status in their very hierarchical societies is closely related to free serotonin concentrations (Sapolsky 2004). That is, dominant animals have higher serotonin levels than ones lower in the hierarchy, and a drop in status (say being deposed from top baboon to somewhere down the scale) is associated with lowered serotonin and raised cortisol levels. And giving antidepressants to low-status troop-members can cause them to become dominant. As a kind of Just-So story (‘How the depressive got his amine problems’) let us project this information to the dominance (and therefore status) relations in a human family. (This is not Post’s argument but my own, based on his theoretical framework.)

Consider a child—by definition low in the status hierarchy of his troop, to retain the baboon image—who is constantly attacked by his father, either physically or verbally. (Not that baboons attack verbally, but threat-displays as opposed to actual attacks play a similar role.) Nothing the child does is right, every time he achieves something it is not good enough, nothing he does seems to elicit approval from the top baboon, and what appear to be ‘good’ acts provoke apparently irrational rage. The setting for my parable is autobiographical: my childhood and adolescence were largely consumed by wrestling for status and self-image with an alpha baboon, who happened to be my father. In addition, and this is not irrelevant to the primate-troop, I was unfortunate enough to be short, smart, middle-class, bespectacled and unathletic in a primary school with a socially mixed intake. In such a setting, this collection of attributes put me on the wrong side of the class war: I had to spend a lot of time and energy dreaming up alternative, often bizarre and complicated routes home from school, to avoid the knots of apprentice thugs I would otherwise meet, and so maybe pass another day without harassment or physical damage.

Now each time a child with the requisite vulnerability is on the receiving end of the appropriate negative stimulus, he reacts psychologically; and the physical reflex of this reaction (or the reaction itself) is stress, leading to a prolonged ‘fight or flight’ reaction, and attendant CRH- and cortisol-mediated dysregulation of the serotonin system and sensitisation of noradrenaline pathways. There is less serotonin production, faster reuptake, diminution of postsynaptic receptor sensitivity, growth of excessive numbers of receptors. This will almost certainly be accompanied by changes in neuronal wiring, including death of hippocampal neurons, as well as alterations in the internal gene activity of the neurons themselves. Repetition or continuation of these insults will make the system increasingly sensitive; smaller and smaller stimuli will set off what is physically reflected as lower serotonin levels (with all the effects this may have on other amines and BDNF) and psychologically as feelings of unworthiness, guilt, depression and anxiety. Eventually the system becomes so exquisitely responsive that it no longer

³⁴ There is further evidence for this in the efficacy of anti-kindling drugs normally used for the treatment of epilepsy in certain forms of bipolar disorder.

requires any stress input—each episode kindles the next until the relevant circuitry locks into a permanent depressed state, or becomes hyperreactive. Then either very tiny (and apparently ‘irrelevant’) stimuli will set it off, or it will develop its own independent periodicity. In that case the victim will perceive depressive (or manic) episodes as untriggered, unrelated to anything except the brain’s own peculiar logic. They ‘come out of the blue’, or ‘fall from the sky’, because the period-setting mechanism is not available to introspection.³⁵

In fact, as Peter Kramer has noted (1994: 113), kindling ‘appears to be a kind of learning, but a learning that can occur independent of cognition’. That is, unconscious limbic subsystems (‘zombies’ again) can learn habits without the rest of the brain having any particular investment in the process; the end-results are ‘discovered’ by consciousness after the learning is complete. One might characterise kindled depression as a kind of procedural memory (‘knowing how’ rather than ‘knowing that’); like a musician, one(’s brain) ‘practices’ being depressed, and gets better and better at it, until the behaviour becomes pure routine.³⁶

It is uncertain whether uncovering the original insult (assuming it has been repressed), or trying to get the patient to deal with it and obtain some kind of narrative insight into its correlation with his current depressed state is useful. But what is clear is that the symptoms themselves can be treated independently of their history, and indeed ethically speaking must be. Defibrillate first, then find out why the heart stopped.

This interconvertibility between the (unperceived) neurochemical and the (perceived) psychological frees us from the ‘mentalist’ vs. ‘physicalist’ dichotomy. The ‘mental’ is the way the brain interprets its own structural and chemical landscape at the experiential level. The neurochemical and the psychological are the same thing from different points of view; we just talk about them for clarity in two languages, ‘biologese’ and ‘psychologese’.

We can now rough out an integrated if preliminary model of the causation of depressive illness: at least some social, psychological and biochemical partial causes have been exposed. But there are important dimensions still unexplored: in particular the complex relation between ‘temperament’ and depression, and the possible evolutionary origins and known genetic factors involved. This may point the way to a more unified, if still woefully imperfect and incomplete picture.

³⁵ This is of course grossly oversimplified, both from the biochemical and psychosocial points of view; it is merely exemplary. For some detailed discussion of this kind of nexus, see van Praag 1997 and Sapolsky 2004.

³⁶ There is evidence for this view: apparently the notion of kindling is well supported, but after a certain number of kindled episodes the effect dies away and the episodes recur but do not become worse. See Kendler *et al.* 2000.

Genetic susceptibility: a pre-experience cause

Heritage

They fuck you up, your mum and dad.
 They may not mean to, but they do.
 They fill you with the faults they had
 And add some extra, just for you.

—Philip Larkin, ‘This be the verse’

We have already seen how they can do this by the way they treat you. But they can also do it inadvertently, with the best will in the world, even if they are as close to perfect parents as possible. Not by their actions, but by what they are and where they came from. Depression, like schizophrenia, autism, personality disorders and many other psychiatric diseases, can be as much a prenatal heritage as the result of events in your own lifetime. To show this requires an excursion into genetics.

Inside the nucleus of each of our 10-trillion cells (except red blood cells, which have none) is a set of double-stranded helices of DNA. This contains all the information necessary to build us from a fertilised ovum, maintain us during our lives and allow us to interact with our environment. This is the human genome, our heritage from our parents. In all cells except sperms and eggs there are two nonidentical copies of the genome: a maternal and a paternal. One’s genome is a family heritage—but it is an extended family. We get our genes from our parents, who got theirs from their parents, and so on back to the earliest *Homo sapiens*, to *Homo erectus*, to the first mammal ... and eventually back to the (unknown) common ancestor of all living things. We carry in every body cell a partial record of the history of life and its contingencies, even bits of genetic material not originally ours at all, but spliced into our genomes by viruses and other parasites.

In the popular conception, the genes’ task stops when they have made us. They give us our shapes, organs, sexes, eye-colour, family resemblances; sometimes they give us diseases.³⁷ But most of our 30,000-odd genes are not just recipes for making us; they are constantly at work in the present. Genes are perpetually turning on and off, making proteins that construct tissues or chemicals, telling cells when to divide or when not to, giving them orders to self-destruct, organising ‘housekeeping’ tasks like getting rid of waste and releasing energy, running the immune system, timing our circadian clocks, making hormones and neurotransmitters and receptors—to give just a sample. The results of all these complex and minuscule chemical operations are larger-scale processes like development of a mature individual from the single cell of a fertilised egg, and maintenance of that individual during its lifetime. Genes are messages

³⁷Actually there are no genes whose sole function is to give us diseases; it is particular *variants* of certain genes that can cause pathologies.

from the past, since you get them from your parents; but most of them are also part of the working present.

Excursus: Mendelian and non-Mendelian inheritance

I assume that readers of this book have a basic idea of ‘standard’ genetics: that for instance some genes are ‘dominant’ and others ‘recessive’. Your complement of genes is your ‘genotype’; the physical, biochemical and behavioural traits they produce in interaction with your environment are your ‘phenotype’. Here is a simplified reminder. It is broadly true that with respect to eye-colour, brown is dominant and blue is recessive. So we might conceive an ‘eye-colour gene’ with two variants or ‘alleles’, one dominant *B*, and one recessive *b*. Assuming one gets a single allele from each parent, the possibilities are:³⁸

GENOTYPE	PHENOTYPE
<i>BB</i>	brown
<i>Bb</i>	brown
<i>bb</i>	blue

Given a dominant/recessive pair, the dominant will normally ‘cancel out’ the recessive, so that *BB* and *Bb* produce the same phenotype. Someone with the genotype *BB* (‘homozygous’ for *B*) will have brown eyes, as will the ‘heterozygous’ *Bb*.³⁹ But *Bb* is capable of passing down both blue and brown eyes, depending on the other parent. Say a *BB* mates with a *Bb*. Each gamete (sex-cell) of the first parent will carry *B*; each gamete of the second parent will have *B* or *b* (sex cells contain only half the species’ chromosomal complement). Since the meetings of sperms and eggs are random, the offspring of these parents could be *BB* or *Bb*; on average 50% will carry the recessive allele, but all will display the dominant phenotype. But if both parents are heterozygous *Bb*, a quarter of the offspring will be homozygous *bb*, a quarter will be homozygous *BB*, and half will be heterozygous *Bb*; but three-quarters of the offspring will have the brown-eye phenotype, and only one quarter the blue. This is what accounts for traits ‘skipping a generation’: heterozygotes are ‘carriers’ who do not show the recessive phenotype, but it can surface in a mating with either another heterozygote or a homozygote.

This is classical Mendelian inheritance, the kind we learn about in school biology courses; but it is not the only kind, or even the commonest. Genes can also behave in much more complex and less predictable ways:

³⁸This is an expository oversimplification, but it is true in principle. In actual fact, blue is not always recessive to brown; there is continuous variation along a scale from pale blue to brown, connected with the amounts of the pigment melanin that gene expression produces. So two dark-eyed parents under certain circumstances can produce a blue-eyed child.

³⁹ A zygote is a cell derived from the fusion of a sperm and an egg (Greek ‘yoked’), which by division becomes an embryo.

(i) *Polygenic Inheritance* or *epistasis* (Greek ‘standing-upon’). A number of genes act in concert to produce a given phenotypic effect. The construction of one type of human dopamine receptor involves at least four genes on different chromosomes, each of which builds one of the four proteins that make up the exterior or ‘docking site’, and each of these may have a number of alleles with different effects. Probably most important traits are controlled by a number of genes, operating in concert.

(ii) *Pleiotropy* (Greek ‘many turnings’). Single genes may have multiple, often apparently unrelated, phenotypic effects. A classic case is the recessive metabolic disease Phenylketonuria (PKU). Homozygotes for the recessive allele deposit a dark-coloured pigment in joints and elsewhere, leading to early arthritis; this variant also yields nerve damage, mental retardation, fair hair and blue eyes. Similarly a gene that codes for part of a receptor for some neurotransmitter can have phenotypic effects on every activity of that neurotransmitter, including its interactions with others. It is likely that most genes are pleiotropic to some degree.

(iii) *Genetic heterogeneity*. In many cases, similar or identical phenotypes can be produced by alleles of different genes. There are apparently at least forty different genes which have alleles producing hereditary deafness (Barondes 1998: 205). And many genes are not direct ‘causes’ of diseases, but simply induce varying degrees of susceptibility to them, partly mediated by environment and other genes. Juvenile onset diabetes—and almost certainly mood disorders—come under this heading.

(iv) *Incomplete Penetrance*. Penetrance is a population-wide measure of the degree to which a given gene is expressed. Possession of a particular allele does not always mean that the possessor will show its effects. For instance, there are many genetic disorders in which identical twins (who by definition have nearly the same genotypes)⁴⁰ do not both show the results of a given gene or gene-complex. If one of a pair of identical twins suffers from bipolar disorder, the other has a 79% chance of also having it. Now this is clearly a genetic effect, since the bipolar disorder rate in the population at large is about 1%; but the genetic underpinning in this case is only 79% penetrant—as opposed to Huntington’s disease (see below), which is 100% penetrant: every individual carrying the allele for it gets it.

⁴⁰There are two types of twins: monozygotic or ‘identical’ (two fetuses from the cleavage of a single fertilised egg), and dizygotic or ‘fraternal’ (separate fertilisations occupying the same womb at the same time). Identical twins ought to have more or less the same genomes; fraternal twins, regardless of the accident of timing, are no more genetically similar than any arbitrary pair of siblings. They share on average 50% of the parental genes, but not the same 50%. The standard view that identical twins have absolutely identical genomes is not entirely true (Bruder *et al.* 2008). This paper shows that identical twins can have different numbers of copies of the same gene. There are also other differences: they do not have identical fingerprints.

(v) *Variable expression*. Some genes (or mutations or gene-combinations) are expressed to varying degrees in different carriers. This is the case for skin-colour, and for many genetic diseases, which can appear in different degrees of seriousness.

Polymorphisms

Genes were first imagined as unitary objects arranged on the chromosomes like beads on a string. Since the unravelling of the structure of DNA in the 1950s, the picture has changed radically; genes turn out to be complex structures with previously unsuspected properties.

DNA consists of a ‘backbone’ of the sugar deoxyribose with phosphate groups attached, and a series of nucleotides or bases that carry the genetic code: there are some 6 billion of these in the human genome. The ability of the famous DNA double helix to replicate, and thus serve as genetic material, is due to the fact that each of the four bases or nucleotides, adenine, cytosine, guanine and thymine (A, C, G, T) can pair only with one complementary base: A pairs with T and G with C. This means that if a strand of DNA separates into its two component sub-strands, each strand can form a template for its own recreation (the bases are built out of precursors floating in the environment).

The ‘meaning’ of a string of bases, i.e. the genetic code, is based on nucleotide triplets: each of the 20 amino acids out of which proteins are made is coded for by one or more triplets. So for instance AAA codes for lysine, AAC for asparagine and CAG for glutamine. A gene, then, is loosely speaking a string of nucleotide bases, which can replicate itself on cell-division; functionally, its job is the manufacture of proteins by a complicated process involving copying itself and the sending of ‘messengers’ to other parts of the cell, which direct synthesis.

So a gene is a string of bases, at a particular location on a particular chromosome. But not all of the material in the sequence codes for protein. A gene itself consists of coding pieces called ‘exons’, and noncoding ones called ‘introns’; the latter are ‘edited out’ by RNA⁴¹ before amino acids are manufactured. There are also stretches of DNA which do not code but control the expression of the gene, such as ‘promoter’ regions, which start the process of expression (see below).

These complex structures are not fully stable; in the process of replication bases can be lost or replaced by others; or parts of exons (usually triplets for particular amino acids called ‘codons’) can over-replicate, and produce multiple copies within a gene. These are ‘mutations’. A mutation can be neutral in effect; it can also be harmful (even lethal), or—much more rarely—beneficial. Natural selection is built on these differential effects. Any mutation is likely to produce a different protein from the original gene; and some of these variant proteins can have significant effects.

⁴¹RNA (ribonucleic acid) does much of the moving and organising of DNA products in the cell; it is a very similar compound, but with a different sugar backbone (ribose rather than deoxyribose). Genes are not made of it (except in certain viruses).

Mutations can occur in any part of a gene, coding or non-coding; since DNA is so mutable, there are huge numbers of possible structures for the same gene, as well as for non-coding regions. These differences are called ‘polymorphisms’. The existence of an almost astronomical number of possible polymorphisms accounts for both individual uniqueness and group similarity; and some polymorphisms are intimately involved with disease as well. Here is an example of the possible effects of a simple polymorphism that happens to affect an important gene. (This is not a mood-disorder gene, but I use it because it is about the simplest and most direct example of a complicated process.) On human chromosome 4 is a gene that codes for an as yet poorly understood protein called huntingtin. It is named after Huntington’s disease (a fatal neurological affliction producing movement disorders and dementia), which results from certain alleles of this gene. Part of the gene consists of a string of glutamine (CAG) repeats. Most people have between 6 and 35 repeats, on average around 10-15. If however there are more than 39, the result is Huntington’s disease. This gene is dominant, so that anyone who has one copy of a variant with too many repeats will get the disease. But the age at which the symptoms begin is governed by the number of repeats: 39 yield a 90% probability of dementia by age 75, with first appearance of symptoms about 20 years earlier; 50 will produce dementia in the late 20s.⁴² If we adopt a notional minimum of six and a maximum of fifty CAG repeats, this gives us no less than 44 possible variants of this one gene with respect only to this one feature.

This illustrates in outline what one aspect of ‘genetic causation’ can be like; genes are highly variable, and minute changes can either predispose to or produce diseases. Everybody ‘has the Huntington gene’; but only certain forms will induce the disease, and the timing of onset depends on nothing more than the number of glutamine repeats in one particular stretch.

‘Genes for depression’

A generation ago, few mental health professionals believed that inherited vulnerabilities could be central to the development of psychiatric illness. Fearing that discovery of a genetic diathesis might cast a stigma on patients and lead to therapeutic nihilism, many clinical observers found social and developmental reasons to explain the inescapable fact that mental illness runs in families.

— Eliot S. Gershon, *Genetics* (1990)

If physical traits run in families, they are obviously ‘genetic’: they are encoded in the genes handed down from generation to generation. So dramatic examples like the ‘Habsburg lip’, haemophilia in the male descendants of Queen Victoria, Huntington’s disease. Other traits run in families but seem at first sight ‘environmental’ rather than genetic: intelligence, musical or artistic talent, literateness, criminality, professions (lineages of bookies, doctors, musicians, gangsters ...).

In the standard lay interpretation, the shape of one’s lower lip is purely a matter of genes,

⁴² For details and references, see Ridley 1999: 55ff.

or ‘nature’; becoming a gangster in a family of gangsters is a matter of environmental influence and upbringing, or ‘nurture’. There has been a strong tendency for centuries to partition all human attributes into two classes: those due to nature and those due to nurture. This has led to one of the longest-running and most futile debates in the history of philosophy and the social sciences. It reflects a characteristic (and not in itself necessarily reprehensible) human tendency to prefer dichotomies to more complex models for just about anything. We do not, without special training, normally feel very happy with world-views that have central grey areas or ambiguities.

This tendency is supported by public lack of genetic sophistication, reinforced by sensationalist and irresponsible science journalism (‘gene for Schizophrenia/Dyslexia/Homosexuality discovered’). Very few genes in fact are ‘for’ one particular gross character, and of course no genes are ‘for’ an illness: rather anomalies in certain genes may produce or conduce to certain illnesses. And very little of the inheritance of complex traits is strictly Mendelian anyhow, so all the complications mentioned above are likely to be involved.

Making a sharp distinction between genes and environment is also a fundamental error. Genes always operate in *some* environment or other. The genome itself is an environment: genes have to work together, often in exquisitely timed sequences. The embryo is an environment, so is the fetus; their environment is the womb; the neonate, the toddler, the older child, the adolescent, the adult are also environments; and this stack of environments is set inside another, consisting of the mother, the father, the family, the immediate conditions under which the individual is raised, the society, the culture ... Nothing is ever genes or environment, but always genes *and* environment.

The gene/environment dichotomy becomes even shakier when we observe that the same set of genes may code, under different environmental conditions, for different phenotypes—even in such an obvious matter of ‘nature’ as sex. Thus the sex of an alligator or crocodile is dependent on the position of its egg in the nest: the sex of the embryo is controlled by the temperature it matures at. A human example is the inheritance of multiple sclerosis. If one identical twin has it the other has a 30% risk of having it as well; so there must be some genetic involvement, as well as other factors, since the overall population incidence is much lower. And MS is commonest in people of northern European origin living in temperate climates. This is characteristic gene/environment interaction, with variable penetrance and expression under different environmental conditions.

Nobody is bothered by characters like eye-colour being genetically determined; but many people abhor the idea that ‘higher level’ human traits like temperament, intelligence, creativity, even propensity to mood disorder— anything ‘behavioural’ or ‘mental’ or ‘cultural’—should be. The ‘libertarian left’ (in the American sense, rather than the European sense of ‘social democrats’), in crude summary, would rather have these depend on environment alone. If they did not, so the standard argument goes, this would open the way to loss of opportunity and non-fulfilment of potential, a kind of fatalism (if it is ‘in the genes’, there is nothing to be done about it). It would encourage stereotyping, crude genetic determinism and nihilism, would erode the notions of ‘free will’ and human perfectability, and might even lead to a kind of Hitlerian

eugenics. Such hard-line ‘environmentalism’ is a political rather than a scientific position; but it actually makes empirical claims.⁴³

Such claims are testable, because they make implicit predictions. For instance, if some trait *T* is purely environmental and not genetic, it follows that: (a) identical and fraternal twins, and non-twin siblings growing up in the same environment, should not differ significantly in incidence of *T*; and (b) twins separated at birth and raised in different families should with respect to *T* be more like their adoptive parents than their biological ones. With many features of temperament and susceptibility to mood disorder this turns out to be false. For instance:⁴⁴

1. The overall population incidence (‘lifetime risk’) of Bipolar Disorder is 1%; that of Major Depression (recurrent or nonrecurrent) about 5%.
2. If you have a first-degree relative (parent or sibling) with Bipolar I, your lifetime risk for Bipolar Disorder (I or II) goes up to 8%, and your risk for Major Depression to 10%; that is you are 8 times more likely to suffer from Bipolar Disorder and twice as likely to suffer from Major Depression as an ‘average’ member of the population without this family background.
3. If you have a first-degree relative with Major Depression, your lifetime risk is 10%, again twice the population average.
4. If you have a first-degree relative with Major Depression whose first episode occurred before the age of 20, your lifetime risk is 30%, six times the population average.

These figures hold regardless of whether you share or ever have shared an environment with the relatives in question, so there must be some genetic element involved. This is even clearer when we consider the evidence from twin studies.

Twins are a rich source of information on nature vs. nurture; in particular, when pairs of twins have been separated at or near birth, and raised in different families, and good records have been kept of their fates. In many highly bureaucratised countries with state health services, like Denmark, the record keeping has been particularly good; some of our best data comes from a series of Danish twin and adoption studies (cited in Gershon 1990). These looked at

⁴³For an eloquent, beautifully argued and entertaining destruction of the ‘environmentalist’ position, demonstrating how much of ‘human nature’ is actually hard-wired, see Pinker 2002. My own view is that after that book the nature/nurture debate is no longer necessary, but there are still a lot of people who don’t feel that way.

⁴⁴The material in this section is based largely on Gershon 1990, Souery *et al.* 1997 and Barondes 1998: chapters 7-10. For a detailed introduction to the genetic epidemiology of psychiatric illness see Scham & Kendler 2008. As far as anybody knows, these distributions appear to hold for all human populations. There is nothing ‘ethnic’ or ‘cultural’ about these illnesses—though there may be in their characteristic presentations.

‘concordance’ in identical vs. fraternal twins: i.e. the statistical risk of a co-twin suffering a disorder if the other twin does. Recalling that the worldwide control population incidence is about 1% for bipolar disorder and 5% for unipolar, the following results are of interest:

1. Conflated figures (bipolar and unipolar). Identical twins: concordance 67%; fraternal twins 20%.
2. If either of a pair of identical twins is bipolar, the concordance is 79%; if one is unipolar the concordance is 54%.
3. If either of a pair of fraternal twins is bipolar, the concordance is 24%; if unipolar, 19%.
4. Breakdown of conflated bipolar concordances: If one of a pair of identical twins is BP I (the more severe type of bipolar disorder), the concordance is 80%; if one is BP II, 78%.
5. In identical twins where one is unipolar, and has had three or more episodes, the concordance is 59%; if one has had fewer than three episodes, the concordance is 33%.

The lowest concordance, in unipolar fraternal twins, is still nearly twenty times the average lifetime risk. The only reasonable explanation for this heightened risk is inheritance—but of a complex kind, involving a difficult and as yet not understood combination of polygenes, incomplete penetrance and variable expression—the most intricate possible type of inheritance.

Adoption studies and records of incidence within biological families provide striking reinforcement. The former distinguish genetic heritage from environmental influence; the latter display long-term inheritance patterns (from data summarised by Gershon):

1. In adopted children presenting with bipolar disorder, 31% of the biological parents had mood disorders, as opposed to 12% of the adoptive parents.
2. In biological families, if one parent is unipolar or bipolar, and the other normal, the overall mood disorder risk for a child is 27%.
3. In biological families, if both parents have mood disorders, and one is bipolar, the overall risk to the child is 74%.

There are a number of confounding variables here, but they do not seriously affect the general picture. One is ‘assortative mating’: the unsurprising tendency for people with mood disorders to marry other people with mood disorders. This may produce a statistical loading, since it increases the presence of whatever it is that is heritable. In the biological family data (2-3 above), there may be an environmental factor as well: if one or both parents have mood disorders, the

family environment is likely to be highly stressful, so that the children—who are at high risk of inherited vulnerability anyway—are particularly prone to having this exposed by environmental triggers. Once again, the intricate overlap of heredity and environment makes the apportionment of responsibility difficult: but the genetic element still remains central.

This suggests that at least part of what is heritable in mood disorders is not disease *per se*, but a vulnerability or predisposition to respond to stress and other environmental triggers more sensitively than others. And since the mode of inheritance seems to be so complex, the most likely explanation is that there are many genes involved, or many variants of a few genes, and perhaps no two depressives will show exactly the same pattern. There have been an enormous number of studies attempting to determine just which genes may be responsible for this vulnerability; very few have been conclusive, but one is well supported.⁴⁵

There is a well-studied gene called 5HTT, or the Serotonin Transporter Gene (5HT is a chemical shorthand for serotonin). There is one part of this gene—the promoter region—that shows a major polymorphism. There are two basic types, called ‘long’ and ‘short’: this refers to the number of CG repeats in this region, which is tremendously variable. The presence of long or short alleles of this gene is highly predictive for a person’s propensity to develop depressive illness in the presence of stress.

Since the child inherits one copy of the gene from each parent, there are three possible long/short combinations, which predict the risk for depression as follows:⁴⁶

- (i) 2 long alleles: little risk
- (ii) 1 short, one long: moderate risk
- (iii) 2 short: highest risk (two-thirds of these subjects show depression by their mid-20s)

Carriers of two short alleles also show considerably elevated base-line activity in the amygdala, whether depressed or not. This may be the clearest neurological marker of the effect of the two-shorts configuration: a state showing an increased likelihood of anxiety.

It is clear that this gene does not directly ‘cause’ depression; it codes a vulnerability to depression under stress, with clear involvement of the serotonin system and limbic structures. Possession of any particular pattern is a prediction of risk, not a condemnation to depressive illness. It is probable, judging from population distributions, twin results, etc. that there is no gene or gene combination that directly ‘causes’ mood disorder: rather that there are genes that make predictions of risk. But this still makes depression significantly a genetic disease.

⁴⁵ For a short general account of studies of particular genes and/or chromosomal regions in depression see McGuffin 2008.

⁴⁶ Caspi *et al.* 2003. This is a ‘prospective’ study, i.e. it followed 1000 subjects from infancy to young adulthood. For discussion and summary <http://www.psycheducation.org/mechanism/MechanismIntro.htm>. As this chapter was being completed a new study appeared that argues that this effect is an artifact of the analysis, and that the long/short allele distinction does not have the claimed effect. See Risch *et al.* 2009.

Another interesting and fruitful line of enquiry has been the study of the genetics of temperament. It has been clear for a long time that basic temperamental variables like shyness vs. extraversion, anxiety vs. a sanguine temperament, novelty-seeking vs. avoidance of danger, are to a very large extent heritable.⁴⁷ Temperamental variables are certainly part of what defines vulnerability; I return to the question of temperament and personality in depressive disorder in chapter 7.

The causes of depression: summary

It is quite possible that the really ultimate causes of depression or a propensity to it lie far back in our mammalian ancestry; all mammals have similar brains, use the same neurotransmitters, and show similar responses to stress. Syndromes that look like depressive disorders, and respond to standard medications, have been observed or produced in cats, dogs, mice and nonhuman primates. And indeed it is quite easy (perhaps too easy?) to see depression as very similar to characteristic mammalian responses to aggression and loss of status and control: social withdrawal, self-concealment, 'playing possum' to avoid excess energy expenditure in situations where it is clear (or it seems clear) that nothing is to be gained by acting. Bipolar disorder is rather more complex from this point of view, though there are (admittedly speculative) arguments for the manic or hypomanic phases having a selective advantage (bipolars are often peculiarly sexy when hypomanic). But given the existence of 'mixed' manic/depressive episodes and the possibility of unipolar disorders becoming bipolar and vice versa, and uniform cross-cultural incidence of both unipolar and bipolar disorder, it is clear that something in our evolutionary endowment predisposes to these disorders, and that they are stably maintained in modern populations.⁴⁸

So let us assume that part of our species-specific or general mammalian heritage is a certain distribution of vulnerability to mood disorder in human populations. This is a somewhat speculative notion, though I think rather well supported; but the situation and history are not really well enough understood at present to build a solid evolutionary theory. But with this possibility in mind, we can produce a reasonable summary of the causal picture as we now understand it. Drawing together the information and arguments in this and the preceding two chapters, the causal chain leading to depression has at least three major components:

- (i) Panhuman programmed behaviours of one kind or another, e.g. stress-avoidance

⁴⁷See Hamer & Copeland 1999, Kramer 1994: 184ff, Whybrow 1997: 317 for discussion and references to this work.

⁴⁸These facts and interpretations have led to a flourishing tradition of 'Darwinian psychiatry' or evolutionary psychiatry'. For an introduction see Baron-Cohen 1997, McGuire & Troisi 1998. Schizophrenia is similarly genetically influenced and uniformly distributed, and may also be an ancient heritage: see Horrobin 2001.

mechanisms, other ancient mammalian or even general vertebrate responses and the genetic apparatus that makes them possible. We might think of these as macrohistorical or phylogenetic enabling mechanisms—the ‘species substrate’.⁴⁹

(ii) Individual genetic vulnerability. All mood disorders have a major genetic component. This is probably realised primarily in the structure of temperament, which in turn may be largely defined by innate dispositions of particular neurotransmitter and hormonal systems to respond with different degrees of intensity to environmental challenge. The important factors here would be polymorphisms involving the HPA and amine neurotransmitter systems, which together would define an individual ‘reactivity style’—in practical terms a vulnerability to dysregulation under stress, or a predisposition to certain kinds of reactions or behaviour. This would be the ‘individual substrate’. For instance, a highly reactive temperament, prone to ‘inappropriate’ response, anxiety, depression, etc. might produce a particular personal reactivity-style that then interacts with life history (‘nature’ vs. ‘nurture’). Here we are on the border between the macrohistorical (evolutionary) and the microhistorical (individual) perspectives.

(iii) Life history. This is a loose term for all the contingencies faced by the individual, who we assume is already carrying some genetic loading for mood disorder. Everything from *in utero* factors (nutrition, oxygenation, position, birth order) through early childhood and later experience interacts with (i) and (ii). The result—in the appropriately specified individual encountering the appropriate stressors—is eventually a mood disorder. An individual life-history is made up not only of the things that happen to the individual, but his responses (e.g. hyperactivation, kindling). All things being equal, a highly reactive personality, and if this too is genetically specified, as it almost certainly is, a personality with a particular kind of temperament (e.g. hypothymic, dysthymic, cyclothymic) will be more vulnerable to certain classes of life-events than one with a different set of specifications. This inborn temperamental scaffolding fairly accurately predicts later reactivity. In combination with the self evolved by the individual in the course of a history of interactions with the world, in particular the reactions of its owner to external stressors of various kinds, and the internalisation of these stressors, it serves as a predictor of later mood disorder.

One thing we do not understand is what the predictors are of unipolar vs bipolar disorder. It would seem that the mechanisms for the depressive component are the same; but there are obviously other genetic and physiological systems involved.

⁴⁹For some intelligent (if brief) discussion of possible evolutionary motivations for and current advantages of depression, see Keedwell 2008. Keedwell unfortunately appears to believe that most depression however is not serious, and that it should not be called a ‘disease’.

This is an oversimplified account of the complex causality of depressive disorders, based on a sketch of current knowledge. As research continues we will certainly learn more; but the basic categories appear well established.

5 TREATMENT¹

The trouble that we have in psychiatry is that we treat disorders that have a very high morbidity but very low mortality. As horrible as it sounds, we would get more respect if our patients died more often of their illnesses. As it is, they sit home, quietly hallucinating or profoundly depressed, but not really calling attention to themselves or bothering anyone. If incompetent or inadequate treatment is provided, nobody really notices.

—Thomas A M Kramer, *Recovery vs. response* (2000)

Prelude

Earlier literature is full of strategies for dealing with mood disorders, especially melancholy. One of the great English prose works of the 17th century, Robert Burton's *Anatomy of melancholy* (1621), is an encyclopaedic treatment, by a sufferer. Even before the advent of modern psychiatry, depression was handled in ways similar to present ones: supportively through verbal intervention, physically with mood-enhancing music, social activity and exercise, or with every psychoactive drug imaginable, most of them inappropriate. Among the perennial favourites have been alcohol and opiates, neither of which is properly antidepressant or antimanic. They can however often mask or mitigate symptoms by creating short-lived elation to replace depression, quasi-euphoric sedation to counter manic agitation or anxiety, or just unconsciousness to block any feeling at all. Cocaine, and more recently amphetamines and Ecstasy, are similarly used to produce or prolong euphoria; though like alcohol in quantity they often lead to serious rebound depression, and the first two at least may eventually cause brain damage and psychosis.

But while your chosen poison is working you tend not to take much thought for the morrow. Drugs that eventually produce unconsciousness are among the most popular; this is a classic short-term cure both for depression and its frequent accompaniment of almost unbearable insomnia. Some depressives suffer from hypersomnia (excessive sleep), which may be one of nature's escape hatches. Suicide is the extreme version: permanent hypersomnia.² However uninformed or even desperate, these interventions have a folk-therapeutic rationale—when you are high or in a dream-like state or not conscious or not alive, you are not depressed. We are more sophisticated these days, though the old strategies remain. As do the old substances, which are still often used as unprescribed adjuncts to official treatment—sometimes usefully,

¹This chapter should in principle be one of the most 'objective' in the book, since it deals with available methods of treatment and what they do. But treatment of depression is not without controversy, and I have experienced a good deal and have many personal things to say. So while I have tried to keep the science as straight as possible, I have in places slipped into the ideological, self-descriptive and autobiographical. I trust these portions will be easily recognisable and not prejudice the others.

²Am I suggesting that suicide should be considered a 'treatment' for depression? Yes indeed, in the appropriate circumstances; but the issues are so complex that I have devoted all of chapter 8 to them.

sometimes damagingly, most usually both at the same time.

Aside from verbal intervention, which was mainly applicable to the milder forms of mood disorder, the only therapies available to psychiatrists before the middle of the 20th century were dangerous, uncontrolled, and poorly understood. The mainstays for psychotic depression or mania (as well as schizophrenia, with which they were often confused), were crude and often perilous interventions with what little was known of normal brain function: e.g. insulin-caused coma and convulsions induced either by drugs or electric current.³ The most drastic approach, popular from the 1930s to the 1960s, was prefrontal leucotomy (called lobotomy in the US), the nearly random destruction of white-matter tracts in one or both frontal lobes. This so drastically flattened affect that neither depression nor mania were in principle possible. It led to radical personality changes, either emotionless flaccidity, or irresponsibility, childishness, disinhibition and inability to plan. (See the story of the accidental partial lobotomy of Phineas Gage in chapter 3.) Such a procedure can ‘cure’ depression, if what is left is only a shadow of the original person. This is no longer done; the surgeries employed now in desperate cases are much more delicate and restricted, and usually do not damage personality.⁴

This chapter surveys a sample of the standard medical treatments for depressive disorder, both unipolar and bipolar (psychotherapy, ECT and drugs). I also deal with two ‘informal’ ones—self-medication with alcohol and tobacco. I give a brief account of how these work, and their dangers—especially those of the informal ones. Other major themes are the difficulties arising from the delicate balance between therapeutic effects and side-effects, dependency, and the circumstances under which one might choose to be less than optimally treated.

Psychotherapy

There is experimental evidence from measuring the hormone levels of female doves and canaries [...] that the sexual state of females is directly influenced by the vocalizations of males, the effects being integrated over a period of days. The sounds from a male canary flood through the female’s ears into her brain where they have an effect that is indistinguishable from one that an experimenter can procure with a hypodermic syringe. The male’s ‘drug’ enters the female through the portals of her ears rather than through a hypodermic, but this difference does not seem particularly telling.

—Richard Dawkins, *Unweaving the rainbow* (1998)

Parts of this chapter may make it appear that I disapprove of psychotherapy and do not believe it is helpful. This is not the case. There is very good evidence that it can be exceedingly

³ The latter is still done, but in a much refined form. See below.

⁴ There is a harrowing history of psychosurgery and its abuses in Valenstein 1986. For a sober treatment of its current (highly restricted) practice, see Poynton & Bridges 1997. I will not deal with this very technical issue any further.

useful—for the right patients. I am in fact too ignorant to condemn it in an intellectually respectable way even if I wanted to. But I personally do not like the kind of thing it is, and have experienced just enough to reinforce my dislike and both prevent me from experiencing it any more and lead me to discuss seriously the option of doing without it as I and many others have done.⁵I do not argue against talk therapy and the therapeutic relationship as such, even though I may sound disapproving and critical at times. This is a matter of personal attitude, and the result of my ideology, temperament and social aesthetic. And it is also a laying-out of a set of views shared by many people, though it may be a minority position. But I feel I ought to make these views as explicit as possible, both for the sake of simple honesty, and because they are relatively unfamiliar, might appear eccentric and perverse, and go counter to the received wisdom. I think they should be better known, and might turn out to be helpful and even comforting to many patients. Most of my depressed friends share these attitudes in fine detail, as do some psychiatrists, so whatever else they are not just personal idiosyncrasy. This is a warning that I will not be entirely fair and ‘objective’, but also expressing basic philosophical positions and personal preferences. (I did this in chapters 3 and 4 as well, in espousing total materialism and the ‘medical model’, so the behaviour should not be unfamiliar; and I will do it again with mood stabilisers, alcohol, tobacco and dependency.)

I was once asked to address one of the regular seminar-cum-dinners of the Society of Psychiatrists of South Africa. My assigned topic was ‘Language and psychiatry’. I suppose I was invited because I am a senior language-scientist with an interest in psychiatry and personal experience of psychiatric illness (as well as a reputation for mixing serious discourse with standup comedy). Anyhow, to illustrate the main point I wanted to make, I began by saying, in as deadpan a manner as possible:

Psychiatry, of course, is a fraudulent pseudo-discipline. It’s primarily a kind of sheltered employment for cranks, nutcases, charlatans and failed physicians. Most of these appear to have unhealthy preoccupations with incest, genitalia, excretion, and the generation of false memories of childhood sexual abuse. Some, especially those of the analytic or psychodynamic persuasions, are simply mythmakers and low-grade epic poets; others, such as practitioners of so-called Cognitive-Behavioural therapies, are throwbacks to the heady days of behaviourism; they put their poor victims in verbal Skinner boxes and turn out well-trained little pigeons. The whole lot are modern witch-doctors; they use quasi-magic to achieve ambiguous and untestable results.

There were some uncomfortable half-smiles at the first sentence. As the diatribe proceeded the audience began to look puzzled, then angry—why on earth did the Society invite this antipsychiatric bigot, and how much of this are we going to have to listen to? There were some subtle stirrings as people looked for the nearest exit. Just as things were getting really tense, I

⁵In my one encounter of any length with (very competent) psychotherapy, and a therapist I liked enormously as a person, I found the experience overall sufficiently unpleasant that, with the presenting problem unsolved, I finally quit with relief. I will never repeat it. The reasons for this will emerge later.

smiled and said ‘Seriously folks ...’ I then admitted that this was not a fair picture of what I really believed—or not all of it. Indeed, since I was personally acquainted with some present who were conscientious, intelligent and dedicated doctors, I could not believe it; but most of them were not to know that. Having finished my text, I proceeded to the sermon proper. I suggested that in order to make my point as clear as possible, I would have liked all of them to be wired up at the beginning to a raft of high-tech devices, with continuous real-time measurement of heart-rate, blood-pressure, cortisol and adrenaline levels, and concurrent real-time functional MRIs, especially of their limbic systems. I said that I would not have been surprised to find raised heart-rate and blood-pressure, higher than normal stress hormone levels, and more limbic glucose uptake than one might think appropriate at the beginning of a supposedly serious academic lecture. ‘Your little amygdalas’, I remarked archly, ‘would be lit up like Christmas trees’. In other words, my purely verbal opening would have induced a physiological state of hostile arousal, with clear empirical signs in blood chemistry and brain metabolism. There was some rueful smiling and nodding, and the previous looks of hostility and distress began to subside.

There was a serious point behind this piece of cheap theatre: the often waspish ideological divide between ‘biological psychiatry’ and ‘talk therapy’ is not as clear as it is made out to be. It may not even, despite the energy some practitioners put into maintaining it, be theoretically or clinically coherent. My arguments converged on a single point: under the nondualist interpretation of the mind/body relation, all ‘nonphysical’ or talk therapy can only be a kind of indirect and often slow (if peculiarly nuanced) psychopharmacology.⁶ And this suggests that the most economical treatment of mood disorder should be pharmacological, since this is the area we understand best.

Curiously, many of the psychiatrists present accepted this as a kind of idealised working model. But many were deeply dissatisfied, and thought my position, while technically perhaps correct, was impoverished and one-dimensional, a heartless and arid reductionism. The patient given a purely neurochemical interpretation and treatment of his condition might begin to question what seemed previously to be important pillars of selfhood: You mean I’m only a chemical machine? Where’s my Spirit, my unique Self? If my moods and thinking can be altered by drugs, where and what am ‘I’? (For some reason even people who react this way appear not to note how this applies to the use of alcohol.)

One psychiatrist told me there was a serious problem in a drugs-only approach for many patients, even if it provided dramatic relief. It is not uncommon for some who are helped (or might well be helped) by drugs to stop taking them. And they do this even when the drugs seem to be improving the condition that brought them to the doctor in the first place. The reason, he said, is

⁶ There is one major difference: talk therapy does not generally produce physical side-effects. At least there seem to be no reports of a session with a therapist causing constipation, flatulence or impotence (I owe this point to Jaime Lass). A possible counterexample: my friend L tells me she vomits every time she has to go and see her therapist. For a study of the physical effects of psychotherapy based on brain imaging, see Linden 2006.

that as soon as the disease⁷ appears to be responding to purely pharmacological treatment, it loses its ‘meaning’ for the patient, becomes no more ‘significant’ than a broken leg. Conventional folk-dualism leads many people to find their psyches more important, in some quasi-mystical way more intimately ‘theirs’, than their bodies. They feel empty when the symptoms go away without their having gained any knowledge or insight or narrative to fill the central and energy-consuming place they held in their psychic economy. Dramatic improvement through drugs alone apparently implies that they and their emotions are ‘merely’ chemical. They feel reduced, mechanised, dehumanised.

I later came across an eloquent personal account in a piece by the American writer Walter Kirn (1997). After being prescribed an antidepressant in 1991, ‘before depression and its chemical basis were staple topics on the morning shows’, Kirn ‘went to bed that night feeling slightly ashamed’. But though the drug worked brilliantly, and faster than expected, there was a backlash:

The change was so profound it spooked me. I’d done some reading by then on neurotransmitters, and I wasn’t entirely comfortable with the notion that human laughter is, at bottom, a chemical phenomenon. After hearing from several friends how much more relaxed I looked, some whip-wielding inner Puritan took over and convinced me that I should throw away my pills.

At first nothing happened. My mood stayed bright. I slept. I concluded that I had a soul after all and that my moods weren’t merely molecular. Then the inevitable slippage started [...] my sense of well-being sank and sank until I felt lower and darker than ever before. I went back to a doctor—a specialist this time—and asked flat out for Prozac [...] One week later I felt fully restored and resigned myself to a humbling new self-image: neurochemical robot. I felt like one of those cutaway human heads used in TV commercials for decongestants.

Once I’d lost my pharmaceutical virginity, it was impossible to get it back.

After reading this I began (reluctantly) to modify some of my previous rigid attitudes toward psychotherapy. In particular, I came to realise that this loss of pharmaceutical virginity can be a genuine problem, though I found it difficult to understand why; but some of my friends have tried to help explain it to me. Perhaps the most enlightening comment was from L, who has experience of both drugs and psychotherapy, is smart enough to know better, and actually does, but nonetheless felt rather like Kirn for a long time, as she wrote me:

This is an important point, & obviously one that requires patience: that many people find it problematic that they exist only in their neurochemicals. Perhaps what is of concern is human agency? For me, therapy has been about recognising where/when I am an agent & where/when established chemical ‘behaviours’ might take considerable time to respond to my ‘will’ and therefore might usefully be supported by corrective chemical intervention. To be honest though, it has taken me a long time to be OK about the drugs, not to feel as if I’m relying on training wheels before the ultimate big event of going it alone. Now I realise that big

⁷It is important to remember that I am talking in this chapter (and in this book generally) only about serious, chronic illnesses—not life-adjustment problems, social or marital difficulties, phobias, general unhappiness etc. that are usually the province of psychotherapists. Any negative remarks or criticisms I may make are to be understood in this context only. And in the light of my own ideology and treatment preferences—for me.

events come & go.

I now have more sympathy (but no more empathy) for this kind of view after thinking about it and talking to a great many people, and even undergoing some psychotherapy myself; not for depression but for a phobic disorder, with the approval of my (totally pharmacological, non-therapist) psychiatrist.⁸ But in rethinking this issue I am still temperamentally and intellectually drawn to the hard materialist position, particularly as laid out in a lovely little thought experiment by V.S. Ramachandran (2003: 68). He imagines himself as a 22nd century neuroscientist, watching two people making love:

I scan Esmeralda's brain and tell you everything that's going on when she is in love with you and is making love to you. I tell you about the activity in her septum [...] and how certain peptides are released along with the affiliation hormone prolactin, etc. You might then turn to her and say, 'You mean that's all there is to it? Your love isn't real? It's all just chemicals? To which Esmeralda should respond, 'On the contrary, all this brain activity provides hard evidence that I *do* love you, that I'm not just faking it. It should increase your confidence in the reality of my love.'

It seems that individual attitude, needs, beliefs, temperament, cognitive style, situation, relationships, education, intelligence, social preferences, desire for certain kinds of outcomes and willingness to engage in directed introspection may have a critical bearing on what therapy or combination of therapies (or no therapy) is best for a particular individual. One of the most difficult problems for the mood-disordered patient, in the face of medical advice or sometimes near-coercion, is making an informed choice.

Talk-therapy vs. medication

Having seen people not unlike ourselves respond to medicine, we experience angst and melancholy differently—our own and others'. Perhaps what Camus' Stranger suffered—his anhedonia, his sense of anomie—was a disorder of serotonin. Kierkegaard's fear and trembling and sickness unto death are at once spiritually significant and phenomenologically unremarkable, quite ordinary spectrum traits of mammals, affects whose interpretation in metaphysical terms is wholly arbitrary.

—Peter D. Kramer, *Listening to Prozac* (1994)

In the early 20th century many currents in psychiatric thinking began to coalesce under the charismatic influence of Sigmund Freud. There was already a 'classical' theory, defined, as such canons are, by specific dogmas—e.g. the ultimately sexual origin of all 'neurosis', the Oedipus

⁸I mention this to avoid the accusation that I might be saying drugs are the only useful therapy and that they are good for everything. That is patently not true. I can't imagine a dysfunctional marriage or a phobia or an eating disorder or a relationship problem cured solely by drugs (though I could certainly imagine them helping certain aspects of these conditions).

complex, etc. Eventually—and characteristically—this monolith began to shatter into sects and schools and counter-monoliths and conservative vs. revisionist orthodoxies. Psychotherapies designed to deal with depression have proliferated along with the general expansion of new psychiatric theories and practices over the post-Freudian period.⁹

The so-called ‘analytic’ therapies (e.g. Freudian, Jungian) are long-term and ‘reconstructive’. Their aim is not to ‘treat a disease’ (the notion ‘disease’ in the ordinary medical sense is alien to this kind of theory), but to remodel the personality, or bring it into a ‘state of wholeness’, rather than treating a particular circumscribed disorder. The end-product is supposed to be a healthier, more functional individual, or at least one who is less dysfunctional at the end of therapy than at the beginning, and has insight into the causes of his problems. But because of expense and time constraints, and changes in theory, a plethora of shorter-term therapies has developed. One, Cognitive Behavioural Therapy (CBT) is designed to help the patient change apparently unproductive or depressogenic modes of thinking and cultivate positive attitudes. Another, Interpersonal Therapy (IPT), concentrates on current rather than past events as points of attack. There are so many schools and techniques that I have no room to name them, as well as many less formal, less ‘theoretical’ therapies, without particular names.

While the analytic therapies are generally the province of psychiatrists or highly trained lay analysts, the other forms may be practised by non-analytical psychiatrists, psychologists, nurses and social workers. All these modes employ different, but essentially verbal interventions—more often than not on the assumption that mental disorders are fundamentally different from physical ones, in some sense not ‘medical’. The mind is somehow special, accessible and treatable only through its own direct products. The goals of therapy are language-mediated changes of attitude and/or behaviour, development of insight, maturation, achievement of ‘wholeness’, ‘individuation’—just a sample of those expressed in the literature and practice of various schools. The ideologies of talk therapy also appear to be dominated by an implicit puritanism: ‘cures’ are valuable only if they require *work* on the patient’s part¹⁰. This of course implies, as does any therapeutic decision, a theory of causality; and each therapy has its own, couched in its particular jargon.

Many psychotherapists (even psychiatrists) reject or strongly discourage the use of psychoactive medications. They may condemn the ‘medicalisation’ of psychiatry, disparage the ‘medical model’ of mental illness, or see themselves engaged in a battle against ‘toxic psychiatry’.

⁹For a good survey of psychotherapies, ranging from the plausible to the wacky, see Sutherland 1998: chapters 14-23. Sutherland writes elegantly, is a good scholar, and is at least as opinionated as I am, though he often comes to the opposite conclusions. There have been many developments, and continue to be, since Sutherland’s book. Probably the best source of up-to-date information, particularly for evidence-based discussion of non-drug therapies designed to treat stress and anxiety (and to some degree depression) is a website run by the Edinburgh physician and psychotherapist James Hawkins, <http://www.goodmedicine.org.uk>.

¹⁰This negative judgement I suppose derives from my jaundiced and perhaps somewhat ignorant view of the utility of psychological ‘work’, as discussed below. There is evidence that for many people this kind of self-engagement can be ‘empowering’; this is outwith my experience.

This attitude is now so strong and widely spread in the media that it constitutes a severe problem to many clinicians who do not think this way. One psychiatrist wrote recently on an Internet group:¹¹

I am finding in my own clinical practice the frenzied response against medicalization is hampering confidence in most often appropriate treatment of distressed individuals. Treatment can be at times an experimental process but the successes far and above outweigh the failures. We need to guard against the all too easy media tactics and agendas that use single or small numbers of anecdotal cases of the abuses of Western medicines. As we all know much media is based on what sells and fear is a potent tool.

The ‘anti-medical’ ideology can unfortunately lead to crass and insensitive handling of patients who would in fact be helped by drugs, but are denied them because of some therapists’ unyielding and Calvinistic attitudes or plain ignorance and lack of empathy. Here is an example—one of the psychologist Stuart Sutherland’s encounters with a Freudian psychoanalyst during treatment for bipolar disorder (1998: 19):

I put up only a feeble resistance to continuing in analysis. I asked whether it would not be better to seek some form of drug treatment, but he scoffed at this: ‘All that would do is to change your mood’. To anyone who has never felt real depression or anxiety, a change of mood may sound a rather trivial thing. But for many who are mentally unwell, it can be a matter of life or death.

This attitude is often communicated to patients, with potentially destructive effects. My depressed friend D was in psychoanalysis for over two decades with no discernable improvement, until she finally quit and went onto Cipramil. She wrote to me recently about a friend of hers:

He is cracking up and I think take the fucking drugs, tell the analyst you want them now! I am trying to tell him that to take the drugs is not to trivialise your depression and anxiety. Just fucking do it (I might as well have been talking to myself from 1974-1999). Eventually, when he said, So you think I should go onto medication, I said, you know I can’t decide that for you, but let me assure you that going on antidepressants doesn’t stop you being depressed. It just helps you to get up in the morning (and face being unemployed, emigrated, married with kids, and very very desperate). I just saw again the exhaustion of someone who has been fighting this thing for so long that he just doesn’t have the energy to take the pain any longer. But that puritan spirit. Don’t take something that will help you. That’s cheating.

But some patients can resist such attitudes—and if they have to probably ought to change doctors. Consider this exchange on an Internet newsgroup devoted to depression (for ethical reasons I will not identify or date it; emphases mine):

A. Your doc doesn’t believe in meds?

B. No. He wanted me to stop taking Zoloft after a few weeks. I wanted to up the dosage instead, which we did. He also thinks my history, my family and all that stuff, shows that therapy is a better treatment. *I have*

¹¹Costa Vakalopoulos on psychiatry.research@yahoogroups.com, 17 May 2008.

a reason to be depressed and therefore I don't need meds, my doctor seems to think.

A. I find that a bit disturbing. I don't know what you are on. Do you have any anti-anxiety drug?

B. No, *they think the anxiety is a good sign, "that means your feelings are starting to surface"*.

The logic is extraordinary. If you have a 'reason' for depression, apparently, there is no point in relieving it. (You have a reason for food-poisoning, since those eggs were contaminated with *Salmonella*; so I won't prescribe anything to make you feel better.) One wonders what this doctor thinks his function is. The same kind of perversity is apparent in the last remark: if your 'feelings are starting to surface', that could just as easily be a source of extreme distress that the doctor as healer should be trying to mitigate. Naturally I do not know the actual story behind this exchange; but it is strikingly similar to many I have heard from friends undergoing therapy. 'Opening up' is not necessarily healthy: there is always a risk that after letting it all hang out you might not be able to put it back. I present this dialogue simply as an apparent example of bad doctoring driven by an ill-conceived view of the relation between distress and its relief. I hope it is not as typical as I think it may be. I intend it not as a general condemnation of therapists, but merely as a salutary warning of what ought to be avoided, and a prelude to what follows.

On being a good non-candidate for psychotherapy

The fragmentary self-portrait in chapter 1 suggests that the 'meaning' and origins of my depression are not particularly important (though they are of interest) to me. The disease itself however *is*, so much so that I refuse to have it completely treated. Even though my chosen mode is drugs-only,¹² the lifting of symptoms for long periods (with no new 'insight' but simply because of how the chemistry is behaving) does not empty my psychic life of meaning. That I am a chemical machine (I would never say 'merely') is self-evident and unproblematic; I find the idea exciting, elegant, aesthetically pleasing. My reductionist and parsimonious turn of mind leads me to welcome the mechanical and direct way drugs—both prescribed and recreational—work to control my moods. I would not expect anything else. If my moods are chemistry, then why should the mechanism for controlling them not also be chemistry? Since there is nothing *biologically* special about the mind (though of course there is experientially and subjectively), why not treat it like any other organ, and take medicines to make the pains in it go away? I am a devoted consumer of pills; I see no difference in principle between taking psychoactive drugs for 'mental' problems and taking antacids for heartburn. My motto is that of the Dupont Corporation: 'Better Living Through Chemistry'.

For a long time I was so convinced that this was the only rational approach to the treatment of depression that it irritated me when people chose other ways, or scolded me for not

¹² Or I thought it was. See below for a reinterpretation of part of what I was doing.

seeking ‘insight’ into why I was depressed, real ‘understanding’, what the ‘significance’ of my symptoms was. I was criticised for using drugs as a ‘crutch’ rather than aiming at a ‘cure’, which required therapy. The general view I was exposed to has been summed up elegantly by Peter Kramer with respect to the success of Prozac (1994: 259):

Cure by pill is seen as dehumanizing when compared with psychotherapy [..]. The problem is not that the medicine [...] fails to move people toward an adaptive interaction with reality but, rather, that it succeeds. In doing just what psychotherapy aims to do, Prozac performs chemically what has heretofore been an intimate interpersonal function.

For me of course this is precisely what was so wonderful about antidepressants at the outset, and still is; but the situation is more subtle and complex. I will return to the role of human interaction below.

It has taken me a long time to admit the possibility that other temperaments have a right to exist, and that what helps me might distress others. I can now even acknowledge that I am not *quite* as rigidly pharmacological as I thought (though still as biological and materialist). Even that some aspects of my own depression have been mitigated, and remissions induced, at least partly through intense (if nonprofessional) human encounters. So I am not as much of a pharmacological fundamentalist as I thought; but this does not entail any form of dualism, only a more subtle materialism.

But it is apparently not all that easy for most people to be comfortable with such a reductionist and physicalist attitude. Even a gifted mathematician and philosopher like Bertrand Russell thought that materialist, evolutionary atheism had and had to have distressing consequences. The world, he said, ‘which Science presents for our belief’, is ‘purposeless [...] void of meaning’ (1918: 46ff; quoted in Burt 1954: 23n.):

That man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, his loves and his beliefs, are but the outcome of accidental collocations of atoms; that no fire, no heroism, no intensity of thought and feeling can preserve an individual life beyond the grave [...] all these things, if not quite beyond dispute, are yet so nearly certain that no philosophy that rejects them can hope to stand. Only within the scaffolding of these truths, only on the firm foundation of unyielding despair, can the soul’s habitation henceforth be safely built [...]

On the contrary, this world-view can be refreshing and liberating. If there is nobody out there, if the universe has no guiding hand, no purpose or moral content, it cannot be accused of ‘cruelty’. There is nothing there but matter/energy, organisation, luck and my own actions and interactions, whatever drives them. If the universe and life have any ‘meaning’, it is what I choose to give them. And I do not choose to give them any, certainly not the universe or life in general. No doubt many depressives with dualist beliefs would be far worse off, not better, if they came to adopt the views I find natural and pleasing.

Russell’s philosophical position would seem to be as close to ‘true’ as a position on such issues can be; dualism is not to me a serious option. Genuine belief in metaphysical or ‘spiritual’

entities, nonphysical minds and the like, appears primitive and superstitious, less sophisticated than a willingness to believe that the world is complex, alien, inscrutable, material and unconcerned with the creatures that happen to live in it, who are contingent products of its materiality anyhow. But this prejudice does not imply that those who are helped by religious belief or practice or dualism or anything else *I* do not accept should have it taken away from them by intellectual or therapeutic *force majeure*. Nor does it imply that all therapies based on what I like to call ‘suprachemical metaphors’ or placeholders for presently insoluble mysteries (like the nature of the ‘self’ or how neurons make mind) are *per se* undesirable, ineffective or necessarily fraudulent. While few conscientious psychiatrists would *not* use medications to stabilise a seriously ill patient, there may be things that some people want out of therapy (or life) that others do not, and there are mental styles that place less emphasis on the analytical and reductionist, on knowing rather than feeling, than mine.

It would be easy to see me as coarse and philistine, a science-blinded Yahoo. This would be wrong—as one might guess from the obsessive concern with literature and music in the first two chapters. Some people are deaf to the power of music; I seem to be that way about the metaphysical or ‘spiritual’. But I do not deny the existence, much less the centrality to being human, of varieties of subjective experience that seem to the experiencer not to have any spatial ‘location’, or (at present) any obvious chemical or neurological grounding. These are available only *as* unique and personal experiences, immaterial and numinous. I *know* intellectually that they must be the results of purely physical processes, but I *experience* them as something utterly different. The apparent contradiction is not distressing or disequilibrating, because it clearly is only apparent. Neither I nor anyone else has a satisfactory neurochemical description of love. I haven’t a clue to the neurophysiology of what goes on when I hear the great C-major chord on the word *Licht* in the first chorus of Haydn’s *Creation*. Physically the hairs rise on the back of my neck, but this is surely not merely ‘old mammalian piloerection’ (though in one sense of course it must be). It is simply an easily detectable physical correlate of a profound and indescribable experience, like a ‘conversion’—drenched in magnificence and ‘meaning’.¹³ A neurochemical explanation (which I am sure will be possible) would be an *extra*, not a substitute, not ‘unweaving the rainbow’, or sinking into what Blake called ‘Newton’s sleep’. Quite the contrary, it would be a profound intellectual satisfaction, a parallel delight; but it would add nothing to (nor—significantly—take anything away from) the experience itself. Anything that robbed me of my ability to have such magical experiences just as they are would be damaging me profoundly. I know this not as a matter of speculation, but because I have been through long periods where my depression has done precisely that, and other periods where the drugs I took to control it did more or less the same.

¹³For pioneering work in the neurobiology of such experiences, see Blood & Zatorre 2001. Damasio 2003: 310 points out that the opioid antagonist naloxone prevents the feeling of ‘chills’ up and down the spine that some music produces for some listeners, so the endorphin systems are almost certainly involved. Maybe I’m beginning to understand my Haydn experience. We are at least beginning to see what part of the physical substrate of the aesthetic might be.

What psychotherapy is best for

Whatever the specific theory and praxis of a psychotherapeutic approach to depression, the interaction between therapist and patient is ‘mind to mind’ (or person to person), across a linguistic bridge. In principle, the standard mind/brain identity arguments predict that such therapies ought to work; within this restrictive framework they make perfectly good sense. They can be seen as talking to the ‘mind’ side of the mind/brain in its own language, rather than to the ‘brain’ side in (a crude version of) *its* language, which is what drugs do. And indeed there is no doubt that mind-to-mind linguistic therapies do indeed work in particular cases. Certainly for relatively minor stress-induced depressions psychotherapy alone can be extremely helpful, even ‘curative’. But not as far as I can tell for major or chronic mood disorders, though medication in conjunction with certain psychotherapies may yield better results than either alone (see Sutherland 1998: chapter 22 and the literature cited later in this chapter).¹⁴

Language use by psychotherapists (and what it elicits from patients) is not entirely or even largely propositional. Language is more than a conduit for information; it can affect mood as much as drugs. The language-centres in the cortex are intimately linked to the limbic structures of the temporal lobe; and subcortical (limbic and brainstem) processing precedes (prefrontal and frontal) awareness of the results of that processing. In the end the distinction between psychotherapy and psychopharmacology is not between fundamentally different types of treatment (like surgery vs. medication for a heart condition). It is rather between ultimate and proximate points of attack, and of course a matter of nuance and style. You can target the mental experiences themselves through language, or you can target the neurochemical phenomena that underlie those experiences. The embedding of language and human interaction in biology makes both approaches theoretically viable; which will work best in a given case is an empirical question.

Many different stressors, transitory or recurrent, can induce depression—events from early childhood, long-lasting early traumas, late single life-events or situations, or perhaps nothing at all but a propensity for depression. But there appears to be a final common pathway, stress-induced amine dysregulation and its effects on other aspects of neurochemistry. There are studies suggesting that some forms of psychotherapy may apparently be as effective as maintenance treatment with drugs in preventing recurrence of mild to moderate depression. How could this *not* be due to intervention at different points in the causal chain? It is simply that drugs usually work faster and probably more effectively (and crudely) than words and personal interactions because they act at synapse- or receptor-level, not at the level of entire functional systems, still less in the misty arena of human feelings and relationships. But in the end they can often do pretty much the same thing.

But we are also unique individuals, and some of us need or want verbal, personal help or

¹⁴ This is no surprise; it is in fact predictable, ultimately the equivalent of taking two different kinds of psychoactive drugs to get a better therapeutic effect.

support while our neurochemistry is being repaired, or feel better if we are given ‘instructions’ for changing attitudes, or are in a psychotherapeutic relationship. I happen not to like this sort of assistance (at least from strangers). But this, like much else I say, is not meant as a universal prescription. I want rather to present and clarify an alternative way of doing things, the reflection of a particular intellectual and emotional style. It is a style, however, that might well be natural, useful and congenial to more people than usually consider it, or are allowed to by their doctors. So in most of what follows my emphasis will still be on chemistry and brain function where we know enough about them to say interesting and useful things. And my discussion of treatment will rest largely on drug-based or other physical approaches, because I feel I understand them, have experienced a good number of them, and they seem to me to come closer to the bedrock of disordered mood than other therapies. At least they act nearer to the end of the causal chain, and however poorly we understand what many of them do, we can state what we do know in crisp, non-dualist language.

Among the depressed, as in any human population, there are profound individual differences in education, intelligence, insight, even interest in or desire for further insight, imagination, analytic skill, ability to grasp concepts, degree of stigmatisation of ‘mental illness’, toughness, sociability, dependence on others. It is neither possible nor desirable to recommend one kind of treatment for everybody. There is no convincing evidence that any form of psychotherapy is suitable as the sole treatment for serious chronic mood disorders; but I do not disparage it as complementary to medication. I do of course think in my more utopian moods that some day, when our techniques are delicate enough and we know enough, all ‘mental’ disorders will be treatable entirely by pharmacological or other ordinary physical means; but this does not mean I oppose psychotherapy in general, or its use along with drug treatments for disorders whose neurochemistry we are beginning to understand. I see a considerable potential value—for the right cases. Psychotherapy can help the patient to understand and come to grips with the disease and the effects of medication; it can be an ego-support, a form of continuing education, it can provide a framework in which psychoactive medications can operate at their best, and their complex effects can be tolerated and understood.

This is a suitable point to return to the problems that so many patients (and doctors) appear to have with reductionist, purely biochemical approaches to psychiatric illness. I suspect that the main reason many people appear to want something more than drugs (whether they work or not), is that the relation with the verbal therapist is a familiar and comforting kind. It is a *social* relation, it uses tools and procedures familiar to all of us. Others are not attracted by this aspect. Indeed, I find the very idea of the psychotherapeutic relationship, with its presupposed confessional intimacy with a stranger, repellent. I do not want my doctor to understand ‘me as a person’; I want him to understand my disease.¹⁵ Only a few of my very closest friends are allowed

¹⁵Some personal understanding may be unavoidable, where aspects of disease and personhood are so entwined as to be inseparable; but it is usually still possible to exert some control. Ideally I treat my doctor like my mechanic. He is a technician who furnishes a service, and when he’s finished I whip out my credit card.

to understand *me*, to see behind whatever masks I've constructed for the sake of my privacy. Even this apparently 'open' book hides a huge amount.

On the other hand, the problems for many others centre precisely on the lack of 'sociality' in pure drug therapy, and the highly technical knowledge required to understand it in the same way one thinks one understands human relations. This is nicely summed up by Peter Kramer (1994 :298):

To the extent that medications are important agents of personal transformation, change becomes ever less a matter of self-understanding and ever more a matter of being understood by an expert. If what is wrong with us is explained on a physiological basis, it lies in a sphere with which we are unfamiliar and with whose manipulation we are inept. As modern men and women, we may already be uncomfortable with the extent to which our surroundings, in the form of complex equipment, are beyond our ken. Now we are faced with the likelihood that introspection alone will not explain us to ourselves.

The mind, because of its apparent accessibility and familiarity, seems somehow better understood, more a matter of everyday common knowledge, than the body. Only patients like me, who insist on at least an elementary understanding of the science behind any treatment before accepting it, do not feel the kind of gulf Kramer describes between them and their cardiologist or neurosurgeon. Most patients apparently *expect* the body and its mysteries to be matters for 'science', technical, arcane, beyond lay-people. Their very incomprehensibility and high-tech charisma lend them a kind of magic, and they tolerate mechanistic tinkering without a qualm. Such people think, however, that the mental is the opposite of the mechanistic, that our minds can be understood without special knowledge. They are transparent, familiar and present to us in a way that the electrical activity of our hearts is not; they appear to 'belong to' us simply and inalienably.

Style, content and efficacy

One major difference between psychotherapy and pharmacotherapy is the extent to which the patient has to participate; without such participation the former has no chance of working. You have to engage actively in talk therapy for it to be effective, while drugs will work regardless of what you do or think, as long as you take them. So talk therapy is labour and engagement for the patient, pharmacotherapy is either none at all, or at most remembering to take your meds and learning to live with side-effects, and with the insights and memories that sometimes come to you when your mind is cleared by drugs.

My friend L (much younger than me) chose, on her GP's advice, to embark on a programme of both medication and talk therapy. Some of her comments are relevant here, since she is temperamentally quite like me. She started therapy (of a roughly 'psychodynamic' sort), but left for six months to go abroad; on her return she decided to try again, because she 'felt very adrift & my general circumstances (work/study/home/) were shapeless'. Not, interestingly,

because of her depression.¹⁶ I asked her what therapy had done for her in general, what she felt it was about, what it focussed on, whether the depression itself, or issues perhaps related to it. She wrote:

For most of the time I've been in therapy [a little over four years] I've also been on antidepressant medication, and I think this is another key player if therapy is to be of any use. One of the reasons I went back on the Zoloft after a year's break is that I hadn't managed to find therapy beneficial for a few months, felt both chaotic & frozen, floundering, aggressive. [My GP] said that the material processed in therapy can actually contribute to precipitating depression, and that as long as I was down I'd probably battle to get any benefit from therapy. After about a month back on Zoloft the air cleared a little & Wednesdays with G [her therapist] resumed a more productive air.

The contents of our discussions are—as far as I can see—unstructured, though there are clearly recurring narratives that pop themselves up without actually having to be on an agenda. [...] I have found two functions in therapy: one has been to help me live & cope with being depressed & anxious, the other has been to help me understand why (from my history) I might be depressed & anxious, and to explore other modes of being/responding.

It has fulfilled these two functions, but I wonder now if I might not be nearing the end of just how much can be achieved. When I went into therapy I hoped I'd emerge as someone else (something like going from Eeyore to Tigger), but that seems unlikely. Ultimately, I think the benefit has been to improve the way I relate to myself, to others (both significant & incidentals), and give me a better understanding of depressive behaviours (when to try to push past it, how to sit with it & not be too afraid, how to know when it's not the precursor to an episode but rather just a shit day).

The content of sessions is obviously important, but equally so is just having the solid routine & consistency of same place, same time, same person, all set up for my personal well-being. I hit & missed sessions the first 2 years, but since then it's an anomaly for me to even consider not going—isn't even related to whether I want to go or not, I just do because that's the routine.

For her at least (and many others in my experience), effective talk therapy does not focus on or treat the depression itself. Its primary benefit is support and education, its ability to deal with problems in living, adjustment, personality, self-understanding, while the depression itself is being managed by drugs. I suspect this must be true in principle: verbal therapies just cannot target neurochemical dysregulations very quickly, but can help set up an infrastructure allowing the patient to make the best out of what the drugs are doing. This is not just an eccentric amateur notion; many psychiatrists think the same way. Ronald Fieve for example (1997: 201) writes:

They [psychotherapies] undoubtedly work for some patients in whom depression is first relieved by antidepressants. Subsequent psychotherapy may aid the patient in social readjustment to problems of living. However for most people who feel recurrently depressed, the origin [...] is physical [...] and psychotherapy is not the correct primary treatment. Often the patient does not want it. The patient is not resisting exploration of his or her unconscious, but rather seems instinctively to appreciate that it is not the problems in his or her past that are causing the depression.

¹⁶ On reading this passage and what I'd made of her letter L commented: 'Yes this is an interesting point, & I did indeed say that. I suppose I also went back because I felt there had to be more "cure" than I'd got so far'.

Or more accurately, problems in the patient's past probably *did* cause the first dysregulations that led to the depression. But by the time the symptoms have become autonomous, the history is of little or no therapeutic relevance, and awareness of it does not help. It may even be dangerous and distressing to remember something that was buried for a good reason. In this post-Freudian era we have lost our faith in the usefulness of repression; it might be healthy to get it back

And there may be a quite good reason for this 'instinctive' appreciation that digging up and 'reliving' the past may not be particularly useful or desirable. This comment in a classic neurology textbook is instructive (Bannister 1992: 580):¹⁷

However causally important infantile experiences may have been, it does not follow that they are reversible by trying to live through them again in adult life. Life cannot thus be reversed, and the adult cannot be put back into infancy to develop again differently. This is not a criticism of [...] psychotherapy in general, but it means that however much account it may take of their past, it must always deal with people as they are now, and its methods must therefore often resemble those of the orthopaedic surgeon, who aims to make life easier for his patients by correcting deformities and giving support, though he can rarely hope to restore them to the state in which they would have been if they had not suffered from congenital deformity or an acquired illness.

This sums up much that appears to be wrong or at best beside the point in the search for 'insight'.

Perhaps it is unfair to attempt a generalised argument on the basis only of my own experience, but I am not alone in these attitudes. I am not convinced that it is universally possible to accept knowledge and insight in such a way that the acceptance is healing. It certainly has not been for me, except in a few very rare and special instances. What I experience when I do obtain some insight into the causes, either distant or recent, of my own depression, is generally quite abstract. It is a depersonalised version of my own experience, accessible only as a kind of third-person narrative. Oh yes, that happened to R, and curiously I, the first-person subject, remember it in some detail. Isn't that interesting? Or even harrowing, sometimes, if I work at remembering details, or write things down—but most often not. The affect bleeds away from the remembered miseries and traumas, what ought in theory to be enlightening becomes novelistic or stagey—but not very good fiction or drama. Or if, rarely, it is convincing and concrete, it teaches me nothing, merely causes distress. It certainly does not do anything for the symptoms themselves. I may of course simply be temperamentally unable to achieve the two steps beyond this archaeological tomb-opening: I stop at exposure. There is supposed to be a kind of therapeutic Trinity: recall, acceptance, healing. I remain largely unconvinced, certainly with respect to the underlying depressive disorder itself.

At least this is the way I have viewed myself and what has happened to me. But sometimes outsiders' interpretations can make one stop and think. Being fair to opposing points of view is

¹⁷ An interesting comment from L on this matter: 'This is important [...] even my therapist sometimes seems to think that resistance to "digging" is a neon sign to dig on, that a defence is at work & one should get to the origin of it. Patients need to know that they have a right to say to the therapist "back off buster", & the therapist should back off. The reason *may* be avoidance, but that also has to be respected'.

not my favourite occupation, but I may be undervaluing or even misrepresenting the role of insight and self-exploration. My friend D, who is seriously depressed, bright and perceptive, and knows me very well, wrote the following after reading an early draft of this book:

You see, I think you don't credit the role of reflection and insight enough [...] I believe I could show that your self-analysis is not that much different from that of someone who has been in intensive psychoanalysis. In fact, I'm not convinced that anything in the way you wrote about the way you think is much different from what any sensitive psychoanalyst would say about you [...] So, when you argue against analysis as the most effective way of coping with depression, I can't disagree (having had 20 or more years of it). But – who would you be without the thinking and feeling you have done? You just did it without the conventional analytic couch.

Don't misunderstand me. I think that if I hadn't gone on medication I would be dead. I have no doubt that you would be too. I am convinced by the book. I believe you. I just think you give no credit to your mind and psyche. You don't trust your own imagination, or way of thinking about the world enough to give it a starring role in the credits along with Effexor and Dr P. So kill me.

I could say a number of things here. One might be that D has misconstrued my encounters with my depression and my self, and that the drugs did all the work; insight, reflection, thinking did nothing. The prior belief that that would be the case was one of the things that kept me from even thinking of psychotherapy. I had done enough reading in some areas to come across attitudes that annoyed me intensely, and I had no desire to encounter them in the flesh. I was particularly irritated by the bland assumption of certain therapists writing on CBT that 'negative thoughts' can simply be recognised by the therapist as 'erroneous'. This seems to me to exhibit a profound arrogance, at least equal to my own. If I feel that the world and I are garbage, and the therapist does not, what evidence could there possibly be for claiming that the more 'positive' view is necessarily correct? What if it is the thoughts of the 'normal' (obviously including therapists) that are 'erroneous', because, lacking the acute and unencumbered vision granted by the disillusion of depression, they see things through rosy spectacles? Perhaps the darkness of depression provides a special clarity that the ungifted cannot attain, because they are too standardly socialised, or lack experience?

This is not just my idiosyncratic view: Stuart Sutherland (1998: 72) suggests that 'the pessimism of the depressed is often more accurate than the optimism of the normal',¹⁸ and characterises the effects of CBT as teaching you to lie to yourself and create a rosier image of the world and yourself than is empirically warranted (201). At least antidepressants and whisky do

¹⁸ This claim, which is somewhat controversial among psychiatrists, posits what is called 'depressive realism'. See also Keedwell 2008. Most intelligent depressives I know naturally believe in depressive realism, as I do; we reject optimism effortlessly and naturally. Note the brilliant entry for *cynic* in Ambrose Bierce's *The Devil's dictionary* (1911 [1999]): 'A blackguard whose faulty vision sees things as they are, not as they ought to be. Hence the custom among the Scythians of plucking out a cynic's eyes to improve his vision'. We would therefore enter on a course of CBT on the wrong foot, so do not. On the other hand I have known intelligent people who have profited from CBT, and its reputation in the literature is good, though I find its basic theory problematic in some ways, and its apparent claims to direct knowledge of what is 'normal' thinking intolerable.

not try to remodel my world-view or self-image; they do not argue with me or ask me to tell them about my childhood or my feelings or set me homework assignments or engage in other intrusive pursuits. And in addition therapy of this kind would simply be too much work. In medical matters my inclination is to be passive: I would rather take pills than alter my thinking.¹⁹ And anyhow, if a therapy were to involve any ‘exercises’ or ‘homework’ or behavioural changes I am so contrasuggestible by temperament that I would not be able to bring myself to do them.

As an example of the kind of work that can be involved in the commonest type of talk therapy, here is a description from the *Wikipedia* entry on *Cognitive behavioral therapy*:

The particular therapeutic techniques vary within the different approaches of CBT according to the particular kind of problem issues, but commonly may include keeping a diary of significant events and associated feelings, thoughts and behaviors; questioning and testing cognitions, assumptions, evaluations and beliefs that might be unhelpful and unrealistic; gradually facing activities which may have been avoided; and trying out new ways of behaving and reacting. Relaxation, mindfulness and distraction techniques are also commonly included.

See also Scott & Beck (2008). This is precisely the kind of procedure and ideology to which I strongly abreact. This paragraph alone could define why I have not engaged in standard talk therapy.

But in a way it now seems I was engaged in something of a ‘psychotherapeutic’ endeavour all along, if not a formal one—and still am. The writing of this book and the research it entailed were part of it; my endless and ongoing conversations with perceptive friends were another. As M wrote to me when I was working on an earlier version of this chapter, and trying to decide how to treat talk therapies, which I really did not know much about:

I think you must own up to having had talk therapy after all [...] it will be obvious to the reader that you are an articulate communicator and although you didn’t realise it until afterwards you found talking to certain understanding friends acted in much the same way that more formal talk therapies do.

What I failed to note was the potent therapeutic effect of certain kinds of human encounter and dialogue. Depression is a lonely and isolating illness. Whether or not a patient engages in any formal therapy, one of the greatest lifesavers (for those lucky enough to have them) can be insightful and critically loving partners and friends. Whatever my feelings about ‘seeing a therapist’, I have been subject to great deal of such support—some of it rather against my will—and it has helped enormously, as I am still finding out, and continues to do so. For me at least this kind of encounter has been a much more useful adjunct to medication than encounters with a ‘real’ therapist of any kind probably would have been. I have close friends who periodically rescue me from my worst moods and attitudes, and I can sometimes do the same for

¹⁹This is not of course the way I behave when it comes to professional philosophical and scholarly matters, where I alter my thinking constantly, but on a rational basis—according to the principles of my trade as an academic.

them. The point is that they are friends, not strangers, many of them also depressives, and I have grown and got better through these encounters.

In summary, extrapolating from my experience with friends, there is for some people a significant place for therapy, as long as it is properly understood. My impression from talking to many depressives who have used both drugs and therapy is that the drugs treat the disease, and the therapy treats the person: i.e. the problems of living with it, or being the particular person who has it. My temperament just does not require so much of the latter, though I now find that friends give me invaluable support and insight when I need them. But this is a portrait of a perhaps peculiarly analytic and self-willed, though certainly not unique, kind of personality. I have a good number of depressed friends who have chosen this way of treating their disease, and succeeded reasonably well, and feel the same innate distaste I do for the standard therapeutic encounter. And with a few exceptions they are the most helpful to me.

I must stress though that this rather negative ‘ancillary only’ account of therapy does not hold for everybody; those who have been helped, even perhaps partly saved by psychotherapeutic intervention will see things very differently. They may even be the majority. Kay Jamison wrote (1995: 89):

Pills cannot, do not, ease one back into reality; they only bring one back headlong, careening, and faster than can be endured at times. Psychotherapy is a sanctuary; it is a battleground; it is a place I have been psychotic, neurotic, elated, confused, and despairing beyond belief. But, always, it is where I have believed – or have learned to believe – that I might some day be able to contend with all of this [...] It is an odd thing, owing life to pills, one’s own quirks and tenacities, and this unique, strange, and ultimately profound relationship called psychotherapy.

Well yes, for her. I have tried (even if reluctantly at times) not to sanctify my distaste for therapy and insist that going it alone is the right course as universal prescription. It is just as important not to take Jamison’s kind of advocacy, well-founded as it is in her own experience, that way either. We are both writing as ourselves, and our experiences are vastly different. It is simply not the case that being under a therapist’s care is necessary (or not necessary).

But whatever the efficacy of psychotherapy as treatment, some fragmentary counselling may be required for patients who are confused or helpless in the face of their illness. It can help those who do not have the cold intellectual curiosity that would allow them to use reading and talking to friends and self-analysis as exclusive sources of assistance, and those who are dysfunctional and panicky, and subject to external social pressures. Counselling does not have to be carried out by dedicated therapists or be a major part of treatment; it can also be done as needed by sensitive GPs or psychopharmacologists who take their patients seriously, who know what problems are likely to arise in treatment, and can make it clear that the present horrors will most likely eventually go away. This is especially valuable during the early stages of medication, when distressing side-effects may be superimposed on the depression for weeks or months, before any sign of response.

I would however make one prescriptive addition. Whatever the ultimate choice of therapy

may be, a seriously depressed patient must have a doctor in charge, a single court of last resort, what L calls a ‘psychic bank-manager’. Somebody needs to preside over the therapeutic process, follow the time-course of the illness, be available in case of distressing side-effects, drug-failures, or changes in the disease. This bank-manager should be *medically* qualified, not a psychologist, social-worker, or anyone not licenced to prescribe and change medication. Non-medical personnel may have useful, perhaps at times crucial, supportive roles, but the primary issues in depression are specialist medical ones.

Finally, I turn briefly to the evidence for efficacy of talk therapies as opposed to medication or combination therapies. To me the nagging question has always been whether they can be shown to work in the environment of a standard clinical trial. To begin with, the idea of a ‘clinical trial’ of a talk therapy is problematic. Even though treatment protocols may be standardised, therapists, being individual human beings, are not. Every 20mg Prozac capsule is the same as any other, but this cannot be said for every psychotherapist or patient, or every relationship that arises in therapy. It is not possible to hate one Prozac capsule and get along well with another. In addition, trials of psychotherapies are in principle different in one important way from medication trials: as far as I know there is no strictly comparable way of giving ‘placebo therapy’ (though sometimes a formal therapeutic protocol like CBT is tested against ‘supportive’ therapy). But there have nevertheless been a great number of attempts at comparing CBT in particular with drug treatment, and the results are not uniform. In searching through the literature on this topic, I have come across so many studies with opposite conclusions that I find it extremely difficult to make up my mind.²⁰ There is a troubling lack of comparability in many of the various trials: neither the antidepressants nor the dosages are held constant; patient populations are often different; the targets vary (remission vs. relapse vs. only residual symptoms); and the time-courses vary as well. I frankly do not know what to make of the literature, but my hunch is that the utility of CBT and other psychotherapies is primarily supportive—at least in the short term.²¹

If I had to advise any depressed friend what to do, it would be to follow Fieve’s suggestion: drugs first (with close supervision), then therapy *if wanted by the patient* or if the patient seems troubled enough by side-effects of the depression itself to warrant further intervention. That is only the advice of a long-term patient of a particular type, not a professional, and based to a great extent on personal preference. My conscience at least (I think rightly) would be satisfied with this general advice.

²⁰ For a survey see DeRubeis *et al.* 1999.

²¹ For a detailed study of clinical trials that suggests my view is too pessimistic, see Scott 2001. The most recent study I have seen suggests that CBT is as efficacious as antidepressants, and is more effective at reducing risk of relapse (DeRubeis *et al.* 2008). The authors also note that the two modes probably engage ‘similar neural mechanisms’, though each is unique in certain ways. For the most up-to-date literature at the time of writing see <http://www.goodmedicine.org.uk/stressedtozest/2009/05>, which contains a good deal of material suggesting that cognitive-behavioural approaches may have a powerful contribution to make to the treatment of depression.

At this point I have nothing more to say about psychotherapy; if one is interested, it is certainly worth trying, and if one is in need of personal support and attention and a social/interactive approach that one cannot get elsewhere, and drugs are not enough, it is another possible and under the right circumstances desirable and apparently effective option. For the rest of this chapter I will be concerned only with directly physical treatment.

The biological attack

[...] what in mee is dark
 Illumin, what is low raise and support.

—John Milton, *Paradise lost* (1667)

Two kinds of non-verbal intervention in the treatment of depression have shown really solid results: mood-altering medications and direct electrical interference with brain function by induced seizures (electroconvulsive therapy or ECT).²² I will discuss only treatments that have been subject to standard clinical testing and have shown some positive results. Successful testing does not of course guarantee that a medication is either effective or safe: major clinical trials are typically underwritten by the manufacturers of the drug being tested, and negative-outcome trials are often not published. But at least a history of testing is safer than the kind of anecdotal or ‘testimonial’ support used to sell ‘alternative’ treatments (homeopathic, herbal, etc.) I will however discuss one widely used herbal treatment that is ambiguous, but has passed at least some tests.

The main classes of mood-altering medications are antidepressants proper and mood-stabilisers (lithium, antiepileptic drugs, some antipsychotics).²³ Direct electrical interference

²²There have also been experimental uses of other electrical interventions including implanted pacemaker-like devices and magnetic stimulation, but describing them in this kind of book would be premature. Though transcranial magnetic stimulation (in one precise form) has recently been given the imprimatur for the treatment of major depression by the American FDA: see pn.psychiatryonline.org/cgi/content/full/43/22/2?etoc/. Another approach has been the attempt to reset internal clocks by exposure to high-intensity light, which seems to be most effective in cases of seasonal affective disorder. All have their uses, but medication is the most widely employed and effective.

²³ For a clear and well-illustrated pedagogical introduction to the biochemistry and neurophysiology of depressive disorders and how the main medications work (aimed at beginning medical students), see Stahl 2000. There is an up-to-date, scientifically sophisticated but mildly ‘alternative’ treatment of the whole range of mood-elevating drugs, including street drugs and many others that are not used in psychiatry in Pearce 2008. But (contrary to my elitist expectations I must say) I have found some of the best accounts of individual drugs in their entries in *Wikipedia*, and I would advise anybody prescribed a psychoactive drug, who has some scientific background, to read the relevant one. A few are not much more than rehashes of manufacturers’ inserts, but this ought to be apparent from the lack of references. For an encyclopaedic but technical treatment of just about every psychoactive drug in use, see Stahl 2009.

induces controlled seizures by passing electrical currents through the brain, what used to be and sometimes still is called ‘shock treatment’. It is useful in refractory cases, but it is not a first-line treatment except under very special circumstances. Since depression is characteristically accompanied by insomnia and anxiety, and may go along with panic disorder or have psychotic episodes, antidepressants and mood-stabilisers are often supplemented with anxiolytics, antipsychotics, tranquillisers, hypnotics and other medications, as well as with ECT. Besides discussing these various treatments, I will also make some general points about psychoactive medications and their effects, and discuss in some detail the tricky issue of self-medication (alcohol and tobacco).

‘Side-effects’

Hurrah! I have been 52 hours without vomiting.

—Letter from Charles Darwin to Joseph Hooker, April 1863

Any drug powerful enough to be effective against a serious disease is likely to do things other than what you want it to. Aspirin relieves pain and inflammation by inhibiting the synthesis of inflammatory messenger chemicals; but it may also have clinically irrelevant effects like compromised blood-clotting and gastric irritation. Antidepressants and other psychotropic drugs are no different. Most of them have, or can have, a significant battery of side-effects: some as it were ‘incidental’, like aspirin’s effect on the stomach lining; others built in, because the neurotransmitters they target operate both in parts of the brain unconnected with depression, and outside as well, or have functions other than the one that treatment is targeting. The extracerebral effects (and some of the cerebral ones) may be uncomfortable and unwanted, but unavoidable. With really powerful drugs the only reason for medicating is often that the disease is even worse than the side-effects.

The side-effects of antidepressants can appear appalling. Just reading the package insert might produce some major unease. For instance the insert for Effexor says:

The most commonly observed adverse events [...] are nervous system complaints, including headache, dizziness, dry mouth, insomnia, nervousness and somnolence; gastrointestinal complaints, including anorexia, constipation and nausea; and abnormal ejaculation/orgasm, sweating and asthenia [muscle-weakness].

Other possibilities listed are chills, abdominal and back pain, hypertension, flatulence, weight gain and/or loss, agitation, amnesia, anxiety, confusion, decreased libido, impotence, tremor, rash, pruritus [itching], and tinnitus.

Well, you might say, better to be depressed. Who wants to be anorexic, flatulent, itchy, nervous, sleepy, constipated, nauseated, sweaty, shaky, weak and impotent? Fortunately, no individual normally experiences all or even a very large number of these possible ‘adverse events’; most have only a few, and these are often rather mild and many tend to decrease over time. At worst, one might be unfortunate, and find a particular drug or class of drugs intolerable.

But at best one can probably not expect to be side-effect free.

One major difficulty—for the doctor as well as the patient—is that it is impossible to tell in advance whether a given drug will work, whether it will have unbearable side-effects, and if it does, which ones. There are so many unpredictable factors: e.g. the particular dysregulation causing a patient's sickness, or whether the patient is a 'good metaboliser' or a 'poor metaboliser' of a given class of chemicals. This is genetic: some people carry mutations in genes coding for certain enzymes that make them particularly sensitive (or insensitive) to some drugs, and in those cases that we know about, the only way of accessing this information is by detailed DNA screening or elaborate biochemical testing, which is too slow and expensive to be practical, and we know too little about what we would be testing for.

There are also individual tolerance thresholds. Some people are willing or able to accept higher levels of discomfort than others. This can be related to temperament, or even to occupation: a slight sedation or cognitive blunting might not bother somebody whose life is not dependent on creativity, sustained mental alertness and quick and concentrated thinking, while it might be intolerable for an academic, scientist or artist. Stronger sedation might make a drug intolerable for someone who drives or handles machinery for a living; indeed most psychoactive drugs come with a warning about driving in the early stages.

Another problem is interaction with over-the-counter medications. It is vital for the prescribing doctor to know everything the patient might be taking for colds, hay-fever, headaches, arthritis, back-pain and indigestion. It is equally important not to take *anything*, even right off the supermarket or healthfood shop shelves, without asking the doctor. Many apparently innocent drugs may have distressing or even fatal interactions with antidepressants and other psychotropics.

One unpleasant feature of antidepressants is that the worst physical side-effects, especially the gastrointestinal ones, appear much earlier than the desired primary effects on mood. Nausea is the near-universal prelude to happiness. For this reason, it is important (but apparently not that common) for doctors to warn patients starting the relevant antidepressants about the possibility of nausea, and suggest or prescribe a safe anti-emetic. As a general rule, you can expect a waiting-period of up to six weeks for most antidepressants to achieve their full effects on mood—if they are going to—whereas some side-effects may be almost immediate..

Side-effects can lead to 'non-compliance': not taking the drug as prescribed, or stopping before it has had a chance to work. The depressed patient often has a double battle at the start. In the first few weeks one is not only just as depressed as before, but often physically miserable as well. And sometimes mentally too, in new ways: many antidepressants cause agitation, anxiety and sleeplessness at the beginning; others cause sedation, many induce a general feeling of non-sedated dullness and emotional unresponsiveness. But without persevering it is impossible to find out if a particular drug is going to work or not, or be bearable. At the beginning one should be in regular contact with the prescribing doctor; many of the commonest side-effects (e.g. nausea, diarrhoea, constipation, anxiety, insomnia) can usually be easily treated. The early days of antidepressant treatment are likely not to be very pleasant, and the temptation to say the hell with it and stop can be very compelling. But it is a good idea to resist, unless the discomfort is so

distressing that it is impossible, or really alarming symptoms, like seizures, appear. There are cases where a patient's idiosyncrasies just make it impossible to continue a given drug; but there are many medications available, and treatment may require a good deal of experimentation.

It is also important to remember (though this is a long-term concern), that a drug that finally works and is tolerable may, after a period of effectiveness, suddenly start to lose its efficacy, or stop working entirely. Sometimes this merely requires an increase in dosage; at other times it may be necessary to go on to a different drug. It is not clear why this happens, or whether every case has the same causes. Occasionally this may be due to simple development of physical tolerance (as with opiates and tranquillisers): it just takes more and more drug to produce the same effect. But this is relatively uncommon. A change in the underlying chemistry of the disorder is more likely. It is also possible (but rare) for side-effects that had long vanished to return: I had to give up the best drug I'd ever taken because of this.

Antidepressants and sexual dysfunction

The most notorious and troubling side-effect of many widely used antidepressants is sexual dysfunction. This may include loss or reduction of libido (the machinery works but there is not much desire to use it), erectile dysfunction, 'penile anaesthesia',²⁴ vaginal dryness, and inability to achieve, or extreme slowness and difficulty in achieving, orgasm. (Certain antidepressants have actually been used to treat premature ejaculation.)

Such problems however can have other causes, and these ought to be investigated as well, to make sure the antidepressant is in fact the guilty party. Depression itself can often do some of the same things, as can untreated hypertension, high cholesterol, some cholesterol-lowering drugs (you can't win), diabetes, heavy smoking and drinking. But if they first appear or worsen considerably after starting antidepressant therapy, the drug is most likely responsible. These common side-effects can be exceedingly distressing, and are one of the major reasons for noncompliance. But sometimes patients just decide to endure them because of the condition they would be in unmedicated. A friend once said to me 'I don't really care if I never get laid again; at least I'm not depressed'. A large and saddening number of my depressed friends have simply reconciled themselves to being non-sexual beings. These problems however can often be relieved, given a willingness on the part of doctors, and either money or good health insurance, or a state system that will pay for treatment of drug-induced sexual dysfunction.

One strategy reported to have good results is adding certain antidepressants (especially Wellbutrin, which is sometimes described as 'prosexual') to the current regime, or changing from the current drug to Wellbutrin. Most doctors nowadays will prescribe drugs that enhance genital blood-supply, like sildenafil (Viagra) or the longer-acting tadalafil (Cialis). One major reason for the sexually depressing effect of so many antidepressants is nature's economy—the unfortunate

²⁴For Prozac: Bechlibnyk-Butler & Jeffries 1998: 5.

fact that the same neurotransmitter may do different things in different parts of the body. Erection is largely controlled by the parasympathetic nervous system, and for this to work the sympathetic system must be switched off during the erection/lubrication sequence, and not switched on till orgasm. Many antidepressants either block the parasympathetic system or keep the sympathetic switched on all the time, or mimic its effects.

The literature on sexual dysfunction is unfortunately rather skewed toward males; the greatest concern appears to be about sporting performance. But there have been reports of efficacy of Wellbutrin in female sexual dysfunction. For more information, often quite detailed, the Internet can be quite useful: just Google 'erectile/sexual dysfunction'. Many of the sites are pitches for particular drugs, but some are more general and contain a good deal of useful information. And above all, if you have this problem see your doctor. And do not be embarrassed: you're not the only one.

Antidepressants

In general

Most antidepressants increase the quantities of circulating amine neurotransmitters—particularly serotonin and noradrenaline, less commonly dopamine. Different antidepressants may target one more than another, and they act in a variety of ways. The various pharmacological classes have different side-effects as well as varying potencies and therapeutic profiles in different patients. These are extraordinarily personal drugs, and what works well for one may be devastating or ineffective for another with apparently 'the same' illness.

Because of this and other factors, virtually all antidepressants have roughly the same aggregate response rate: roughly 70% of patients taking any given drug will respond (anywhere from slight improvement to full remission). No particular antidepressant seems to be better (in general) than any other: it depends on the patient. Some will not respond to any single drug, but might well to a combination; a certain percentage may be 'refractory' or even (rarely) completely treatment-resistant.

Many idiosyncrasies in drug response may well be due to biochemical differences in people's depressions, or to individual metabolic quirks or chemical sensitivities. For instance, the drugs that did not work for me were relatively selective for serotonin, and had much weaker effects on other neurotransmitters. The two that did work were less specific, and in particular were noradrenaline and dopamine agonists. Some patients respond well to relatively narrow-spectrum drugs like Prozac or Zoloft, others to broader-spectrum drugs like Aurorix or Effexor or the tricyclics. Even the same patient may respond differently at different times to the same drug. At present there seems no clinically practical way to tell in advance what the best drug will be: doctors have to work empirically rather than theoretically in treating depression. With all the science we have, the clinician still has to practice something of an art.

The discussion in the following sections is somewhat technical; but the information is not

widely available in general treatments of depression, and some of the issues raised are important. The science-phobic reader (if any are still here after chapters 3 and 4) can skip the details. I apologise in advance for listing characteristic side-effects: this is not designed to put the reader off (far from it), but to give some warning of the difficulties that just might emerge in treatment. Much of the material on drug action is derived from package inserts and medical literature; a good deal else is anecdotal, reflecting my experience or my friends' with particular drugs.

The major antidepressant types

There are two basic types of antidepressants. The majority are so-called reuptake inhibitors; these primarily affect the transporter proteins that remove amines from the synapse after they have triggered their downstream receptors. Some also sensitise downstream receptors and/or interfere with the feedback mechanism by which upstream neurons recognise how much neurotransmitter they have released.²⁵ The second major class is the monoamine oxidase inhibitors; these disable the enzymes that degrade amines after release. In most general discussions, antidepressants are chronologically classified by 'generation'. The first generation is the standard monoamine oxidase inhibitors (MAOIs) and the early tricyclics (TCAs). The second is newer TCAs and related drugs with different structures but rather similar action, and generally lower side-effect profiles. The third generation is the Selective Serotonin Reuptake Inhibitors (SSRIs: Prozac and its relatives), one new kind of MAOI, and a number of chemically heterogeneous drugs sometimes loosely called 'atypicals'. But I think a biochemical approach is more informative. Following recent practice (e.g. Stahl 2000) I will discuss the most widely used antidepressants in terms of their mechanisms, starting with the tricyclics; this should also help to make some sense of the varying therapeutic and side-effect profiles.

It might be useful to recall—crudely—the typical symptoms accompanying dysregulation of the three major amine systems (based in part on Stahl 2000):

- (a) *Serotonin dysregulation*: depressed mood; anxiety and/or panic; aggressiveness; phobias; obsessions and compulsions; eating disorders, particularly bulimia.²⁶
- (b) *Noradrenaline dysregulation*: impaired attention and concentration; problems with working memory; slowness of information-processing; depressed mood; psychomotor retardation; fatigue.
- (c) *Dopamine dysregulation*: anhedonia; impaired motivation; loss of libido, sexual

²⁵ A third, less typical group acts as receptor blockers; I will discuss these below as well.

²⁶ This term (and *anorexia* below) should not be taken to designate the eating disorders so popular in the press. These properly come with the second element *nervosa*. Bulimia (literally 'ox-hunger') is simply abnormal appetite; anorexia is lack of appetite.

dysfunction; problems with memory; psychomotor retardation.

Because of the complex ways these various neurotransmitters work in different parts of the brain as well as throughout the body, the somewhat uncontrolled augmentation produced by antidepressants can have a number of side-effects, what we might call ‘overcompensations’:

(a) *Serotonin overcompensation*: nausea, cramps, diarrhoea, anorexia; sweating; sexual dysfunction; agitation, restlessness, insomnia.

(b) *Noradrenaline overcompensation*: overstimulation of the sympathetic nervous system: constipation, urinary retention, dry mouth; sexual dysfunction; hypertension, increased heart-rate, tremor; hypervigilance, anxiety, agitation, insomnia, (hypo)mania.

(c) *Dopamine overcompensation*: nausea; restlessness, tics; hypersexuality, (hypo)mania, psychosis.

I now turn to the various antidepressant classes.

(I) TRICYCLIC ANTIDEPRESSANTS (TCAs)

Until quite recently, the oldest of these—e.g. imipramine (Tofranil), and amitriptyline (Tryptanol, Elavil)—have been the most widely used antidepressants; there are also newer ones, like desipramine (Norpramin) and dothiepin/dosulepine (Prothiaden). These are exceedingly ‘dirty’ drugs: they affect systems other than those directly involved in mood. They can be unpleasant and even dangerous at high doses, and the only thing that keeps many patients on them is the fact that they work, sometimes better than the newer drugs.

Though there are differences, in general the TCAs are to varying degrees serotonin reuptake inhibitors (SRIs) and/or noradrenaline reuptake inhibitors (NRIs). But they are also antihistamines and anticholinergics (they block certain acetylcholine receptors). Reuptake inhibition is treated in chapter 3; the others require some explanation.

Blockade of CNS histamine receptors can produce drowsiness and sedation, a ‘drugged’ feeling (as with many antihistamines taken for allergies), and often weight gain. The first two may be useful for depressions accompanied by sleep disorders and anxiety, especially if the drug is taken at night; but some patients remain disabled and groggy long after waking. The most unpleasant effects are probably the anticholinergic ones, which mimic the ‘fight or flight’ reaction. These include dry mouth, constipation, urinary retention, blurred vision, fast heartbeat and raised blood-pressure, loss of libido and sexual dysfunction.

TCAs may also cause headache, insomnia, nightmares, sweating, palpitations, tinnitus, confusion and memory problems. Some are cardiotoxic, and most can be fatal in overdose. (They are the one group of antidepressants that have been extensively used, often successfully, for

suicide.)

The relative degrees of serotonin and noradrenaline reuptake inhibition vary from drug to drug, but overall they are quite similar. TCAs tend to potentiate the effects of depressants like alcohol, hypnotics and tranquillisers.

(II) SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

These disable serotonin reuptake (even though they are called ‘selective’, some affect other neurotransmitters too). They are relatively ‘clean’, and tend to have reasonably low side-effect profiles for most patients, though reports of nausea and dizziness are common. The first SSRI was fluoxetine (Prozac); others are fluvoxamine (Luvox), citalopram (Cipramil, Celexa), paroxetine (Paxil, Aropax, Seroxat) and sertraline (Zoloft, Lustral). These are now the most widely prescribed antidepressants, usually the first choice in starting treatment. Fluoxetine and fluvoxamine are also effective for obsessive-compulsive disorder, and paroxetine for anxiety and panic disorder.

The commonest side-effects are nausea, diarrhoea, constipation and sexual dysfunction. Others include anxiety, dizziness, occasional sedation, sweating, weight-gain and tremor. They may also produce agitation and restlessness, and in bipolar patients can trigger manias or hypomanias.²⁷ They appear to have a very low risk of enhancing the effects of alcohol and other depressants. For most patients, one advantage of the SSRIs (except fluvoxamine) is an almost complete lack of sedation.

(III) SELECTIVE SEROTONIN AND NORADRENALINE REUPTAKE INHIBITORS (SNRIs)

There are two currently available, venlafaxine (Effexor, Venlor), and duloxetine (Cymbalta). Effexor has a reputation for being particularly useful in depressions that have resisted other drugs, though it does have a very high side-effect profile, and many patients cannot tolerate it. Aside from dry mouth and the usual gastrointestinal problems (especially constipation) and urinary and sexual difficulty, it frequently raises blood-pressure, and produces dizziness and uncomfortable and unpredictable outbreaks of sweating (the SSRIs may do this too) and/or chills. According to the manufacturer, venlafaxine does not interact with alcohol. Duloxetine appears to be very similar, and in my experience has similar side-effects to Effexor, but perhaps milder.²⁸ Both drugs are highly activating and may cause agitation and insomnia.

²⁷ There is evidence that most antidepressants can trigger mania or induce rapid cycling in bipolar patients. A recent study of a group of 51 patients with refractory bipolar disorder claims that about a third of recorded manic episodes and a quarter of increases in cycling rate were likely to be antidepressant-induced (Altschuler *et al.* 1995). This is not necessarily the case; my own rapid cycling preceded any antidepressant treatment.

²⁸ Duloxetine has been subject in the US to an FDA warning about the possibility of urinary retention (2008).

(IV) SELECTIVE NORADRENALINE AND DOPAMINE REUPTAKE INHIBITOR (NDRI)

The one drug in this category currently prescribed is bupropion (Wellbutrin), which appears to be a stronger reuptake inhibitor for dopamine than for noradrenaline. It is highly activating, free of sexual side-effects, and does not usually potentiate the depressant effects of alcohol. The main side-effects are nausea (dopamine activates the brain's emetic centre), headache, irritability, insomnia, vivid dreams, agitation, anxiety and increased and earlier REM sleep. I have had all of these simultaneously. It can also lower the seizure threshold, so it is potentially dangerous for patients with seizure disorders.

Bupropion (under the name Zyban) is also marketed as a first-line treatment for nicotine addiction, and both the literature and my own experience suggest that it works, at least insofar as smoking is a matter of nicotine addiction: see below under 'self-medication'). It is an antagonist at the receptor that binds nicotine, and while it is not magic it certainly does help combat craving during withdrawal. It seems (to me anyhow) to be unlike any other drug I have encountered: the raising of mood it produces feels different, a kind of clarity and brightness and springiness, totally devoid of the slight inner deadness that so many other antidepressants, even activating ones like Effexor, produce. In my experience the worst side-effects are anxiety and very vivid and distressing dreams, from which one often wakes in a panic attack. It also appears for some people to lower alcohol tolerance slightly.

(V) SELECTIVE NORADRENALINE REUPTAKE INHIBITOR (NRI)

The only one on the market appears to be reboxetine (Edronax, Vestra). This drug does not appear to affect serotonin or dopamine, but is perhaps the most selective of the 'selective' antidepressants. It seems to be particularly effective for patients whose illness manifests primarily with fatigue and apathy (not anxiety or panic, which are more connected with serotonin), and general psychomotor slowing. The most frequent side-effects are dry mouth, constipation, headache, drowsiness, dizziness, excessive sweating, insomnia and sexual dysfunction including premature ejaculation as well as impotence.

(VI) SEROTONIN 2 ANTAGONIST/SEROTONIN REUPTAKE INHIBITOR (SARI)

The only commonly used drug of this type is trazodone (Desyrel, Molipaxin). It both blocks one serotonin receptor, and disables the reuptake pump. Trazodone may be highly sedating, so much so that some doctors do not use it except as a non-addictive hypnotic. Other doctors on the other hand find it an unproblematic and effective antidepressant, and I know of patients who functioned perfectly alertly on it. Trazodone is also probably the only genuinely sexist antidepressant: one possible side-effect is priapism (sustained and painful erections which require medical rather than the customary treatment).

(VII) α -2 RECEPTOR ANTAGONISTS

These are the only widely used receptor antagonists which are not reuptake inhibitors. The α -2 receptor occurs both on noradrenaline-producing neurons in the brainstem, and on certain presynaptic serotonin neurons as well—i.e. the latter bear receptors not only for their own output but for noradrenaline. On noradrenaline neurons, noradrenaline binding beyond a certain threshold causes production to be shut off. On serotonin neurons, noradrenaline binding causes decrease in serotonin production. The logic behind using this kind of drug as an antidepressant is that if the receptor is blocked, it will not act as a ‘brake’ on noradrenaline or serotonin production, so the action will be equivalent to a combined NRI/SRI. The most widely marketed drug of this class is mirtazapine (Remeron).

Mirtazapine blocks certain serotonin receptors, directing the serotonin output to the one primarily responsible for anxiolytic and antidepressant effects. Blockade of other receptor types largely prevents sexual dysfunction, as well as nausea and other GI symptoms. There is however a price to pay: antagonism at one receptor may lead to weight gain. In addition, mirtazapine is somewhat antihistaminic, and may be sedating. The sedative effects may be enhanced by alcohol (generally the case with sedating antidepressants). An older drug in this class is mianserin (Tolvon, Maprotiline). Like mirtazapine it is antihistaminic, which accounts for its sedative effect, and is most commonly prescribed for depressions accompanied by intense anxiety. I found it mildly anxiolytic but quite sedating, to the point of causing difficulty in reading anything more challenging than relatively simple thrillers.

(VIII) MONOAMINE OXIDASE INHIBITORS

These disable monoamine oxidases, the enzymes that degrade amine neurotransmitters after they have been released.

‘Classical’ (nonselective) MAOIs. These, phenelzine (Nardil), tranylcypamine (Parnate) and a couple of others, are at least as dirty as the TCAs, and potentially more dangerous. Because MAOs degrade amines besides the ones targeted in depression, MAOIs unfortunately interact with many other drugs, and even worse, with certain foods, and may cause liver damage. The main problem is the ‘cheese reaction’, a sudden and potentially fatal rise in blood pressure due to interaction with the amino acid tyramine, found in large quantities in certain foods. These drugs prevent the destruction of one of the metabolites of tyramine, which is a potent noradrenaline agonist. A sudden noradrenaline flood can precipitate a hypertensive crisis, with flushing, severe headache, cerebral haemorrhage and sometimes death following. MAOI users have to stick to a strict diet; among the forbidden items are matured cheeses, broad beans, sauerkraut, red wine, beer, soy sauce, kippers, smoked salmon, well-hung game and liver. MAOIs may also interact dangerously, as do some of the tricyclics, with many useful antihistamines and decongestants, and some anaesthetics and analgesics. Patients taking them often have to suffer their hayfever, coughs and seasickness without recourse to the most effective remedies, as well as being forbidden Rioja

and Emmenthal. I find it hard to decide which is worse.

In addition to their interaction potential, the MAOIs have their own side-effects, which may include headache, irregular heartbeat, agitation, sedation, anticholinergic effects, confusion and photosensitivity. The combination of dangerous interactivity and food restrictions makes them difficult to take, and risky except for patients who can be trusted completely to follow the complex instructions and prohibitions they require. But there appear to be certain depressions in which they work better than any other class of antidepressant.

Reversible inhibitor of MAO-A (RIMA). Only one is now in use, moclobemide (Aurorix, Manerix, Depnil). This is a selective and reversible inhibitor of monoamine oxidase A, affecting serotonin, noradrenaline and (weakly) dopamine. It is a particularly ‘smart’ drug: the disabling of MAO fails almost completely in the presence of tyramine, so there is virtually no danger of the cheese reaction. Main side-effects are sleep disturbances, headache, anxiety, restlessness, irritability, gastrointestinal distress, and dry mouth. There are fewer drug interactions than with classical MAOIs, but one is important. ‘Severe central nervous system adverse reactions’ have been seen with cold- or cough-medications containing the cough-suppressant dextromethorphan—which is most of them. It is important to check for this ingredient in over-the-counter medications. Other interactions are ‘theoretically’ likely, but usually not serious: e.g. with decongestants containing pseudoephedrine. Moclobemide is quite activating, and does not appear to cause sexual dysfunction. It is advertised as not interacting with alcohol.

(IX) ON THE MARGINS: ST JOHN’S WORT

I am not sure whether this really belongs here as a ‘serious’ treatment for depression. I include it because it is not just a do-it-yourself ‘natural’ remedy (though healthfood stores stock it and it is available without prescription, and it is often chosen because of its ‘naturalness’). It is also frequently prescribed by doctors, especially in northern and central Europe. St John’s Wort (*Hypericum perforatum*) is a little shrubby plant with golden yellow flowers, that blooms in late June all over Eurasia and America. It has been used as a medication since the Middle Ages and is now quite popular as an antidepressant and anxiolytic. It has been subject to serious clinical trials, and the results are rather ambiguous, some trials suggesting superiority to Prozac, others suggesting no advantage over placebo. But the overall result seems to be that for mild to moderate depression it is reasonably effective.

However, it can have major side-effects, rather similar to those of SSRIs (it seems among other things to be an SRI): dizziness, confusion, sedation and gastrointestinal upsets have been reported, as have sexual dysfunction and photosensitivity. There are two good reasons not to use it, though: (a) the dosages in the various preparations available over the counter are not standardised; and (b) it interacts seriously with a very large number of other medications: it reduces blood levels of antiepileptics, antiretrovirals, cancer chemotherapy drugs, oral

contraceptives, immunosuppressives, digoxin, L-Dopa and warfarin.²⁹ In the US, the FDA issued a general warning about its use in 2000. It must never be taken with other antidepressants, especially MAOIs.

Diversion: the 'natural' and the 'unnatural'

I detect an epidemic muddle in many peoples' attitudes toward psychoactive (and other) medications. This muddle democratically affects both the educated and the ignorant, the intelligent and the dim. It is of some importance, as aspects of it can be dangerous for patients, if perhaps good for healthfood shops and alternative practitioners. It is also philosophically bizarre, which naturally attracts my attention. The most pervasive thread in this complex of error is the 'naturalness' argument, which one hears from apparently sensible people as well as New Agers and enthusiasts for herbal remedies who think evidence-based medicine is unnecessary. It is simply incoherent, and can be defeated on its own grounds—given a few fairly uncontroversial assumptions. The central error is using 'natural' to mean 'good and healthy'.

To begin with, health is no more natural than disease. We and our diseases have evolved together; and our pathogens have been conducting a constant arms-race with us. As they get better at causing disease we get better immune responses, and as we get better immune responses ... and so on. This perpetual arms-race has been given the evocative name of the Red Queen Effect: like the Red Queen in *Alice's adventures through the looking-glass*, we have to run as fast as we can just to stay in the same place. And surely viruses and bacteria and worms, not to mention genetic, metabolic and degenerative diseases, are as much part of nature as we are. There is a common and mistaken view that things that are 'artificial' or synthesized are somehow bad for you, whereas anything natural (i.e. not man-made) is by definition healthy and benign. This is just untrue: companies who flog their products with the slogan 'no chemicals' are simply being ignorant (on the most charitable interpretation) or disingenuous. *Everything* is a chemical (serotonin as much as Prozac), and if the formula is the same a chemical synthesized in the laboratory is identical in every way to one found in nature.³⁰ But the simplest counterargument to the rosy view of Nature as Good can be mounted just by examining the toxicity available in our gardens: the English Cottage Garden with its laburnum, monkshood and foxgloves could be fatal if eaten.³¹ So much

²⁹ For information on St John's Wort see www.herbmed.com. This is an excellent site, containing only legitimate refereed publications, and is not an advocacy platform. There is also useful material in summary on www.quackwatch.com/01QuackeryRelatedTopics/DSH/stjohn.htr.

³⁰ There is however a good point inadvertently buried in much of the fatuous discourse on the 'natural': chemicals that are entirely man-made and new, different from anything we have been exposed to in our evolutionary past, can be uniquely dangerous, since we have evolved no means to cope with them. Good examples are organophosphate insecticides and dioxins.

³¹ In fact human ingenuity appears to have been unable to make anything as toxic as the 'natural' toxin produced by the bacillus that causes botulism, certain puffer-fish (*fugu*) or the venoms of some jellyfish, snakes and the Australian blue-ringed octopus.

for that little gripe: there are deeper issues involved.

If the body and mind are chemical machines (at least at the level where intervention is possible), what could be more natural than repairing broken parts of these machines with chemicals that enhance or restore their original chemistry, and go at least some way toward bringing about the original unbroken condition ('state of nature' in a Garden-of-Eden sense)? For a human to take an antidepressant is no more unnatural than for a deer to lick salt to remedy a sodium deficiency, for a rat to eat clay if it thinks it may have been poisoned, or for a chimpanzee to eat certain plants to get rid of intestinal worms (all well attested behaviours 'in nature'). We are animals that naturally make synthetic chemicals the way spiders naturally make webs or beavers make dams; it is part of our nature to be technological animals, and to enjoy the fruits of our technology. So why should we not take advantage of the artifacts that nature has made us smart enough to invent? *Not* taking drugs to relieve illness is, in this perspective, as unnatural as refusing to use our elegant opposable thumbs for fine gripping, or our extraordinary hand/eye coordination for bowling cricket balls accurately.

Following this line could of course lead to the conclusion that for instance 'not making atomic bombs and throwing them at our enemies' is also unnatural (I owe this argument to Meg Laing). I agree. We are—at least when we are being unreflective and uncontrolled—territorial, aggressive, violent, short-tempered and xenophobic, like most other primates. 'Naturalness' and what one thinks of as moral or immoral are two utterly different realms. Because something is natural does not mean it is good (or just as important, bad). To make such a claim is to commit what philosophers call the 'naturalistic fallacy': it is impossible, as it were, to derive a moral judgement from an empirical fact. All I am doing here is stressing the moral neutrality of the natural.

Mood-stabilisers

Mood-stabilisers have a levelling effect on recurrences: either manic/depressive switches, or periodic recurrences of depressive, mixed or manic episodes. All are antimanic; some are also antidepressant, others primarily anticyclic. They are chemically and biologically heterogeneous, classed together only for clinical reasons. Although some new antipsychotics are now used for stabilising purposes, the mainstays are lithium salts, and a group of drugs that used to be called 'anticonvulsants', but are now usually known as antiepileptic drugs (AEDs).

Lithium

Lithium is probably the most widely used mood-stabiliser, either alone or in combination with antidepressants and AEDs. It is still not entirely clear how it works, but it decreases excitatory neurotransmission by altering electrical activity, and either preventing or reducing neuronal firing. It also inhibits release of dopamine and noradrenaline (which partly accounts for its antimanic activity) and raises serotonin concentrations. The general effect in manic states (but unfortunately

to some degree in other states as well) is reduction of euphoria, hyperactivity, talkativeness, and libido. Many patients on lithium, even at minimum therapeutic dose, feel ‘drugged’ and slowed down, and cognitively and emotionally blunted. I did even on a very small dose taken not as a mood stabiliser but to augment an antidepressant, its other common use.

Lithium is often used as a monotherapy in bipolar disorder, since it has, for many patients, both antimanic and antidepressant effects. In the classical treatment model (e.g. Fieve 1997), lithium is used as the basic drug, and antidepressants added (as little as possible) when necessary, e.g. when depressive episodes break through and are not adequately controlled.

Lithium is fairly effective for acute states, but it is most commonly used as a prophylactic against further episodes. A large number of patients experience adverse effects: lethargy, fatigue, weakness, weight-gain, impairment of memory and concentration, depression, nausea, hand tremor, thirst, and urinary frequency. Most of these level out after a year or so, but some may not. Lithium has quite a few serious interactions with other drugs: in particular carbamazepine (see below), nonsteroidal anti-inflammatories (e.g. Nurofen, Indocid), ACE inhibitors (a type of antihypertensive), and diuretics.

Lithium seems to be well-tolerated by most patients, with one major exception: it can be distressing for creative, mentally very active or high-achieving people. The following remarks from one of the earliest studies of lithium noncompliance are still relevant (Polatin & Fieve 1971, cited in Goodwin & Jamison 1990: 365). The authors note that ‘the creative individual who does his best work in [...] a hypomanic period’ is likely to feel that lithium

acts as a “brake.” The patients report that [it] inhibits creativity so that the individual is unable to express himself, drive is diminished, and there is no incentive. These patients also indicate that when they are depressed, the symptoms are so demoralising [...] that they welcome the “mild high” when the depression disappears and prefer to settle for a [...] life of highs and lows rather than an apathetic middle-of-the-road mood state [...]

In addition,

never to have a high as a result of the drug seems equivalent to being deprived of an “addictive-like” pleasurable and productive state. Some of these patients are terrified of having a low again, but insist on taking their chances without lithium [...] knowing that sooner or later they will be compensated by the high, even if they do go into a low state.

This is precisely what led me to follow one psychiatrist’s advice and not take lithium. Insistence on not using lithium or other mood stabilisers can be a serious point of contention between doctor and patient; I will return to this in some detail toward the end of the chapter. On the other hand, especially in patients with serious near-psychotic or psychotic manias it can, like other mood stabilisers, be a lifesaver.

Antiepileptic drugs (AEDs)

It may seem odd that drugs designed for the treatment of seizures should be used in treating mood disorder. It is even odder in light of the fact that one effective antidepressant and antimanic treatment is the *induction* of seizures (see below on ECT). But there does seem to be some relation between cyclical depressions and bipolar disorder and epilepsy—if not in the mechanism and pathology, in the patterns of recurrence (Silberstein 2000). This had been noticed as early as the 1920s by Emil Kraepelin, who suggested that there was a shared cyclical pattern in both kinds of disorders. In his model, cyclical or ‘paroxysmal’ disorders in general can be represented as having the following phases, endlessly repeating:

‘Normal’ (Quiescent disorder) ➡➡➡ Prodrome ➡➡➡ Severe Stage ➡➡➡ Return to Normal

The prodrome (which does not always occur) is a ‘warning’ of what is to come, like an epileptic aura: e.g. hallucinations, feelings of unease, anxiety and distress, or the sense of agitation and doom that may precede a depressive episode. Similarly manic episodes may be preceded by a feeling of edginess and being ‘off balance’. One major clinical point that can be drawn from this pattern is that the disease at best (asymptomatic) is merely quiescent, not absent; or if there is a constant cyclical pattern, perhaps not even strictly speaking in remission. It is just always there, the phenomenon itself is discontinuous, and it surfaces in response to whatever exogenous or endogenous triggers restart the cycling process.

It has recently become clear that there is a kind of unholy trinity, depression, migraine and epilepsy, that have some (not yet understood) relationship. These three periodic afflictions seem to respond to an overlapping set of medications. Mood stabilising AEDs can be effective against migraine, mania, and epilepsy; TCAs and SSRIs are effective not only against depression, but also in some cases migraine. Further, a migraine sufferer runs double the normal risk of also suffering from Major Depression, three times the normal risk of mania or phobia, and four times the general risk for Anxiety Disorder. So it is not entirely surprising that drugs designed originally for seizure control should work on other recurrent disorders. The various ones on the market have different biochemical actions, but they all reduce and stabilise neurotransmission, though in quite different ways from lithium. Patients who do not respond to lithium may respond to these drugs, either alone or in combination.

The two oldest and most commonly used are carbamazepine (Tegretol) and valproate (Depakote). Both are limbic anticonvulsants, which is probably why they control cycling and recurrence. Carbamazepine is chemically very like a TCA; it is antimanic, antidepressant and antipsychotic, as well as sedative and anticholinergic, and has a general depressant effect on neurotransmission. The commonest side-effects are blurred or double vision, fatigue, headache, sedation and confusion. Valproate antagonises an enzyme which degrades the main inhibitory neurotransmitter GABA, thus raising GABA levels in the brain. It has a high side-effect profile: anorexia, hair-loss, nausea, stomach cramps, tremor and weight gain, as well as a possibility of

liver damage and interference with clotting. It may interact dangerously with other AEDs, barbiturates, anticoagulants and aspirin.

There are a number of newer drugs, which seem to be particularly effective for bipolar disorder: one of them is antimanic, another antimanic and antidepressant. Gabapentin (Neurontin) is structurally similar to GABA itself, but does not bind to receptors. It does however increase GABA concentrations, and has been shown to be effective for manic, hypomanic and mixed states. The main side-effects are transient oversedation, ataxia, visual problems, dizziness and tremor. It appears to be quite non-interactive, and may be used to augment other AEDs. Lamotrigine (Lamictin, Lamictal) antagonises glutamate (the main excitatory neurotransmitter). It appears to have a significant antidepressant effect, and is also useful in manic, hypomanic and mixed states. There is a low incidence of sexual dysfunction and weight gain; the main side effects are dizziness, tremor, somnolence, headache, nausea and rash.

Antipsychotics

These fall somewhere between antidepressants and mood stabilisers in function, though at least one in low doses seems to be a genuine antidepressant and anxiolytic. Their original and still primary use—especially for older drugs like chlorpromazine (Thorazine, Largactil) or haloperidol (Haldol)—is in treating schizophrenia and other psychotic disorders. They may also be used in psychotic phases of unipolar or bipolar depression. They are effective against mania, thought disorder, and ‘flight of ideas’. Among other things they block certain dopamine receptors, which leads to a sedating and antipsychotic effect. They tend however to be rather unselective as to the part of the brain they work in: blockade of limbic dopamine receptors does reduce psychotic symptoms, but there is also antagonism in parts of the brain that control movement. This often leads to Parkinsonian side effects after long usage or high doses: tremor, stiffness, excessive salivation. Sometimes they may produce a syndrome called ‘tardive dyskinesia’—an irreversible movement disorder that sets in late in treatment. They are generally unpleasant drugs to take, and in outpatient environments the rate of noncompliance is extremely high. Their place in the treatment of mood disorders is limited: clearly they are indicated only for serious psychotic states in patients where the usual mood-stabilisers have failed.

Certain newer antipsychotics however are increasingly being used in the treatment of mood disorders. Among these ‘atypical’ antipsychotics that are widely used are risperidone (Risperdal), clozapine (Clozaril), olanzapine (Zyprexa) and quetiapine (Seroquel). These are reputed to have fewer side-effects, and act against the so-called ‘negative’ symptoms of schizophrenia (poverty of speech, anhedonia, lack of motivation) as well as the ‘positive’ (mania, hallucination and delusion, excitement, irritability). This combination of effects has led to their use as mood stabilisers, and for the treatment of manic and hypomanic episodes in bipolar disorder. They may sometimes be substituted for antidepressants in refractory patients. I have taken Seroquel during an agitated hypomania; I found it effective but very sedating.

There is also one older antipsychotic, flupenthixol (Fluanxol), which can be effective in

low doses as an antidepressant and anxiolytic, and has little in the way of side-effects except occasional slight tremor and muscle weakness. I have used it frequently and found it to be easily tolerable and often very effective. It can be either activating or sedating, but above all does not appear to produce the slight emotional dullness and unresponsiveness that even activating antidepressants like Effexor do: it and Wellbutrin are the only two drugs I've found that do not interfere at least slightly with listening to music or reading poetry or looking at pictures.

Minor tranquillisers and hypnotics

These are not first-line treatments for depression, but for some of its accompaniments. Many depressives also suffer from agitation, severe anxiety (periodic or fairly continuous), and/or panic attacks. In addition, many antidepressants—e.g. Aurorix, the SSRIs, Effexor and Wellbutrin—may be quite activating and cause anxiety or agitation, particularly in the early stages of treatment. Anxiety symptoms, whether comorbid or treatment-induced, may be at least as disabling as depression, and must be treated along with it. Some antidepressants (e.g. classical MAOIs, paroxetine, imipramine, Effexor) are themselves anxiolytic, but this may be insufficient. Another very common accompaniment to depression itself, or to treatment with the more activating antidepressants, is insomnia. Few seriously depressed people I know can sleep without some assistance, even if their antidepressants are working. Any drug that raises the anxiety threshold, or induces relaxation and eventually sleep, can be enormously useful as part of the treatment of serious mood disorder.

For both of these problems, the drug of choice is usually one of the so-called 'minor tranquillisers' (benzodiazepines),³² though there are two other widely used and rather different anti-anxiety drugs and some new hypnotics. The benzodiazepines, now the most widely used 'tranquillising' drugs, inhibit neurotransmission. They are all, to one degree or another, anxiolytic, muscle-relaxant, arousal-reducing and memory-inhibiting. The major side-effects are predictable: sedation, somnolence, clumsiness, loss of reactivity, and memory deficits.

They are also dependence-forming for most users, and some are extremely difficult to withdraw from. This addictive propensity often leads doctors to be somewhat wary of prescribing them, at least for long periods,³³ but many do anyhow, since they are so effective and can so

³² The highly potent first-generation antipsychotics like Thorazine are referred to as 'major tranquillisers'.

³³ Both ordinary tranquillisers and hypnotics are typically recommended only for very short periods. This is probably alarmist; I have been taking alprazolam and the hypnotics flunitrazepam and then zopiclone and then loperazolam for over 15 years, and have not developed major tolerance, though I have certainly developed dependency. This however is not considered a serious problem, at least outside of the US and UK, which tend to be very conservative and not as enlightened as Europe and South Africa. At the 11th Congress of the European College of Neuropsychopharmacology (1999), a number of papers dealt with this. According to one presentation, a survey showed that 68% of specialists from 25 countries did not regard benzodiazepine dependence as a major problem or contraindication to long-term use. Hans-Jurgen Moeller, Professor of Psychiatry at the University of Munich, even warned that there is a risk in using low dosages for short periods. He remarked that 'there are patients who need long-term treatment. A patient suffering from GAD [Generalised

greatly enhance quality of life. The main differences among these chemically rather similar drugs are speed of onset of action, sedativeness and speed of clearance. Which one chooses depends on the desired effect: obviously a hypnotic should clear fairly quickly, to avoid morning hangover, while an anxiolytic or anti-panic agent should be longer-acting and less sedating. The general anxiolytics include such familiar longer-acting benzodiazepines as lorazepam (Ativan), diazepam (Valium), and the shorter-acting alprazolam (Xanax, Xanor, Alzam), which is effective against panic, phobias, anxiety and agitation, and appears to be mood-elevating for some patients. If it is possible to feel a deep personal affection for a drug I feel it for alprazolam: it dissolves even serious anxiety in a remarkably short time, appears to have no side-effects in low dosages, and just makes me feel indefinably better and cheerier. The benzodiazepines and the other hypnotics described below all appear to be agonists at the GABA_A receptor complex; they seem to be high-powered surrogates for a natural inhibitory neurotransmitter.

The main widely used non-benzodiazepine anxiolytics are buspirone (BuSpar) and sulpiride (Eglonyl). Buspirone appears to take much longer to begin working than the benzodiazepines (up to 3 weeks), and may have similar side-effects (confusion, depression, weakness), as well as light-headedness, digestive problems, and sexual dysfunction. Unlike the other anxiolytics, it acts not at the GABA receptors but in the brainstem; it is a noradrenaline antagonist, controlling anxiety and panic by suppressing the flight-or-fight response rather than promoting general inhibition. It is also reported to be non-addictive.

Sulpiride is an older antipsychotic which is used as an anxiolytic as well, at least in South Africa and the UK. A Google search did not discover this use, but I know a number of people who have been prescribed it, with good effect. It is non-addictive and appears to be effective for most people; but it can produce menstrual problems and lactation, as well as 'paradoxical' reactions. When I took it to boost my sleeping pills during an agitated hypomania I panicked instead of relaxing.

The hypnotics of choice used to be barbiturates, but as these are dangerous and easily used for suicide, they are now rarely prescribed. About the only simple way to get them nowadays is to have an epileptic dog (real, borrowed or imagined)—phenobarbital is a standard veterinary anticonvulsant, and is often dispensed quite freely. The only really effective hypnotics (except for sedating antidepressants like Trazodone or Prothiaden for some patients) appear to be benzodiazepines or similar drugs. The standard practice (reinforced by the package inserts) seems to be to prescribe these only for the short-term treatment of insomnia; but many (most?) depressives, even medicated, have chronic insomnia, and doctors are increasingly prescribing hypnotics fairly open-endedly, often effectively for life. At least this is so in South Africa and much of Europe, less so in the US and UK, both of which have a somewhat nannyish attitude

Anxiety Disorder], for example, needs benzodiazepine treatment in the same way that a diabetic needs insulin' (Forrest 1999).

toward potentially dependency-inducing drugs.³⁴

It is true that one usually becomes dependent on hypnotics, often developing severe and persistent rebound insomnia on withdrawal, and eventually becoming quite unable to sleep without them. But hypnotics are a true blessing. They help to prevent one of the most devastating of all depressive experiences: waking in the wee hours in a suicidal funk, unable to read or listen to music or do anything except examine your mental innards, staring at the ceiling till sunrise and wishing for death. Being on hypnotics for life is a very small price to pay for avoiding this.

The standard hypnotics are benzodiazepines and three drugs with similar effects. Among the most widely used are flunitrazepam (Rohypnol), triazolam (Halcion) and loprazolam (Dormonox). The non-benzodiazepines are the so-called 'z-drugs', zopiclone (Imovane, Zopimed, Lunesta in the US), zimeidine (Ambien, Stilnox) and zaleplon (Sonata). All are reasonably effective and short-acting, so one does not end up with much if any of a hangover. They enhance slow-wave sleep, and help provide more restful nights than one would get without them. The CNS and respiratory depressant activity of all these drugs is potentiated by alcohol; whether it is safe to drink while using them is a matter of debate (see the section on alcohol below).

Electroconvulsive Therapy

The idea of 'shock therapy' is horrifying to many people. It carries overtones of the punitive, and memories of portrayals of sadistic behaviour by callous doctors and tough, uncaring nurses. And indeed in certain hospitals this was once pretty much the case, and not all that long ago. This (semi- or fully) autobiographical passage from Sylvia Plath's *The bell jar* (1963:138) probably reflects the popular image:

Doctor Gordon [...] dragged out a table on wheels with a machine on it and rolled it behind the head of the bed. The nurse started swabbing my temples with a smelly grease.

As she leaned over to reach the side of my head nearest the wall, her fat breast muffled my face like a cloud or a pillow. A vague, medicinal stench emanated from her flesh.

'Don't worry,' the nurse grinned down at me. 'Their first time everybody's scared to death.' [...]

Doctor Gordon was fitting two metal plates on either side of my head. He buckled them into place with a strap that dented my forehead, and gave me a wire to bite.

I shut my eyes.

There was a brief silence, like an indrawn breath.

Then something bent down and took hold of me and shook me like the end of the world. Whee-ee-ee-ee-ee, it shrilled, through an air crackling with blue light, and with each flash a great jolt drubbed me till I thought my bones would break and the sap fly out of me like a split plant.

³⁴ Restriction to short-term use has recently been made part of the prescribing protocols of NICE (the UK National Institute for Health and Clinical Excellence). This recommendation has been strongly criticised (Capua & Shapiro 2007). The authors note that insomnia is a serious health risk, and that insomniacs have twice the average incidence of car accidents and four times the incidence of depression as the general population. They recommend unlimited use.

I wondered what terrible thing it was that I had done.

Things have changed radically in the ensuing three decades, though one might not think so from films like *One flew over the cuckoo's nest*, which created a great deal of unfavourable publicity. ECT is no longer a form of torture, and is not (in civilised countries) used as a means of 'control' or punishment. In some cases, such as elderly patients with compromised liver and kidney function, it may even be preferable to medication, or the only safe therapy. Because of its quick action it is often used in cases of emergency, such as violent psychotic manias.

The idea of inducing convulsions to treat psychiatric disorders stems from an old observation, capitalised on in the 1930s: that institutionalised psychotic patients who were also epileptic often gained at least temporary symptomatic relief after a seizure.³⁵ Such observations led to experimental procedures with seizure-inducing drugs, and eventually, as epilepsy was better understood, to the use of electric currents to disturb the brain's own natural activity, and induce seizures whose duration and severity could be controlled. As suggested above, at first, with the brutality often common to early treatment of institutionalised psychiatric patients, the procedure was barbarous and often abused; nowadays it is reasonably safe and no more traumatic than any other treatment under general anaesthesia..

Unfortunately, though ECT is extremely effective in certain cases, we do not know precisely how it works. There are many theories, any of which may be right (or at least are consistent with the observed effects, and what we know of seizures). One is that the seizure as it were 'reboots' various brain systems, by temporarily inducing chaos, disturbing or destroying normal function, and then allowing it to re-achieve its normal set-point—more or less like defibrillation. This is generally believed now to be oversimple.³⁶ Among the effects that have been noted are: suppression of regional cerebral bloodflow; facilitation of noradrenaline and dopamine transmission and that of acetylcholine and GABA; increased permeability of the blood-brain barrier; and effects on CRH, ACTH, TRH (thyroid releasing hormone), as well as other neuro-hormones such as prolactin, vasopressin, and endorphins (see Bezchlibnyk-Butler & Jeffries 1998: 44ff, Andrade 2008). A lot more research is needed for a clear understanding of why seizures, normally to be avoided, can be so useful in restoring the brain's proper affective settings.

There is no doubt that ECT works well for certain intractable depressions. It is also slightly risky, and may have unwanted side-effects. The risk is not great: two studies cited by the US National Institutes of Health (NIH) show fatalities of 2.9 per 10,000 patients, and 4.5 per 100,000. This is equivalent to the normal risk for any procedure involving general anaesthesia.

ECT is now given under anaesthesia, and the use of muscle-relaxants largely prevents the

³⁵ ECT is not a unique instance of producing major pathology for therapeutic purposes. Radiotherapy and some forms of chemotherapy for cancer do the much the same thing: by killing rapidly dividing cells they get a lot of normal ones along with those from the tumour.

³⁶ For discussion of the various theories and evidence, as well as an excellent bibliography, see Fink 1997.

fractures and severe muscle pain that used to occur. The main complications run at about 1% of all procedures (based on an NIH sample of 25,000): they include laryngeal spasm, breathing problems, occasional vertebral compression fractures, and very rarely status epilepticus (a potentially fatal continuous seizure).

Recovery of consciousness is usually followed by a period of up to 24 hours of mild to moderate confusion and memory loss, often with accompanying headache. The most severe and persistent problems appear to be associated with memory, but the evidence is contradictory, and it is not clear how many patients suffer major or permanent memory loss, though some certainly do. There is one strand of opinion that considers the memory effects often to be major and permanent, and much work has been done on finding ways to improve memory deficits (Andrade 2008). It has also become quite fashionable (as it is with antidepressants as well) for some people who have had bad experiences to describe themselves as ‘survivors’ and become anti-ECT advocates. Some of the literature suggests that major and permanent memory loss is not infrequent; on the other hand, some clinicians I have spoken to have precisely the opposite opinion. Given my profession, with its critical dependence on high-functioning memory, as well as the evidence in the literature, if I were offered ECT I would refuse it, just on the off chance.

At one time ECT was used for a very large range of conditions (e.g. schizophrenia, other delusional psychoses, catatonia); nowadays its use is much more restricted, and it seems to be most effective in delusional or very severe melancholic depression, or acute mania—particularly when the disorder has been refractory to medication. It is relatively ineffective for milder depressions or dysthymia. One advantage of ECT in really severe cases is that the onset of therapeutic effect is a good deal faster than with medications. The reported results are generally good: according to the NIH, ‘not a single controlled study has shown another form of treatment to be superior to ECT in the short-term management of severe depressions’, and it is at least as effective as TCAs, more effective than MAOIs, and about as effective as (and faster than) lithium for acute mania. But there is a lack of long-term studies as ECT is normally followed up by medication, and it commonly has to be repeated, often quite regularly.

The procedure is still in some ways controversial; it is sufficiently invasive and ill-understood so that it ought to require special discussion and both ethical and medical care in its administration.³⁷

³⁷ For a recent survey and meta-analysis see UK ECT Group 2003.

Self-Medication

He mentioned to me how, for the first time, that he had been distressed by melancholy, and for that reason had been obliged to fly from study and meditation, to the dissipating variety of life. Against melancholy he recommended constant occupation of mind, a great deal of exercise, moderation in eating and drinking, and especially to shun drinking at night. He said melancholy people were apt to fly to intemperance for relief, but that it sunk them much deeper in misery.

—James Boswell, *Life of Johnson* (1791)

Humans have probably been taking psychoactive chemicals since they discovered that plants had uses other than food. By the late Bronze Age we have evidence for the use of hallucinogens like *Cannabis*, the fly-agaric mushroom (*Amanita muscaria*), and members of the *Solanaceae* (tomato family): e.g. *Atropa belladonna* (deadly nightshade), *Hyoscyamus* (henbane) and *Mandragora* (mandrake). The psychostimulant properties of *Ephedra* may have been known to the Neandertals (there are remains of its pollen in the 50,000 year old burials at Shanidar cave in Iraq), and opium has been in use in Europe at least since 4000 BC.³⁸ My concern in this and the following section however is exclusively with two of the most widely used (and legal) psychotropics: alcohol and nicotine. I restrict myself to these because I know them from personal experience; and because, perhaps wimpishly but in the end it turns out wisely, I happen never to have taken illegal street drugs (except for cannabis a few times in my 20s). This is due initially to the behavioural style of the time and society I grew up and lived in, and later to having learned enough to know that cocaine, amphetamines, Ecstasy and hallucinogens are extremely dangerous for people with mood disorders.

Many, perhaps most depressives have been smokers, drinkers, and/or druggies of other kinds, long before they ever get to a doctor and have anything prescribed. Many indeed never do, and end up perpetually miserable or dead, or manage to hang in there with pretty poor quality of life, or even be compromisedly or periodically happy, on these rather dodgy chemical support systems. My personal and controversial view is that alcohol and nicotine may, for some, have benefits that come close to matching their undeniable and serious dangers. In any case, they are so widely used as palliatives for bad moods that they have to be discussed.

³⁸ For discussion and references, see the relevant entries in Rudgley 1998. Except for cannabis and opium and some of its derivatives, most of these are no longer ‘drugs of abuse’; but some of our most useful medications (e.g. atropine) are derived from or synthesised after the classics. Ephedra itself is not used for medical purposes, but a synthetic relative of the active ingredient (pseudoephedrine) is one of the commonest and most effective decongestants. Unfortunately in many countries it is now unavailable or available only in limited amounts by prescription, because it is a precursor in the illegal manufacture of methamphetamine.

Alcohol

I lived, I loved, I quaff'd, like thee:
 I died: let earth my bones resign:
 Fill up—thou canst not injure me;
 The worm hath fouler lips than thine [...]

Why not? Since through life's little day
 Our heads such sad effects produce;
 Redeem'd from worms and wasting clay
 This chance is theirs, to be of use.

—Byron, 'Lines inscribed on a Cup formed from a Skull'

Alcohol, despite its delights, is potentially highly toxic, particularly in the long term. It raises gastric acidity, conducing to or exacerbating oesophagitis, gastritis and ulcers; it can damage cardiac muscle, cause hepatitis and cirrhosis of the liver, pancreatitis, peripheral neuritis, brain atrophy, and is at least statistically implicated in oral and oesophageal cancers. It can induce blackouts and eventually total and permanent amnesias. Less dangerously, it can also cause erectile dysfunction ('brewer's droop'). For the addicted, withdrawal can lead to delirium tremens and in some cases death. In addition, and this is of significance for patients on psychotropic medications, there are some potentially dangerous interactions. Certain anticonvulsants (especially valproate) can increase intoxication, the absorption of Prozac can be increased, as can the depressant effects of TCAs and benzodiazepines. And this of course aside from its social effects: the dangerous and violent behaviours it can trigger through its disinhibition of the frontal cortex.

The Bible is quite properly ambivalent about alcohol. The Book of Proverbs says: 'Give strong drink unto him that is ready to perish, and wine unto those that be of heavy hearts. Let him drink, and forget his poverty, and remember his misery no more'(31:6-7). On the other hand (20:1), 'Wine is a mocker, strong drink is raging: and whosoever is deceived thereby is not wise'. Alcohol is one of our earliest psychoactive discoveries: we have been using it for at least the past 10,000 years. It has been discovered and rediscovered time and again, not only as a psychotropic but as a food (particularly beer).³⁹

It is well known that the proportion of depressives who are serious or excessive drinkers is much higher than in the population at large. The direction of causality is unclear: does

³⁹ For a fascinating account of the history of alcohol use, see Vallee 1998. The best book I know on both the good and bad sides of alcohol is the English wine writer Jancis Robinson's *On the demon drink* (1988). Some of the medical information is a bit out of date and there are a few inaccuracies; but it is beautifully and amusingly written by a connoisseur with considerable balance, and worth reading by both drinkers and temperance campaigners. For a short, highly technical but informative introduction to the psychopharmacology of alcohol and the treatment of alcohol dependence, see Schuckit 2000. For an immensely detailed account of the action of alcohol on all brain systems see Oscar-Berman & Marinkovič 2007.

depression cause heavy drinking, or is it the other way round? Or both? Many depressives drink a great deal, and many alcoholics and alcohol-dependent heavy drinkers (I will distinguish these categories later) have mood disorders. The existing studies appear inconclusive, but there are repeating themes, and evidence for causality in both directions. Pre-existing alcoholism is associated with mood disorder: according to one literature survey somewhere between 12% and 57% of alcoholics have affective illness. This is only for alcoholism, not for ‘alcohol abuse’ (assuming the two terms really mean something different: I will return to this issue below), but it is suggestive (Goodwin & Jamison 1990: 213). There are also indications of a genetic link between alcoholism and manic depression and other mood disorders.⁴⁰

The immense mass of studies provides varying but more or less convergent results. In a group cited by Goodwin & Jamison, the rates of above-usual drinking (‘alcoholism’, ‘problem drinking’, ‘drinking to excess’, ‘abusing alcohol’), ranged from 25%-75% of target groups of patients ‘with mood disorders’. The population incidence of alcoholism in the non-depressed in the US appears to be around 8%.

While there is no doubt a strong connection between mood disorder and heavy drinking, the literature makes it very difficult to see what precisely is going on—largely because of non-comparable survey populations and lack of uniform definitions. The latter is especially troubling: what is an ‘alcoholic’, as opposed to someone who is merely ‘alcohol dependent’, ‘drinks to excess’, has ‘drinking problems’, or ‘abuses alcohol’? What counts as ‘excessive’ or ‘heavy’ drinking is unfortunately a matter of local medical fashion: at present the standard South African and US definition of a ‘heavy drinker’ (male: the limits for women are somewhat lower) is someone who has more than two drinks a day, while in Canada even 7 drinks a week is considered ‘dangerous’, which is alarmist to the point of paranoia. Other countries, according to a survey in *The Independent* (19 May 2008) have rather different standards: in France the danger point comes at 5 drinks a day, and in the Basque country the approved limit is one drink a day per 12 kg body weight. This is not science but cultural predilection. For clarity I stipulate that all alcoholics are by definition alcohol-dependent, but not vice versa. I reserve the term ‘alcoholic’ for the real ‘problem drinker’, whose family life, relationships and work are interfered with by drinking, who gets into trouble with the law, has blackouts, virtually devotes his life to obtaining alcohol and drinking and exhibits the kind of uncontrolled behaviour typical of late-stage addicts.

On the other hand, there is what I would call the ‘non-alcoholic alcohol-dependent’. I classify myself this way (and so does my psychiatrist). I drink a good deal, every day. At a certain time (after about 15 hours of abstinence) I usually feel that I need a drink, and may suffer withdrawal symptoms (anxiety, tremor, depression) if deprived. I am normally quite unable to get to sleep sober, even with sleeping pills. So I am dependent, even addicted, but not ‘alcoholic’ in the problematic sense. I do not drink before going to work, or during a working day when not at home, except perhaps a glass of wine or a beer with lunch, and a whisky or two around 3 PM,

⁴⁰For anxiety disorders, which are closely related to depression, the available data seems to indicate that the psychiatric disorder tends to precede the drinking disorder: see Crome & Bloor 2008.

or perhaps one before a lecture if I happen to have a bad anxiety attack. Drinking does not interfere with my relationships or productivity, I do not devote time to it that would be better devoted to other activities, I never drive when drinking or otherwise get in trouble with the law. And I am rarely actually drunk except when it is appropriate, e.g. at social events or parties or spending evenings with friends.

Why should there be this relationship between heavy drinking and depression? Alcohol is a central nervous system depressant: you pass out when you drink enough. Why then should it be a drug of choice for the depressed? The oversimple answer is that it is the only cheap, legal and potent psychoactive drug that you can get without a prescription in most western countries, and in the fog of severe depressive (or manic) states, just about anything that will do something to your head is worth trying. But the real story is rather more complex.

Alcohol is indeed eventually a depressant; many depressives who become heavy drinkers begin by using it to ward off intolerable insomnia (it does, but you pay for it with disturbed sleep), or simply to get rid of consciousness for a while. Any regular sufferer of hangovers will know the dreary mood that often accompanies, but is not entirely caused by, the headache, nausea, furry tongue and staggers of the morning after. But it is also the recreational drug of choice for those not into the drug-culture; it oils the wheels of conversation, makes people (either really or in their own imaginations) cleverer and more fluent than they would be without it. Conversation always seems to flow better at table when quantities of wine are consumed than not, and pubs are particularly fine places for talk—even serious intellectual talk (I have always thought of Oxford and Cambridge as networks of pubs with a superstructure of colleges). On the other hand drunkenness often leads to aggressiveness, violence, hypersexuality, inflated self-esteem, risk-taking behaviour—actions and attitudes associated with mania rather than depression. So despite the ultimate depressant effects, alcohol can also provoke states rather more like hypomania or mania.

What then of the manic depressive who drinks, not just in ordinary social situations or to relax at the end of the day, but at least partly for control of mood? Aside from drinking regularly just because I really adore good whisky, beer and wine, and am physically dependent, I drink when I am depressed, and often get temporary relief through elevation of mood and a pleasant feeling of irresponsibility (conveniently suppressing the knowledge that the depression may get worse later). I drink when anxious, because alcohol is the fastest-acting anxiolytic I know. But I also drink when manic, and for two opposed reasons: for relief from rage, agitation and panic in black manias; and contrariwise to prolong or enhance the euphoria of good hypomanias.⁴¹ Alcohol is a complex and paradoxical drug, with an extraordinary range of effects.

There are three interconnected actions it is best loved for. In the initial stages it

⁴¹ The latter behaviour is characteristic of cocaine users as well; despite the fact that cocaine is a potent psychostimulant, bipolar patients report using it more when manic than when depressed, as a secondary euphoriant to enhance the up state (Goodwin & Jamison 1990: 217f.). Many manic depressives find their highs as addictive as any drug, and anything that works to prolong them becomes an important part of their armoury of weapons against the life they would otherwise lead.

antagonises the inhibitory neurotransmitter GABA. This leads to suppression of normal higher-cortical (frontal lobe) controls, and thus to disinhibition, mild euphoria and freedom from social and behavioural constraints that might otherwise operate. Second, and here is where the possibility of dependence begins to arise, alcohol promotes the release of dopamine in the limbic 'reward centre'. And third, it also stimulates limbic opiate receptors, contributing to a general feeling of well-being, often, in just the right quantities, something like hypomania. Its initial effect therefore can be (and usually is) antidepressant, anxiolytic, and euphoriant. But it also interacts with the serotonin system, which may lead (unpredictably, depending on the individual) to a range of behaviours, some tolerable, others dangerous or even fatal.

Alcohol does many other things, and the more you consume the more dangerous and disabling these may become. From the outset there is some cerebellar inhibition, leading to increasing lack of coordination. There is also a growing impairment of judgement. Later in the course of consumption there is a kind of 'rebound' effect, where the stimulation is undone, and suppression of activity in the hippocampus, which affects memory. (The extreme version is the alcoholic blackout; the final result may be a devastating amnesia called Korsakov's syndrome.) Excessive intake can lead to respiratory depression and death.

Alcohol, like most psychoactive drugs, is very personal; anyone who has observed enough drunks knows that some become maudlin and weepy, some flirtatious, some merely more fluent and charming than when sober, some incoherent, others aggressive and dangerous. This may in part be due to its effect on the serotonin system. Because of serotonin's link to status and dominance, dysregulation can precipitate violence in vulnerable people. The combination of pleasure, loss of coordination and defusing of cortical inhibition (and hence loss of judgement) can make alcohol an exceedingly dangerous drug for the wrong people; for the right ones it can make it a key to enhanced quality of life.

The use of alcohol along with other psychotropics is generally not recommended. Most antidepressants (and tranquillisers and hypnotics) come with a warning either that alcohol is to be avoided, or should be 'used with caution', because it may, among other things, potentiate CNS depression. How seriously should dedicated or dependent drinkers take these warnings? As usual, the answer is 'it depends'. On the state of your liver, how badly alcohol affects you and in what way, how much you need it, what other drugs you are taking, and how strong the interaction (if detectable) is. I would probably be somewhat less depressed (and would certainly have less gastritis and perhaps lose some weight) if I drank less; on the other hand, the stress incurred through the loss of a fundamental pleasure, additional anxiolytic, euphoriant and comfort might itself make me worse. My use of alcohol is not only palliative and addictive, but hedonistic, which may be useful in depressive disorder. The books do not usually list it, but simple pleasure can be potently antidepressant (at least if you are not so depressed as to be immune to it).

The manufacturers of two activating antidepressants (Aurorix and Effexor) specifically say that there is no interaction. But there is one, Wellbutrin, that can occasionally lower alcohol tolerance, at least to the degree of provoking quicker drunkenness and dreadful hangovers in some patients. *Depressant* drugs (tranquillisers, sleeping pills, etc.) are another story entirely; but even

then for some there is no apparent problem. Package inserts are not an accurate guide in these matters: unfortunately the only way you can find out is to try yourself (*very* carefully at first) and see what happens. But this can be dangerous. I have drunk fairly heavily for a decade and a half (about 3 litres of spirits a week plus a certain amount of beer and wine) while taking benzodiazepines and sleeping pills, and many of my depressed friends likewise, and/or with sedating antidepressants. None of us appear to suffer any functional deficits; but it would be irresponsible to recommend such mixtures. So many people have idiosyncratic reactions to drugs, and mixing alcohol and benzodiazepines (which has turned out to be safe for me—so far) can lead to respiratory depression and death. I seem lucky enough to have the right constitution for the behaviour I want to indulge in. But I only found that out through experimenting, with no idea of or particular concern for the consequences—typical depressive behaviour. I simply could not conceive not drinking, and considerations of risk took second place. It fortunately turned out this was all right for me. Mixing alcohol and *any* depressant (benzodiazepines, sedating antidepressants, opiates, mood stabilisers) is at least risky, and it is better to avoid it if you can.

The only consequence I have seen so far is disordered sleep and something of a hangover most mornings. But this is what *I* choose to do, not a suggestion for anybody else. It may well be ignorant and misguided, and almost certainly involves an element of deliberate risk-taking. (It may also not even be what I ‘choose’ to do, but simply a surrender of my autonomy to the pleasure and the addictiveness of a drug.)

*Tobacco*⁴²

You are my Gypsy, my spouse, my man; I am your Gypsy, your spouse, your woman. Marriage to Carmen, like that of a smoker to his cigarette, is eventually fatal, but it embraces an impossible idea, a gauzy ideal of hymeneal union—marriage that combines the most exhilarating perspectives on freedom with the most irrefractable bonds of habituated pleasure.

—Richard Klein, *Cigarettes are sublime* (1993)

Nicotine itself is probably not a dangerous drug;⁴³ what is dangerous is using tobacco. This is not a paradox; it is because (except in the case of preparations used to help in smoking cessation) one does not typically encounter pure nicotine. What one smokes or chews or inhales is the entire leaf of *Nicotiana tabacum*, a complex living organism; and this is full of bioactive chemicals

⁴² For a thorough and accessible account of just about every aspect of smoking—historical, social, pharmacological, medical, see Ashton & Stepney 1983. This is a marvellous book for the smoker and the non-smoker, both of whom will emerge better educated, with many of their prejudices reinforced, and will learn a lot about how smokers start and why. For a detailed medical overview, see Swan & Lessor-Schlaggar 2007.

⁴³ Actually it is dangerous in large quantities if ingested; extracting the nicotine content of a pack of cigarettes and consuming it would kill you. It was popular, especially in the 19th century, for poisoning members of the family, as it is the easiest toxic alkaloid to get hold of without having to visit a chemist or any other place where your purchase would be noted.

already, in its unburnt state. But combustion of the dried leaf produces a huge number of additional toxic and carcinogenic substances: among them carbon monoxide, cyanides, arsenic, cadmium, formaldehyde, ammonia, phenol, toluene and butane—altogether some 4700 substances have been identified so far (Swan & Lessor-Schlaggar 2007).

Smoking is a dangerous habit. It is unfortunately also mood-enhancing and hugely pleasurable to many who engage in it (though some smoke only out of addiction and do not really enjoy it).⁴⁴ It greatly increases the risk of cardiovascular disease, obstructive airway disease, chronic bronchitis, and cancers not only of the lung, but of the oral mucosa, larynx, oesophagus, stomach and bladder. At a slightly less dramatic level it can produce, at least in heavy smokers, shortness of breath, coughing, wheezing, chronic upper airway irritation, sinusitis, gastritis, raised blood pressure and erectile dysfunction; it also exacerbates the formation of tartar and therefore dental decay and gum disease.

Tobacco was probably known in the Americas as a recreational and/or ritual drug for millennia; but its introduction to Europe dates to the early 16th century, after the opening up of the New World. It was probably brought from Portugal to France and thence to the rest of Europe by the French diplomat Jean Nicot (1530-1600), after whom the plant (*Nicotina*, later *Nicotiana*) and its alkaloid were eventually named. Ashton & Stepney (1983:1) call it ‘The Indian’s Revenge’, and note:

We derive our knowledge of tobacco from Columbus. The finding of the enchanted weed must rank somewhere between the introduction of syphilis and the discovery of America in terms of the ultimate benefit to mankind of the consequences of his stubborn voyaging.

This seems a reasonably sound appraisal, though never having had syphilis I can’t be sure. But there is no doubt that smoking is widespread and important to its practitioners (or victims if you prefer), and that the main psychoactive component of tobacco smoke is nicotine.

The pharmacology of nicotine is complex. Like alcohol, it has two apparently antagonistic effects: stimulant and sedative/anxiolytic. It (temporarily) acts as an agonist at certain acetylcholine receptors in the brain (the two molecules are almost identical in shape), and produces a relaxing effect by inhibiting the sympathetic nervous system. It promotes dopamine release, the *sine qua non* for pleasurableness (and addictiveness). It also releases β -endorphin, an endogenous opioid which produces feelings of calm and relaxation, and itself stimulates dopamine release, so the limbic pleasure centres get a double dose (Pontini *et al.* 1996). On the other hand, it produces alertness and stimulation by raising serum glucose, adrenaline and cortisol levels. Nicotine is also a weak MAOI, which adds to its antidepressant, euphoriant and anxiolytic effects (Fowler *et al.* 1996). There are extensive psychological benefits obtainable

⁴⁴There is a strong correlation between smoking and mood-disorder, and the results of various studies suggest strongly that smoking is used therapeutically. In one US survey of psychiatric outpatients, over 50% were smokers, which is twice the non-depressed population average (Acton *et al.* 2002). In a study of smoking cessation (Anda *et al.* 1990), smokers who presented at initial examination with depression were 40% less likely than the non-depressed to have given up when re-examined 9 years later.

from this ambiguous drug; though apart from addiction and raised blood pressure, the real dangers are rather from the chemicals nicotine co-occurs with in tobacco.

Nicotine (or perhaps more accurately smoking—see below) is highly addictive; withdrawal can be epically unpleasant, and is often unsuccessful. Judging by my own attempts, the withdrawal syndrome may include depression, suicidal ideation, agitation, irritability, rage, paranoia, anxiety verging on panic, nausea, insomnia and tremor. (And this while drinking fairly heavily and taking antidepressants and benzodiazepines.) Of course it is a very good idea never to start smoking; any idiot knows that. For smokers it is a physically healthy act to stop. On the other hand smoking—certainly in my case—can be a useful if dangerous and physically destructive adjunct to the overall palliation of mood disorder. There is no doubt that smoking, like drinking, has been an important and at least psychologically ‘healthy’ part of my life. It produced useful and delicious and potent effects, and helped make my condition easier to bear.⁴⁵

I close with a little, perhaps to some eccentric and dangerous, excursus on aspects of smoking and smoking cessation which are typically not considered in the medical and pharmacological literature. This often causes discussions to miss the point of why withdrawal is so difficult, at least for certain smokers. I take myself as an example, since I am wrestling with this at the moment. For me (and this is not unusual) it is not just a matter of pharmacology. Though stopping smoking, and at least largely controlling the pharmacological addiction was horrible and painful enough, it was by no means the only significant part of the trauma of cessation. There is a further complication. Yes, the nicotine craving is still there periodically and unpredictably, and I can always take nicotine replacements when it recurs, and they help a bit to control it. But what is really unspeakably awful is not just the lack of nicotine, but the sheer nostalgia and almost amorous longing for the *act of smoking* itself and its accompaniments: the taste, the scent of tobacco both combusted and uncombusted, the way it begins to glow on lighting, the delicate formation of the ash, the endless fascination of smoke curling up into the air, the lovely bluish grey tobacco smoke takes on in certain lights, the incredible variety of flavour (Cuban vs. American vs. English vs. East Indian vs. Turkish ...), the feel of the cigarette in the

⁴⁵Covey *et al.* 1997 evaluate the risk of major depression following giving up. In patients with no prior history of depression, the risk was low (2%); with a single prior major depressive episode the risk was 17%; and people with histories of multiple episodes had a 30% incidence of new ones. This again suggests that a balancing of risks is useful, and that simply getting depressed patients to give up may not be the best medical strategy. The smoking/depression connection seems to be very complex indeed; there is now some evidence for a genetic predisposition for nicotine-dependency, and the current ‘candidate genes’ for this predisposition are concerned with dopamine uptake and metabolism of nicotine (Branch 1999). Another study shows an apparent positive correlation between ‘negative childhood experiences’ (physical, sexual or emotional abuse, having a battered mother, separated or divorced parents, substance-abuse or mental illness in the family) and beginning to smoke at a young age and continuing (Anda *et al.* 1999). Smokers, according to this study, were ‘always more likely to be depressed for any given level of exposure to adverse childhood experiences’, which may suggest early (‘naive’) self-medication, and perhaps a connection with the genetic mechanisms for vulnerability to mood disorder.

hand, the harsh but exquisite plunge of smoke into the trachea ...⁴⁶ That is all still there in physical memory, and missing it is probably the worst part, perhaps even worse than the actual nicotine withdrawal. If anything makes me return to smoking (even having finally got emphysema from it) it will be the loss of this part of my life rather than just addiction to the drug. I did not realise before giving up how many senses are involved in smoking, and how (for me and many others I know anyhow) the pleasure is so overwhelmingly intense, and distributed over so many modalities. So in stopping I am depressed and angry and sadly nostalgic not only because of withdrawal from nicotine, but because so much of my most vivid and delicious sensory life is gone. And at least in my experience so far, this part of cessation does not get better.⁴⁷ So although medical opinion would (quite properly from the purely physical point of view) say ‘stop!’ without further reflection, there is for some addicts, especially the mood-disordered, something to be said for continuing—as long as one is both fully aware of the risk, and willing to take it.

Dependence

Dans ce monde étroit, mais si plein de dégoût, un seul objet connu me sourit: la fiole de laudanum; une vieille et terrible amie; comme toutes les amies, hélas! féconde en caresses et en traîtrises.⁴⁸

— Charles Baudelaire, *Le spleen de Paris*

Many people object to taking psychoactive drugs out of fear of ‘dependence’ or ‘addiction’. Terminology in this area is rather muddled, and it is not at first entirely clear what the distinction is (though there certainly is one) between ‘pathological’ addiction and ordinary garden-variety dependence. I will avoid the colloquial terminology for the moment, and look at some of what *DSM-IV* has to say about ‘Substance-related disorders’, a hugely complicated set of categories. A useful distinction can perhaps grow out of that. ‘Substance Use Disorders’ (e.g. dependency and ‘abuse’) are distinguished from ‘Substance-Induced Disorders’ (intoxication, withdrawal,

⁴⁶If this and the description below seem rather purple and overwrought, look again at the epigraph to this section and read the book it comes from. What I say here is rather mild. There is just something different about smoking, especially cigarettes. A friend of mine remarked recently that cannabis and alcohol for instance are just drugs, but a cigarette is a friend. I understood immediately what she meant and missed them even more.

⁴⁷The distinction between the two facets of addiction is very clear from my behaviour. If I just need a shot of a drug, a purely physical need, I can smoke the most awful cheap cigarettes or drink the crappiest blended whisky. This gets rid of the immediate chemical craving, but is neither satisfying nor any response to the other kind of longing. If I have an expensive cigarette or whisky, of really good quality, then the chemical need gets taken care of and there is the extra, the aesthetic, too. And if I have no particular need for alcohol, say, at a particular moment, I will often still have a glass or two of Lagavulin or Highland Park the same way and for the same reason as I would eat an expensive piece of Swiss or Belgian chocolate (which I am not at all addicted to): just because it tastes so lovely. And loveliness is not a prominent part of the depressive world.

⁴⁸ ‘In this constricted world, so full of disgust, one sole familiar object smiles at me: the vial of laudanum; an old and terrible friend; like all friends, alas! rich in caresses and treacheries’.

etc.) Dependency then is in the *DSM* framework itself a ‘disorder’, on a par presumably with Bipolar Disorder or Major Depression. So, considering my use of both prescribed drugs and self-medication, should I also be diagnosed with yet another disorder on top of my Bipolar II? Dependence is defined as a ‘maladaptive pattern of substance use’, whose signs are at least three of the following: (1) ‘tolerance’ (increased need for the substance); (2) withdrawal symptoms on stopping; (3) presence of persistent (ineffectual) desire to cut down or stop; (4) reduction of social activities to spend time using the substance; and (5) continued use ‘despite knowledge of [...] a persistent or recurrent [...] problem that is likely to have been caused or exacerbated by the substance (e.g. [...] continued drinking despite recognition that an ulcer was made worse by alcohol consumption)’. This definition of course does not apply to use of prescribed medications, unless ‘drug-seeking behaviour’, such as going to different doctors for multiple prescriptions, becomes part of the clinical picture.⁴⁹

If we try and fit this into everyday usage, meeting all the criteria would not be what might be called ‘benign’ dependency, but rather ‘addiction’. In a listing of all the substances I currently take, a rather complex picture emerges, with different profiles for different ones. I here include both prescribed and ‘recreational’ substances (the numbers refer to the *DSM* criteria mentioned above).⁵⁰

<i>Criteria</i>	1	2	3	4	5
Effexor		x			x
Fluanxol					
Alprazolam		x			
Zopiclone		x			
Tobacco	x	x	x		x
Alcohol	x	x			x

Note that (4) is the only criterion I never meet. My smoking and drinking clearly qualify as substance-use disorders; though there is a slight diagnostic problem in that the category of tolerance is no longer ‘active’. I must long ago have increased my tolerance to both, to get to where I am now; but this is so far in the past that I could no longer be said to have (increasing) tolerance in the active sense, but only to ‘be tolerant’ as a steady state. I have not increased the amount I smoke and drink for at least twenty years. Effexor and alprazolam both induce withdrawal, but in rather different ways, at least from a psychological point of view. Many

⁴⁹ It must be noted that all the symptoms listed here are part of the definition only of dependency; ‘abuse’ is quite different, and the *DSM* uses it to mean recurrent use that causes one to fail to meet obligations, use in hazardous circumstances (e.g. driving), use causing legal problems, or persistent ‘social or interpersonal problems’. However much I drink, for instance, I am apparently never, by this definition, an abuser. Which presumably = ‘alcoholic’. By these criteria I suspect it is not possible to be technically a nicotine abuser.

⁵⁰ I appear to have given up smoking, but I include it to capture the picture that occupied such a large part of my life.

antidepressants produce some kind of ‘discontinuation syndrome’ when you come off them, but of course they are not taken to induce pleasure in the first place; most do the opposite. And the physiology is different from that of withdrawal from addictive substances. Alprazolam is ambiguous, since I not only take it for its prescribed effect, but actually happen to enjoy it, so even though it is prescribed for a definite medical end which it accomplishes, it is in some ways rather more like tobacco and alcohol. Especially in the sense that if it were to be made illegal (and here I think I have finally hit on the best definition so far of true addiction) I would undoubtedly hunt it up on the street and be willing to pay exorbitant amounts for it and risk arrest. The same is probably true of zopiclone, though here the result is not so much what one would call ‘pleasure’ as the simple ability to go to sleep. Under the same circumstances I might not go looking for Effexor or Fluvoxol—until my depressions got too bad. And the same would be true of alcohol, and cigarettes if I happened to be smoking at the moment.

Certainly with respect to tobacco and alcohol I am diagnosable with a disorder; with respect to alprazolam and zopiclone I am not, but I think should be from a functional point of view. While the *DSM* classification lays out the possibilities clearly, it does miss certain points with respect to the degree of distress caused by withdrawal. It is possible according to the *DSM* criteria (and my personal ones) to have a substance use disorder but not be an abuser. ‘Abuse’ is an extreme subcase of dependence or addiction. In the most restrictive and useful sense, an addiction (to alcohol, tobacco, cocaine, gambling, eating, sex, the internet ...) is a *compulsion* to engage in some rewarding behaviour. A compulsion may change over time: (a) the craving may strengthen (alternatively, the addictive item becomes less effective), which leads to increased seeking of the drug or activity in question; (b) withdrawal of the object of addiction causes increasing physical or psychological distress, even to the point of being disabling or lethal; and (c) the behaviour leads to social or other dysfunction, e.g. interferes with work or relationships, or provokes violent or other antisocial behaviour, like stealing to get money to satisfy the addiction. In extreme cases the addict virtually lives only for the addiction, like the classical end-stage junkie. This is the far end of the dependence scale (more or less what *DSM* would call ‘abuse’). ‘Benign’ addiction, an odd term that I nonetheless like, is one in which the craving does not strengthen over time, and the dependence does not lead to dysfunctional living—except in the sense that dependency itself may be considered by some to be a dysfunctional state. Rather than being numerical the difference is qualitative: it is *particular* features that count, not the number of them.

Can it be all right to be an addict?

I would even claim essential harmlessness for many addictions, at least for certain personality-types. As should be clear by now, I am what might be called a ‘chemical person’: if I am in discomfort I am rarely if ever interested in working at finding out the source of the discomfort and perhaps changing my way of living to prevent it; rather I go directly for a palliative drug. This is the vantage-point I write from.

Addiction (in the sense of physiological dependence) is often misconstrued as a moral issue. It is not, or at least does not have to be. For instance, I take alprazolam to reduce anxiety and prevent panic attacks, and offset some of the agitation produced by antidepressants, which it does very effectively. And besides this I enjoy it for its mood-brightening effects, and just the way it makes me feel in general. But I am also addicted to it. If I wait too long between doses I get severe withdrawal symptoms (dysphoria, tremor, anxiety, panic); and if I had to stop cold-turkey rather than following a delicate withdrawal schedule the results would be horrific. But so what? The knowledge that I am addicted in this sense simply does not bother me: I do not spend my days taking alprazolam fixes, I have not increased my dosage in years (though in particularly stressful situations now I do take the odd extra tablet), I have never mugged anybody for alprazolam-money. If the puritan wants to consider this a kind of weakness, let him; for me it is good sense, with a bit of a disadvantage if I happen to run out on a weekend. But even if it turned out that I developed tolerance, and started having to take more and more to keep myself 'normal', showing some classical signs of more serious addiction, but without behavioural complications, there would still to my mind be no problem (except the expense, and the possible danger of eventual oversedation). So on closer examination, given my kind of personality, even an addiction with unpleasant withdrawal symptoms can contribute to quality of life.⁵¹ If that is, the addiction, like mine to alprazolam, alcohol and tobacco, is not merely negatively 'medicinal' (in the sense that the only reason I take these substances is to avoid withdrawal syndromes), but positively pleasurable.

In many addictions (or for particular addicts) there is a strong element of habit. I know that I am physically addicted to nicotine, and I know the chemistry that says why; but there are times (paradoxical as it sounds) when I need a cigarette even though I don't need one. Like when sitting down at my computer, having a cup of coffee or a drink, talking and drinking with friends (those few who still tolerate my smoking). These largely routine-induced acts might be called 'habitual' addiction responses rather than 'necessity' ones. I am at the moment of writing not smoking and given the state of my lungs will most likely not start again; but for information the description here is of the smoking me. (I can probably be accurate, since in no way do I think of myself as a non-smoker. I am a lapsed smoker for health reasons, but except for not performing the activity my psychological state is more or less unchanged.) These habitual responses are the most controllable; I generally know, for any cigarette or drink, which category it comes into, and if I

⁵¹ My (undepressed and fit) friend M comments, and quite properly: 'The difference in attitude is because you live with a chronic debilitating disease. Many/most other people don't. Their attitude is the logical converse of your attitude toward undermedication of your condition because you don't want to be pharmacologically disabled. [See the following section] To people for whom being relatively healthy is the norm, illness or pain signals malfunction of the system. People like to be in control and malaise may indicate the desirability of a number of changes: in diet, exercise, life-style or other behaviours.' Indeed, for some. I might add that as depression in particular stabilises, the motivation to feel healthy also tends to increase, if very slightly. But this motivation may conflict (as it does in my case) with depression-induced passivity and a love for the addictive substance so powerful that one feels unenthusiastic about the benefits of withdrawal, or the never-experienced or long-forgotten pleasures of good health.

feel I am having too much of either I can (much of the time) control these fairly well.

There is also the purely hedonistic aspect, the ‘luxury addiction-response’; the drug is taken on occasions which are neither necessary nor habitual. These (*luxuria* ‘lust’ is one of the Seven Deadly Sins) are deeply pleasurable, and this itself is a contributor to mood elevation. Dependence or not, there is a potent aesthetic component to an ambrosial substance like a fine malt whisky that would not be satisfied by raw spirit.

Addictions like mine to alcohol and tobacco have their costs—aside from the physical damage they do, which goes without saying. A certain vigilance is required: a cache of extra cigarettes, a sure source of booze. When travelling I have taken to carrying a traditionally Victorian-looking pewter hip-flask in my coat-pocket as a kind of security blanket, if I go anywhere that I will be unlikely to find a bar precisely when I need one. I have a potently dreary memory of sitting for hours on the squalid platform at Peterborough station with the East Anglian wind whipping old crisp-packets about my ankles, the buffet closed, no way of getting anything to drink, waiting for a train that never seemed to come. Never again. And even the flask itself adds a dimension of eccentricity and archaic tradition that is its own source of mild pleasure. One might say of addicts like me what W.S. Gilbert said of villains in the *Pirates of Penzance*: ‘Their capacity for innocent enjoyment/Is just as great as any honest man’s’.

In the end it appears to me that there is only one question that really needs answering, and I have my own answer to it, though others may disagree. Why should one suffer distress if there are substances available to prevent it—regardless of whether they happen to be dependence forming or even addictive? Some people just object to ‘taking pills’, through what Peter Kramer calls ‘pharmacological Calvinism’, and even exhibit a perverse pride in the stoicism displayed by suffering needlessly from headaches or indigestion or other ailments. This attitude strikes me as irrational and counterproductive at best, and at worst a perverse self-aggrandisement, a fake machismo or self-induced martyrdom. (I do not understand or have any sympathy with martyrdom or self-imposed suffering either, but that may be my own limitation.) I will however deal below with a related matter: the possible utility of certain kinds of suffering in particular circumstances, and the potential downside for certain patients of really effective treatment. All in all, it is better to get rid of a disease, or at least mitigate it, than to suffer it because of fears of addiction or dependency, or a belief that suffering is in some curious way virtuous. Though there are some caveats: I present a more positive argument for voluntary suffering and ‘imperfect’ treatment in the following section, on quite different, utterly selfish and much less philosophical grounds, and in chapter 6 a slightly different one.

Why one might not want to be ‘cured’

The overwhelming psychiatric consensus is that bipolar disorder should *always* be treated with a mood-stabiliser in the first instance, and antidepressants added (sparingly) if necessary. This received wisdom appears in the standard textbooks and most popularizations. But it may be a counsel of perfection, and not everybody wants a ‘perfect’ result—at least if that means no

moodswings, and in particular, as in my case, no manias. I have discussed this question with a number of experienced psychiatrists, and in each case the response was not the textbook one. Their judgement was that treating bipolar disorder with antidepressants only, using alcohol and benzodiazepines as fine-tuners, as I have insisted on doing, is risky. There is always the possibility of the drug provoking hypomanic or even manic episodes (which I am quite sure has happened to me), and inducing or sustaining rapid cycling. Nonetheless, because I value my better manias, and feel most truly ‘myself’ in these states, they concurred with, and some even encouraged, my willingness to forego stability and take the risk of hypomania escalating into mania, because this seems to be the *modus vivendi* I have established with my disease, and feels like the proper course for *me*.⁵²

My moodswings, even the depressions which I take as a kind of necessary consequence of the privilege of being allowed hypomanias, are my foundation; they are inextricable from what I consider to be my self, cornerstones of identity. Even though this mercurial and unstable temperament causes frequent dysfunction and misery, it also promotes superior function, and this is not something I want to lose. I emphatically do not recommend this to anybody else, though from what my consultants told me and the choices of some of my friends the decision is not all that rare.⁵³

Strangely enough, I really do not want *not* to be a manic-depressive. I only want to be a somewhat better controlled one, a more functional one, a less miserable one, with both highs and lows less disabling than before treatment or during ineffective treatment, but not absent; and perhaps with the possibility of actually being happy (or if that sounds hyperbolic, moderately contented) or close to it for reasonable periods. I think I would find it impossible to live without unstable mood and the potential for certain circumstances to trigger the very best I can do; this would not occur in ordinary everyday euthymia.⁵⁴ Being manic-depressive is what I am;

⁵² One psychiatrist, whose brother is bipolar and takes only antidepressants, remarked that a good marriage and good friends can be an excellent ‘social lithium’. And a senior neurologist acquaintance said in the same connection that he does not like mood-stabilisers on principle, and thinks that if I know how to use alcohol properly it is probably safer and less likely to cause cognitive damage. These may be nonstandard opinions, but they are both from experienced professionals. Whether I use alcohol properly rather than dangerously and stupidly is another question.

⁵³ As Ronald Fieve notes in connection with this attitude (1997: 64): ‘The practitioner wants what’s best for the patient and the patient’s friends and family, while the patient wants to protect his or her *hypomanic advantage*’ (emphasis original). Fieve is a bit disapproving and ‘doctor knows best’, but is willing to admit that there are cases where he as a physician would agree to a patient adopting such a strategy.

⁵⁴ At least that is what I think. One could argue of course that I only think that way because of my illness, and if that were properly treated I would end up being quite happy without the turbulence that I have grown accustomed to. I doubt it, but it is not impossible; yet I am not willing to take the chance. I am also too old: why mess about with whatever time I have left? On the other hand, many intelligent and creative people feel differently. L wrote as a comment on this section: ‘I would give it up for bland stability; my only requirement would be not to know/remember anything of what it was like to be a more complex & varied emotional being—I would want a drug that would make me forget my self. My therapist feels that this would deposit me in the realm of “half alive”, I don’t think I care & anyway that’s a very subjective judgement. My only fear

medication and recreational drugs have so far helped keep me from going off the rails or committing suicide, and enable me to work and be a reasonably effective social being rather than dissipating my hypomanias in silliness or useless anguish and rage. Both the awfulness and potential value of bipolar disorder have been summed up eloquently by Kay Jamison, herself a highly creative and productive sufferer (1993:125):

In a sense depression is a view of the world through a glass darkly, and mania is a shattered pattern of views seen through a prism or kaleidoscope: often brilliant, but generally fractured. Where depression questions, ruminates and is tentative, mania answers with vigor and certainty. The constant transitions in and out of the constricted and then expansive thoughts, subdued and then violent responses, grim and then ebullient moods, withdrawn from and then involving relationships, cold and then fiery states—and the rapidity and fluidity of moves across and into such contrasting experiences—can be painful and confusing. Such chaos, in those able ultimately to transcend it or shape it to their will, can, however, result in an artistically useful comfort with transitions, an ease with ambiguities and with life on the edge, and an intuitive awareness of the coexisting and oppositional forces at work in the world. The weaving together of these contrasting experiences from a core and rhythmic brokenness is one that is crucial to both the artistic and manic-depressive experience.

I think anyone who has read this far will see that this book itself reflects, is virtually a portrait of, such a temperament. The unpredictable shifts of style and attitude, the mixture of austere reductionism and low comedy, the interpolation of obscene language into somewhat academic discourse, are characteristic (there will be more later). Like them or not, they define a way of living and writing and looking at the world which at least is mine, and despite my instability is not all disadvantageous.⁵⁵

But some doctors, however well-intentioned they are, can be a serious problem. Conscientious ones, naturally and rightly, want the best possible results for their patients; and for many of them ‘best’ is usually the closest approximation possible to a relatively ‘standard’ non-diseased condition. In the technical terminology, they are not satisfied with ‘response’, but want ‘remission’; anything less than the complete disappearance of symptoms counts as therapeutic failure. But there are two people involved in the doctor/patient relationship, and it ought to be a relationship, not a one-way imposition of ‘therapy’. If you as patient feel that aspects of your disease are a positive benefit, or so integral to the ‘real you’ that you cannot do without them, then you have the right to argue with your doctor, and ultimately to refuse some or even all of the

would be any residual unnumbered psychic stuffing that the drug couldn’t dull’.

⁵⁵ My attitude may also have some kinship with the romantic conception of certain diseases (e.g. TB and syphilis) as keys to creativity and pathways to otherwise inaccessible parts of the creative mind. The classic case is the composer Adrian Leverkühn in Thomas Mann’s *Doktor Faustus* (1947), who makes a kind of ‘pact with devil’ by deliberately contracting syphilis, so that the eventual cerebral effects of late stage neurosyphilis will free his musical spirit.

recommended treatment.⁵⁶ This is a right that many (perhaps most) people do not exercise; there are complex power-relations between doctors and patients, and argument and refusal of treatment can be difficult for those who are not articulate, knowledgeable, introspective, and of a bolshie disposition. But it is worth keeping the possibility in mind. In the case of bipolar disorder, for instance, especially if the highs are not (or very rarely) psychotic, some people just do not want them treated;⁵⁷ they prefer to retain their ‘hypomanic advantage’. But as long as both patient and doctor are aware of the risks, the decision should be up to the patient.

As an anonymous contributor to a depression newsgroup put it, after going on to lithium:

I’ve been stable a little over a month and I miss the euphoria! I miss being creative and free. I miss being witty and charming. Not going to go off my meds, just a feeling a loss of what was before. Wah!

One might wonder whether her treatment is really the best thing for her as a person, rather than a ‘case’. Might it not perhaps be better for her to retain at least some of her original distress, and mitigate the sense of loss? ‘Health’ can sometimes amount to serious deprivation if aspects of one’s illness fulfil genuine needs, or are bedrock properties of one’s personality.⁵⁸ Maybe doing without them, while making for a quieter life, is giving up too much? It is up to the individual to judge. Here is one case of a very serious manic depressive who had terrible manias, with all the classical symptoms, plus taking cocaine. But the destructive effect of being ‘stabilised’ was at least equally deadly, and she expressed it with a devastating power and sadness. This is an e-mail she sent me shortly after giving up her regime of antidepressant-only and adding Tegretol:

Tegretol has dulled me; on the up side (is it?), I’ve had two nights this week sober. The first two nights without drink by choice and not because I’m severely, painfully hungover, in over a year. I have yet to decide whether or not this is good for me; there is a lot of black, anxious, depressed time to fill; I try to play the piano, I try to read, I try to compose. Mostly, I hide. But maybe hiding isn’t so bad. I can’t say my mind is any less tangled. I struggle with coherence. I imagine my body would like to stop. Poor abuse receptacle. Like a dog with shit on its arse I’ll stumble through the next while not sure why it seems everyone’s looking at me.

I think I might miss what I’ve lost on Tegretol. My fingers don’t work on the keyboard; my mind is blank

⁵⁶At this point one might argue that my attitude is totally self-centred: I am considering only the benefits of certain mood states for myself, not the negative effects they may have on others who have to live with them. This is true. I do think there’s a point at which one’s own concerns come first, and this is mine.

⁵⁷This was not the case for instance with Kay Jamison, whose manic episodes were so severe and so frequently psychotic that she endured horrific side-effects from lithium (like not being able to read) for years, until her dosages were straightened out. In her case the manias were simply too violent and dangerous to be tolerated, and she made a courageous decision to stay on lithium, and still managed to be productive. For the story see *An unquiet mind*. I’m lucky; I doubt if I could display that kind of courage, and fortunately I don’t have to—at least not yet. Other manic-depressive writers too have valued their disease: Virginia Woolf notes in her diary (17 February 1931) ‘All I like is my own capacity for feeling. If I weren’t so miserable I could not be happy’. In her case the strange happiness did not last: she finally committed suicide in 1941.

⁵⁸For a sensitive treatment of this issue from a physician’s point of view, see Sacks 1995: 235-7.

facing a blank composition; words swim; consonants fallen over. There are so few words; I used to be able to think of words. I can't think of the word I'm trying to think of, the one that means I used to Have Words. I don't, not now. Eloquent. I used to be eloquent. That's the word I wanted.

Anyway. I'm going to try and carry on reading.⁵⁹

Emotional distress, at least short of psychosis, may be good for some people, or may allow them to find out new and different and often wonderful things about themselves and the world, to develop a special understanding that can help others, and unlock sources of insight and ideas and creativity that would otherwise remain hidden. Even my mixed, black hypomanias are energising and creative, though they feel horrible to be in.

At any rate, it is crucial that the patient get hold of enough information for an intelligent cost/benefit assessment, and then decide. Doctors can be bullies (even inadvertently, with the best will in the world), but nobody has to submit when their personhood is at stake. You can argue with doctors and finally say No. I have chosen the route of blunted but still frequent recurrence, with occasional catastrophic breakthroughs and occasional (and increasingly long-term) remissions, rather than stability in remission. This was a deliberate choice, made after weighing up the relative disadvantages of illness and 'health'. I decided to opt for less than optimal health, in the physician's normative sense, for the somewhat poisoned benefits of nonoptimal treatment. I appear to have managed to achieve the best of two compromised worlds, and for now that seems good enough.

'Cosmetic psychopharmacology'

The term 'cosmetic psychopharmacology' was made popular in the 1990s by the American psychiatrist Peter D. Kramer. It refers to the increasingly common practice (which he found himself resorting to in his own clinical work) of using antidepressants—especially Prozac—for treating states that did not fall within the standard definitions of 'disorders'. They were rather 'penumbral', as he says, somewhere between disturbances of personality and social functioning of the kind that would normally be handled solely by therapy, and actual 'named' disorders. That is, patients suffering from mild phobic states or compulsions, social inhibition, slight hypothyria, otherwise functioning quite well—but unhappy, dissatisfied with their current lives and relationships, or with aspects of their behaviour. In a number of such cases Kramer found that Prozac would ease these relatively mild symptoms in such a way that the patients would feel that they had got 'their real selves' back, or were 'better than good'. This raised for him the ethical issue of whether such treatment, merely to make people somewhat happier or to change their personalities, not to alleviate the symptoms of a major disease, was permissible. Was it right to use drugs designed for serious afflictions simply to mitigate unhappiness or

⁵⁹ She improved somewhat on a different mood stabiliser but her condition is not satisfactory, though her musical abilities have mostly come back. Certain kinds of stability can be bad for you.

dissatisfaction—things we all have to deal with in the course of our lives anyhow? Or even more seriously, to alter a personality so that behaviour could fit more neatly with what the patient desired, to ‘remake’ it to some degree.

For Kramer this raises a serious moral problem: if drugs can be used to alter personalities in specific and relatively predictable ways, could this lead—if one of those outcomes was highly valued by society—to an oppressive, socially sanctioned normativeness? If Prozac or a similar drug could make one more extrovert or aggressive, would there be pressure for people to ‘remake’ themselves in this mould, if it could lead to better jobs or social success? But the cases Kramer is disturbed by do have some dysthymia, some subjective distress, which even if not lethal or highly disabling is still distress, rather than mere dissatisfaction with one’s present self. Kramer sums this issue up as follows (15):

Some people might prefer pharmacologic to psychologic self-actualisation. Psychic steroids for mental gymnastics, medicinal attacks on the humors, antiwallflower compound—these might be hard to resist [...] Now that questions of personality and social stance have entered the arena of medication, we as a society will have to decide how comfortable we are with using chemicals to modify personality in useful, attractive ways. We may mask the issue by defining less and less severe mood states as pathology, in effect saying, “If it responds to an antidepressant, it’s depression.” Already, it seems to me, psychiatric diagnosis had been subject to a sort of “diagnostic bracket creep”—the expansion of categories to match the scope of relevant medications.

Though these fears might seem alarmist, Kramer does make an interesting point with potential social and political implications. After observing what appeared to be a major personality change (for the better) in one of his patients, Tess, who was suffering from various problems but clearly not Major Depression, he reflects (16):

Tess’s progress also seemed to blur the boundary between licit and illicit drug use. How does Prozac, in Tess’s life, differ from amphetamine or cocaine or even alcohol? People take street drugs all the time in order to “feel normal.” Certainly people use cocaine to enhance their energy and confidence [...] Uppers make people socially attractive, obviously available. And when a gin drinker takes a risk, we are tempted to ask whether the newfound confidence is not mere “Dutch courage.”

Perhaps his concern is really not so much with the question of medication *per se*, but rather the different perceptions society (and the law) might have of the status of prescribed as opposed to illegally obtained drugs. The niggling question might be whether by the criteria of use and effect alone the two are truly separable or ends of a single continuum. He continues (emphasis mine):

[...] it is people from Tess’s background—born poor to addicted and dependent parents, and then abused and neglected—who are most at risk to use street drugs. A cynic may wonder whether in Tess’s case drug abuse has sneaked in through the back door, whether entering the middle class carries the privilege of access to socially sanctioned drugs that are safer and more specific in their effects than street drugs but are *morally indistinguishable in terms of the reasons they are taken and the results they produce*. I do not think it is

possible to see transformations like Tess's without asking ourselves both whether street-drug abusers are self-medicating unrecognised illness and whether prescribed-drug users are, with their doctors' permission, stimulating and calming themselves in quite similar ways.

I think this is at bottom a pseudoproblem—at least for the patient. If the two kinds of 'treatment' are in essence indistinguishable, and Kramer finds himself willing to prescribe 'legitimate' drugs, why should this resemblance be problematic? Is Kramer himself indulging in a little pharmacological Calvinism? Why shouldn't we—even if we do not suffer from a serious illness—tweak our moods and reshape our personalities right at the synapse with drugs? Is it in some way more reprehensible to lift one's mood with a pill than by running or other exercise that releases endorphins? Or even to use illegal rather than legal prescribed drugs? Is he saying, as he at first appears to be, that certain effects should only be obtained by non-pharmacological means, and if you cannot do it, then you have to suffer?

To some extent I think he is a bit Calvinistic. But there may be a deeper and more subtle if equivocal point here. If the taking of street-drugs for mood- or personality-altering purposes can be either self-medication or 'abuse', then the same could be true of taking prescription drugs. And in the latter case, if the patient is 'abusing' rather than self-treating, the doctor might become a pusher rather than a healer. So the doctor has the problem (especially in patients with a certain kind of background and vulnerability) of deciding whether he is simply producing and/or feeding an addiction, or treating a disorder. My friend M wrote in response to a previous version of this section:

A street drug user can be an abuser *or* a self-medicator and *so can a taker of prescription drugs*. If the prescriber is an abuser, it is with his doctor's connivance. Telling the difference is what worries Kramer. He makes no judgement about right or wrong—merely about safety and social context. I also think his discomfort lies in the observation that prescribed drugs are used 'with the doctor's permission'. The prescribing doctor *does* have an ethical responsibility. He has to weigh up the pros and cons of any benefits vs. side effects and also the whole tangled issue of inducing dependency or addiction.

What remains somewhat obscure is the precise difference between 'medicinal use' and 'abuse' (here not in the *DSM* sense but the colloquial one). I am not sure there is always an unequivocal boundary. If I feel dissatisfied with aspects of my undrugged self, and drugs (prescribed or not) make me feel better and improve my functioning, isn't that (whether potential addiction is involved or not) actually 'self-medication'? The difficulty might be, though, as Kramer suggests, deciding how serious a disorder or discomfort has to be before it is within the doctor's remit to prescribe for it, especially if the drugs that might be prescribed have potentially dangerous side-effects. The doctor's aim is 'first do no harm' (in general). Even if *I* am willing to take the consequences, to suffer whatever ill effects my chosen drugs may produce, it may be *ultra vires* for the doctor to contribute to this if the risk seems disproportionate to the disorder. Perhaps it is best (if possible) to relieve the doctor of this burden.

For the patient, however, the question is different. How I achieve whatever state I want

to achieve (as long as I don't rape or murder or kill somebody with my car while achieving it) is surely nobody's business but mine. If chemical mood-tweaking makes life more bearable, allows the achievement of desired or needed cognitive or affective or social states and does no harm to anyone else, there is nothing morally problematic about it.⁶⁰ Mood-altering drugs accomplish significant transformations by working on the chemical underpinnings of mood and behaviour, and do it efficiently, if not without danger.

The danger is important to note. Not only can some of the drugs themselves be dangerous, but the more different kinds you stuff yourself with the more interactions are possible. On a complex cocktail of drugs with different effects, things can surface that the package inserts do not warn you about. Neurochemicals generally know what they are doing, because evolution has designed them for that; our crude substitutes can sometimes have drastic effects. Still, speaking now in my depressive *persona*, if you are made that way you might as well take the risk. And for some people of course even the risk itself is pleasurable. This is both because risk-taking is often built into the depressive temperament, and because there is always the chance that you might inadvertently kill yourself in the course of trying to feel better, which saves you the trouble of having to do it deliberately. Almost all of us depressives are under the surface perpetually suicidal, I think, no matter how good our present mood.

At any rate I always feel safer when out of the house with my flask within easy reach, and my tiny *millefiore* pillbox tucked somewhere about my person. If such fussy preparedness and fiddling with mood and behaviour make me feel happier and reduce suffering, I do not see why doctors should object. After all, they are in the business of reducing suffering too.⁶¹ There may however be a limit to the extent to which they should be asked to assist in a patient's self-chosen programme, especially if it is as risky as mine.

Outcome: treatment, remission, relapse and recovery

It is not easy to find a medical consensus on intensiveness and time-scale in the treatment of depression. There is a common view that the 'index episode' (the first one the doctor sees) should be treated aggressively, and that there should be a period (usually 6-9 months) of continuation treatment after the symptoms have disappeared (or at least been drastically reduced), followed by

⁶⁰ On the face of it, I do not think it even matters much what drugs are involved: I do not make the simplistic general equation of 'illegal' with 'immoral', though I see the social dangers in certain street drugs. If by taking an illegal drug I am supporting the Colombian cartels, or helping to generate dangerously paranoid crystal meths users, perhaps my action in supporting the trade to please myself is immoral?

⁶¹ In the letter quoted above, M adds, with reference to this section: 'you are very intellectual, self-analytical, argumentative and sure of your ground, whereas many/most other patients (especially perhaps when depressed) are genuinely more dependent on the doctor's judgement than you are. I think the task for doctors is more complex than you allow because you generalise too much from "doctors and me" rather than "doctors and the whole gamut of possible sufferers"'. This is almost certainly well-taken; I leave it here without comment as part of the general dialogue form that so much of this book seems to have assumed. On the other hand I find it difficult to speak for anybody but myself and people like me since I don't know what it feels like to be one.

an unspecified period of ‘maintenance’ treatment with medication at lower doses, then tapering and withdrawal. This treatment protocol should, as far as I can see from the literature, usually carry the caveat ‘until the next episode’. And this is perhaps the central problem.

In a careful and detailed meta-analysis of outcome-studies, C.F. Duggan comes to the following conclusion (1997:36f.):

First, even with the most generous estimates, only two-thirds of those treated with either psychological or physical treatments can expect to have a prompt response [...] and a further 15% will fail to recover at all [...] and become chronic.⁶² Second, among the successful responders, at least a third will have another relapse while in remission [...] third, for those who recover, another episode is likely in 75% of cases with the same cycle being repeated. Thus, for every 100 patients [...] 66 can expect to respond to treatment and 10-15 will remain chronic. Of the 44 who recover, 33 can expect a recurrence with the cycle being repeated [...] only 11% can expect to progress to recovery and remain well without further episodes. Recurrence in particular is a problem as the illness becomes more autonomous, severe and potentially refractory with each new episode [...]

These rather pessimistic figures support what I have been suggesting all along: that depression is more likely than not to be a chronic (in the sense of either continuous or recurrent) illness, and on-and-off treatment is not the ideal choice. (Though it may, unfortunately, be forced on doctors by the exigencies of health insurance and state medical systems, and patients may choose it for a variety of reasons—see chapter 6.) The result of my own experience and years of reading and talking with psychiatrists (at least of the ‘biological’ persuasion), can be summarised this way:

(i) Recurrent unipolar major depression and bipolar disorder are chronic (if often remitting) lifelong illnesses, and should be treated as such. That is, patients should be stabilised (to whatever degree is possible, and/or coincides with their preferences and ability to tolerate medication), and the therapeutic dose of medication continued indefinitely.

(ii) Clearly ‘reactive’ single episodes of major depression (following bereavement or other traumas), if they are first episodes, should be treated as such, normally for a period of no less than 9 months to a year, certainly for at least 6 months after symptoms have disappeared, or a satisfactory response (if not full remission) is obtained.

But it must be noted that kindling can occur at any stage in the evolution of a depression; and each episode makes subsequent ones statistically more likely. Here is one set of risk predictions (Stahl 2000: 16):

⁶² By ‘chronic’ Duggan does not mean ‘recurrent’, but continuous, e.g. depressive states lasting unchanged for a year or more.

<i>Number of Prior Episodes</i>	<i>Recurrence Risk</i>
1	< 50%
2	50-90%
3	> 90%

So if a depression of type (ii) is followed—after remission and without additional stressors—by an ‘untriggered’ major depression, the illness should probably be assumed to be chronic or on the way, and treated as type (i). In these cases, ‘the dose that gets you well keeps you well’. (I have been unable to find the source of this commonplace piece of psychiatric wisdom, but I have heard it from a number of doctors.) In an ideal world this would be the safest approach, and the most likely to forestall further episodes, with their attendant danger of increasing severity and shortened interepisode remission.

There is another advantage to long-term, even lifelong treatment: remissions may become longer over time, and their quality may change, even to the point where new positive affects may return or occur for the first time years after treatment is started, and one’s response to positive events may become enhanced. This has in fact happened to me, and almost certainly would not have if I had been treated sporadically, once for each serious episode, and then been off medication during remission. It has been, I think, at least partially the first six years of continuous antidepressant treatment that have got me well enough to write this book, and laid a platform for finding out things about myself and beginning to function more normally, and even led to longer periods of more elevated mood than I had ever experienced. I may still often be depressed and manic at times, but I generally feel better (except of course in breakthrough episodes during remission) than I have at any time in the past decade. Some of this is no doubt due to various important life-events; but I believe that these events would have been unable to do anything much for me without the long-term relative stabilisation and neurochemical rebalancing produced by drugs.

On the other hand, the better I feel the less willing I am to tolerate the side-effects of medication, which raises problems of choice. It would be nice to come off Effexor, which though it works still has, half a decade on, the same side-effects it had at the beginning; but would it be a wise thing to do? There is no doubt that there would be new episodes, of a type that do not occur at present: but just what they would be like, and how much ‘better’ I really am remain matters for speculation—or empirical testing.⁶³

A final word for doctors

I end this chapter with a patient’s *caveat* about the notion ‘wellness’ in this complicated cluster of illnesses. Should treatment always proceed until (if possible) the patient is symptom-free, or

⁶³ I leave this passage as it was when I wrote it; my subsequent history involved undertaking precisely that empirical testing, and the consequences of that decision are described in the following chapter.

are there cases where the physician should consider palliation to some tolerable degree good enough to count as remission? This surely must depend on what the patient wants, and on the side-effects of the medication or medications that otherwise relieve his symptoms. For example, even if, unlike me, a bipolar patient does not *want* hypomanias, there may be good arguments for allowing them, e.g. in a case where they do not get out of hand, and there is no likelihood of psychosis, but the patient's discomfort is increasing because of excessive and poorly tolerated mood-stabilisation. This seems quite common in bipolars on multiple mood-stabilisers. (I have been frankly horrified by the utterly zonked states I have seen some of my friends in, e.g. on multiple mood-stabilisers, an antipsychotic and two antidepressants—this is a real case.) Similarly, in the case of major unipolar depression, it may be advisable to be content with a state that still shows some depressive signs, if the only solution is medication that will cause anxiety, distressing side-effects, or compromise quality of life in other ways. Even if you do not cure a major depression, turning it into dysthymia can be counted a victory.

As an experienced layman who has deliberately chosen non-optimal treatment both to avoid further pharmacologically-induced distress and to retain the useful aspects of my disease, I have a closing reflection for doctors. Granted, the primary medical imperative is to provide 'optimal' treatment; but the medical perspective often sees 'optimality' solely in terms of reduction or removal of targeted symptoms. Diseases however do not exist *in vacuo*; they manifest in living and feeling patients. The good doctor is a craftsman with justifiable pride in his work, and a laudable desire for the 'perfect cure'; but the patient is also the sentient object of his craft. Sometimes then it might be advisable for the doctor to allow the patient to live with an only partly treated mood disorder—provided some reasonable diminution of suffering and increase in functionality are achieved. This 'imperfect' approach may well be more humane and effective medicine than a heroic regime that leaves the patient more pharmacologically than psychiatrically disabled.

6 INTERMEZZO, 2008: TIME, PILLS, GRIEF AND HEALING

Crumbling is not an instant's Act
 A fundamental pause
 Dilapidation's processes
 Are organised Decays

—Emily Dickinson, c. 1865

Setting

I ended the chapter 1 journal in mid-1999. It is now 2008. This may seem rather a long time to keep working on one book; and especially labouring to produce yet another chapter that will be largely a narrative of sickness and attempted treatment, improvement and regression, mixed with philosophical reflection on sickness, treatment and personality. But this is a new and rather different kind of story—the disease has matured, and I have come to handle it differently. And it follows directly, as a kind of illustration and perhaps warning, from points made in the last sections of the previous chapter. I also wanted to give some sense of time: from the beginning of treatment to now is some 15 years. Is any disease worth writing about over such a long period?

The answer is yes. Depression is a protean affliction, a shape-shifter, and the arena it shifts in is time—along mysterious pathways of its own, partly determined by its own internal logic, partly by one's behaviour, the events of life, the flux of the seasons. It seemed to me that a depression lasting only 5 years was simply too short to write about: not enough had happened yet, and I had reason to expect more, some of it important. The time-scale is a central concern; the disease can undergo extraordinary transformations, both good and bad, over a longer period. And at least as important, or perhaps the same thing, the victim can as well.

If I had stopped the description in chapter 1 I would have missed an entirely new type of hypomanic episode that is becoming increasingly frequent, what I referred to in chapter 2 as 'mixed hypomania'. Practically no euphoria or elevated mood, but dark affect, anxiety, agitation, tremor, argumentativeness, frequent inability to sleep more than 2 or 3 hours a night, a sense of being trapped, with as a manic-depressive friend says 'no more doors to walk out'. I sit up in bed at night hours at a time, staring into the blackness, unable to read or listen to music or watch TV. Yet in the midst of this there are often subepisodes of relatively good, even mildly elevated mood. In fact, unlike the situation in a depression, I tend to stay creative and energised all through the episode, even if unhappy. This is a new one; if I'd been premature in finishing the writing it would be unknown, and it is important, becoming a major aspect of my disease.

The reader has seen where and what I was in 1999; now that I have been inhabited by this parasite for nearly another decade, it might be of at least clinical interest to see a later self-portrait,

how I have coped with its never-ending invasion, and how the disease has changed its own nature and perhaps mine. Even though the sickness is of course a function of my own mind, often altered by my own actions, I still visualise it partly as an independent agent. *It* does things, not me, though I seem to get carried along and participate, if often unwillingly.

So I have spent nearly a decade and a half living the pharmacological life. Not uninterruptedly, and one of the morals of this chapter grows out of that. Antidepressants are, for many patients, exceedingly nasty drugs. Some less so than others, but if your luck is bad then the one that works for you mentally may work against you physically (or mentally too in some ways), and you finally reach a point where you have to make some hard comparative decisions. Which is worse, my most florid early depression as I now somewhat dimly remember it, or spending year after year with somewhat muted emotional responses, intellectual slowing, sweating and chills and headaches, tremors, nausea and dyspepsia, unable to pee with comfort or have satisfactory sex? Trying to answer this question forced me off drugs a number of times, and that experience taught me something too about the nature of depressive disorders and their medication, and about me and the possibilities of my future.

Recurrent depression appears to be incurable. Once you have it, like insulin-dependent diabetes, you have it for life. It can get better or worse, it can go into remission for long stretches—you can be symptom-free for a year or more and sigh with relief—until it comes back. It is always out there, and will generally find its way home. The longer you live in that dizzying cycle of remission and attack, the more likely the attacks are to return. And this is often true even on medication: the best control is likely to yield to occasional or even frequent ‘breakthroughs’. And for many the more frequent these are the worse they are likely to be. And yet there are actions we take that tend to bring them back more often and more intensely than is good for us. Ideally the serious depressive who has had multiple episodes should be medicated for life; but it is tempting to take drug ‘holidays’. The results can be bad, but may still be worth it. This is a dangerous and unstable way to live, but for some it may be optimal, or at least as optimal as it gets. And there is also the chance, which at times can be the only thing that keeps us from suicide, that even unmedicated or undermedicated (another strategy we often choose for our comfort) the breakthroughs may get less bad, and the remissions longer. This has been my story in part.

But perhaps paradoxically, it is possible to feel such regret at the loss of certain symptoms, or even the whole disease, such a sense of emptiness and depletion, that you try to arrange ways to get them back. For a number of years I lost my manias completely, and could not bear living like that. Kay Jamison expressed it very well (1995: 92):

[...] I tend to compare my current self with the best I have been, which is when I have been mildly manic. When I am my present “normal” self, I am far removed from when I have been my liveliest, most productive, most intense, most outgoing and effervescent. In short, for myself, I am a hard act to follow.

Fortunately since (unlike hers) my manias have been relatively tractable and rarely if ever psychotic, an imaginative psychiatrist who knew me well was willing to cooperate in a strange project, and I have managed—so far, with his help—to regain my hypomanias. Sadly they are much less frequent than before, and often they are not euphoric but dark and frightening and sleepless; though my depression has also somewhat improved. There is however enough of that left too so I can recognise myself. I think this story is worth telling, because there are so many manic depressives whose depression is made worse by the disappearance of their elevated states. There is a sense of desolation and grief at the loss of one's best self, a longing for states that look as if they will never come again. There can even be regret at healing of depression, the loss of your worst self. I will return to this. Now I give a brief outline for orientation, then the gritty details.

At some point in 2001, knowing perfectly well that 'the dose that gets you well keeps you well', I decided to come off Effexor. The reasoning was somewhat obscure, but the main points were that I felt I had plateaued in a good way and might do with less support, and that the side-effects of the drug were beginning to reach the point where they were almost as much of a drain on my quality of life as the condition it was designed to treat. Effexor is well known for its effect on the bladder; after a couple of years I was beginning to develop an almost paranoid fear of prostate cancer (some of whose symptoms this drug, like so many other antidepressants, mimics rather cleverly). I mentioned other side-effects above; but the worst and perhaps most important ones were mental. I found that after long use, even though the depression in its blackest forms was fairly well controlled, there was a distressing kind of deadness at the core of me. It was not sedation, but an overall dulling of responsiveness and loss of quickness. In particular I was not responding to music or art or poetry or friends in the way I was used to: it was as if there was, even when my mood was at its best, a kind of veil between me and everything else, very subtle but disturbing. This is not an uncommon side-effect of antidepressants, even activating ones—but it may be one that on more mature consideration one ought to live with. I did not think so at the time, and still have mixed feelings.

At any rate in 2001 I decided to quit, and depend only on alprazolam, nicotine and alcohol, to see what happened. Could it be that I had really got better and no longer needed an antidepressant? I am an experimenter and (with drugs at least) a risk taker; this seemed to me the time to do some experiential research.¹ So in September I began coming off Effexor (gradually—it is not a good idea to stop antidepressants cold turkey). When my system was finally clear, I was rather twitchy but with a kind of lightness I hadn't experienced in years; there were some

¹ I thought this was the only way I would find out whether this long remission was a 'real' one, whether anything had changed inside. Some elegant new imaging studies (since often repeated) suggest this is possible. In about 2001 growth of new neurons (not just rewiring) was demonstrated in adult rat hippocampus *in vitro*; now it has been imaged in the adult human (*in vivo*) after long-term antidepressant treatment. This suggested that depressions can really change into something else, can get deeply and structurally better. I had a feeling this might have happened to me. To see how our knowledge of this has grown, Google neurogenesis hippocampus.

depressions and mixed episodes, but I felt I could live with them. (I had never experienced any long period in which I was totally free of these kinds of episodes, and always refused to take the kind of high medication doses that might allow me to be.)

Perhaps what I mean about ‘deadness at the core’ can be seen most clearly in what happened to my experience of music after some time off Effexor. Here is a short extract from my journal at the time. I was in fact in a slightly febrile version of the state which I finally did reach, at least for a while, described in chapter 9 below.

Feel as if I’m missing a layer or two of epidermis, overreactive. Listened this morning to the Bach orchestral suites #2 and 3 for the first time in ages, and found even the restrained B-minor comedy of #2 inexpressibly moving. Maybe not overreaction but the kind of proper reaction a decent musician ought to have? Air from #3 almost got me weepy—or more so than it usually does. Try an experiment: what will happen if I listen to the Mozart clarinet concerto? The best index to what kind of emotional state I’m in is what Mozart in A major does. *Could it be that a (non-sedating) antidepressant can actually depress healthy aspects of what you’re capable of feeling?*

Yesterday was periodically lachrymose, in a sort of not-unhappy way. Music, my own prose God help me producing the odd tear or so. Really! What the fuck is this all about? Listened to the Beethoven violin concerto yesterday afternoon, and it seemed somehow ‘more’ than before—felt exalted and disconnected. Then in evening two Bach cantatas in a row, *Ich habe genug* and *Weichet nur*—almost like hearing them again for the first time. There is a clarity I didn’t know I didn’t have. My hearing seems to have become ‘transparent’, or more analytical than before: the orchestral parts separate themselves out when I want them to with very little effort on my part, and I can hear music again somewhat as if I were reading a score, without losing any of the emotion. Years since I was able to do that.²

This was something I did not want to lose again; but I was eventually forced to, partially, and still have not fully recovered it except during sporadic bright bursts of elevated mood. It is hard to be used to being able to hear lines of polyphony simultaneously separate and together, and then lose that ability, and suddenly regain it. This is my image of loss and redemption, the loss and recovery of Bach, maybe the same thing.

During this period I was hypomanic much of the time, which rather surprised me; I would have expected Effexor rather than the lack of it to trigger such states. But I also became twitchy and irritable, and eventually sank into long black depressions of the old familiar sort. After a symbolic 40 days off, I went back on, having (I thought) given up the experiment as a failure. I stayed on Effexor for a while, then after a couple of months went off again because of side-effects. Looking back this pattern should have begun to seem bizarre, but I was immersed in the experiment and did

² Extreme clarity of hearing and hyperresponsiveness to music may be a part of (hypo)manic episodes. See the description in Jamison 1995: 79.

not find anything at all odd about it, merely annoying. I wanted to be me with my other support systems, and it did not seem to be working.

At the end of 2002 I decided (again this shows what kind of fluctuating state I was in) that it might be a good idea to stop smoking. My GP suggested as an aid the drug that he had used successfully himself (he has since gone back to smoking), an antipsychotic, Fluanxol, in very low doses (it is marketed at these doses as an antidepressant and anxiolytic). It was almost useless as an aid to stopping smoking (I cut down a bit for a while, but then regressed); but it did have a good effect on my depression, and was helping with the increasing anxiety I was having. But it had some undesirable side-effects at the beginning, mainly slight tremor and muscle weakness. I took it for a while at Dr P's suggestion with a half-dose of Effexor, and things went along quite well for some months.

In June 2002 I began to find the side effects of Fluanxol distressing (they were really, looking back, rather trivial, but it was a sign of my worsening depression that I could not tolerate even the slightest discomfort), and quit it, coming off Effexor again as well a month later. Still the craziness of this pattern did not for some reason come to my attention—I was absorbed in a series of wacky experiments, unguided by any medical advice. I was quite manic for a month or so after quitting, and then the old depressive pattern with scattered hypomanias came back. I was getting rather worse, but since I had decided against antidepressants as a major mode of treatment, Dr P recommended another antipsychotic, this time one of the 'new generation' ones, olanzapine (Zyprexa). It worked quite well against the depression, but I found it too sedating to continue for very long.

Finally in early 2004 I decided I needed some high-powered sorting out, and went to a specialist psychopharmacologist (Dr D). He suggested I stick with Fluanxol for a while, and said that the side effects would go away, as they pretty much did. He thought that with my kind of disease and the things I wanted—above all no cognitive impairment—this might be the drug of choice. He agreed I was not a candidate for mood stabilisers, and since my experience with standard antidepressants had been so bad this kind of drug might be better. At any rate he thought I should give it more of a chance.

Later I began to realise that it had been a couple of years since I had had a real, exalted, extended hypomania; I was either dull level or depressed or anxious, but the lovely highs seemed to have vanished, and with them much of my creativity and 'edge'. I spoke to him about this, and asked if we might be able to induce hypomanias if I wanted by trying a new drug or adding an activating antidepressant to the cocktail. He was (somewhat surprisingly) perfectly willing to embark on this, and we started on a long process, canvassing a large portion of what was on the market. The first try was a disaster. Instead of my delicious addictive manias I began to suffer appalling anxiety and panic attacks, with hyperventilation and chest pain and a sense of 'imminence of death'. One of them was so bad that I called the psychiatrist after hours thinking I was having a

heart attack. (He listened carefully, said it was a major panic attack, and told me to do some breathing exercises, have a cigarette and a whisky and go to bed.)

This experiment was a failure, though I was pleased to be treated by a doctor who did not think there was anything insane or medically evil about wanting manias and feeling deprived without them, and was willing to help me regain them. After a couple of weeks of this I went back to the antipsychotic alone, and thought things would remain relatively tolerable. I have heard from another doctor that controlled sleep-deprivation is a possible way of inducing hypomanias, but am not sure it would leave me in optimal condition for working..

A bit later in the year I had a bad car crash (car was a write-off), and this was followed by severe Post-Traumatic Stress Disorder, which I still have, though it is a little milder now. The anxiety component began to override the depression, and I was close to totally dysfunctional, constantly looking over my shoulder at terrifying nothings. Dr D then did an inventory of the rather small number of drugs left that I could tolerate and that might work, and suggested another, which was supposed to have anxiolytic properties. It did, but I found it too sedating to stay on very long. I was so dull I couldn't read or work very well, and was even more phobic about driving than usual because I did not trust my reflexes. After a few weeks we started the search again.

The next choice was a tricyclic. It was at first surprising: after all Dr D knew that I dreaded sedation, and everybody knows what tricyclics do. However he was right and I was wrong; it was not sedating for me but in fact activating, and marvellously anxiolytic; after a few months not only my anxiety but my phobias and flashbacks began to decline, and I was pretty stable and not depressed. The side-effects though were even worse than Effexor: my mouth was often so dry I could hardly talk, and the old fear of prostate cancer came back. But the anxiolytic effect was so striking that I stuck with it until he suggested it was time to get off, and I found that much of the anxiety and panic had just vanished and did not come back: it looked as if a genuine change in wiring or neurotransmission had occurred in those few months.

To set things in context, some notion of what Jaime's health was like at this stage is in order, as I was as involved in it as in my own. She had already had cancer four times, three surgeries plus radiation, and was suffering from chronic and excruciating pancreatitis and insulin-dependent diabetes. In addition she was a severe needle-phobic, and could not bear to inject or prick herself, so I was responsible for glucose testing and administration of insulin. During this period her health became worse; she had another cancer, which the surgeons thought they had removed successfully. It turned out not to be the case, and over the next year she got weaker and sicker and in more pain, and I had to devote more and more of my time to nursing. I was committed to keeping her at home, not letting her be subject to the bureaucracy and interference of a hospital or even a hospice. I was determined that she was going to die in her own bedroom with relative dignity, with me in control of the morphine, with her familiar things around her and a cat purring on her shoulder. It worked out as planned, but at the beginning of the terminal phase I knew I could not undertake this kind of work

without proper support, so Dr D and I began to investigate antidepressants again. At this point I put aside my self-centred project of getting my manias back and decided that stability was what I most needed. In addition I was getting more depressed and the episodes were lasting longer than usual; I was becoming irritable and difficult, which was just what Jaime did not need. Particularly after her last scan, which showed extensive metastasis, and left her with a life-expectancy of six months. Whatever my state, it was impermissible for her to suffer my moods during the last months of her life if I could help it. This was the end of 2004. How I got up to 2008 and what condition I am in at the moment might best be shown by some selected journal entries and exchanges of e-mails between me and M during part of that period. (And see also chapter 9.)

Selective Self-description, 2003-2008

1 January 2003. For the first time in perhaps half a year woke with a really deep and classical depression: poor muscle tone, feeling of impending disaster, clear suicidal thoughts. In part the irrevocability of retirement: I am now for the first time since 1964 dumped (characteristic way of putting it), jobless. Having through no fault of my own reached the magic statutory age of 65, I was cast on the shitheap of history (typical depressive self-dramatisation). Not unemployed in the least, not without funds (more than before, but ways of getting them complex & people keeping me waiting with paperwork). Stiff and despairing. Started last night, partly in response to Jaime's condition and the suspended state of our relationship due to her weakness and low mood and my apparent inability to do anything right, resurgence of my habit of nagging.

Edinburgh, 9 February 2003. 'The fleis is brukle, the fend is sle'.³ In 'undisturbed' life the line between metaphor and the literal is blurred; in mental disorder it gets blurrier still, & may vanish. The task of giving linguistic substance to cognitive & affective disturbance or frank dysfunction brings one starkly up against this notional boundary. Like all 'boundaries' in the real world it is not there as such; it's a hazy & complex transition zone. And one partly brought into being itself by the attempts of those on either side to name and locate it, and define their own positions.

I've often thought that the curse & blessing of my life is the desire for clarity & intellectual control—regardless. Don't act, describe. Don't follow instinct, have a theory. Avoid common sense, the best intentions and advice and help of loved ones in the interests of clarity, reification, reduction.

Disorder can be made tractable in many ways. My choice has largely been to intellectualise it, see it through science as far as it can be seen, and otherwise reject, reject. Reject formal therapy (probably wisely), reject love and concern and friendship in the interests of crystalline disease—because my temperament lives only in the purest parsimony (as I thought). It seems to

³ 'The flesh is brittle, the fiend is sly'. William Dunbar (?1460-?1520)

require such a limpid and constrained world for safety and balance. Certainly it did, though M and other friends were constantly intervening to make sure I could not be as 'pure' as I thought I would have liked, periodically deluging me with concern and love, forcing me out of my comfortable cave. In the end they probably saved me as much as drugs and Dr D.

I have had a lucid and stiffnecked insistence on being as diseased as possible. In my sickness is my self. But also elegantly self-serving. If it's true enough, it absolves me of the need to act, or do anything. Like Aeneas, wherever I go it's propelled by fate. Can be a comfortable way to be. Whether this self-serving inertia is a good or a bad thing is an open question. It can be pleasant in its own way, limited but apparently safe.

The inertia has its virtues. It provides me with a quick ID number, a nicely crafted set of properties that allow me to be characterised as a diagnostic object, with no real particulars. Oh yes, R is 'one of those'—and therefore he can act like one, knowing the expectations, the classical stigmata. (And if one or two should be missing in a tight spot, well they can be put on easily enough.)

But my best friends refuse to accept this. M won't allow me to take all my easy ways out. She accuses me of using my disease like a caddis-fly larva building its protecting case, and hiding at any sign of challenge. She is always after me (sometimes rather fiercely) to do at least some work toward taking hold of myself, stopping my ceaseless rumination and self-dramatisation, and doing what I can. But the brittleness & instability remain. Agitated manias, panic attacks, washes of depression emerge, sometimes at longish intervals, sometimes with a pallid reflection of the rapid cycling of the worst days. But almost always shorter than before, only on rare occasions as intense.

9 February 2003. I have been off Effexor for 158 days. I feel overall better than I can recall ever feeling—I think.

5 March 2003. No. The black dog is back again in large size and living colour. Has been for about a week now, on and off. Anxiety attacks at odd moments, and waves of the old kind of depression. Partly stress and fatigue: has got much worse since Jaime had a massive hypo the other day at 4.30 AM and it was all ambulance and paramedics and hospital and more worries. I seem to have lost some of the strength I've had for the past six months and am getting overreactive and wimpish and flabby.

Here we go again. Past couple of days as bad as before. Angry, depressed, dark, slightly suicidal. And I keep being tempted to blame Jaime for things. I feel too much responsibility, for myself, for her, for everything. Nothing seems to work very well except drinking, and starting in morning again occasionally, or at least before lunch.

Depressions are (among others) of two kinds: those that are just Brightness Falls from the Air, which can be on you and complete in less than a second, and those that search the surrounds

for imagery to latch onto and come on more slowly. The first kind is terrifying (still, after all these years); the second has a kind of slow trajectory of dreariness and less fear. I can never tell which kind the next one is going to be.

I don't want to go back on any kind of drugs: I feel that episode is over.⁴ But I can't subject Jaime to this kind of erratic irritable and gloomy behaviour. That old feeling of wanting to give up again. Matter of both situation and internal weather. Feel pressed for time, anxious, things stretch ahead in the old way blankly and dreadfully. Waste huge amounts of time during day reading silly books just to keep from thinking. Some work in the garden but can't concentrate, no desire to talk to anyone.

I need to change my life and not focus entirely on perusing my innards and being a caregiver, which seems to be all I'm doing (ineptly), and Jaime is getting less autonomous and more dependent, which makes me feel 'tied' and distorts the way I think of everything. Yet I can't let any of this out to her, because she feels bad enough at being that way, and I think under enough pressure she might kill herself just because she thinks she's ruining my life. She suggested I see somebody: but I don't think that will be any good, because talking to strangers is not helpful or even conceivable for me, and drugs are out. I've made that decision. This is a bad regression (partly seasonal, but more than that), and I suppose I'll just have to work out some strategy for weathering it. Would I be better off if I had no academic responsibilities, just waited around to die? I feel rather like that, but I'm too committed to my research and collaborating with M⁵ to do that, and she's depending on me as partner. Wait, wait I suppose and see what happens.

14 March 2003.

Dear M

Jaime is not doing well and the doctors are going rather mad about certain things which do not seem to respond to anything. [...] More conversations about death; she wants to die but curiously is not suicidal. We manage, still.

Dear R

I'm finding it hard to keep up with Jaime's vicissitudes—it must be infinitely worse for you and of course for her. I had the impression that things were a bit better. Poor Jaime—nothing ever seems to stay the same or better. I suppose if she wants to die but is not suicidal then patience is the only option. And she's good at that. But it sounds inexpressibly bleak and must be dreadful for you. I'm thinking of you—not meditating or

⁴ Note how often I say this (and will below); and how often I do go back on drugs. My intentions were cycling as much as my moods.

⁵ M and I had been research collaborators since 2002, writing joint papers, performing at conferences together and working on a very large project at the University of Edinburgh. We still are.

praying, just loving and supportive thoughts.⁶

Dear M

I think her patience may be running out; there does not appear to be any light at the end of the tunnel, or the tunnel is growing longer. [...] it is hard to watch this and do nothing, and I know what I'm tempted to do and have been half asked to but won't and can't. I hope this is cryptic enough. I shouldn't be mentioning it even, but I can't not.

Dear R

Take heart. It is right that you won't and can't. And right that you've only half been asked. The theory is there and is and has been a comfort and an aid to keeping going. But the time will announce itself and it will not be until much, much nearer the end—by which time it may no longer be needful in the same way as the theory dictates. You will both know, and meantime there is still more to say and to do and to feel and to enjoy even *in extremis*. And it's possible still that things will get better.

'To every thing there is a season, and a time to every purpose under the heaven: A time to be born, and a time to die; a time to plant, and a time to pluck up that which is planted; A time to kill, and a time to heal; a time to break down, and a time to build up; A time to weep, and a time to laugh; a time to mourn, and a time to dance [...] a time to embrace, and a time to refrain from embracing; A time to get, and a time to lose [...].'⁷

The time will come when it comes, my dear. Don't fret. It will be clear and it will seem right—not this knotted anxiety or a black funk, but a freeing sadness with tears and peacefulness and completion. Meantime let the doctors discover how to help. Jaime may yet find a way through this. She has before and she doesn't shirk when it comes to survival.

Dear M

As you can imagine life has been pretty close to the bone of late. I'm glad I was able to be cryptic and clear at the same time, and of course what you say is right, and Jaime agrees. But it is hard, still. We're both tougher and more vulnerable than we thought.

Yes, to every time there is a season. But there is another passage in that same book:

'Remember now thy Creator in the days of thy youth, while the evil days come not, nor the years draw nigh, when thou shalt say, I have no pleasure in them; while the sun, or the light, or the moon, or the stars be not darkened, nor the clouds return after the rain [...] And the doors shall be shut in the streets, when the sound of the grinding is low, and he shall rise up at the voice of the bird, and all the daughters of musick shall be brought

⁶ As a rather militant atheist and someone lacking in human subtlety, I used to find it offensive for people to pray for me, and M knew that. It still makes me uncomfortable, but now I simply take it as something that makes them happy, and feel it churlish to refuse them permission. My religious friends have generally had the courtesy I lacked, in always asking me if I minded.

⁷ Ecclesiastes 3: 1-6.

low [...] and desire shall fail: because man goeth to his long home, and the mourners go about the streets [...].⁸

I can't tell if the evil days have fully come for her, but they may have, or be on the verge. So if I'm a little odd from time to time, I am living with myself and with her living with this, though she is trying not to let me see that she is. The time will come when the silver cord will be loosed, but it isn't now, and as you say, things are knotted. We both have to make decisions and constantly judge what life is and will be. There is still hope, but less than before, and a dark silent wall up much of the time.

16 March 2003. Tonight Jaime remarked, as she has before, that she finds it incomprehensible that the mind should continue to want to survive, when the body doesn't. As far as I can see her life has virtually no quality; there are some goodish moments, but most of it is pain and weakness and distress and the memory of all the things she could once do and now can't, no matter how hard she tries. And she does appear to be getting physically weaker, which is disturbing. There are probably still medical things to do, but she doesn't want to have any more investigations. She has been fucked about enough since it all started in 1986. The only thing keeping her alive right now is a sense of responsibility to the animals and to me—though she interprets her responsibility to me, at least explicitly (not untypically for someone depressed both endogenously and by her situation) as consisting only of helping with the animals. I think she does not see herself as a person at this point, not as herself, but as a remnant, a pretense, a fragment and a burden.

Yet at one point she'll say something like what a wonderful painting a loquat in bloom would make, and then retreat from the idea of trying it—it's abstractly desirable, but she has no faith in her ability to do it, or to summon up the energy to try to work seriously. I think if she could die with no effort or just will herself into dying she would; but she doesn't seem to be able to give up completely. She has talked about just stopping insulin (which would do it); I think the only thing preventing that is concern for what I'd have to go through watching the drawn-out and ugly process. And yet she doesn't seem to want to take the simple direct step of just committing suicide. The pills are there in the kitchen and she could get them anytime. Nor has she except once obliquely raised the issue of my acting *in loco*. She asked very simply: if she were a cat, given her present condition, would I hesitate to have her put down. And the answer would have to be no, I wouldn't. The conversation did not go any further, though we both know that it would be perfectly possible and not even difficult. This is all beyond our experience, both of us.

12 June 2003. Bloody disease has shapeshifted again. Now I get, as once before, anxiety attacks instead of manias or depressions. Found Fluvoxamine effective against both depression and anxiety, but can't take it for more than about 10 days: start getting mild but distressing tremors and general

⁸Ecclesiastes 12: 1-5.

feeling of weakness. JP suggested trying Zyprexa at half the recommended minimal antipsychotic dose (1.25mg before bed). It appears to be working. Much less anxiety, not much depression, but nighttime and into-the-morning sedation. Find myself sleeping 8-9 hours, which is too much, and having trouble, even more than usual, waking up.

23 June 2003. Stopped Zyprexa about a week ago; rather dulling and not as anxiolytic as I'd hoped. Started Fluanxol again, .5mg/d. Seems that anxiety is my greatest problem now, though some depressions too, usually agitated. I think I may have to use this drug from time to time in bursts when things get bad. Definitely not stable, but functional, and working fairly well, getting ideas, nothing really manic but a good deal of uppish mood. Irritable too. Overall not as stable as on Effexor, but not dangerously depressed, and quality of life is good enough as long as I have something for bad anxiety.

30 July 2003. Still on Fluanxol. Off to a conference in Bergamo tomorrow; will probably continue for the trip.⁹ Mood generally better, but (is it just typical nerves?) not looking forward hugely to conference. Feeling that I won't be on top of things, trepidations about excursions, being in busses for 2 hours +, not being able to 'escape'. Feel that I will be trapped in conversations and not be myself, have to force things, and fear of nausea as well. Same old syndrome. More anxiety than usual. Hoping it will go away once I'm irrevocably on the plane, and that presence of familiar people will reorganise things and it will all go OK. Probably will; was terrified last trip to the UK of giving a talk to the Oxford Dictionary Forum, and that was huge success. Was OK if a little anxious during conference—almost too social for me to have *time* to be depressed, which may say something interesting.

21 September 2003. Some peculiar episodes. Yesterday a feeling that reminded me of Frodo after having worn the Ring too often. A kind of 'attenuation'; slight depersonalisation, memories occluded, lost their physicality, peoples' faces became vague on recall. Lasted most of day, quite disequilibrating, feeling of loss and detachment. Gone by evening.

25 September 2003. Last day of current Fluanxol repeat. Feeling rather depressed, but decided to see what would happen if I stayed off for a while.

⁹During the whole period of her illness Jaime insisted vehemently (and honestly) that I should not stop travelling but keep going to conferences and to Edinburgh to work with M. We had a friend who was a former oncology sister, and she and other friends took over the nursing when I was away. Jaime insisted that whatever her condition I must not let my career lapse; and that given the hothouse situation it was healthy for us to be apart occasionally for a few weeks.

26 September 2003. Saw what happened. Or what would have happened anyway. Really bad depression again, with restlessness and anxiety in afternoon. Friday to Sunday virtually unable to do anything except read thrillers and not enjoy them that much, physical energy low, muscle and joint pains, feeling of wanting to give up, unable to work or concentrate. Will start Fluanxol again Monday and see.

18 October 2003. Bad again. Depression recurring frequently, and having terrible effect on Jaime. I seem to say hurtful things without being able to help myself, and she says she would happier if I weren't there. Am going to try and see if I can get out of this. Start moclobemide 300mg tomorrow, and see if it begins to help. Fluanxol seems to be controlling anxiety fairly well, but now failing for depression. I may have been wrong about my ability to stay unmedicated. Hope after all these years not taking it that this drug will work: it was for a while the most effective of all, and the only one I could really tolerate, though I managed suboptimally for years on Effexor. A week of 300mg to start with, and then perhaps talk to Dr D and see if I should go higher then or wait.

21 October 2003. Funny thing happened today that taught me something about how far I've come and how far I've got to go. The department has decided to turf me out of my office, since I'm of such an odd status, being an Emeritus but still teaching, and they need the room—they're giving me a little thingie about the size of our loo, and I lose all my nice comfortable chairs. First reaction was absolute old-style rage, with palpitations and hyperventilation, which culminated in a bout of planning how to fuck the department over and make sure that even though they got me out it would be with maximum disturbance and ill feeling. Interesting, that: my first reaction to anything adverse is still anger and a desire for revenge. I only use the office about 4 hours a week, but that's not the issue of course: it's that anybody dares to fuck with *me*. I took the whole thing (which is perfectly reasonable actually, if inconvenient and irritating) as a personal affront. But I cleverly did not answer the e-mail announcing this immediately because I had a feeling the reaction might have been a tiny wee bit over the top. So I may have matured or got better a little over the years.

After a couple of hours of brooding decided nothing to be done so abandoned all plans of revenge and trouble making (had some nice elaborate ones, which could keep the business on the back burner for ages probably, even though I'd lose in the end). What do we make of all this? I was a bit distressed that the old R surfaced with such speed and venom, and pleased that the newer and somewhat less vicious one replaced him after a bit. But I bet the pH of my stomach is still in the negative numbers.

Anyhow I think despite the irritation this is in principle a story with a better ending than I expected. A couple of years ago I would have fought for months, done no work, made everybody's life miserable, made enemies, and lost anyhow. Except in short bursts like this I seem to be losing my anger, which used to define me. If I'm not underpinned by rage will I still be myself? Is lack of

anger a deterioration or weakness, or something healthy? I'm not actually sure.

29 October 2003. Now 9th day on moclobemide. Past couple of days some psychic side-effects I think beginning to kick in. Have been beset with unfocussed anxiety, restlessness, anorexia, plus some nausea. Less depressed, but the anxiety and some continuing GI symptoms are unpleasant. I don't recall having these side-effects when I first took it. Both alprazolam and alcohol help. I'm going to stick it for at least a month or so, and see if it actually does any good. I may not really be able to be off antidepressants or some kind of medication as I thought I could, at least not for now.

Definitely in some ways a better drug than Fluanxol (except now for the anxiety). No bulimia (Fluanxol curiously makes food taste better and you gorge yourself), stronger, less sedated and not falling asleep during the day. Feeling as I recall feeling when I first took it a bit hypervigilant, but don't mind that too much. The anxiety though is crippling and makes it very hard for me to do any concentrated work. However, this is a short time so will wait it out and see what happens. Mood otherwise better; had a car breakdown yesterday and did not get enraged or panicky, but there was this pall of anxiety just in general. Better when I'm distracted: did some radio recording yesterday and was fine during, but anxiety returned afterwards. Accompanied by a kind of hollow feeling in stomach like an ulcer attack.

1 November 2003. Particularly bad two days. Anxiety is overwhelming, mainly autonomic, unfocussed, but a psychic component too, which leads to depression and a feeling of disconnection. I think moclobemide may have been a mistake. Jaime is now seeing a rather brilliant psychologist who has all kinds of ideas and may help her reconstruct her self-image and get out of her slough. I don't know the best way for me to help, but I'm not sure this drug is it. Decided this morning that after two weeks with no diminution of side-effects I'll take the easy way out and go off it, and try nothing except alprazolam and alcohol. Found yesterday that anxiety attacks defused by drink, but I would not like to resume drinking constantly for relief. Need to get back to concentrated work.

So decided today not to take any, and see what happens. Don't know what washout period is, but not having taken one this morning I feel a little less shaky and better about the gut. We'll see. Perhaps I can manage with nothing now that we're into summer more or less.

3 November 2003. Past few days anxiety almost unbearable, coming in waves, with anorexia and nausea. Decided to go back on Fluanxol—can't make up my bloody mind what to do. May go see Dr D again. Not pleased that whisky on empty stomach fixed anxiety very quickly—wonder if I'm beginning to turn the corner from what I thought of as benign alcohol dependence to something more sinister. It works faster than I'd like in principle (if not in practice), which is not a good augury. Must be very careful about sticking to not drinking before set time in afternoon, and maybe drinking less and not again before bed. Don't want it to get too easy to take a drink whenever I feel anxious

or depressed, had my fill of that years ago. Social binge drinking with friends OK, but not those amounts habitually. And absolutely not before breakfast, which I've done a couple of times. That could be dangerous.

6 January 2004. Very long hiatus. Too depressed to engage in journal writing for fear that I would get even worse. Complex set of things happening. Worst started in January, working myself into a state of panic prior to a trip to LA, all unnecessary it turned out. But during period before began to get more and more dead and grey. Talked to Dr D about antidepressant, and tried going back on moclobemide. Absolute disaster. Provoked ferocious anxiety and panic. Followed Dr D's protocol, Fluanxol with half dose moclobemide first, then just half dose, then full dose. And this was the drug that had been the best for me, and then pooped out. Anxiety was intolerable, and in bits has still not gone away.

Dr D then suggested mianserin as possibility; definitely anxiolytic but too sedating to use, and gave up after a few weeks, back on Fluanxol + alprazolam 2-3 times a day. My metabolism is clearly changing, as is my disease. Now anxiety more than anything else, and no manias at all. Booh. Was thinking that an antidepressant might trigger some hypomanias, which was the idea at the beginning, but not apparently. Though when I was in LA I did get rather high and loopy when lecturing and in social situations, so it's still there to be called on, sort of.

Situation at home is destructive. We are very isolated, and I am losing my desire for company. Being a 'carer' is draining, and I don't think I'm doing my best for J. She finds me irritable and angry and feels she has to walk on eggs. I don't see it in quite the same way, but one of us is misreading the situation, probably me.

12 August 2004. After long period of only Fluanxol I was clearly getting worse. Every morning I'd wake with an anxiety attack that would run on for hours, and then another one at around 3 in the afternoon. Plus long episodes of black depression. Went to see Dr D, who said the pattern was 'classical', and suggested imipramine, a historical relic, the first antidepressant marketed commercially in the 1950s. Says it's particularly good at handling anxiety, which seems now to be the shape that my depression has primarily taken. He doesn't think the anxiety is a separate disorder at all, but just part of a change in the pattern of depression. I seem to be getting more unipolar than bipolar; no hypomanias, just depression and hypothyria and anxiety. Sometimes even normalcy, whatever that is.

Imipramine definitely working; after about a week anxiety and phobicness began to fade. But side-effects are difficult, rather like Effexor but with less sweating. I don't think there's going to be a time now when I can get off some kind of medication—though I'd prefer it if I could just be on Fluanxol, which I'm still taking along with alprazolam. But for now I'll rest after my Noble Experiment.

29 January 2005. Long hiatus again. Dr suggested going off imipramine after a couple of months. Fine for a while, but then depressions started again. We're beginning to run out of options. About a month and a half ago started new drug, Cymbalta (duloxetine), an SNRI that's supposed to work somewhat like Effexor but with a lower side-effect profile. After a couple of weeks quite effective against both depression and anxiety: no bad attacks of either for over a month now. Not pleasant: aside from sympathetic symptoms (less than Effexor, but still urinary difficulties, sweating, dry mouth), a kind of flatness, a dead mechanical loss of initiative. Diminished response to music and poetry, less desire to listen to music at all.

A couple of weeks ago Jaime had a scan and they found multiple secondaries in the liver and chest and possibly a new tumour in the colon; doctors give her about six months. I think this drug is enabling me to cope with the situation, and be better to her. Jaime is doing well, now ironic and funny in her old way and less depressed (as M said her mother was when she finally knew there was an end coming). But I feel somehow I'm responding less adequately (emotionally) than I would without the drug. I try anyhow, but I don't really know how to behave or what to say in a situation like this.

25 March 2005, Good Friday

Dear M

This morning I had the oddest experience, that I don't understand. It seems to be 'meaningful' in a way, but I don't know how. It might mean I'm getting crazier. Anyhow, I was waiting outside a shop for it to open (had mistimed my shopping so got there too early), and was sitting in the car looking west at the mountain. Suddenly I had a kind of quasi-hallucination, which I had difficulty placing either behind my retina or in front of it at first, but it eventually established itself as 'outside'. It was a huge semi-transparent image of Christ on the cross towering over the mountain. Maybe I was thinking of Good Friday and what import it might have symbolically for me or something, but there it was. Very odd indeed. Am I going utterly bonkers or is this the kind of thing to expect when one is in a rather delicate condition?

I haven't the faintest idea what that quasi 'vision' or hallucination was about. Curiously it had very little emotion attached to it, it was just huge and present and I knew all the time that it wasn't 'real', but it was very obtrusive anyhow, and remarkably clear even though transparent. I wonder what it was about. Listened to part II of *Messiah* yesterday and find I've got a good deal of my response to music back, which is a relief—had a long period of chill and non-response which happens when I get depressed, and can also be caused by antidepressants. Can't win. Sunday part III.

Curiously enough the vision wasn't 'religious' in any powerful way, not a conversion experience or anything like that. More a kind of iconographical intrusion I suppose when I'm rather vulnerable; the style was Renaissance, either Italian or German (on reflection I think German or at least northern) though not all the details were that clear. I can still see it and remember it, though not in huge detail, and it came back a few times yesterday and this morning. We'll see if anything else happens; I find this rather disturbing in a way.

If this is the beginning of my hallucinating, does it mean I'm heading for psychosis? It wasn't a true

hallucination, because I knew it wasn't 'real' or 'there' in the strict sense, but a mental projection. Still it was creepy, and I felt somewhat unbalanced. Why would an atheist have a vision of the Cross? It must have been a projected metaphor, but I don't know quite what it was a metaphor of. Only despite its lack of powerful affect there was some sense that it was important and to be noted and remembered. After a while I got some idea of what it might have been about.

21 April 2005. Jaime died this afternoon. After a long deterioration and sadness. She got thinner and weaker; the cancer starved her to death. It was grim to watch, but at least I managed to make sure that she did not go to hospital or hospice, but died at home, with Leo purring on her shoulder and the dog at her feet. That must have been the last thing she saw. For the last two days she was in coma, so I do not know what she was thinking—in effect she was not 'there' for at least a week or so. But I kept her on enough morphine for the pain, and alprazolam for anxiety, until she could no longer swallow.

I miss Jaime. I am detached and unanchored, and see her out of the corner of my eye as an evanescent figure. I am constantly tempted to turn round and tell her things, and with a sinking feeling remember that I can never tell her anything again. I don't believe in ghosts, but I think I know what they are. Memories so sharp they get projected outward and become hallucinations. They say people can often still hear in coma, so in the last days I tried to make my apologies and summations, but it may have been too late by the time I did. The last thing I told her was that I loved her and always had. I hope she heard.

What the Bird said Early in the Year.

I heard in Addison's Walk a bird sing clear:
This year the summer will come true. This year,
Winds will not strip the blossom from the apple trees
This year, nor want of rain destroy the peas.
This year time's nature will no more defeat you,
Nor all the promised moments in their passing cheat you.
This time they will not lead you round and back
To autumn, one year older, by the well-worn track,
This year, this year as all these flowers foretell,
We shall escape the circle and undo the spell.
Often deceived, yet open once again your heart,
Quick, quick, quick—! the gates are drawn apart.

— C.S. Lewis

10 July 2005. Slowly getting through the grieving process, whatever it is exactly, superimposed on

depression I suspect but I'm not sure how to tell them apart, or if they're even different except for content. Grief also partly rather like PTSD, or maybe it really is, incredibly vivid flashbacks of the worst scenes of a long dying. Almost hallucinatory vividness, sometimes the flashbacks actually interpose themselves between my eyes and the surroundings, so I see through them as it were. Have good and bad days. Cymbalta got me through the worst, but I went off it before going to Edinburgh in late May, on a British Academy Visiting Professorship. Involved a lot of work with M (one of the purposes of the grant), lecturing, socialising. I seemed to manage without too much trouble, though did have some bad moments. But overall my mood, surprisingly considering how short a time this was after Jaime's death, was fairly good. M said I was 'running on adrenaline'. I think this may be part of grieving, a post-bereavement adrenaline rush. The collapse and whatever the rest of the grieving process is comes later.

Judging from my experience anyhow the famous Kübler-Ross 'Five stages of grief' (DABDA) are a load of balls. One is supposed to go through a sequence of Denial, Anger, 'Bargaining' ('Oh Lord, I'll eat my oatmeal if you bring her back'), Depression and Acceptance. At least my experience was nothing like that. I was of course depressed from the beginning. I experienced no denial: I'm not a superstitious peasant, I know that dead is dead; in my world there's nobody to bargain with; and I've never really accepted her death in the sense that I can live with it, and it seems unlikely that I will. Maybe the model characterises some people, but it sounds over- neat and hokey and utterly unfamiliar. Maybe the Five Stages apply except for educated, scientifically-minded depressives?

Stayed off Cymbalta after getting home until 5 July, when mounting depression made it seem a good idea to go back on. So far only side-effects—fatigue, anorexia, dyspepsia, can't pee. Mood effects haven't kicked in yet. Fatigue may also be still a matter of my having not yet got over things. My friends think so, and think I ought to yield to fatigue rather than trying to fight it. When I do try and attempt to work the results are fragmentary and slow. I still have some ideas, but find it hard to do anything sustained. I suppose it will come back.

6 January 2006. Another very long hiatus. Couldn't really write, but dumped things on M in e-mails, and to some extent on my friends here, who understand or try to. They are very good friends, solid and intimate enough to tease me and not take me as seriously as I take myself. I need someone taking the piss at times like this. Depressions getting worse and Cymbalta not working, so much against my will but at Dr D's advice I went back on Effexor, 75mg daily. Is this the way I'm going to have to live the rest of my life?

7 January 2006. Getting ready for another trip to Edinburgh. Spent last two weeks getting off Effexor again, which is now more difficult as only extended release 75mg form is available, which makes tapering impossible. Dr D is furious at the manufacturers, but has worked out a technique of

tapering using Prozac as adjunct. Not nice. First week until complete withdrawal rather swingy and agitated. Now agitated again and not able to work well, but that's as much anxiety over trip as anything else. This on/off business is not pleasant, but I can't go to Edinburgh and spend 3 weeks dull and dead at the core, my intellect compromised, trying to work and be sociable with all my emotions rather experienced in retrospect than really, not quick or able to be original. But for the past few days the opposite—too responsive and reactive to everything. An unexpected lump in throat and weepy about all sorts of odd things, even meretricious tear-jerking TV shows. Have still not been listening to much music, and don't dare to read poetry because my reactions are over the top. Have not been working well either, but I suppose that will come when I get to Edinburgh and am in that intellectual hothouse. Oh I do need it. Life at the moment is untenable. I have found a capacity to be bored and lonely that rather surprises me—thought I was better at sticking to work and enjoying my own company than I seem to be. Was better (but still not very much work—though come to think of it I did write most of a long chapter in multiple drafts and do some reading) on Effexor, but I do not like that drug, the XR form even less than the old one. But Cymbalta was not working and this was Dr D's suggestion.

Effexor not activating in the way I thought it might be. Anything else left? Wellbutrin? JP says not good for people with anxiety, but I will ask Dr D.

Every time I go abroad I get off Effexor, then get on again when I go back. Psychiatrist has no problems with my going off for three or four weeks at a time and then going back. In some ways it's less than optimal, but so is my present condition. This strategy has worked with no serious after-effects about 5 times now, and whatever might happen I think it's worth it. It's also very depressing and demoralising to be in the state that this drug keeps you in. It may not be totally sensible but it's necessary—at least that's my judgement. But I feel like half a person. And that itself interferes with the antidepressant effect. It's all unspeakably complex, but I think I know what I'm doing, at least I'm doing it under medical supervision and with medical approval.

6 February 2006

Dear M

Yesterday was not my favourite day. Jaime would have been sixty-nine. I'm still feeling it a bit today, and am finding being sociable a bit of a drag, though got through lunch fine, if with a bit of effort, and will through dinner. But would somehow rather be alone. Dinner will be OK, L is used to me and is one of the Club anyhow and has silences.

Dear R

Just tried to ring you 4.48 pm our time so you must be out at dinner already. You sounded a little forlorn, but I expect you'll have a good time with L. You're bound to miss Jaime at special times, and at unspecial ones, when something triggers it. And it will make you feel sorry and sad and sorry for yourself for being deserted

and just plain forlorn. Poor you. It will gradually get easier.

7 February 2006

Dear M

I'm OK. Dinner was very nice, L was a dear, no silences on either side, and a nice long mental organ recital (L celebrating year 10 on Zoloft). Everything was fine until we got back, and she wanted to see all of Jaime's unsold paintings, many of which she hadn't seen. Suddenly got to feeling more bereft than ever thinking of how she'd been stopped just when she was finally reaching the place where she wanted to be, and really looking at some of the pictures in detail for the first time in a long time, and remembering the circumstances of works being made, and why she did certain things. Sad but good in a way, because I saw the shape of her legacy for the first time really, looking at everything. I live with these paintings, but had no idea that looking at them all in a row and afresh as it were would give me such a knock.

Dear R

That's lovely, and the sort of knock and the sort of sadness that is good to have, however unbearable it seems at the time. It is part of carrying with you someone that you loved and love. Whether there is a kind of catharsis in these moments depends on many contingencies I suppose, but in the end I think they add up to something that enables one to go on with comfort and hope and (I hope) joy. Hang in. And keep working.

Dear M

I agree. It is a good kind of sadness to have. In a way it reaffirms the person who's gone. But not nice during. Still feeling a bit off this morning. I'm not sure what catharsis really is (though it's a word I use).

Thank you for understanding me. It helps. Still a bit lachrymose today—but I'm glad for last night. The pictures have new life, which is a bit disconcerting but provokes a kind of *notice* and attention, so they're not just on the walls. I looked at one that I've known for years in real detail before I went to bed, and found all kinds of things in it that I hadn't noticed—like that almost all the perspective is deliberately wrong, and there's a flight of steps that looks as if it is supposed to go up to a door but actually takes you into a wall if you look closely and try to follow it. I think Jaime must have been thinking about Escher when she did this, but she never said anything about it.

Dear R

There is nothing more exhausting than grief, and pushing when one is exhausted is not the right thing to do. But then how does one begin to come out of it? [...] I think one way is to separate pain and grief proper. Pain is the exhausting thing. Grief proper (though painful) is also beautiful. Beautiful because it is an expression of love. There is no help for it. But that's because there should be no help for it—any more than one should try and find help for love. It just has to be lived. And in the love, and even in the bleakness, there is beauty. I think that's why I feel that Housman's 'Land of Biscay' is the poem that most captures what it's all about—for me anyway. I find it oddly comforting because it is utterly beautiful and utterly bleak. It doesn't pretend.

The Land of Biscay

Hearken, landsmen, hearken, seamen, to the tale of grief and me
Looking from the land of Biscay on the waters of the sea.

Looking from the land of Biscay over Ocean to the sky
On the far-beholding foreland paced at even grief and I.
There, as warm the west was burning and the east uncoloured cold,
Down the waterway of sunset drove to shore a ship of gold.
Gold of mast and gold of cordage, gold of sail to sight was she,
And she glassed her ensign golden in the waters of the sea.

Oh, said I, my friend and lover, take we now that ship and sail
Outward in the ebb of hues and steer upon the sunset trail;
Leave the night to fall behind us and the clouding counties leave:
Help for you and me is yonder, in a haven west of eve.
Under hill she neared the harbour, till the gazer could behold
On the golden deck the steersman standing at the helm of gold,
Man and ship and sky and water burning in a single flame;
And the mariner of Ocean, he was calling as he came:
From the highway of the sunset he was shouting on the sea,
'Landsman of the land of Biscay, have you help for grief and me?'
When I heard I did not answer, I stood mute and shook my head:
Son of Earth and son of Ocean, much we thought and nothing said.
Grief and I abode the nightfall, to the sunset grief and he
Turned them from the land of Biscay on the waters of the sea.

I had been thinking about grief, and this poem made me think more about it. And grief made me think again about depression and experience, and the extent to which it might, as so many people seem to think, be a bad thing to numb yourself against certain deep feelings, and truncate your experience of suffering. After long reflection I still have some problems in seeing what's particularly good or healthy or life-enhancing about suffering (except as in my case as the enabler of mania). Why should we suffer if we have the technology for preventing it? It would seem to me that the ideal condition for humans ought to include being able to have the mood(s) you want, and tinkering and tweaking till you feel more or less the way you'd like to. One has a right to be shallow and uninvolved if one wants to be, a right not to suffer if suffering can be avoided, a right to have a less 'rich' experience of life, to be deadened when necessary. Thinking back on the past nearly 15 years of being a Bipolar II going from med to med, none of which were as effective as one might like, my first thought is that there's not much good even in my hypothymic (not to say dysthymic or depressed) states. Maybe they do give me a kind of 'depth' and understanding that I did not have before, enable me to deal with and be helpful to and even love people who would as it were have

been out of my orbit if I had not had and continued to have these experiences. But I still wonder if the deepened and more complex texture of my personality and the more social and connected and 'human' outlook that depression may have engendered are worth the cost.

Depression at first glance is garbage one ought to get rid of, at least from the short-term point of view. But without it we probably would not have had Mozart, Keats, Byron, Plath ... This is very different from(hypo)mania, which I adore and encourage by not using a mood stabiliser and taking activating antidepressants. But without the depressions I would not have the manias, so it's a trade-off in the end I suppose. And now having lost Jaime and experienced grief and mourning, and keeping in mind what M says about pain being to be got rid of but grief being beautiful and a token of love, I still sometimes wonder. I really don't see anything that good or healthy about grief, or why it shouldn't be treated as a mood disorder if one wants it to be. After Jaime's death I continued with antidepressants and drank more and took more benzodiazepines to keep the memories away and try to avoid as much suffering, flashback, etc. as possible. I couldn't imagine Jaime wanting me to do anything else, or doing anything else herself if I had died. (She was a very chemical person too, a heavy smoker, 5-foot 4 and slender, drank 3 liters of vodka a week till her pancreas gave out, and lived the rest of her life, much of it as a productive painter, on benzos and antidepressants and sleeping pills and painkillers.) I don't think it was a treason to her memory, or anything bad for me that I did not experience mourning as 'deeply' as possible, and laboured intensely at *not* internalising things and at anaesthetising myself. Not that it worked all that well, but I still think it was better strategy than if I'd just yielded to everything, as I sort of did in the beginning. And in the end I think I came out better than if I'd yielded totally, though of course I can't tell really.

And yet. Would I be me without depression too? The good manias feel wonderful if vertiginous and are productive, the depressions are bleak miseries; but they are *my* miseries, they are intimately part of me, maybe so much so that I would miss them too. There is something appealing and familiar in their horror and darkness, something that perhaps (without being masochistic) I would not like never to have again. I did not quite realise how intimate a part of the household they were, like an unwillingly inherited nasty snappish decaying smelly crippled old dog that one dislikes intensely but cannot bear to have put down, and that one knows one will miss dreadfully, despite the relief. The dog comes with the house, and the house would not be the same without it; and for some reason you need to keep the house and not move into somewhere cleaner and brighter.

6 February 2006. Rather sleepy this morning—another night of mares. Also regressing a little, getting anxious and shaky again for no particular reason. It's partly being off Effexor I think too. See how long I can hold out. I'm getting tired of this, but I don't want simply to yield and go back to my slightly more comfortable but otherwise less good medicated state. Will it never end?

Probably not.

18 December 2006. Went back to Cymbalta, but now not all that effective. Dr D had a new idea. Augmentation with lithium. Even though lithium is generally sedating and somewhat zombifying, it has the strange property of sometimes potentiating the effect of antidepressants. Used in low doses not as a mood stabiliser but as an extra kick. Since things are not going well, and I've never tried this, despite my almost superstitious fear of lithium I decided that he knew what he was doing, so why not try. Kept on it for a month, but found it most unpleasant. It had no augmenting effect on the antidepressant, but made me feel muzzy and sedated and lacking in motivation, the world passing by in kind of slow motion. Well another possibility down the drain.

6 March 2007. Dr D has decided that since Cymbalta + lithium didn't work, and Cymbalta alone is not very effective, the next thing to do is to change chemistry radically. He suggested Wellbutrin (bupropion). This is different from anything I've taken (it's a noradrenaline and dopamine reuptake inhibitor). Very activating supposedly. In fact turns out to be—only three main side-effects, nausea, anxiety and agitated insomnia. First controllable, second two not very well. I am not an easy patient. One day I came to see him just for a checkup and he said when he saw my name on the day's patient list his first thought was How have I failed this time?

4 May 2007. Have had enough of Wellbutrin. It doesn't do much for my depression, but I feel as if I haven't had a decent night's sleep in months, and am nauseous and agitated and nervous and anxious. Dr D agrees that if I'm still feeling this way after two months it's time to stop and try something else.¹⁰ That's the trouble with these fucking drugs, you never know what's going to happen, even the doctors don't. There's too much art and not enough science in prescribing psychoactive drugs, because nobody can tell in the current state of technology what you'll react to how. Wellbutrin in higher dose (under the name Zyban) is supposed to be helpful for giving up smoking. Tried it, and didn't sleep for three days. This is definitely not a drug suitable for my biochemistry, at least at present. Who knows, I may have to try it again in the future. In any case the antidepressant effect is marginal, and I have been sunk for months, no matter what I try, in a profound and almost catatonic depression, just with anxiety and agitation added.

¹⁰ Another example of how biochemistry and the nature of one's disease change: eventually Effexor failed, and as this chapter was being completed I went back on Wellbutrin. I then found it the *best* antidepressant I'd ever taken in some ways, quite unlike anything else. No dulling, a kind of lucidity of mind and transparency and emotional enhancement that I'd not had in years, only nausea, anxiety and dreadful nightmares to live with, but they seemed to be worth it. Then it too began to fail, or at least become unusable. I had hoped this was going to be the Last Antidepressant, but the side-effects began to become unbearable and I went for days on 2 hours of sleep. Now I am back on Fluvoxol and it's working marvellously. The future may have yet more surprises for me.

So what next. Dr D, who is never short of ideas, decided that I should go back on Effexor (aargh), but even worse at *double* the dose I'd been on before. I tend to think he basically knows what he's doing, and I've been so depressed and dead-feeling and terminally sad and unproductive that I'm now willing to try anything, even this poison. So started today.

10 May 2007. Antidepressant effect beginning after surprisingly short time. I'm feeling rather better. Side effects worse, but I suppose giving up peeing and sex is not that great a sacrifice for not feeling suicidal. Also now dyspepsia, dry mouth, headaches and the usual screwup of temperature control, this time mainly chills, regardless of temperature. You can just never tell what a drug is going to be like the second or I don't know, about sixth time round.

11 September 2007. Nice day today, with sun, but very cold. It's really still winter even though it's official spring. Have been feeling rather weird lately—not at all distressed or depressed, but hyperactive and jumpy, and finding it hard to sit still, and I'm sleeping less than usual. Could this be the beginnings of mania slowly creeping up? There were signs already during my last visit to Edinburgh. Just hope it runs its course whatever that is and then stops, rather than plunging into a depression afterwards which is the usual way the cycle works. I notice an increasing 'sharpness'—I'm reading better than I was before, retaining more and with some sense that my mind has a logic.

12 September 2007. There's definitely something on the way. Beginnings of a real hypomania. Uncontrolled and multidirectional but that's OK for starters. Despite all the problems I would not want to tamper with the Effexor dosage for now, as I think it's what's at least in part helping this to happen. That would at the moment, until (or if) I establish my regular cycle again be rather giving up on what might be the best thing that's happened in a couple of years. Still, if the last visit to Edinburgh was any indication, I am getting better and sharper, and I'll stay with that for now.

23 Sep 2007

Dear M,

I have been having a splendid time in some ways, but I'm still a little unsettled and unpredictable. Working in little increments, and then getting up to go for a walk or read something or wash dishes or shirts. Very scattered, and sleeping badly. Wide awake at 5 this morning after going to sleep about 1. But there was a wonderful Vivaldi bassoon concerto on the radio so it was worth getting up.

Distinctly manic at times, which will be good when it gets itself in order. Saying silly things occasionally and being a bit flirtatious and having trouble not talking too much. But A (who is also bipolar) was manic yesterday too, so dinner was rather fun. People were trying not to stare at us. A long conversation between two of us both

manic is a rather odd thing to encounter. I hope I'll be sane and not embarrassing when I get to Edinburgh. Have to get used to elevated (rather than just normal and happyish) mood again. I have no idea how long this particular episode will last, and am crossing fingers that it just resolves to 'normal' rather than depressed. Never can tell with this odd affliction. With luck I should be at worst (best?) the way I was last visit. Today it's raining again so I can't go out for a walk, and feel rather imprisoned and restless.

27 September 2007. Effexor is having the oddest effects (no jingle intended). My GP calls it Side-Effexor. I'm actually improving. People are remarking that I appear to be myself again, and one friend said I looked 'happy'. What's that? The other thing it's doing is just beginning to bring my manias back, which I'm immensely grateful for. It was such fun (and awfulness too of course) being properly bipolar, and then several years with only depressions. But I have to watch myself a little, as I'd more or less forgotten how to handle these states. Tend to get over-talkative and flirtatious, but so far no damage. Keep my hands in my pockets and leave the room when necessary.

27 September 2007

Dear R

I can't tell you how delighted I am that you're still 'up'. It is exciting isn't it? I think I'd assumed that you would turn a corner post Jaime's death at some time around now, but I didn't really expect (or not necessarily) a return to hypomanias. But it does make sense, doesn't it. The acute stage passes, the stress levels drop, the dampeners come off—so why not a return to mad normality? The sadness and loss will always be there of course, but now they can be turned from the grimness of mourning her struggle (and yours) to a satisfaction that she was someone utterly to be celebrated.

27 Sep 2007

Dear M

The work mode is beginning to get itself established again, at least better than before. I still waste a lot of time, but I wake up in the morning *wanting* to work, and sometimes do, even if scrappily. I think this current state is just going to be slow to iron itself out, but it will. I feel pretty confident of that now, and am getting impatient for it to settle itself. So I'll just follow my current abilities and try my best.

Still sleeping wretchedly, which is the main problem, and waking up tired. I'd forgotten what these states were like, and precisely how to deal with them. But my mood is still good, no signs of depression, so things will be OK (I think/hope/fondly imagine: select one).

3 October 2007. I was supposed to prepare a CV for some Edinburgh business, and sent it to M, and it was all full of absurd mistakes. I kept sending more copies, and each one had new errors. I was kind of flying and manic, and unable to concentrate on anything. M got so worried that she finally phoned me—I know I'm a fuckup, but not like this.

Dear M

I told you I'm a bit odd. I really *looked* and just didn't see the mistakes. Now you know why I've been working so slowly these days. I'm acting like a dyslexic. Or maybe it's just early dementia. I am utterly sorry. The only excuse I can produce is that I am really not quite myself, or maybe I'm a poorly functioning version of one of my selves (one I actually like better). I need to learn to handle this, or I'll end up getting depressed over the way my (desired) elevated mood is fucking up my work.

3 October 2007, email after M had phoned me

Dear R

It was amazing to hear your voice yesterday. You sounded as high as a kite. You certainly seem to be recapturing a bit of your manic energy and fizz. You'll just have to find a way of bottling it and giving yourself small sips. It's obviously rather intoxicating [...]. Needless to say I'm delighted you're so cheerful. You have a lot of cheerfulness to catch up on—so let it rip.

7 October 2007. I'm very pleased to see more of my ability to respond properly to music coming back. That's another good sign. I went to a number of concerts last time I was in Edinburgh, and enjoyed them more than I expected, but not as intensely as I thought I should—there was still a bit of a veil there. Still not sleeping (except today falling asleep in the afternoon a couple of times), but I may be learning to live with it until it stops. Something important is happening, and I suppose I'll have to let it proceed at its own pace. Meantime I've been getting out of the house more, visiting friends and going out to dinner, seem to have lost the old reclusiveness.

Dear R

Well frankly you sound marvellous. What I'm most pleased about is that you seem to be having so much fun and with a riproaring social life. It's fantastically good for you (for any of us) and will help build a lasting mood state that is up and outgoing not down and inward looking [...]. Now you are rediscovering all your old friends and making others and you have a web which is also a trampoline [...]. A lot of it is to do with the timing of grief. But, as I know with Mother, acute grief can sometimes last a very, very long time so it was hard to know how long it would take with you. I think you're emerging now and emerging in a way that you probably could never have done while Jaime was so ill. Back to the best days though sadly without her—but she'd applaud I think.

8 October 2007

Dear M

This incipient (or sometimes not so incipient) mania may be parallel to somewhat resolving grief, and therefore freeing myself to have high moods. I still have a long way to go in handling that properly, but I'm not going to do anything pharmacological. I'm not (yet?) dangerously euphoric, though I have some odd moments. Fortunately all my good friends understand, and are willing to let me behave as oddly as I want. At least I haven't transgressed any boundaries yet. I hope I'm a bit more settled by the time I get to Edinburgh. I'm still having enormous trouble working well, sitting still, thinking consecutively, but I'm somehow convinced (hope

it isn't wishful thinking) that it will settle down enough for me to get productive again. I used to be unproductive because I felt too bad, now in a sense I am because I feel too good. That's a coarse but not inaccurate way of putting it. But music has come back, and that's got to be a really good sign.

I only wish sleep would. This morning woke up at 4, and couldn't relax at all. (The fact that there was a large cat on my head had nothing to do with it.) I stared for a while and then tried to read, but couldn't concentrate, so had breakfast at 4.15, then did some cleaning up so the house wouldn't be too filthy when the maid came at 9. (Do you ever do that?) Then cleared up my desk a bit and got rid of a shitload of useless papers, had a shower, got dressed (all by 6), and then did a little work and a lot of walking about the house. Still no depressions and I'm much less irritable than I used to be.

9 Oct 2007

Dear M,

Funny thing happened last night, which scared me a little but seems OK now. Was just getting ready for bed at 10.10 when I was washed over by a wave of classical old-time depression. First time in months. Oh well I said, regardless of prior fizz, this disease is cyclical, and this was bound to happen. Went to bed with it, and slept 8 hours (sure sign I thought of sinking again), woke up anxious and in a bad mood, and suddenly about 11.30 it disappeared and I returned to my current mildly hysterical state. So it may cycle for a while or forever, but if the down cycles stay this short nothing to worry about. If they get worse will see shrink. I really want now to stay more or less in the state I'm in, but they don't call it bi-polar because it has two polar bears.

20 October 2007

Dear R

Hooray you're all lit up. It does seem as if your disease is stabilising into its old unstable state. Well at least you know what it's like and how to deal with it. And you were lamenting the lack of manias. So now I suppose you have to put up with the other side of the coin occasionally. Probably just as well or you and everyone around you will end up exhausted. Keep your chin up and keep laughing.

30 Oct 2007

Dear M,

Something that happened to me today and I hope will continue. For the first time really since I got back from the last trip I spent much of today not only working hard but *at speed* and *well*. I haven't felt like this—centred, confident, professional, non-demented—in ages. I wrote three reviews of papers, did some reading, did some good and non-scatty thinking. I seem to be reading faster and better and more accurately. I seem to have got a fairly large chunk of me back all of a sudden.

I'm still hypomanic, but more or less in the old style, with at least one foot on the ground. Please cross fingers that this will stay, or something like it. For the first time in ages I actually feel that I have something of my own identity, the old one, maybe I can still use my name without lying. Anyhow, good news at least for today. I thought I'd report. See what tomorrow is like.

7 November 2007

Dear M,

As you may have gathered from our phone conversation I am still alive. Rather floating and manic. Thank you for phoning, and for worrying. I'm sorry I forgot to answer your message, it was just one of those days.

K came over at 11 to help with the weeding, and there was no message from you yet, so I thought I'd look later. We spent several hours pulling out all kinds of things (more exercise than I've had in months), and then were suddenly so hungry that we went out to lunch, which was slow in service. Then we came back here and drank, and got so pissed that my mind just wandered away and I got forgetful and actually didn't remember that I hadn't emailed you.

I'm very weird today, in an odd and mixed sort of state, and my memory is like a collander. I am certainly bipolar again, but I've got to watch the top pole now, so I don't fall off it.

11 November 2007

Dear M,

I've been having a couple of manically productive days. Yesterday woke up at 5 and got to my desk at 5.15 and did nothing but work till about 10.30. Then I did other things because my eyes gave out, and did some more later. Worked from 6 to 10 this morning and got irritated with all the fiddliness. Marking all potential hyperlinks, changing symbols, revising, I don't know what all. May finish this afternoon or tomorrow morning.

I'm having a slight attack of Time's winged chariot, realising I have to get so much done in something like 11 days, before I leave for Edinburgh. Where did the time go? Well it dissipated itself in silliness. Yesterday had lunch and a companionable shop with L, and she remarked that I seemed very 'up', was talking faster than usual and a bit more (though with her it's a hard competition), and that she thought my condition was very satisfactory. Since one of her chosen roles appears to be acting as my mother (how can you have a 29-year old mother at my age?) I think her observations are good. And she knows more about lunacy than most of my friends, except K who knows it from the inside.

13 November 2007

Dear M,

I'm all shaky and diffuse this morning. The being all atremble is to do with the chemistry of real hypomania I think. And Effexor maybe working too well at the moment. I bet if I had some bloods done now my adrenaline levels would be over the roof. But Effexor is a noradrenaline and (weak) dopamine reuptake inhibitor (among other things), and noradrenaline is a precursor of adrenaline and stimulates the adrenals in addition to the brain where it's supposed to be working. That's the trouble with these bloody neurotransmitters, they work in all kinds of places other than where I'd like them to. Dopamine in one part of the brain produces motivation and movement (it's deficient in Parkinsonism); but with nature's superb parsimony it activates the emetic centre of the brain in its spare time. Bouncy and fluent in motion, excellent mood, and nauseated. Everything is a fucking tradeoff.

14 November 2007

Dear M,

I'm a bit over the edge again today, I think from suddenly working too hard. Rushing, tremors, mistakes with the mouse because my movements are exaggerated. But I am beginning to harness things, though I feel a bit desperate about deadlines. Have so far been working since 6 in the morning and it's now 11.30, with a time out for phatic emails and reading bits of the morning newspapers. I have been pretty manic for weeks now. Hope I can relearn how to harness it.

On top of everything else I am feeling rather young and easier in movement. It's been a very long hypomania, with no serious depressions, and of course that worries me, being the eternal pessimist, but I feel rather good about things. My friends are coping quite well, though they find me even more talkative than usual and a bit odd. And I have lost some of my control over my usual potty-mouth, and do tend to say things like fuck rather more often and in less appropriate places even than usual. Fortunately most of my friends are as potty-mouthed as I am. (I love that expression: first heard it in an interview with Julia Roberts, who was talking about having to become one for playing Erin Brockovich.)

14 November 2007

Dear R,

I can't tell you how pleased and happy I am that you're upbeat and working. Upbeat and manic was joy in itself but now that you're harnessing it and getting things done that only you can do it's so exciting again. 'Just like the old days' to quote Sherlock Holmes. You really have done fabulously. All that struggling and coping and keeping going even when at a low, low ebb is now being rewarded. Or if we believe in grace not reward it's transformed and transmuted and opened out. Or something. Whatever it is it's *good*.

17 November 2007

Dear M

Not too much work today, but some. Couldn't seem to settle. But I should be all right tomorrow. Still very jumpy and as the technical term goes 'festinant'. Movements slightly exaggerated, bumping into things from time to time, walking too fast, twitching. But mind is clear as a bell (whatever that means). I appear to be thinking. This is fairly classical (for me) high-grade hypomania, which I'm mostly enjoying, though I find in company I talk too much. If I start getting motor-mouthed again as you put it please kick me under the table. At least not that bleak and hopeless depression, which in fact I haven't had except in hour-long tiny bursts since I came back. So I'm closer to the R everybody knows and considers a royal pain in the ass.

In between this and the next entry a very successful trip to Edinburgh and Newcastle. Did a doctoral viva at Newcastle which was great fun, superb student, and lots of good people I hadn't seen in a long time. Mood very elevated, slightly silly and over-talkative, but we all seem to have enjoyed it. Bloody British trains don't have whisky in the buffets any more, but was clever enough to take a flask with me, as I'd be travelling during afternoon drinking time. Drank about half the flask by the time I arrived, and was in good mood but not drunk. Rather uproarious dinner with old friends, decent hotel, then examination and champagne party the next day and back to Edinburgh. Trip very

successful, M and I completed a long paper we'd been working on for ages and wrote an abstract for another one we have to give next August. Mood either normal or hypomanic most of the time, very social. There's been a major (don't know if it's permanent) change in my attitude: I'm beginning to realise more and more how important people are (me, the classic case of what K calls 'misanthropic personality disorder'), and especially good friends.

1 January 2008. Decided to complete my coming out into the world, and for the first time in 15 years had a birthday party. First party I'd ever given on my own, all past ones had been Jaime and me. Normally my birthdays depress me inordinately since I'm preoccupied with age and death and decay. But I thought maybe I could defuse this by surrounding myself with favourite people, all talkative and funny. Successful, though I worried at first since most of them didn't know each other whether it would jell socially. Didn't have to. About 5 hours of very good time, I was somewhat pissed and of course gradually got drunker and more euphoric, and we all seemed to be funny and satirical and profound (alcohol is wonderful that way). Took this as a kind of 'landmark' in what I was beginning to see as an upward trajectory.

13 January 2008. Woke up depressed again this morning. Something like the old pattern of cycling seems to have got reestablished, though I have had no hypomanias in a while. Wonder when the next real one will come. Wake up either neutral or depressed, but depressions are usually grey, not black, though I get one of those occasionally. It's like a cycling within a reduced range, mountains lower and valleys shallower. Have had no recurrence of the old kind of depression so far—to put it simply, distress and dullness rather than agony, very little anxiety. The overwhelming pain seems to be gone, and everything except manic episodes is more muted. Sometimes mood is just 'ordinary', I suppose what one might call euthymia, or something close to it, sometimes dysthymia, sometimes real depression, though rarely on waking any more. Elevated states seem to generate more in social settings than when I'm alone, which used not to be the case. But they're there at least, which makes life liveable, and the depressions are normally short-lived, rarely even a whole day. It's like a whole new disease, and I don't understand its structure yet. Something to keep my mind occupied. Why is it that when you get a nice box of chocolates at least one of them is a neatly wrapped turd?

15 January, 2008.

Dear M,

I've had a new psychological experience that I just had to tell somebody about. Very distressing. You know those 14th-century tombs in churches that are made in two layers? The top has an effigy of the dead person dressed in best clothing and looking very good; then below there is a colonnade, and inside the cage formed by the colonnade is another effigy, exactly parallel to the top one, but in the form of a partial skeleton, with bits of flesh adhering, rags of clothing, etc.

Well last night as I was getting ready to go to bed, a very detailed image of one of these popped into my head. Only the person on top was Jaime, dressed as V had dressed her in preparation for the undertakers, and the mouldering skeleton underneath was Jaime too, not really recognisable but I knew it was her. And particularly awful; bones sticking out, worms, fragments of flesh. Exquisitely carved in alabaster. And the whole 'vision' was set in the graveyard where she's actually buried.

Nothing wrong with this in principle if it's just a kind of *jeu d'esprit* as it were. But it isn't; it persisted, coming and going for hours last night, and I woke up with it this morning and can't get rid of it. As I'm sitting here typing it's running through my head with an obscene clarity, and no matter what I do it's there, sometimes drifting into vagueness, but most of the time horrendously clear, every flower on the gown she was wearing visible. And inside the colonnade the bones were visible with the same clarity, all the little openings that nerves and blood vessels go through exquisitely detailed. It circles round with the typical ruminative persistence of a depressive 'intrusion' or obsessive idea or visual hallucination.

Sorry, I just had to get this off my chest. I thought maybe by trying to describe it and verbalise it I could depotentiate it a bit, and make it go away or at least get dimmer. It just keeps on,, disappearing for a while and then coming back. I don't know quite what to do about it except get drunk, but at 7.20 in the morning I'm not going to do that.

It took about 4 days to go away; now it's just an occasional presence, rather dimmer than before. Odd, or maybe not, writing about it brings it back, but still a bit veiled. I wonder if it will ever go away.

16 January 2008. After a couple of days of flat but not too bad mood, woke up with the real old black blanket descending again. So it's there after all. Grim and reclusive, old desire to drink in the morning. Resisted. Today S and I are supposed to take K out for drinks to celebrate her birthday. Normally they are two of my very favourite people, and we laugh uproariously and gossip and tell dirty jokes, but the thought even of their company was numbing and depressing. How would I be able to talk or laugh? What I wanted to do was lie on the couch in the back room drinking glass after glass of malt whisky (the only thing I could think of that could give me even the slightest pleasure was a 16-year-old Lagavulin I'd been given for my birthday) and read detective stories.

They were supposed to come at 4 and we'd go out to a local pub. I spent the day working idly and unproductively a bit and mostly reading, then at 3.30 suddenly realised it was time to get dressed. Could I manage it or should I text S and tell her I wasn't coming? I decided it would be rude, so in spite of my predilections had a shower and shave (the latter for the first time in 5 days or so, a sign of basal mood), and decided to put on my favourite shirt as a kind of talisman—maybe the green stripes would make me feel better? S and K arrived a bit after 4 and I felt a little less rough seeing them, tried to pretend I was OK. Hug, kiss, slightly fake smile and try to hide the effort. You don't grump about on people's birthdays. And in fact I did slowly begin to feel better. By the time

we got to the pub I was approaching normal, and after a couple of hours of drinking and eating and telling scurrilous anecdotes about colleagues and being potty-mouthed I was feeling fine. Just slightly drunk, enough to take the edge off things, faintly elevated. Then S had to go to a class, so K and I came back to my house, and sat around for a few hours drinking more, and I was deliciously but not grossly pissed by bedtime. And back to a slightly euphoric mood. Odd for a guy in his 70s to have a 28-year-old girl as favourite drinking buddy. Odd for her as well, but then she's eccentric and a depressive too. It seems company, at least the right company, is a fine antidepressant, even euphoriant. K and I always seem to make each other feel better, and lovely evening ended what started as classic shitty day. Woke up next morning hungover but in good mood. A summarising day. I think this is going to be the story of my life.

IDENTITY AND ILLNESS¹

Nobody was as healthy as my wife, she lived in Health, while I always led a life in Sickness, an existence in the Sickness Unto Death, he said. She was Health, She was the Future, I was always sickness, I was the Past [...]

—Thomas Bernhard, *Alte Meister* (1988)

Prologue

We usually think of disease as episodic, something alien and pathological temporarily imposed on our normal bodies or minds. Sickness is health with an unfortunate and temporary add-on. A disease may be made to vanish, as with successful surgery or medication; or it may be held at bay, chronic but silent or nearly, as with insulin-treated diabetes.

Oliver Sacks has pointed out that such a view is often counterintuitive to patients, fails to match their experience, and may not reflect what the doctor sees. With respect to Parkinsonism, but equally relevant here, he notes that certain illnesses may not merely be malfunctions of one system or another, but *ways of being in the world* (1991: 4). Such diseases have an existential dimension; they seem to their sufferers (victims, possessors, hosts) inseparably part of them. It is virtually impossible not to have one's life altered, even transformed and remodelled, by certain pathologies.² A cancer patient who has had one secondary is a different person from what he was when the primary was discovered—regardless of how traumatic that may have been. There is a new uncertainty, an awareness of mortality, brought home in a different way from that imposed by a near miss in a road accident, or being cured of a potentially lethal but non-recurring condition. The waiting but presently unthreatened cancer-patient, or the insightful terminally ill, may have a special understanding of what for others may be just a cliché: *media vita in morte sumus*, in the midst of life we are in death. Such people may recalibrate the conventional scales for ranking life and death, and shift away from valuations and moral judgements that seem commonplace to the well.

Less dramatically, sufferers from non-fatal (or only distantly or uncertainly fatal) but chronic diseases may virtually become their diseases; there is no sharp distinction between their 'normal' and 'diseased' lives. This is true of many Parkinsonians or victims of chronic pain; and, as I know through long and unpleasant but often enlightening experience, mood disorder. 'Disease' and 'life' are intertwined; the boundary between illness and self becomes a penumbral zone, a vague no-man's-land—if it even exists clearly enough to be recognised. Personality and

¹ I'm grateful to my Philosophy of Consciousness students at the University of Cape Town, summer term 2000, for hours of good and often passionate talk about problems of identity and selfhood. They probably influenced me as much as I did them, which is the way it should be. Special thanks to Lara Davison, Christiane Stuebel and Monique Whittaker for hanging around after class and arguing, and being critical of both me and what I made them read.

² See the extraordinary chapter 'Parkinsonian space and time' in Sacks 1991: 339ff.

illness interleave; one may even (deliberately or not) use one's disease as a persona, a comfortable and comforting point of stability in an otherwise unstable world, and present oneself as 'having it' even when non-symptomatic.

Some years ago I observed this interpenetration, without quite realising the implications. In the journal quoted in chapter 1 I wrote that

I was imprisoned by a stifling inability to act, mired in self-pity and misery, in the seductive embrace of a dark and melancholy love-affair with my own disease. There can't be many other illnesses you can have this love-hate relationship with.

My friend L, as I noted, commented on this passage in an early draft:

It's also the total familiarity of it—depression is something that no one can disrupt and take away from you (unlike good & healthy moods which seem to be at the mercy of every shmuck who cares to ruin your day!)

It was only later that I realised how important a focal point in one's self-image and self-presentation depression can be. This was confirmed repeatedly by conversations, by others' autobiographical accounts, and by a certain nostalgia for my disease in when I went into long and almost frighteningly satisfactory remissions. There is a fine account of such an experience by Loren Slater; she was actually distressed, for intimately existential reasons, by the efficacy of antidepressant treatment (1998: 36-7):

But health [...] was not so natural, and despite its allure, I am not totally sold on its goodness either. My experience with Prozac and the kind of rushing recovery it spawned has caused me, at the risk of nostalgia, to look with favor upon the old sanatoriums [...] The old-fashioned convalescent home [...] isolated from the world and yet close on the cusp of it, acknowledged the need for a supportive transition, moving the patient from an illness-based identity to a health-based identity [...]

The sudden loss of her depression amounted almost to a change of personality; she had been stripped of an identity built up painfully over the years:

My personality [...] had always consisted of suppressed energies and curiosities, but also of depressions, echoing intensities, drivenness that tripped into pain [...] I missed these things .. For they were as familiar to me as dank fog and drizzle, which has its own sort of lonely beauty [...] (44)

[...] I had made for myself an illness identity, a story of self that had illness as its main motive. I did not sleep well because I was ill. I cut myself because I was ill. Illness, for me, had been the explanatory model on which my being was based. (50)

This may make my remarks at the end of chapter 5 on wanting to be undermedicated, and those in chapter 6 on regaining manias and even keeping depressions a bit more comprehensible. It will also introduce the main topic of this one—the mood-disordered self as private and public experience.

The persistence of memory

Storytelling

Remembrance and Reflection how ally'd;
What thin partitions Sense from Thought divide

—Alexander Pope, *Essay on man* (1733) I.225-6

I return to some puzzling but important questions I buried in a note in chapter 1. What, I asked, do I mean by ‘my disease’? Is it distinct from ‘me’? If so, in what precise sense is it ‘mine’? Or who (or what) is it that seems to be having the experiences that ‘I’ report? These scare-quotes are irritating but necessary; the concepts are not straightforward.

What is a ‘self’? The answer appears at first obvious, merely definitional. Who am I? Myself, naturally. That is, in the normal way of things. But consider for a moment the world of a fully conscious, mobile, conversational human being who has, literally, no self of his own. This description is of an encounter between a neurologist and a patient (Sacks 1986: 103-5):³

‘What’ll it be today?’ he says [...] (Evidently he saw me as a customer—he would often pick up the phone on the ward, and say ‘Thompson’s Delicatessen’.)

‘Oh Mr Thompson!’ I exclaim, ‘and who do you think I am?’

‘Good heavens, the light’s bad—I took you for a customer. As if it isn’t my old friend Tom Pitkins [...] Me and Tom [...] was always going to the races together.’

‘Mr Thompson, you are mistaken again.’

‘So I am,’ he rejoins, not put out for a moment. ‘Why would you be wearing a white coat if you were Tom. You’re Hymie, the kosher butcher next door [...]’

William Thompson rubbed his hands again [...] and looked for the counter. Not finding it, he looked at me strangely again.

‘Where am I?’ he said with a sudden scared look. ‘I thought I was in my shop, doctor. My mind must have wandered [...]’

Mr Thompson has Korsakov’s syndrome, a global amnesia due to bilateral damage to parts of the thalamus and/or the hippocampus. The commonest cause is alcohol-induced thiamine deficiency, but it may also result from tumours, strokes or trauma. Perhaps its most curious and disturbing feature is the relative isolation of personal or autobiographical memory from most of the rest of cortical function. ‘Personal’ (sometimes called ‘episodic’) memory is lost in both directions: retrograde amnesia (lack of recall of past events), and anterograde amnesia (inability to learn new information). But ‘semantic memory’ (encyclopaedic knowledge of the world) remains relatively untouched. Knowledge of the everyday world, historical events, literature, proverbs, music and language skills are to a large extent intact.

³I suspect something disingenuous in this ‘verbatim’ record of a clinical interaction. Sacks as so often is being half a novelist, but in this genre I suppose it is permissible.

Mr Thompson not only fails to identify other people, even after repeated meetings; he constantly constructs new histories for himself, producing ‘identities’, stories that last only as long as the particular conversation is in full flow. A moment or two’s lapse, and he is back with new identities, new stories. A Korsakov patient, as Sacks notes, ‘must literally make himself (and his world) up every moment’. This suggests that though self is crucially involved with the possession of a stable identity, this identity is not static; it *has to be maintained*. Selfhood requires the possibility of continuous stable narration.

This is an extreme case; but an awareness that something of the sort is possible seems to haunt our metaphors. Our everyday language hints at the abyss of selflessness:⁴ ‘I’m not really myself today’, or more dangerously, ‘I just couldn’t control myself’, or ‘I felt myself slipping away’. But still, what is my self? As the Korsakov example suggests, it is—or I am—the continuous chain of stories I tell myself, and have been telling since my brain was developed enough to do it. My narrative is woven out of my inner and outer experiences and my memories and manipulations of them, and a continuously unfolding response to others’ versions of me, built out of their reactions and recall. A self is memory and mirror. For most of us, unlike Mr Thompson, there seems, regardless of this unfolding, to be a protagonist or hero with a stable identity, what Daniel Dennett calls a ‘narrative center of gravity’ (1992: chapter 13). I might say figuratively that I am not ‘who I was’ forty years ago; but I still assume that 1968-Me and 2008-Me are somehow the same character in a continuing story.

But by now, there is probably not one atom of the ‘original’ me *in situ*; the carbon I have exhaled for seventy years, much of it bits of ‘me’ metabolized, might be doing anything, anywhere, for all I know or could know. And the sources of their current replacements are equally unknown and unknowable. The same for my nitrogen, sulfur, oxygen, phosphorus ... Yet I am still here, and (apparently) me. I am the output of an endless sequence of non-identical copies of my original, but narratively still more or less the same book. I am a tissue of information (my genes and their products) extended in time, held together by a structure built on memory, or what I *think* is memory.

So even if my primordial elements have landed in unknowable places, the information structure that is ‘the real me’ is unaware of this cataclysmic dispersal. I *feel* that I am still ‘the same person’ in the body I inhabited at the age of three—if now with vanishing hair, an overlong picaresque novel full of experiences good and bad, creaky joints and depression. How is this magic possible?

Here is an image that may illuminate both the maintenance of the self and its transformations over time. Let this book be retyped every day, or hand-copied by an industrious scribe. Further, let each copy be made not from the original, but from the previous day’s copy. After each replication it will still be ‘this book’, but in different materials and forms (paper, handwriting, typeface, ink). And not only that: the book will be ‘the same’, true, but errors will

⁴ Not of course in the sense of ‘unselfishness’ (there it is again), or devotion of one’s life to others. That is best viewed as a matter of *constructing* one’s self through devoting it (or more of its activities than normal) to the interests of other selves.

inevitably creep in during the copying process, and some will be propagated from copy to copy. No proofreading system is error-free. A tiny lapse of attention, a slip of the pen, and the text is corrupted; and the corruptions will themselves be copied or corrected or miscorrected. Yet the book remains recognisably ‘itself’. All these notions—information, copying, propagation of both sound text and error—are relevant to the genesis and maintenance of the self. They are Darwinian images, descriptions of the process of variation and selection. This is how species, selves and consciousness come into being. Individuality, memory and selfhood are histories of variation and selection.

What we remember

Experimental results from an ever-widening range of psychological functions tell the same story, that what we are conscious of is a relatively small proportion of what we know and that we are the unwitting beneficiaries of a mind that is, in a sense, only partly our own.

—Jonathan Miller, *Going unconscious* (1995)

Our memories appear to build and maintain this tacit information structure without interference or explicit recognition. But we can access it when we need to, in introspection, ethical decision-making, attempts at recall of particular events, relationships, pieces of music, poems, stories, quotations. We also have apparently motiveless and involuntary recalls. Our present understanding of memory can perhaps be sketched as a computational analogy. Imagine some sensory input: an observed event, a telephone number you have to learn, a request for some action. This potential memory goes first to a working-memory ‘scratchpad’, where it remains and is briefly available. It has to be rehearsed (not necessarily consciously) to be retained, and can easily be lost through distraction. We can even access some short-term rehearsals; think of looking up a phone number in one room and repeating it over and over as you go into the next room where the telephone is. Any distraction and you are quite likely to lose the number and have to go look it up again and start over.

If an input is to be retained for a longer period, it is shifted to short-term memory (metaphorically and perhaps functionally equivalent to computer memory) and unconsciously, inaccessibly rehearsed and re-rehearsed until it is stable, invulnerable to distraction, and ready for longer-term storage. The early manipulations are primarily mediated by the prefrontal cortex, thalamus and hippocampus—and if emotionally charged, the amygdala. After processing, the newly manufactured memory is stored in a complex, diffuse, and as yet poorly understood way in various regions of the cortex, especially the medial temporal lobes.⁵ We know this because

⁵ This is only a very broad sketch. For fuller discussion and useful references, see the chapters on memory in Temple 1993 and Ratey 2001; for slightly more technical accounts of recent thinking, Squire 1998 and Bliss 1998.

stimulation of these regions can elicit uncontrolled memories.⁶ At this point the memory has been ‘saved’. Cortical storage seems to be rather like disk storage. Memories are not kept together in one place, as ‘whole pictures’ to be called up at will; they are stored in diffuse networks, each bit randomly located but with an identifying filename, and have to be actively reassembled in retrieval. And each retrieval is a re-collection, a copying, therefore a potential opportunity for corruption.

This is a sketch of how the collection of memories grounding a sense of selfhood might be put together. But there is a problem. Let us stipulate that our selves are indeed collections of accessible memories organised by an implicit binding narrative. How do we know if the mnemonic building-blocks are ‘true’? Normally we do not think about this; either we remember something clearly, or we don’t. If we do remember clearly (‘I can just see it now ...’), we assume that the clarity and conviction of our memories correlate with empirical truth. But what if this is not really the case? If we cannot guarantee this correlation, it could be that we not only construct our selves through memory, but at least partly *invent* them, because memory may be unreliable in fact, regardless of how reliable it feels.

This is disturbing; if we take it seriously, it might undercut the sense that our selves are ‘real’. Yet this is what the evidence suggests: recall, even of dramatic events, is often very poor indeed. We may unknowingly confabulate at least some of our past, and feel the results as ‘true’. Consider for instance the implications of a familiar sort of experience. Once my wife and I were talking about a house we had seen a few years earlier. I remembered it as being painted red, and she remembered it as green. Now both of us have normal red/green vision, are interested in architecture, and should remember things like that accurately. It certainly appeared that one of us did; but there was no way of telling which, since we were both unshakeably convinced that our memories were veridical. We *saw* the house in photographic detail, but in different colours. Logically either I was right, or she was right, or neither of us was; but this did not affect the strength and incorrigibility of our memories. Yet one or both must have been false memory.⁷

The reliability of memory is an issue not only for our personal self-narratives, but in the public domain. People have been sent to prison or hanged on eye-witness evidence, and ‘I saw it with my own eyes’ is almost a guarantor of truth. A frightening thought now, given the role of memory and recognition in forensic matters—e.g. evaluation of eye-witness testimony, or ‘recall’

⁶ This was first discovered during neurosurgical procedures on conscious patients in the 1950s. See Penfield & Rasmussen 1950.

⁷ After my wife read this passage an even worse complication appeared. She did not recall the episode at all. Did I make it up as a pedagogical example without realising it? When she told me this I tried to place it geographically and temporally: ‘We saw it out the window of a coach from March to Ely—the same time we saw that sublimely vulgar little pseudo-Spanish cottage called “Costa Plenta”; you remember, when the train from Cambridge to Peterborough broke down’. She remembered the coachride and the cottage perfectly; after some further discussion she developed a rather vague (and perhaps spurious) memory of the discussion, but no certainty. My memory still *feels* valid, but I can’t trust it now.

under hypnosis or in ‘therapy’ of episodes of childhood abuse that may never have occurred.⁸ In recent years much research has focussed on the accuracy of memory, and two kinds of experiments stand out as having particularly disturbing (and fascinating) implications.

It used to be assumed by psychologists (and still is by lay people) that dramatic events are fixed in the brain as ‘flashbulb’ memories: burned into the cortex exactly as they happened, never to be forgotten or changed. I remember clearly (I think) that I was standing on a particular street corner on Chapel Street in New Haven Connecticut in 1963 when I heard the news of John F. Kennedy’s assassination; but I have no corroboration. I remember that my wife and I were in Harrods in 1968, idly looking at TV sets when one of them flashed the news of Robert Kennedy’s assassination. Here the two of us agreed in every detail, so either we were both remembering correctly, or this was a *folie à deux*. Not likely, since the match is just too good, and there are two ‘independent witnesses’.

In 1986, the US space-shuttle *Challenger* exploded dramatically, killing all on board. This is precisely the sort of event that ought to have been burned in by the putative flashbulb. The day after the explosion, the psychologist Ulric Neisser asked a class of first-year students to write down where they were when they heard about the disaster, what they were doing, who they were with, and any other circumstantial details of interest. The reports were then filed away, and not looked at for three years, at which time Neisser asked the same group to repeat the exercise, and compared the results with the reports made the day after. The outcome was interesting: about 25% of the second responses were completely wrong, and only about 10% of the subjects still retained any accurate, detailed memories of the apparently dramatic and emotionally charged event of only three years before. In addition, when the respondents were asked how sure they were of the accuracy of their answers, the 25% who got everything wrong showed no difference from the others in their conviction of accurate recall.⁹

Another complication, which sheds a different light on what memories are actually *of*, is illustrated by ‘priming’. As any policeman or lawyer (or—often unfortunately—therapist) knows, many subjects of interrogation can often quite easily be made to ‘remember’ things that did not happen or were not there. Pretty much all you have to do is introduce the item to be remembered into the conversation in a quite casual and innocent way, let it stew a while, and then ask a question presupposing its existence. Such information can be incorporated into what appears

⁸ One of the major aberrations of our time, the so-called ‘recovered memory’ movement, got its start with the publication of a misguided, dangerous and influential book, *The courage to heal: a guide for women survivors of child sexual abuse* (Bass & Davis 1988). The tenor of their argument was that if you think you were abused as a child, or if a therapist makes you believe (even under hypnosis) that you were, then you were. This book started a huge cottage-industry of ‘therapists’ who recovered countless ‘repressed’ memories of childhood abuse, often by browbeating patients into believing that they had been abused. In one famous US case involving a clergyman, his reputation and family life were ruined by his daughter’s charge that she ‘remembered’ being raped by him continually over a long period; a belated medical examination found her *virgo intacta*. For a brief account of this movement, see Sutherland 1998: chapter 28.

⁹ Neisser & Harsch 1992. There is some discussion of the significance of this experiment in Calvin & Ojemann 1994: chapter 7.

to the subject as genuine memory, and the more often it is remembered, the more deeply entrenched and convincing it becomes. Remembering makes memories.

This is well known to experimental psychologists, but not nearly well enough known to the innocents who sit on juries. In a characteristic experiment to show the effect of priming, the subjects would be shown a picture of the results of an automobile accident, and asked to study it carefully. At this point they are asked nothing about it, but after several days they are asked questions about the scene, requiring information which was not in the picture, but is introduced in a way that assumes that it was. Say a ‘yield’ sign, with its characteristic triangular shape, occupied a prominent position in the picture. The subject is asked something like ‘where was the stop sign in relation to the car that was hit?’ Now in real life it is impossible to confuse the two kinds of signs; but characteristically a majority of subjects will ‘remember’ the stop sign, and describe its location. That is, they were ‘primed’ to recall an object by its being mentioned, and went ahead and ‘recalled’ it—even if it was not there.¹⁰ Somehow mere mention turns into the presupposition of existence.

Crucially, there appears to be no way, after the passage of a certain time, for the subject to distinguish which ‘memories’ actually reflect experiences, and which have been planted. This applies also to the results of (typically unconscious) editing: common phenomena that can be grouped under this heading are ‘denial’ and honest (to the subject) self-serving misremembering. We know who we are, what has happened to us and what we have done, but what we ‘know’ is not always congruent with the story as outsiders might follow it. This autobiographical or ‘mnemonic’ self—though it seems to be ‘us’ from a common-sense point of view—may be more complex and problematic than we think; at times it displays an independence that appears to compromise our sense of ourselves as agents.

The myth of the single self

States of consciousness occur when the system responsible for awareness becomes privy to the activity occurring in unconscious processing systems.

—Joseph LeDoux, *The emotional brain* (1998)

Prologue with swine

Sometimes the meaning of experience can best be captured in metaphor or parable. My friend M suggested one day that I ought to think about the Gadarene swine in connection with the phenomenology of depression, and selfhood and its disturbances. She said that much of what this chapter, especially the following section, is really about had been beautifully expressed two millennia or so ago, in the Gospel According to St Mark (5:1-19). I think she was right; this is a

¹⁰ On false recall and priming, see the pioneering work of Elizabeth Loftus; e.g. Loftus & Loftus 1980, Loftus 1992, Loftus & Pickrell 1995. Further material in Conway *et al.* 1996.

powerful story about the possibilities of multiple selfhood, and the extreme distress of ‘possession’, which is an experience not unlike that of many depressives. I hope this brief comment will make clear why I include this parable, as a mythological image of much that has been discussed in more mundane terms so far in this book, and of things to come. It may seem out of place at first, but what the next section (or even this whole book) fails to make clear may be made clearer if the reader goes back and reads this again.

[1] And they came over unto the other side of the sea, into the country of the Gadarenes.

[2] And when he was come out of the ship, immediately there met him out of the tombs a man with an unclean spirit.

[3] Who had his dwelling among the tombs; and no man could bind him, no, not with chains:

[4] Because that he had been often bound with fetters and chains, and the chains had been plucked asunder by him, and the fetters broken in pieces: neither could any man tame him.

[5] And always, night and day, he was in the mountains, and in the tombs, crying, and cutting himself with stones.

[6] But when he saw Jesus afar off, he ran and worshipped him,

[7] And cried with a loud voice, and said, What have I to do with thee, Jesus, thou Son of the most high God? I adjure thee by God, that thou torment me not.

[8] For he said unto him, Come out of the man, thou unclean spirit.

[9] And he asked him, What is thy name? And he answered, saying, My name is Legion: for we are many.

[10] And he besought him much that he would not send them away out of the country.

[11] Now there was there nigh unto the mountains a great herd of swine feeding,

[12] And all the devils besought him, saying, Send us into the swine, that we may enter into them.

[13] And forthwith Jesus gave them leave. And the unclean spirits went out, and entered into the swine: and the herd ran violently down a steep place into the sea (they were about two thousand;) and were choked in the seas.

[14] And they that fed the swine fled, and told it in the city, and in the country. And they went out to see what it was that was done.

[15] And they came to Jesus, and see him that was possessed with the devil, and had the legion, sitting, and clothed, and in his right mind: and they were afraid.

[16] And they that saw it told them how it befell to him that was possessed with the devil, and also concerning their swine.

[17] And they began to pray him to depart out of their coasts.

[18] And when he was come into the ship, he that had been possessed with the devil prayed him that he might be with him.

[19] Howbeit Jesus suffered him not, but saith unto him, Go home to thy friends, and tell them how great things the Lord hath done for thee, and hath had compassion on thee.

Layers and attention

It's 5.40 AM on a November day in Cape Town. I am sitting in our conservatory, looking out through the small-paned cottage windows to the southeast. The right of my visual field is dominated by a house-high red Bougainvillea, and the left by a huge Zimbabwe Creeper with pink inflorescences, intertwined with deep blue morning glories. There is a triangular crack of sky between these banks of foliage, intersected in the middle distance by a tall pine-tree.

As I sit seeing all this, but not necessarily *looking* at it, I am listening to a rather uninteresting 17th-century motet on the radio, occasionally wincing when the soprano sings flat. If you were to ask me 'what I'm doing', the answer would be 'listening to music'. But besides seeing the outdoor scene as a kind of background, and listening to the music, I am simultaneously aware of a dull pain in my left wrist and shoulder, and my relatively 'focal' awareness of the music seems to be overlaid, without being interrupted or obscured, by a question: why are my shoulder and wrist sore? And the answer emerges as yet another overlay: I recall that I spent part of yesterday afternoon pruning an awkward tree, standing on a ladder leaning forward and cutting with heavy lopping-shears, which revived an old tendinitis in my shoulder, and the quiescent arthritis in my wrist. This memory (which is visual), appears as a kind of 'transparency' while I am also looking at the changing colours of the sky, noting the lack of wind (unusual), and simultaneously, as far as I can tell, not losing track of the music.

At the same time, I am thinking reflexively that what I am actually trying to do is to analyse the contents of a short period of 'consciousness-as-me' [what a lovely chord-change—another overlay], examining its complexity and layeredness and simultaneity while ostensibly listening to music.

The motet is over, and a Telemann concerto comes on. How do I know it's not Bach? Somehow the instrumental texture and the smooth and unangular melodic shapes say 'German Italianate but not Bach being Italian'. In the second movement violin and flute play a lovely melody against pizzicato strings, and an auditory image of a Vivaldi concerto is superposed on the one in progress, but without clashing with it. I listen more intently to try and figure out why I think this, and the pain in my shoulder disappears. I am now becoming somewhat overloaded, and close my eyes to enable me to focus on the music more clearly, getting rid of one set of sensory inputs and the computation they stir up. Now my wrist is worse, and nearly distracts me, and at the same time I feel the edge of the deck-chair I'm sitting in cutting into my legs behind the knees, and I shift position without thinking of shifting. The music has vanished for a moment, and I have to think hard to catch up—what key is it in now? The tonic is lost, and does not reappear until the end of the movement.

And this is only what I am aware of. But there are greater ambiguities. I love this quotation from *The Oxford Companion to the mind*:¹¹

¹¹ P.A.M. Rabbitt, Reaction times, *OCM*, 671.

Like all other animals, humans can only *experience* the immediate past. Many scores of milliseconds must pass before any change in the world can be registered by a sense organ or interpreted by the brain. This perpetual lag behind the world, measured from the moments at which changes actually occur and the moments at which we can apprehend them, has become known as ‘reaction time’

[...] Philosophies that attributed human consciousness to incorporeal entities whose rates of apprehension were infinitely fast (‘the speed of thought’) delayed recognition of this simple fact until very late in human history.

This is a description of layers that communicate, overlap, and are perceived as ‘belonging to’ one central observer, a ‘me’, a ‘center of narrative gravity’—yet there is already an illusion in the sense of contemporaneity. I feel that I am a unitary if complex and multilayered and not fully controlled agent—though there are plenty of philosophical and other arguments that suggest this is not the case.

One of the most satisfactory models of consciousness to me is the one in Daniel Dennett’s *Consciousness explained* (1992). Here is a brief sketch of Dennett’s view of what consciousness is. I find it immensely appealing on philosophical grounds, and more than that quite consonant with one view of my own experience. To encapsulate, he proposes getting rid entirely of the Cartesian ‘observer’, the central ‘agent’ of consciousness, and replacing it by an essentially Darwinian process in which consciousness is an artifact generated by the selection of what he calls ‘multiple drafts’. That is, the brain is incessantly and randomly producing variant and competing states, and some of these match up better than others with perceptual input and other environmental (including internal) phenomena. The winners of any given competition are selected *for the moment* to serve as ‘consciousness’. He argues that language works in much the same way: the brain generates myriads of utterance-precursors virtually at random, and some of these are selected and end up as things we say. Given the time-lag discussed above, and the fact that explicit present consciousness even of one’s own intentions also postdates the unconscious brain’s preparations for them (‘Libet’s half-second’: see the discussion in chapter 4), it seems difficult to argue for a more ‘directed’ form for consciousness. And hence we have a less controlled ‘ownership’ than we might wish for. Here though I look at selfhood not philosophically, but existentially: what is it like having *my* self? And do I have only one?

Selflets

What we touch is always an Other; I may fondle my leg, but not Me.

—W.H. Auden, ‘Shorts II’ (1969-71)

I have several times described experiences of ‘dissociation’, in which I was aware not of just being ‘me’, but of being something (not physically) like at least two people. These episodes are strange, and were at first disturbing, though I have increasingly got used to them, and accept them now as part of how it is to be me. I have great difficulty describing this situation; the usual

meanings of words tend not to fit as well as I would like them to.

In these dissociations, there is one ‘selflet’ (the term is Oliver Sacks’) that I call my ‘Observing self’ (for short, OS). There is also at least one other, who holds centre stage, ‘Performing self’ (PS). Typically, when both are about, PS is depressed or manic and OS is not, or at least he is much less disordered than PS, if with a clear (but not necessarily sympathetic) understanding of PS’s condition. When OS surfaces, he is characteristically the ‘good guy’, and appears to want the relatively uncontrolled PS to shut up—or if PS is acting in private, to stop thinking certain kinds of thoughts, pull up his socks, etc. But there is a barrier. The depressive PS watches too, to see if things are working the way *he* thinks he wants them to. But while he watches he is also being watched by this powerless ‘normal’ self who often feels contempt for the actions of the one who is making public utterances, or having absurd thoughts, but cannot cross some cognitive wall and turn off or redirect the speech or thinking machinery. And there may be a third selflet in this society, one who watches the whole business from a more or less detached position, and judges the behaviour and efficacy of the other two. At bad times there may be a further regress of these fragments, and they can also engage in dialogue, and sometimes argument, creating chaos, all talking at once.

Humans are nearly too complicated to think about. We come in layers and selflets, and we can (though not usually) be copresent. If the competing or interacting *personae* were to be perceived as ‘not-me’, then I would be split in a psychotic sense, delusional, attributing an independent ‘outside’ life and identity to them—which fortunately is not the case. I know they are all in some sense ‘me’.¹² But they are not me in that they are an ‘object’ located at a particular place in my brain: there is no neurological evidence for any particular location for the ‘self’, it is an artefact of the operation of the whole brain and the rest of the body.

So often I have at least one Other, a copresent *Doppelgänger*; only I do not usually meet him walking toward me, and he normally carries no built-in terror, no hint of approaching death. I am, that is, or my self is, modular. This is because brain function is the working-together of an enormous number of independent but multiply connected and massively redundant subsystems, not all speaking the same language or having access to the same senses, but most of the time contributing to the smooth functioning of the whole without telling anybody. In fact some kind of modularity is necessary above a certain level of complexity, as a way of channelling the various functions of the brain and keeping them from tangling with each other. But it can be perilous to allow too much of the intermodularity to surface, to let the connections and pathways become untethered, the boundaries obscured. You can see what happens when gates open in dreams and psychotic states, and disturbances like depressions, obsessions, compulsions.¹³

This modular structure is populated by unconsciously cooperating strangers who often do

¹² On the distinction between the selflet types in schizophrenia and MPD, see the beautifully clear exposition in David *et al.* 1996.

¹³ For powerful illustrations of what happens when major subsystems become untethered, see the discussions of blindsight and the Capgras and Cotard delusions in chapter 3.

not get to meet each other at all, or meet only under extreme stress. What Ramachandran calls ‘zombies’ (see chapter 3) are partly ‘others’ living symbiotically in this complex environment; but when things are going well, we do not know they are there. It is only when the normal processes that keep the modules separate (from the point of view of consciousness) break down, that things go wrong; the others then come to the surface and announce themselves instead of working away quietly in their offices. I think a notion like this is crucial in defining what we might call ‘self-knowledge’, and the peculiar alienness of things that occur in psychiatric illness. Here ‘stuff surfaces’ as it were, and you (defining yourself as cortex and your sense of ‘agency’) suddenly find the manhole cover off and things bubbling out, often taking the form of Others, who are nonetheless ‘you’, closer to you than even your offspring could possibly be, though you have in a sense given birth to them. And they often have distressingly different ideas about what you ought to be doing or thinking than you think ‘you’ have. (And cf. the ‘visions’ or hallucinations described in chapter 6.)

We are a multiselfhood of selves that regard themselves as single because—fortunately—in the normal way of things the prominent, ‘focal’ self has no idea of what it is made of. It is this erroneous notion of ourselves as ‘single’ agents that keeps us sane. Without the sense of selfhood we would lack the ground for agency, and this might very well be the selective advantage of having evolved one. The self is in a way a device for separating one from the environment and encapsulating one’s own purposes. It is when this sense of a single ‘center of narrative gravity’ breaks down under stress, when more than one of the innumerable selflets that compete for our attention hold centre stage at once, that we get an inkling of the normally hidden dramas that go on perpetually inside our brains.

‘Temperament’, ‘personality’, self and disease

It is daunting to try to disentangle personality characteristics from a psychologically expressed, yet constitutionally based illness. Temperament is enmeshed with perceptions, expectations, and ways of interacting with others, and [...] affective illness has compounding effects on personality structure.

—F.K. Goodwin & K.R. Jamison, *Manic depressive illness* (1990)

I have already remarked a number of times that there is a sense in which my manic depressive illness is not something ‘alien’ or ‘imposed’ on me, but rather a reflection of my temperament, the nature of my self. My disease is a somewhat fuzzy spectrum, whose bands represent states of mood. The far ends verge on the psychotic (depressed or manic), the intervening bands represent dysthymia at one end, hypomania at the other, and the very middle bands are ‘normal’, stable mood. In this sense my disease is a continuous exploration of regions which might perhaps be better not explored, but which for some reason I drift or am propelled into. At the end of chapter 5 I claimed that I simply *am* a manic depressive. Being so is part of my identity, perhaps its framework and grounding, not just a disease-state—though in terms of dysfunction and response to medication it is clearly that too.

This needs some clarification. The terms generally used to refer to these things are ambiguous and difficult—particularly ‘temperament’ and ‘personality’. These are items of ordinary vocabulary, but are also used more or less technically in academic and clinical psychology and psychiatry. Hijacking ordinary language for technical use can be problematic, because the hijack victims may still be carrying some of their colloquial baggage. Consider ‘temperament’, for instance. It is commonplace to say that a person or animal has ‘a wonderful temperament’; on the other hand one might characterise an actress or singer as ‘a delight to work with—no temperament’. Of course in the latter case, she must have *some* temperament; only here ‘having temperament’ means ‘behaving in a temperamental way’, where ‘temperamental’ signifies ‘having tantrums’. That’s how natural language is: very little is unambiguous. This can cause some confusion after a hijacking, where precise meanings have to be stipulated, and not everyone makes the same stipulations. Indeed reading the literature on temperament and personality can be maddening; there is an extraordinary latitude of use, and many writers seem to use the central terms with subtle but important differences. Here I will use what seem to me sensible distinctions, consonant with a good deal of the literature, and useful for describing both ‘normal’ and diseased states.¹⁴

Temperament. For McHugh & Slavney (1998: 132) this is ‘the term to describe [...] dispositions, identifying an individual’s tendencies to react to circumstances in a particular fashion’. Goodwin & Jamison (1990: 282) remark that the notion ‘has always been viewed as having a more constitutional, genetic, and biological basis than [...] personality’. They quote Gordon Allport’s aphorism that temperament is ‘the “internal weather” in which personality evolves’, and his more extended definition (1961: 33f.):

Temperament refers to the characteristic phenomena of an individual’s emotional nature, including his susceptibility to emotional stimulation, his customary strength and speed of response, the quality of his prevailing mood, and all peculiarities of fluctuation and intensity in mood, these phenomena being regarded as dependent upon constitutional makeup, and therefore largely hereditary in nature.

Personality, on the other hand, ‘generally refers to the unique aspects of an individual, especially those most distinctive or likely to be noticed by others in social interactions’, or as Allport has it, ‘what a person “really” is’. A personality is built on the genetic scaffolding of temperament, but reflects idiosyncrasies of both history and other aspects of genetic endowment. Given this framework, it is most likely that a personality will prominently exhibit features derived from the inborn reactivity type that defines its temperament.

The notion of underlying temperament goes back to the classical ‘humoral’ theory of personality. As the world is made up the four elements air, earth, fire and water, so the human being is characterised by four corresponding humours. These in turn are related to the elements

¹⁴ In this discussion I follow some of the classical and I think not superseded works in the area, particularly Allport 1961 and Eysenck 1970. There are useful summaries and discussions, which I have also used, in Goodwin & Jamison 1990: chapter 12 and McHugh & Slavney 1998:chapter 11. The synthesis is my own, and is to be taken as an expository toy model, not an attempt at serious science..

and their qualities, and to the seasons; their balance is essential for health. These humours are conventionally called blood, (yellow) bile, black bile and phlegm; dominance of any one produces one of the classical temperaments, in the framework developed by Hippocrates (b. 59 BC) and Galen (129-200 AD), and passed down through the mediaeval and renaissance medical traditions. Each humour is associated with a particular temperament: in the classical terminology blood (sanguine), bile (choleric), black bile (melancholic), and phlegm (phlegmatic). These terms still informally retain their ancient senses: the sanguine are cheerful and optimistic, the choleric are quick tempered, the melancholic sad, the phlegmatic passive and undisturbed by experiences that would induce anger in the choleric or gloom in the melancholic. The classical metaphorical schema of elements, humours, qualities, temperaments and seasons makes these quite reasonable associations:

<i>Element</i>	<i>Heat</i>	<i>Moisture</i>	<i>Humour</i>	<i>Temperament</i>	<i>Season</i>
air	hot	moist	blood	sanguine	spring
fire	hot	dry	yellow bile	choleric	summer
earth	cold	dry	black bile	melancholic	autumn
water	cold	moist	phlegm	phlegmatic	winter

Anyone familiar with astrology (also in its bizarre way a theory of temperament, with the extra foolishness of planetary influence added on) will recognise the familiar elements of the ‘winter signs’, the ‘water signs’, etc.

From classical times down to the 19th century there was a fine tradition of close clinical observation, and despite peculiarities of language and content, some of these ancient insights remain illuminating. The doctrine of the Four Temperaments can still form a metaphorical scaffolding for a reasonable modern taxonomy. H.J. Eysenck and others have incorporated these familiar terms into a classificatory system for temperament and personality that can be used as a basis for characterising, within limits, the interaction between underlying temperament and its contingent expression as personality. The Eysenck system is based on a primary dichotomy of temperaments, Introverted vs. Extraverted (this is the spelling used in the academic literature). Each of these is in turn divided into two subtypes, Stable and Unstable (or ‘neurotic’) and each pair correlated with a general, overarching temperament. The four temperaments that emerge are then characterised by a set of personality traits:¹⁵

¹⁵ Based on the Eysenck and McHugh & Slavney treatments cited above.

The Eysenck Typology

Extraverted

Stable (*Sanguine*): sociable, outgoing, talkative, responsive, lively, carefree, leadership

Unstable (*Choleric*): touchy, restless, aggressive, excitable, changeable, impulsive, optimistic, active

Introverted

Stable (*Phlegmatic*): passive, careful, thoughtful, peaceful, controlled, reliable, even-tempered, calm

Unstable (*Melancholic*): moody, anxious, rigid, sober, pessimistic, reserved, unsociable, quiet

Nobody of course is a simplex: though it is easy to think of people one might want to classify as mainly or almost entirely of one type. For expository purposes I will attempt to match myself against this classification. Since certain characteristics in me vary considerably, while others seem ‘bedrock’, I mark the two classes as follows: ✓ indicates a stable trait, one that seems to characterise me all or nearly all the time; ✨ marks one that is dramatically variable, in my case depending on mood. (Technically this is a ‘state’ rather than a ‘trait’.) Unmarked properties appear to be irrelevant. The schema below represents a selection of my slugs and snails and puppy-dogs’ tails.

Diagrammatic temperament/personality self-portrait:

Extraverted

Stable (*Sanguine*): ✨sociable, ✨outgoing, ✓talkative, ✨responsive, ✨lively, carefree, leadership

Unstable (*Choleric*): ✓touchy, ✓restless, ✓aggressive, excitable, ✓changeable,
 ✨impulsive, optimistic, active

Introverted

Stable (*Phlegmatic*): ✨passive, careful, ✓thoughtful, peaceful, ✨controlled, reliable, even-tempered, calm

Unstable (*Melancholic*): ✓moody, ✓anxious, ✓rigid, sober, ✓pessimistic, reserved,
 ✨unsociable, quiet

The most richly represented underlying temperaments are unsurprisingly the melancholic and choleric. But on both the introversion and extraversion scales, more traits and states than not lie on the ‘unstable’ dimension. Looking at this in the abstract, without six preceding chapters by and about me, it would still be easy and natural to map it onto the property-set ‘bipolar disorder’—or at very least ‘unstable melancholic temperament’.

My professional work shows the same kind of bipolarity as my personal life, as does this book. Much of what I write is negative, disparaging, sardonic, destructive; but I also float wild ideas, my style jumps vertiginously between the hyper-scholarly and complex and the vulgar. Depression is cold, tight-arsed, repressed, angry, negative, skeptical; (hypo)mania is warm, florid, emotional, undisciplined, romantic, sentimental. From this perspective this book is clearly a temperamental self-portrait: the changes in style, the diversions, the ideological posturings reflect an underlying complexity and instability.

To sum up: Temperament is an underlying, genetically defined pattern of reactivity, a set of characteristics with which we face the world from the very beginning. It is a scaffolding, a substrate for the individual details in context. Personality is a set of (stable or unstable) traits built up through historical contingency and personal idiosyncrasy on the platform provided by temperament. Temperament in this sense then is an inborn vulnerability or reactivity type (for the unstable temperaments, hyperreactivity). Temperament is genetic (congenital ways of reacting and tendencies toward mood-settings); personality is largely a historical construct, if highly constrained by temperament. The self is a conflation of temperament and personality and (edited) memory, taking both scaffolding and evolved information-structure as input (cf. the adumbration of this picture at the end of chapter 4).

These taxonomic groupings fit naturally with other characterisations in the literature. Sanguine and phlegmatic temperaments may be associated, in their personality realisations, with general euthymia; the sanguine, if unstable, underwrites hyperthymia, perhaps certain kinds of hypomania as well. Choleric, an explosive temperament, is the true grounding of hypo- and hyperthymia, and the manias; and melancholic is clearly hypothymic, all the way down to depressive. The bipolar types may be defined as ‘cycloid’ (Goodwin & Jamison) or more standardly ‘cyclothymic’; they are a mix of traits and shifts from one temperament or personality type to another during cycling. The classic bipolar personality switches between melancholic and choleric styles of presentation, or sometimes exhibits both at once (‘mixed states’).

Coda: Depression as rhetoric, style and culture

But depression gave me more than just a brooding introspection. It gave me humor, it gave me a certain what-a-fuck-up-I-am schtick to play with when the worst was over. I couldn't kid myself and think that anyone enjoyed my tears and hysteria—plainly they didn't—but the side-effects, the by-products of depression, seemed to keep me going. I had developed a persona that could be extremely melodramatic and entertaining. It had, at times, all the selling points of madness, all the aspects of performance art. I was always able to reduce whatever craziness I'd experienced into the perfect anecdote, the ideal cocktail party monologue [...]

—Elizabeth Wurtzel, *Prozac nation* (1995)

The depressive rhetorical style

In 1960 my wife decided to register and vote for the first time. Neither of us had ever done this; I still haven't. Her choice in the US election that year was John F. Kennedy. To me, the process of democratic election was farcical and distasteful—after all, you have to be a whore to get elected, don't you, selling yourself to the proles and groundlings? (To be grudgingly fair, even at this late date, I must add that the alternative was Richard Nixon.)

The point of this is not my (anti-)politics and cynicism—which have not changed a great deal over four decades and probably never will regardless of what my depression does—but the behaviour that followed. This seemed amusing to me at the time, distressing and irritating to my wife, and incomprehensible—until now, when I can finally see the pattern it was part of. When Jaime went to vote, I accompanied her to the polling station, badgering her all the while about what a silly thing she was doing (politics is not an occupation for someone who has enough ability to do a real job, your one vote doesn't make any difference anyhow, and besides, *Realpolitik* rather than promises and platforms determines the behaviour of presidents in office—which second-rate shit gets into the White House doesn't really matter much). I continued this on the way back home. It is not entirely clear why she did not divorce me on the spot.

Looking back I see this kind of behaviour repeating itself over and over, in a wide range of contexts—much less now than before, increasingly rare, but still possible, sometimes creeping up on me unexpected. What stands out in these episodes is the negativity, the repetitive bitching. One of my selves creeps up on the other. I am compelled not only to communicate my own feelings (or feelings disguised as ideas), but to ensure that everybody else feels the way I do, if not intellectually at least emotionally. This does not happen with regard to anything positive: I would never think (perhaps the wrong word?) of endlessly badgering anybody and trying to convince them that Mozart and Haydn were the two greatest composers of the late 18th century, that rape is bad, that *The Arnolfini Wedding* is the finest illusionist picture ever painted. But if the idea in question is negative, or preferably negative and irritating and counter to the beliefs of the addressee(s), I can develop an impressive vehemence and fluency. It does not even matter whether I believe the position I am advocating. In moods like this all that counts is that my cynicism or anger or disapproval or insistence on the idiocy or danger or ugliness of some person or point of view should not only be expressed, but should effect a conversion. If I decide that humanity is fundamentally evil, that Truman committed an unspeakable and historically monstrous crime by not bombing Moscow immediately after Hiroshima, that the children of the poor should be culled, I try to make people believe it. My aim is to disequilibrate them, shatter their contentedness, undermine if possible any beliefs that allow them security or happiness or even mere comfort. Even if I cannot force my audience to accept my beliefs, I achieve a mild glow of success if I can make them embarrassed and uncomfortable and unhappy.

I can see this now as an attempt to transform my own depression into a communicable disease, by forensic skill if possible, if not by brute force, harangue and repetition. Whether I succeed or fail (mostly the latter), the attempt is vital. My own dark mood, or the propositions

generated by it, is the most important thing. It has to be preserved, it does not like the discomfort of living in a world where others think and feel differently, especially if this conduces to happiness. It feels bound to pour contempt on any icon that dares raise its head, to sneer at whatever most people like or think is good, to cultivate an exquisite intellectual and aesthetic snobbery, along with a profound and black cynicism and distrust. Its guiding imperative is never to allow the attribution of a good motive to any human act when it can find a base one. Notice this shift from 'I' to 'it', from my actions and desires to my state-of-mind's actions and desires? It was inadvertent, but important, and I leave it here as a piece of interesting evidence.

It is only in recent years that I began to notice clearly, let alone understand, what I was doing. I became more aware that in these episodes I was in fact dissociated (OS and PS both present and active). I would watch myself becoming more and more absurd and obnoxious. I would observe my own ridiculous, histrionic and often embarrassing behaviour, but be powerless to do anything about it. I also began to notice that this kind of behaviour, though mitigated and less frequent than before, still tends to occur sometimes 'by surprise' even when my mood is good. I do not have to be depressed to try and propagate affective darkness. All I need is some trigger, however apparently innocuous or even unconscious. And even when there is no overt depression, no social situation that could provide a good soapbox, these attitudes and ideas persist. They hang there in the face of contrary evidence, and become part of the introspective and self-maintaining dialogue between (crudely) my cortex and my limbic system.¹⁶ *My depression can become my default persona.*

I am just reporting; I never taped my monologues. But depression as a *style*, a way of communicating with the world, a rhetoric with its own peculiar character, can only be appreciated *in extenso*. I turn again to a literary presentation for an example, because this one is so accurate in its overblown way that it could almost come from a recording of me at my worst. One of the great representations of the existential dimension, a depression that becomes a whole person, is Thomas Bernhard's Reger, in *Alte Meister*. In this novel or soliloquy or harangue (311 pages without a paragraph division), we either hear Reger speaking, or his words reported by his neutral amanuensis and re-reported by the anonymous narrator. Every day the elderly Reger, a music and literary critic, comes to the Kunsthistorische Museum in Vienna, and sits in front of some great painting. His self-set task is to study each one until he can find some fatal flaw in it, some failure that will enable him to demote it from greatness, preferably make it banal:¹⁷

We can't bear the Complete and Perfect [...] All these pictures here in the Kunsthistorische Museum are fundamentally unbearable—to be honest, they terrify me. In order to be able to bear them, I look for a fatal flaw in each one—a procedure that has so far led to one goal—namely to turn each of these so-called 'complete' works of art into a fragment [...] (41-2)

¹⁶ Though, since limbic activity cannot be introspectively accessed, it all *seems* to be going on in the higher cortical centres.

¹⁷ As before, translations mine. I have tried to preserve the flavour of the original, even though it seems somewhat awkward in English. But it is as close to literal as I can get and still remain idiomatic.

This resolution can only be achieved by dedicated work:

We have to go to Rome and establish the fact that St Peter's is a tasteless, botched piece of work, that the Bernini altarpiece is an architectural idiocy [...] We have to see the Pope face to face and *personally establish* that he's a hopeless grotesque, like everyone else, in order to make him bearable [...] (43)

The same goes for Bach, Mozart, Beethoven, the great philosophers; he applies himself single-mindedly to the epic task of reducing them to exemplars of the trivial and incompetent. His style is insistent, didactic, repetitive, relentless:

One's mind must be a searching mind, a mind searching for errors, a mind searching for human errors, a mind searching for failures. The mind is only really human if it searches for human error. The mind is not truly human if it isn't searching for human errors. A good mind is one that searches for human errors, and an extraordinary mind is one that finds these errors, and the mind of a genius is one that once it has found them points them out, displays them. In this sense, said Reger, there's something to the mindlessly uttered proverb, *seek and ye shall find*.

The foundation of Reger's vision, his contempt and negativity, is simple: 'The uncultivated admire [so-called 'great works'], because they're simply too dumb not to admire, but the cultivated admire because they're too perverse not to' (124).

These attitudes stem from Reger's childhood, which he paints as unremittingly black and horrible:

If there's a Hell, and of course there's a Hell, he said, then my childhood was Hell. Probably childhood is always a Hell, childhood is *the* Hell [...] People say they had a wonderful childhood, but it was still Hell. People falsify everything, they also falsify their childhoods. They say, I had a wonderful childhood, but they had only Hell. And the older people get, the more easily they say they had a wonderful childhood, even though it was nothing but Hell. *Hell isn't coming, Hell has already been*, he said, because *Hell is childhood* (105-6).

In case we've missed anything, he elaborates (106):

What it cost me to get out of that Hell! he said yesterday. As long as my parents were alive, it was Hell for me. My parents made everything impossible for me [...] With their perpetual oppression-machine they protected me nearly to death, he said. My parents had to die, so I could live, when the parents die, I live.

Reger understands with a sad clarity how his childhood led him to be what he is now:

In the end it was actually music that brought me to life, he said yesterday. But I didn't want to and couldn't be a creative or performing artist, he said, in no way a creative or performing musician, but only a critic. I am a critical artist, he said, I have been a critical artist for ages. I was already a critical artist in my childhood, he said, the circumstances of my childhood naturally made me into a critic. (106-7)

He does not describe much in the way of particular events in his childhood, but speaks in great

generalities (108-9):

Childhood is the dark pit one is stuffed into by one's parents and which one has to escape unassisted. Most people don't succeed in escaping [...] they spend their whole lives in this pit and don't emerge and are embittered [...] It takes superhuman exertion to escape from the pit of childhood. And if we don't get out of this pit of childhood early enough [...] we never get out, he said. Our parents must be dead, if we are to get out of this pit of childhood, he said, they must be *finally dead, actually and for ever*, you know, in order for us to escape.

Not that parents have it much better, nor do they deserve to (109-11):

My parents made me, and when they saw *what* they had made they were terrified and wished they could have unmade what they'd made. And since they couldn't stuff me in the wardrobe, they stuffed me into the dark hole of childhood, which I never escaped during their lifetime. Parents make children irresponsibly, and when they see what they've made they're terrified [...] To make a child and give 'the gift of life', as it's so hypocritically called, is nothing but to bring a fatal misfortune into the world [...]

[...]

To say that one had a fortunate childhood and thereby to show respect for one's parents is just a sociopolitical commonplace, he said. We respect our parents, instead of accusing them of the crime of procreation [...] For thirty-five years I was imprisoned in the pit of childhood, he said. For thirty-five years they tortured me with their revolting methods [...] They committed two crimes against me, the most serious of crimes [...] without asking my permission they produced me and once I had been produced and hurled into the world, they oppressed me, they committed the crimes of procreation and oppression against me.

But the mental capacities that make one a great critic do not lead to happiness, because 'the man who thinks is an unfortunate man' (108).

Whether it works or not, this style is fundamentally manipulative. One of the fundamental properties of the depressive is manipulateness (note how Reger has intruded here, influencing my style), because the ability to manipulate the moods of others is a source of stability and power, a safety net and a consolation. If my mood will not cohere with stimuli from the outside, then the outside must be made to cohere with my mood. This is a social and rhetorical style born out of pervasive mood; but it also permeates one's own transactions with oneself. The cognitive/affective interaction is so complex that intellectual or ideological attitudes in affectively 'normal' states are often swamped by their dysregulated substrate; in the end it may be impossible to tell which is which. And even if one could, it might well not make any difference. There is often a strange disconnection of style from content in this kind of personality; we might say paradoxically that style is content, or the other way round. This is one of the things I meant earlier when I said that depressive illness is a 'way of being in the world': I am my depression, and it is me. The two coalesce even in day-to-day self-manufacture, in introspection and dialogue with myself. Nowadays they do so much less than they once did, but it is an effort still at times to keep the two separate.

Mood edits memory

Yea from the table of my memory
I'll wipe away all trivial fond records.

—*Hamlet* I.v.96

Let us say Reger is 'real' for the moment. Memorable literary characters are real enough to be taken as people, for some of us at times more real than most of our acquaintances. Where would civilised discourse be if we could not ask, sanely, questions like 'why does Hamlet delay so long in killing Claudius?', 'What makes Raskolnikov murder the old lady?' So I can ask a reasonable question, assuming the context of the novel as a real world: is Reger exaggerating? Was his childhood *that* bad, unilluminated by moments of innocence, of happiness, of grace? Is he remembering 'truly', or confabulating a grim picture congruent with his basal mood, making his history and therefore himself more tightly crafted, more coherent, more in keeping with the style of discourse he has adopted?

Memory, as we saw, even though it is the substrate of one's sense of a continuous self, is often unreliable; we apparently cannot safely vouch for the truth of a memory, no matter how powerfully it presents itself to us as true. Things go wrong, even when no particular emotion seems to be acting to make them go wrong. Why should Neisser's subjects so consistently have forgotten where they were when they heard about the Challenger, and yet been equally convinced that they hadn't? Why should we be so vulnerable to trivial priming? But there may be good reasons for distorting one's memories. Can an *affective style*, a long-term mood setting, edit memory in such a way that the owner of the memory is not confabulating, but completely convinced of the truth of what he remembers? Let me turn to me again.

In chapter 1, I quoted a letter to my friend M in which I seem to have recalled my childhood in a Regerish way:

As for childhood, well I grew up in a small family with an ineffectual mother and a manic depressive father (as I now see, looking back and knowing more than I did then), and childhood for me is simply an image of hell, cruelty, anxiety and desire for death. I find myself exceedingly surprised in fact that I didn't commit suicide before I was 16 or so.

How seriously should we take this? Am I claiming that *every day* of my childhood was tainted by anxiety, fear, suicidality, misery? Weren't there any days when I was truly, completely, innocently happy? No matter how hard I try, I honestly cannot remember one day (then or later) that could be characterised as continuously, uninterruptedly, happy. What, a whole day without anxiety, a bit of depression, some thought of death and suicide, worry even in a soaring hypomania about its end and the waiting abyss? If there were such days, I cannot remember them. Either there genuinely were none (which is what I apparently believe and recall); or if there were, my overall mood-setting has edited them out, spiked the good stories as unsuitable for publication

in this paper. And there is no way I can tell which, because no outsider's report could carry any true conviction. ('R looked happy all day long on 1 June 1947'.) The only access to such a state—if it had existed—would be my own memory of it. And no matter how hard I look I cannot find one. I therefore conclude—even knowing what I do about the vagaries of memory—that there were no such days.¹⁸

I recently had empirical evidence of such editing, this time in the short term. I am trying to give up smoking and have been of course horrendously depressed as well as enraged. I wrote to M that I was sinking back into the constant unrelieved depression of the 1990s, regressing, falling apart. I felt that way. But she pointed out to me that I had been writing some cheerful and optimistic e-mails, and that my mood had been good for much of the 3-week or so period when I back-projected my depression to expunge the good moods—so competently that they had actually vanished from memory. A check of the e-mails showed she was right.

The editing of memory can even take place in full consciousness; one can, in a dissociated state, watch oneself editing, know one is doing it, yet be unable to return to the state before the editing took place, and be forced to live both with the memory and the results of editing. My friend K, on reading a draft of this section, wrote me the following:

About the memory editing—I'm not sure if I've told you this before—when I was in 1st year, probably one of my worst depressions, I had a very odd experience: I was (foolishly) slightly stoned, which was probably what slowed me down enough to watch it happening, though of course it also means it may not be a 'normal depressive' experience anyway. Though at the time I thought it really did explain a lot about me; I still do, though with less intensity than an unmedicated 20-year-old. But I was reasonably 'happy' (ha, ha), nothing was particularly wrong, I was pleased to be spending time with old friends I hadn't seen for a while and had missed—and exactly as I was thinking this, I 'watched' (if that makes sense at all) my own mind/memory turn the whole moment of being 'ok' into something bad. And then I wasn't ok at all and I couldn't imagine why I thought I had been.

This really does sound a bit nuts; for one thing, if it's a laying-down-memory issue I shouldn't remember it happening at all. But that was exactly how I saw it at the time; and I couldn't do a fucking thing about it. The whole afternoon had suddenly in fact been unrelieved misery, and watching my brain remake it so it had been did nothing to change it.

Now, all I remember is that weird moment, and the misery afterwards; if I was happy or miserable before *really*, I couldn't say. Make of it what you will; I don't actually understand it. It was just very real, and calm, and sane-feeling.

For my whole childhood there were tiny fragments, part-days, episodes, bright, even glorious figures, but always against a dominating tenebrous ground. This at least is my own 'truth', as far as I can recover it. Whether I am reading an edited text or not is undecidable, because I am both the editor and the only possible decider, and I simply have no way of knowing. So as a default I believe what I remember, and my childhood is Reger's, or at least has the same overall feel to it. Is there any way I could 'really find out'? Perhaps 'the truth' could be made to surface under hypnosis, for instance? I wouldn't think so. There is always, in cases of 'hypnotic

¹⁸ This phenomenon is well known in memory studies and is called 'retrospective bias'.

regression' so-called, the danger of what we might call the Bridey Murphy Effect—recall of 'facts' that could not possibly be true in a sane world, probably planted by the hypnotist, and/or reported by biased or credulous or mad observers. I remember reading about a woman who was 'regressed' under hypnotism and suffered a panic attack because she suddenly recalled getting stuck—as an *unfertilised ovum*—in her mother's fallopian tube. This makes even alien abductions pale into insignificance. If you can believe this you can believe anything, and as I have shown it is not even certain you can believe yourself. But *faute de mieux*, I suppose you have to try and make the best of it. Either the near-total misery was true, or I have edited it into being true. This is what I live with.

The culture of depression

There is a pleasure sure
In being mad, which none but madmen know

—John Dryden, *The Spanish friar* II.1

Depression, especially now that it is more clearly focussed as an entity at least for the educated and interested, can lead to its own socialisation or enculturation. It can create a special existential and behavioural style—an identification with the sickness, revelling in the advantages it confers, and the genesis of a specialised and (for its members) often delicious subculture. It is not only bipolars who want to hang onto their hypomanias, even become addicted to them; one can become addicted to depression as well, to the general state of having a mood disorder, unipolar or bipolar. There is a charm in being marked out from the herd by one's special dispensation, a dark but magical gift, like the agonising legs of Andersen's Mermaid. We can define ourselves as something 'special' by our secret, hermetic knowledge; we are the Rosicrucians of mental illness:

Sweet are the uses of adversity,
Which, like the toad, ugly and venomous,
Wears yet a precious jewel in his head

—*As You Like It*, II.i.12ff

If we acknowledge and publicise our depression, even take a kind of pride in it, we can reshape our lives to cater for both the disease and our (partially disease-induced) predilections. Behaviours that might otherwise be construed as 'antisocial' become permissible; they can be excused on the grounds of 'moods'. Refusing invitations, bunking meetings, avoiding social interactions all become easier than under 'normal' conditions (i.e. when you were as 'normal' as everybody else, or at least that was what *they* thought). This ease of refusal may establish a feedback (vicious or virtuous—I find it hard to decide, but tend toward the latter). That is, it can lead, as it certainly has many times for me, to increasing reclusiveness. Or it may help one to stay

sane, or both, who knows? Maybe the two are the same thing. One can cry off from engagements because one is 'in a bad mood', and this is understood by those who know not as petulance or rudeness or laziness but as recurrence of an illness. With the proper rhetorical background carefully established, one's moods may take on the invalid's dignity of flu or food poisoning. Public acknowledgement and attendant shift of image, given an audience with the appropriate attitudes, can legitimate behaviours that would otherwise not be acceptable. The result is fewer engagements, more time for oneself, an enhancement of the possibility of withdrawal. 'Oh, he's having another one of his moods', they say, and this often allows one to be more oneself, or at least to be left alone.

So depression can generate a special style and rhetoric. It can, if admitted, taken up and appreciated, acknowledged as simply part of the way life is, generate a society, a culture. Certainly at least educated, high-achieving, intellectual and insightful depressives, interested in their own illness, may form a distinct subculture, as clearly defined as that of druggies or rugby fans, though less public and recognisable by others. (These are the only depressives I am really intimately familiar with, so I do not know if it is true of depressives with other kinds of cultural or social backgrounds.)

Some of my favourite social gatherings contain a tight nucleus of these educated, usually academic, high-achieving depressives. We all hold down responsible jobs; in our everyday transactions we can normally maintain (at least put-on) euthymia. But we are chronic even if remitted enough to get on with things, and almost all of us are high achievers because we are deliberately undermedicated; we live breathlessly on our fragility, our instability. We are a fellowship, a freemasonry; we have secret verbal handshakes, special knowledge denied to the uninitiated, communicable through a nod and a giggle. We know all about meds and moods. Whenever we find out that a friend or new acquaintance is depressed, the first question is 'what are you on?'. Then come the technical discussions of antidepressants, mood-stabilisers, favourite or non-favourite drugs (Cipramil did zilch for me except give me new anxiety attacks ...). We share our experiences of impotence and loss of libido, of constipation, agitation, the dry mouth, the sleepless nights, the quest for the right ancillary substances, the central role of drinking. We seem always to be hunting for booze at conferences and other gatherings; lunch without alcohol is nearly unthinkable.

Academic depressives like me and L and D and K are perhaps a rather specialised collection. We possess a kind of 'clubbiness' that can be irritating and excluding to our non-depressed friends. We share many things: a self-deprecatory irony, nasty and obscene humour, cynicism, misanthropy, distrustfulness, pessimism. We enjoy true comfort and total relaxation only among ourselves (with very few exceptions), because no matter what we do or say all of us have done or said something very like it, and we all know what it means, no apologies or explanations needed. We meet and pause for a quick acknowledgement, a salute defining our special status. A quintessential vignette: I meet one of my 'circle' at a conference, and note that she is not merely healthy looking and rubicund as usual, but really flushed, sweating, her light brown hair darkly soaked through. She is far too young for menopause, and the room is relatively

cool. Most people would say nothing, even if they noticed. I say 'Effexor menopause?'. And we all get the joke and enjoy it, there is no possibility of offense, we tell anecdotes about our worst hot flashes, the sudden soaking and curling of the hair at the most inopportune times, whipping off one's jacket and wishing one could strip down to knickers while lecturing, throwing off the blankets and then freezing and getting under again.

This subculture is a bit like a 'support group', but not the traditional kind.¹⁹ There is nothing confessional, collectivist, religious or self-righteous, no belief in a 'higher power', no 'buddies', no giving anything up, no enforced 'sharing'. Nobody stands up and says 'Hi, my name is X and I'm a depressive'. We don't confide in strangers (often not even shrinks), we don't promise to do things or have 12-step programmes. Virtually all of us are convivial solitaires; in my circle at least we are also atheists and loathers of ceremony, with a patrician contempt for the kind of people who form 'support groups'. We always heave a sigh of relief on getting away, back from even the most delightful company to solitude and quiet. (Probably many non-depressed people do too; I just mention this because it seems to be stronger among us.) But still we support each other by simply knowing about each other, in case of emergency there's always the phone or text message or e-mail, and if one of us starts talking suicide we don't go ballistic and call for the Authorities. We have all been on the verge; some of us have nearly gone over. If necessary we will sit silently for hours with another member of the circle and just be supportive, or say the things that are needed. On first acquaintance and the moment of recognition we unobtrusively look for and often find the delicate white transverse scars on the wrists left over from old attempts, and we say nothing about them until or if it becomes appropriate.

There is great comfort and even joy in this subculture; how many people after all are in any situation totally sure of being understood and not condemned no matter how weird they get? And we are funny and amusing (to ourselves of course, but often to others—at least when we are not being obnoxious). We cultivate irony and self-caricature. One marvellous property of depression is that no matter how sad, destructive, agonising, life-threatening and bleak it is, it is also preposterous. Finding the silliness and laughing at it even in its worst moments (if you are lucky enough to be able to) is a kind of salvation. Three of us have formed an informal group we call 'The Fruitcake Club', and we go out and eat nice meals and get drunk and talk in code and giggle. We also indulge in a certain amount of self-pity, and talk about our symptoms and strategies for staying relatively sane. We are thinking now of having T-shirts made, with the title and a representation of the Prozac molecule.

¹⁹Many books and websites on depression give lists of support groups, as do information sources on other diseases. And sometimes patients are virtually forced into contact with them, regardless of what they want. I personally find the idea sufficiently repulsive that I do not even consider it as a form of adjunctive therapy. When my wife (who would have been a member of our Circle had it been fully formed before she became terminally ill) came home from hospital after having had a mastectomy, she was visited (unsolicited) by an earnest and cheerful lady from a support group sponsored by the hospital. Jaime was automatically repelled but being a polite person she offered the emissary some tea and talked with her for quite a while. After she left Jaime's summation was: 'Could you imagine spending a whole evening with a bunch of women where the only thing you had in common was missing at least one tit?' If the idea of a depressive support group appeals to you nonetheless, you can get local listings easily enough off the Internet or from doctors or psychologists..

Here is an example of how this support works, the kind of therapy we provide for each other, and the spirit in which we provide it, our special mixture of surrealism, madness and failure to get upset. This is a short correspondence with one of the ‘circle’, my friend D, in December 2000 (southern hemisphere high summer), when she was in Australia. She is younger than me, almost certainly sicker, and I write or say things to her I would let out to almost noone else. And she does the same. Strangely, it helps. If we told our shrinks it would be pointless and ineffectual. This exchange occurred in the middle of one of the longest remissions I have ever had.

R. You know, yesterday I found out that remissions have interruptions. I was tying up some creepers in the garden, and Jaime was standing at the bottom of the ladder trying to guide me, and all of a sudden I lost it — real mania, screaming Fuck and stuff, then 4 hours of depression. This is really what she needs. I drank 4 double Jack Daniel’s and came back to earth, but it’s a little scary after all this level & elevated time. I suppose if it were winter I could be quietly depressed.

D. Manic and screaming on a ladder? It’s the fucking summer. We have all been crazy here for a week. Bad bad crazy. I have stopped sleeping. There is bickering. I want to murder shop assistants. I suspect that people are trying to make me late, and fuck up my plans. Seriously, that’s a strange thing. Do you ever get too happy (I know that’s an incoherent thing to say) or too full, and then have to burst, usually into an anxiety attack?

R. I think this may be what happened. Judging from various physical symptoms that went along with it there was an anxiety attack tucked away there too. Yes I think too much remission, too much sunlight, a few months of worry, too much thinking, writing, [...] life.

D. That episode, was it triggered by anything? Let depression and mania be visited on other people for a change. I think maybe it was the sun and the air and the smell of the garden, but what do I know? You, on the other hand, probably know. Sometimes a little inside job happens, just in case you think you’re OK. The temperature here is too high for me. It makes me psychotic (a state I am near at the best of times, but now I am out of oestrogen and I’ve got a gun!).

R. I haven’t a clue. I was just standing there trying to tie up a climber. Jaime gave me some directions on what to do, and I either couldn’t understand or wouldn’t understand (I have the visual imagination of a mole), and suddenly I was yelling for fuck’s sake what do you want me to fucking do, etc. And really loudly, and Jaime was exceedingly distressed, and didn’t answer back in kind, as is proper when people have lunacy attacks. She was really stressed by this, and I just went away and sat and was down at the bottom for a while, and counted the phenobarbital and amitryptaline again (1500 and 4000 mg respectively). Not nice, but it was short, and controllable eventually, and all I did was count the pills and feel contented. OK today, but it’s the sort of thing I should tell people like you because you know what it’s about. What triggered it? Maybe just bright sunshine and my cycling mechanism had decided it was time. M thinks maybe I’ve been too remitted for a while, and under too much stress, and just folded when my defences were down.

D. I hope the season is not bringing out desires in you to blow anything up, because they usually result in pill counting. I think pill counting is not a bad thing, actually. It brings you down to earth and is our way of counting our blessings and knowing there are options, even though we don’t have to take them. Look, don’t try to be tall, Don’t climb ladders, they make you dizzy. You don’t need vertigo. If I have to come and get you down, it will be a bad thing. They will have to send helicopters. What powerful little minds we have. You have people who will not let you go down the plughole, try though you might.

This is something no therapist could do, except one as mad as us. She knows about pill counting, it's one of the routines, she knows about summer explosions and murderousness, and just reminds me that for people like us this is what happens, this is existence, and two in the lifeboat means you can ask somebody for a hand in case of near drowning, and not be criticised because you forgot how to swim.

8 Thoughts for the Last Days: on suicide¹

You got to know when to hold 'em,
 Know when to fold 'em,
 Know when to throw away,
 Know when to keep;
 Cause every hand's a winner,
 And every hand's a loser,
 And the best that you can hope for
 Is to die in your sleep.

—Kenny Rogers, *You got to know when to hold 'em*

Apology

Like any other animal, I am going to die. Given my age and way of living this may be sooner rather than later. On present evidence, the most likely causes will be cardiovascular disease, lung cancer, liver failure or suicide. I cannot rank these in order of likelihood, but none would come as a huge surprise. My heart, though sound, has a discouraging family history; heart disease, respiratory disease and/or liver failure are not unlikely because of my smoking, drinking and general state of stressedness and sloth. Even the early stages of any of these diseases might well make suicide a reasonable option, if the prognosis involved major surgery or chemotherapy or radiation. Or if I were likely to suffer excessive pain, lose my ability to work, or my autonomy, my dignity (such as it is) and independence. If I were to have one heart attack or lung malignancy, it is on the cards that I would neither treat it nor allow a second. Exit is simple and quick: there is the bottle of tablets on the kitchen spice shelf, just below the basil. Even the darkest depressives often have a surprisingly light view of the future, because we know there will not necessarily be one. At least it seems this simple to me at the moment.

These facts and attitudes are all nestled in the matrix of my depression, now in remission, but waiting to surface, in who knows what form, colouring my attitudes toward everything else. And this itself may at some future time make living intolerable. It may also not, but it would be imprudent to be unprepared. The possibility that I will kill myself before anything else does the job properly is distinct if not looming. No book on mood disorder, especially one whose author has been well trained by six decades of less than optimal life, can avoid these issues of death and choice.

This chapter is personal and argumentative, an attempt at ideological persuasion and

¹ I am grateful to Roger Melvill, Jeff Peimer, Hein Pierneef and James Temlett for discussions of some of the issues raised in this chapter, particularly from their point of view as practising physicians. Nothing I say is to be taken as implying agreement from any medical discussant. Some non-medical people have been also been particularly helpful (either by agreeing or disagreeing) in helping me establish my point of view on the difficult issues raised here: thanks especially to Debra Aarons, David Benatar, Sharon Brodovcky, Christiane Dalton-Puffer, Lara Davison, Ana Deumert, Meg Laing, Jaime Lass, Kirsten Morreira, Anette Rosenbach and Lisa Treffry-Goatley

amateur moral philosophy. I write in a state of remission, and am in no way suicidal, quite the opposite—though I am of course still me. Indeed, if I were seriously contemplating suicide, it would probably be an abuse to write on the topic: I would be too involved for clarity. I owe it to myself and my audience to look at this matter in as cold blood as my state of mind, experience and beliefs will allow.

It is obvious that I have not written just a disinterested study of a disease and the issues that surround it. Since even the more technical and philosophical parts of the book grow out of and invoke autobiography, it is a self-portrait. This chapter will be coloured, of necessity, by aspects (including ideological ones) of the self that has been portraying itself, and a fair reading will have to take some aspects of me as well as my subject into account. My tolerance for aversive experiences is low, and I am more self-absorbed and less involved with others—except a very choice few—than most other people. I am also self-willed and independent to the point of eccentricity. Perhaps it comes from the way I was brought up, without loving or probably being loved (I don't know, but I didn't detect it), and having from the beginning till I was in my twenties no very solid personal recourse or object of love. All I had that I could really trust was myself. Though now I do have some recourses—as well as responsibilities engendered by love, which have to be weighed against the rest. I am no longer a potential suicide living with a potential suicide as I was for my whole marriage, and since my wife's death I have had to do some rethinking.

There appear to be two primary issues raised by the problem of suicide, one rather abstract and philosophical (or for some theological), the other apparently more concrete and ethical or moral.

(i) Life as a good *per se*. For some people, life itself is so precious, so self-evidently a divine gift, a good of the highest order, that it is simply impermissible to take one's own. This is so regardless of the quality of that life. Interestingly, those who hold this ideological position may well not hold the same beliefs with respect to taking the lives of others when 'necessary', e.g. in self-defence, in wartime, or through a judicial act of the state as a punishment for some classes of offense. For such people, suicide falls under various categories, depending on the underpinning beliefs: it may be a sin, a secular evil, an expression of selfishness, an intellectual error, or a challenge to the paternalist authority of the church, state or medical profession if they have decided that one's life does not 'belong to one'.

(ii) Suicide as an offense against others. Anybody not totally alone in the world has certain indefeasible obligations to other people. These may be dependents, non-dependent loved ones, friends, colleagues—all of whom will suffer in one way or another by his suicide. In the case of dependents, suicide may be an abdication of material responsibility (e.g. if one's life-insurance has a suicide clause and they are left unprovided for). In general it may be a source of profound loss, lasting bewilderment,

guilt, trauma, stigma. This position raises the potential conflict between one's responsibilities to others and to oneself. Do (long- or short-term) social responsibilities in the broad sense override the right to rid oneself of a life that has become, or will become, intolerable? Do interconnections with other human beings imply an obligation to live because of the effect your death would have on them, or a right for them to pressure you to live?

My attempt at survival has left me toughened and somewhat (though now, in remission, decreasingly) reserved about personal matters, generally unwilling to drag others into my illness, or fully admit them into my world. (One might ask then why I have written this book, which seems to go against these predilections: I have no answer except that for various reasons, and because of impulses I could not dignify with that term, it seemed necessary.) My choice at the worst times has generally been—with a very few exceptions, most quite recent—neither to request nor accept help from anyone. What I cannot do myself does not get done. This detachment, compromised as it has recently become, still colours my view of (at least my own) death. No matter how attached I am to anyone, in the end my life is mine to do with as I like. And grandiose and puerile as it may sound, the most important freedom I retain is that of choosing my own time of departure. I have a principled (or mad) dislike of the idea of dying at nature's behest.

From such a perspective, attempting to stop somebody who is going to commit suicide could be seen as immoral and patronising, a rejection of their autonomy and personhood. I still believe, as deeply as I believe anything, that the ability to kill oneself in clear consciousness is a profound affirmation of personhood and liberty. Along with voluntary celibacy and non-celibate refusal to breed, it is one of the few utterly anti-Darwinian properties that distinguish humans from other animals. Or more accurately, it is one of the unique pathways our new cortical biology has given us for transcending our old brainstem and limbic biology. This is the background for the argument of this chapter.

I have certainly not been 'fair' to all points of view in this book, but have pursued a particular philosophical and theoretical line. This chapter, perhaps the most ideologically loaded of all, is a necessary part of my design, both for myself and for my readers, if they are to get some idea of where the emotional experience of depression can lead you intellectually, and the solutions that may become necessary. In one way or another the issue of Last Things is central to consideration of any chronic, incurable and disabling illness. So this is an 'apology' in the theological sense, an explanation and argument, not an excuse.

On rational suicide

My life in the world of medicine has taught me that death is not always an enemy. Sometimes it is good medical treatment. Often death can heal what medicine cannot—it ends suffering.

—Christiaan Barnard, *Leef goed sterf goed* (1981)²

Discourse on suicide often resembles that on capital punishment: it tends to run round in circles and skip the central issue. Public discussion of the death penalty appears to be dominated by three concerns: the violation of human rights; the possibility of the innocent being executed; and the efficacy of the death penalty as a ‘deterrent’. Practically (not morally) speaking, these are red herrings. Whether or not hanging or drawing and quartering or lethal injection are practical deterrents to crime is irrelevant. In contradistinction to other punishments, the result of execution is necessarily a zero recidivism rate.³ The same logic must be part of any discussion of suicide: no suicide ever has to suffer again the conditions that provoked the act in the first place. Whatever else may be said, it is a final solution.

It does however have complex ethical spinoffs. On the personal side (which provokes a major class of moral condemnations), it is virtually impossible for a suicide not to leave a painful legacy of guilt and regret and puzzlement, scars that may never heal, great unfillable gaps in the lives of loved ones. Suicide in this light becomes not only the easing of pain for the immediate beneficiary, but the infliction of pain on others; these concerns may have to be subtly balanced in making a final moral judgement. There are also religious questions, meaningless except to believers, but strongly felt by them; the general theme appears to be that if God has given life, then it is up to Him to take it away, and a mere human arrogation to oneself of this kind of power is blasphemous and/or sinful. I will not discuss such matters, since the issues are unintelligible to me.

Suicide is not only the result of depression or other psychological disorders. It can be a rational response to purely physical conditions, even ones not currently existing. Someone suffering from a terminal or debilitating illness may of course commit suicide in the late stages, because their pain is intractable, their excessive dependency on others is unbearable, their quality of life has been degraded to the point where for the sake of dignity it is no longer worth the trouble to persevere. Or suicide may be a thoroughly rational preventive on diagnosis of a condition that *will* become unbearable if allowed to go on long enough.

Two people I know have killed themselves under conditions of this latter kind. One was

² ‘Live well, die well. A doctor’s argument for euthanasia and suicide’. The author is the same Christiaan Barnard who did the first heart transplant.

³ Provided of course the person you execute is the guilty one. This is a simplistic judgement of course; it may be that the practice of capital punishment has larger moral effects on a society that practices it. A death that prevents recidivism may have ripple effects among the family and friends of the executed, may do social harm in the process of doing what appears to be social good. But here I am talking on a strictly individual level.

a victim of recurrent leukaemia, who had been through several bouts of chemotherapy, and eventually found the treatment so unbearable, and the fact of its unpredictable but certain recurrence so horrible, that he killed himself while in full remission. (This as I have pointed out is not uncommon among depressives.) Another committed suicide immediately after being diagnosed with a colon cancer that required surgical treatment and had a medically 'good' prognosis, but would have necessitated a permanent colostomy. He apparently decided that this was not a condition he was prepared to tolerate, and killed himself without making any further medical appointments. Such suicides are prophylactic rather than therapeutic: the act follows an assessment of future consequences, and a *decision* not to be subject to them. In neither of these cases would it be appropriate or fair to say that the 'balance of the mind was disturbed'.⁴

Suicide raises ethical issues for people other than the suicide and his loved ones and friends. How far for instance is one obligated (or permitted) to prevent the suicide of a stranger, when it seems possible to do so? How much force or interference (if any) is permissible? Is the answer the same for all cases? Or is there perhaps a range of situations, in some of which intervention (e.g. calling the police or emergency services, taking direct physical action) is allowable or even perhaps right, and others in which the same act would grossly violate a person's autonomy or privacy? These are not easy matters.

And finally of course, since suicide is essentially self-euthanasia, I cannot avoid the question of 'assisted suicide'; nor that of euthanasia as performed by many doctors, either at the request of patients, or in some cases not at the patient's request but as a matter of medical assessment, the doctor's own (one hopes empathetic and well-informed) judgement about present quality of life and likelihood of future improvement. Ordinary suicide 'under duress', prophylactic suicide, assisted suicide, euthanasia performed by doctors at patients' request, and even euthanasia performed without the patient's request as a matter of medical judgement occur, whatever their legal status in any particular society. They all raise aspects of what to me is the central question: what rights do (or should) people have when it comes to the final disposition of their lives? Should we recognise a right to die parallel to the supposed right to live?

In 1990 the psychoanalyst Bruno Bettelheim, in advanced age and poor health, committed suicide. About a year before, he was interviewed for the *Los Angeles Times* and in the course of the interview said some wise and exceedingly humane things about suicide, which coming from a man of his profession might bear a special weight.⁵

When asked whether he is afraid of death, Bettelheim replies: 'No, I fear suffering. The older one gets, the greater the likelihood that one will be kept alive without purpose'. A bit later he remarks that his view of life is that of an 'intellectual rationalist': 'For me, death is the end of the road [...] that's it'. He brings up the example of Freud, who chose to be dispatched by

⁴ Unless you believe that anybody who attempts or commits suicide is 'sick' by definition, which some doctors do. I return to this later, and take up the problem of suicide or attempted suicide during severe disturbance or psychosis, which is not as clear-cut as it may seem.

⁵Fremon 1991. Quotations from the reprint in Donnelly 1998: 79.

lethal injection:

[...] it's obvious that he felt he really couldn't go on with his life and still write and be productive and so on. He wanted to die with his boots on, with his mind unimpaired by sickness and old age. I think that was a rational decision. And well taken.

I take the liberty of recasting the next portion of the interview as a dramatic dialogue, omitting only the connecting material—all else is direct quotation:

CF [author]. What keeps you from choosing your death now?

BB. Nothing.

CF. But here you are, still alive, still vibrant, still able to enlighten others, still full of ideas.

BB. Yes. At great risk to myself.

Bettelheim finds nothing *outré* in the desire to die when one is still at one's best, fully functional, before retirement and inevitable decay or degenerative illness. He specifically uses the word 'rational'. How much more rational than the decision to end things when one is perhaps still functional but severely compromised by disease, or has good reason to believe that one will be. This is not the consensus, either among the general public or among doctors; but I think it is a position worth arguing. It raises some crucial questions about the role and duties of medical personnel, as well as friends and even passers-by. I begin with a sketch of my own position on the suicide of strangers and what one might conceive one's duty to be if faced by this possibility.

Responsibility, autonomy and intervention

Suicide is a fundamental human right and ought to be a choice that is always available to the individual.

—Christiaan Barnard, *Leef goed sterf goed*

You see someone standing on the parapet of a bridge, obviously preparing to jump into the dangerous-looking water below. What do you do? Go for the police? Try yourself to dissuade him with the usual platitudes ('things surely can't be *that* bad ...')? Or make sure you are unobserved, and retreat as discreetly as possible so he can get on with it? What is your obligation (if any) to attempt to save a life?

This is one of those maddening hypotheticals, and all answers are at least marginally suspect. As a committed vegetarian, I am often asked questions like: what would you do if you were stranded on a desert island whose only other inhabitant was a cow? Would you starve to death, or kill it and eat it? I know what I *hope* I would do; but not being on the island and starving, I can only give an abstract and self-interested answer. It is impossible to imagine a hypothetical stressor so clearly that your own predictions of how you would react are worth very much. But this does not stop one from having ideals, and hoping one will live up to them if the time comes.

Back to the potential jumper. If this happened in broad daylight, with traffic passing by, I might judge that it was not really a genuine suicide attempt, but a ‘parasuicide’, a ‘cry for help’. I would make this judgement precisely because the potential jumper appeared to be calling attention to himself and what he was about to do. His behaviour could be interpreted as the result of a desperation that does not necessarily seek actual death, but raises the critical temperature as it were to the point where someone might do *something*. In this case I could well be tempted to act. Especially if the person was clearly not ready to jump immediately, and there was some ambiguity about whether his hesitation was the result of uncontrollable fear (even after having genuinely decided to die), or an attempt *in extremis* to show unwillingness actually to die, a mute request for someone to act to prevent the suicide. I *might* just possibly act, but I would never be entirely sure I was doing the right thing, and would always have a nagging moral discomfort about having acted.

But say the same scene took place in the country, at night, in a quiet area with no traffic or potential observers, and I happened upon it, with nobody there except the two of us, and me unobserved. My reaction would be different and certainly not ambivalent. These circumstances would tell me that the attempt was genuine; if the jumper was hesitating it might be a gesture of farewell and ‘collection’, or simply getting up enough nerve. On this assessment I would be obligated *not* to interfere in any way. I have just stumbled on a private and intimate act I have no business observing, and any interference would violate the person’s right to privacy, and assault his autonomy as a human being.

Overstepping: suicide as sin, error or self-misunderstanding

Quos Deus vult perdere, prius dementat.⁶

—Translation of a Fragment of Euripides, quoted in Boswell’s *Life of Johnson*

In reading the literature on suicide, most of it of course anti-, I am struck by the pervasiveness of a strong and largely unargued moral (perhaps better ‘moralistic’) certitude. It seems customary in such discussions to adopt an Olympian perspective, often with an underlying deprecatory stance (even in people presuming to be philosophers).⁷ Here is a characteristic example, more theological than philosophical, but guided by a simple elementary assumption—that there is no value higher than life (Griffiths 1981, quoted in O’Keeffe 1994):

⁶ ‘Those whom God wishes to destroy, he first makes mad’.

⁷ One notable exception (for the most part) is Mark Williams. In his *Cry of pain* (1997), he admits that there are good motivations for rational suicide, but in the later parts of the book he distinguishes this from suicide triggered by ‘despair’, which he thinks is largely treatable by ‘cognitive means’. Still, this is one of the best overall surveys of suicide, from demographic, psychological, social and other points of view, and is well worth reading, even for the suicidal.

Suicide is the paradigm of evil, the “elementary” sin. To seek death is to reject life [...] and this is fundamentally different from other futile bad strivings of a particular will [...] In all other sinning we fail to accept the world whatever it is—we would not have it as it is. In suicide we would not have it at all: we desire not merely a different meaning but no meaning: no God.

Of course this is not very compelling for atheists, most of whom probably live that way anyhow, and quite happily. But the point is that it makes suicide a moral offense under all conditions, on the essentially unargued grounds of the primacy of ‘life’. But there are (at first sight) slightly more reasonable views, in which suicide under some conditions seems at first permissible, as long as the reasoning leading to it does not violate certain other apparently necessary and unarguable preconditions.

Gary is a terminal cancer patient, ‘racked with pain’, who decides to kill himself, even though surrounded by loving and devoted friends (Graber 1998):

We may feel that if we were in Gary’s situation, we would rather endure the pain in order to be able to continue to associate with other human beings. Nevertheless, if Gary himself is not afraid of death (with the resulting loss of human contact) and prefers it to a continuation of the pain, we have no right to impose our preferences upon him by insisting that he is not rationally justified in ending his life. On the other hand, if Gary were to say that he saw no value at all in human association, or no disvalue at all in death, *he would be mistaken, and we ought not to endorse his mistaken judgement.* (158: emphasis mine)

This is an extraordinary (and moralistically patronising) assumption. The author, on no particular argued grounds, has decided that association with other humans is a universal positive value (*per se*), and death is likewise negative. This sounds rational, or at least not religious, since it does not invoke metaphysical categories like ‘sin’. But in fact it is just as metaphysical, since it invokes particular abstract values as somehow superseding all purely personal, individual considerations or preferences. On this interpretation suicide, regardless of the pressures of pain, would not be a sin but simply a *mistake*. Apparently human society and life are such self-evident goods that not having a positive attitude toward them can only be a kind of intellectual error.

But there is a worse kind of arrogance still, especially common in the health professions. Here is a particularly egregious example (Schneidman 1965):

Individuals who are intent on killing themselves *still wish very much to be rescued or to have their deaths prevented.* Suicide prevention consists essentially in recognizing that the potential victim is “in balance” between his wishes to live and his wishes to die, then throwing one’s efforts on the side of life. (177; emphasis mine)

What monstrous presumption. How can he possibly know? Is it really the case that the suicide who makes sure nobody is around and takes great precautions to make the job successful, performs it in a place where he is unlikely to be interrupted, or does it violently and quickly (e.g. with a gun or by driving off a cliff) ‘wishes very much to be rescued’? If so, why the privacy, why the precautions, why not act dramatically and ostentatiously in public, where rescue is

possible? There is a total failure of imagination here, a simple inability to conceive that there are people who are different, who genuinely and sincerely do not want to live, and cannot be persuaded that life is somehow better than death. And it is disingenuous as well. The claim that there is a universal ‘wish to be rescued’ is belied by the usual stance of the medical professions. A striking amount of care is taken, and there is a plethora of elaborate strategies for the prevention of suicide. Surely locking someone up and watching him 24 hours a day to make sure he doesn’t kill himself does not suggest that the custodians believe this at all. Here imaginative or empathetic failure is elevated arbitrarily to a general principle of universal human preference.

A similar obtuseness is often shown by psychiatrists. The chapter on suicide in McHugh & Slavney (1998) is a fine example. They claim that since the majority of suicides have a diagnosable psychiatric disorder, and suicide can be influenced by social modelling (as in copycat suicides after those of famous people), suicidality itself is a ‘behaviour disorder’, and anybody attempting suicide or even having suicidal ideation is ‘confused’. The psychiatrist’s function is to help the potential suicide see the light, since the psychiatrist’s norms are unproblematic and universally binding. Theirs is the extreme paternalist position. They provide a sample interview aimed at eliciting evidence of suicidality: their recommended actions hinge on the patient’s answer to the question ‘Have you been feeling so bad that you’ve thought about ending your life?’ A certain class of replies should elicit ‘protective’ action (246-7; bracketed comment mine):

[...] replies, such as “Yes, I might take pills” or “I could use a gun” or even “Well, I did look into that book *Final Exit*,”⁸ must be followed with some actions to protect the patient, such as discovering whether he has pills or firearms available, and beginning to involve his family members and other supporters in protecting him and appreciating the distress and dangers he faces [never mind the distress he is undergoing!]

But even this may not be enough:

[...] this step may prompt some reassuring responses from the patient [...] but they should be followed by such questions as “have you ever tried any of these dangerous things—taken a few pills, cut yourself [...]?” Any positive answers indicate an intensity of suicidal inclination that *demand protection of the patient* and if necessary hospitalization. [emphasis mine]

This militant benevolence is extended further in standard institutional protocols for suicide prevention, and the powers arrogated to themselves by political and medical institutions to deprive the intending suicide of the most basic liberties, to allow suicide to be seen as a medical problem (narrowly conceived), rather than as a possible (and defensible) existential choice, or even a libertarian issue.

⁸ Humphry 1991. Unsurprisingly but unacademically, McHugh & Slavney do not give a precise reference to this book in their otherwise exemplary bibliography, though they do cite literature criticising it. I read it about a decade ago; just to defuse the mystique of ‘that book’, I bought mine for 50p off a table in the Oxford bus station. It sits on my study shelf, and I am apparently still here. But I have absorbed its lessons.

The suicide as infant and criminal

Quis custodiet ipsos
Custodes?

—Juvenal, *Satires* VI.347-8⁹

In many jurisdictions it is considered both moral and legal for a doctor to impose life-saving procedures on patients not legally ‘competent’. A good example is forcing a blood transfusion on the minor child of a Jehovah’s Witness family. The presumable grounds are that in case of danger to the life of a child, and parents’ refusal to allow appropriate treatment, the state may come to stand *in loco parentis*. I find this at least morally ambiguous—certainly in a case where the child may be technically a minor, but is clearly old enough (and has enough knowledge of alternative views) to give or refuse ‘informed consent’ to a procedure.

Coercive medical treatment (including institutionalisation) may be actuated by noble motives. It also may not, as doctors and other people in authority may have (on the most charitable interpretation) implicit yearnings for power and control. But whatever the motivations, such treatment is demeaning and infantilising. A person taken into captivity ‘for his own good’ may be treated as a cross between a petulant and misbehaving child and a criminal. Indeed, one standard set of guidelines for treatment of the suicidal (including those who are assessed as being in danger of attempting suicide, but have not) recommends just such a regime. My text here is the Harvard Medical School’s *Draft suicide assessment guidelines* (1993). I begin with a definition that sets the tone for the whole discussion:

Suicide is a complex, multicausal phenomenon that primarily occurs as an outcome of mental illness. More than 90 percent of suicide completers suffer from psychiatric illness: primarily affective disease, alcoholism, schizophrenia, or borderline personality disorder [...]

Most people who complete suicide have a combination of the well-known risk factors: psychiatric illness, male gender, disrupted social supports, previous suicide attempts, family history, and recent loss. However, most people with these risk factors do not go on to suicide. The paradox of these observations leaves the clinician who works with potentially suicidal patients in a difficult position: how to recognize which of their patients require more intense intervention.

Note the odd logic in the first paragraph: 90% of suicides suffer from psychiatric illness, but there are no figures given as to whether the illness is active at the time in any individual, or can be shown to have a causal relation to the suicide. How many depressives who commit suicide happen also to suffer from terminal cancer, end-stage Parkinson’s, the early stages of dementia or some other irremediable condition? The link is simply assumed. If a diagnosed depressive commits suicide during a full remission, does this mean that the depression is causally linked to

⁹ ‘Who will guard the guardians themselves?’

the suicide in a direct way, and that the suicide was not ‘competent’ at the time, or had ‘clouded judgement’, that the mere existence of the diagnosis (whenever it was made) overrides the empirical evidence of remission? Or is it that by (circular) definition the remission was only ‘apparent’? The aim of the Guidelines is among other things ‘to provide information to be incorporated into institution-specific protocols’. What this means can be shown by some suggestions as to how a ‘rescued’ or (according to assessment) *potential* suicide should be treated in an institutional setting. First, the patient is assessed for indicators of danger, such as ‘suicidal intent and lethality’, ‘dynamic meanings and motivations for suicide’, ‘presence of a suicidal plan’, ‘physiological, cognitive and affective states’, and finally ‘coping potential’. The assessment may provoke institutionalisation even in the absence of an overt attempt.

Once the patient is hospitalised, ‘appropriate levels of observation, supervision, and privileges’ must be chosen. At this point the distinction between hospital treatment and imprisonment becomes rather slippery. I will simply quote the suggestions here in full, as they give the flavour of the regime approved by a group of apparently well-meaning doctors (emphases and bracketed comments mine):

Choose Appropriate Levels of Observation, Supervision, and Privileges

- The inpatient unit is especially effective in the treatment of acute rather than chronic suicidality. It offers safety, support, and *hope* [...] [who for – the doctor or the patient?] Inpatient treatment planning is determined on an individual basis to meet *the patient’s* [or the doctor’s?] need for maximal safety in the least restrictive environment. Although precautions and privileges have restrictive elements, they are applied in the context of a treatment plan that aims to enable a patient to tolerate suicidal feelings [what if the patient does not *want* to tolerate them, but get rid of them by committing suicide?].
- Inpatient treatment of suicidal patients relies upon a progression through a hierarchy of observation levels, supervision levels, privileges, and therapeutic passes.
- With clinical improvement, suicidality may still persist. Although the ultimate goal is toward a less restrictive environment, the clinical decision must be based on an assessment that there has been a reduction in suicide risk.

The fleshing out of these outline provisions I find rather chilling:

The Levels of Observation, Supervision, and Privileges Parallel the Patient’s Potential for Suicidal Behavior

- Some examples of observation levels are:
 - Continuous observation (1:1 or remaining in sight of staff members)
 - Restricting the patient to an area where he or she can be seen at all times by staff
 - Restricting the patient to public areas; not allowing him or her to be alone in room
 - Checks at intervals of 5, 15, or 30 minutes
 - Periodic checks at intervals greater than every 30 minutes
- Some examples of staff supervision include use of:

- Sharps (nail cutters, razors, scissors)
 - Bathroom
 - Kitchen
 - Poisons (cleaning supplies)
 - Occupational therapy
- Some examples of privilege levels are:
- Restricted to unit
 - Accompanied off unit by staff [...]
 - Accompanied off unit by non-staff (reliable family member or friend)
 - Unaccompanied off unit

Aside from the fact that any clever intending suicide can easily figure out how to work such a system (and the suicidal are often very patient indeed), the philosophy implied is inappropriate in context. It appears to be identical in principle to that for assessing ‘good behaviour’ in a prisoner. What purports to be a medical action ‘for the sake of the patient’ is in fact essentially punitive. It both deprives the patient of autonomy (freedom of movement, elementary privacy) to the point of criminalising him (since the setting is totally coercive), and simultaneously infantilises him, since his movements and ‘privileges’ are controlled by the primitive carrot and the stick. It looks rather more like ‘training’ than treatment. I could see a justification for this in the case of a patient who is a serious danger to others; but if the danger (or assessed potential danger) is to the patient only, I fail to see any universal moral grounds whatever for the imposition of what is often euphemistically called ‘custodial care’. Each case ought surely to be evaluated on its own merits.

‘Beneficence’, paternalism and autonomy

Thou shalt not kill; but needst not strive
 Officiously to keep alive.

—Arthur Hugh Clough

There is a great deal of discussion in the field of medical ethics concerned with the potential conflict between two principles: ‘beneficence’ and ‘autonomy’.¹⁰ Beneficence (on the part of the healer) is the Hippocratic imperative: first do no harm. Autonomy (on the part of the patient) is his right to full personhood during the course of the healer’s ministrations. It is inevitable that these should come into conflict: one frequently discussed example is the dilemma of the doctor’s right to withhold information that he thinks will distress the patient vs. the patient’s right to know the truth about his own medical condition. If a doctor has just seen the latest CT scan of a

¹⁰ For a lucid, humane, and detailed introduction to the minefield of medical ethics, see Beauchamp & Childress 1989. Thanks to Roger Melvill for introducing me to this book.

severely depressed or anxious patient and found a potentially fatal cancer, should he tell the patient (at the risk of provoking worse anxiety and depression), or lie? Should he 'for the patient's own good' lie to the patient but tell the family?

Nowhere do these two principles come into more striking conflict than in the case of forced hospitalisation or other restraint vs. (relative) inaction with respect to the suicidal patient; more subtly and perhaps more accurately, the suicidal person who is forced to *become* a 'patient' not of his own free will but by virtue of a physician's intervention, which so defines him. Here the provider of beneficence has to tread a subtle and difficult line between recognition of autonomy and the opposing principle of paternalism (the doctor knows best, and is entitled to perform virtually any act that will lead to the maximal expression of beneficence). In the standard view, any case of potential conflict between autonomy and paternalism requires a careful weighing of the claims of both against the overriding principle of beneficence. Beauchamp & Childress (1989: 220-1) set out the issues with admirable clarity:

Minor paternalistic actions against the preferences of patients and careful monitoring of potentially upsetting information are common in hospitals, and when there is no reasonable alternative they are justified examples of strong paternalism. The weight of beneficence in these cases is substantial, whereas infringement of the principle of respect for autonomy is minimal. These and other paternalistic actions are appropriate in health care only if

- (1) a patient is at risk of injury or illness,
- (2) the risks of the paternalistic action (e.g., intervention or nondisclosure) to the patient are not substantial,
- (3) the action's projected benefits to the patient outweigh its risks,
- (4) there is no feasible and acceptable alternative to the paternalistic action,
- (5) infringement of the principle of respect for autonomy is minimal, and
- (6) the action involves the least infringement necessary in the circumstances.

These principles are the bases for judgement calls rather than 'hard' evidentially based criteria. They conclude this listing with an example:

The crucial fifth condition can be satisfied only if vital autonomy interests are not at stake. For example, if a Jehovah's Witness refuses a blood transfusion because of a deeply held conviction, a vital autonomy interest is at stake. To intervene coercively by providing a transfusion would be a substantial infringement of autonomy and thus would be unjustifiable.

One of the more extreme versions of the paternalist approach is articulated in McHugh

& Slavney's rather vitriolic and dismissive chapter on suicide.¹¹ I quoted some of their discussion in the previous section, with respect to a patient's need for 'protection', and the rather nasty suggestion of going behind his back to the family and 'other supporters' in case 'suicidal inclination' is detected. But their attitude is actually more paternalistic than this; they deny even the theoretical possibility of rational suicide (247: emphases mine):

The goal of self-destruction, prompted as it *may be by psychiatric states and predispositions*, is nonetheless one in which the *will* of the patient is involved. A conflict of wills over a behavior [...] is a critical issue. It emerges when the psychiatrist evaluates the patient's state of mind and impedes his or her inclinations. Just as with drug abuse, bulimia, and hysteria, the patient may offer complex justifications for their [sic] actions that take substance from the *Zeitgeist*. *Such comments as "whose life is it, anyway?" reflect a common thread in behavior disorders, where the physician's effort to thwart the behavior and obstruct the goal can be challenged as an arbitrary imposition of moral judgement.*

(Note how effortlessly they move from an explicit 'may be' to an implicit 'is'.) They do admit that they are making a moral judgement, but since it is based on superior knowledge it is clearly the correct one:

Preventing suicide certainly rests on a moral judgement, as do many decisions on behavior disorders. This conflict is a regular feature of the psychiatric treatment of behaviors—a conflict that other people may try to join. Psychiatrists add to their moral judgement and act to prevent suicide because *they recognize the mental disorders confusing patients and encouraging the behavior*. In any given case, the justification for the psychiatrist's efforts emerges only after proper treatment is given to the depressive symptoms that have prompted the suicidal thoughts and actions. Then *most* patients are grateful to be alive.

So suicidality is simply a 'behavior disorder'. This is about as insightful as the bumper sticker that says 'Life is a sexually transmitted disease'. Yes, both are true; life is certainly transmitted by sex, and suicidality is a 'disorder' in the sense that it is unusual, results from and may cause distress, and is considered 'treatable'. But there is a great deal more depth and texture to both. Here the patient is granted no autonomy at all, not even the presumption of rationality. It apparently is impossible in principle that suicide could be motivated by a carefully thought out and simple desire not to be alive any more because of present or predicted conditions. Any pro-suicide sentiments on the patient's part are blandly attributed to 'confusion', which the doctor can recognise from Olympus because he is by definition clear-sighted. Note that even the question 'whose life is it, anyway?' (one that has exercised minds as cultivated as those of St Thomas Aquinas and Hume and Nietzsche—or were they also 'confused'?) is not taken seriously. The mere asking of it is attributed to suggestibility, the baneful influence of the ambient culture ('the *Zeitgeist*'), or disorder, and it is not even considered worthy of discussion. Once again a serious moral and existential issue is reduced to a matter of infantile 'wilfulness';

¹¹ I shouldn't exempt myself from the charges of vitriol and dismissiveness. Whose is more justified is for the reader to judge.

the intending suicide is perceived as a naughty child, trying to offer justifications for outrageous behaviour that the omniscient physician knows is really bad for him.

There are serious moral issues involved here, which McHugh & Slavney evade. The best discussion I know is by the philosopher David Benatar (2000); his subject is euthanasia and assisted suicide, but his arguments apply to ordinary suicide as well. Benatar sums up the intersection of rights and duties with respect to self-chosen death this way:

To disallow others the authority to decide on when their lives are no longer in their interests is [...] to assume one's own infallibility. None of us can be so confident of our view about whether another person's continued life is in his or her interests, that we can risk the costs of our error for that person by enforcing our view on him [...] Being forced to live a life in which one is wracked by pain or which is characterized by loss of all independence, all self-control and all meaning, is a serious cost indeed. It is a cost one may not impose on another, even if one thinks for oneself that it is worth bearing. That is to say, even if one thinks that terminating one's own life in such circumstances is wrong this does not entail that we may prevent others from choosing to end their lives.

Competence and 'informed consent'

There is an attitudinal spectrum running from extreme paternalism to extreme libertarianism. I seem to be close to the anarchic end of the libertarian, in holding myself ultimately responsible only to myself, and considering my death and the manner and time of it a matter of no overriding social concern, but subject only to private decision (though of course mediated by and of concern to my loved ones).

On the other hand, the social consensus implied by the usual infantilising and punitive treatment of suicidality comes very close to the other end. How far is it from making the blanket assumption that anybody suicidal 'really wishes to live', or is by definition ill and requires involuntary hospitalisation, to the former Soviet government's incarcerating people who wished to leave the USSR in psychiatric hospitals on the grounds that such a wish is a sign of psychiatric illness? Judging by the tone of the material quoted above, I would think not very far.

The crucial issue in deciding to impose involuntary medical care on someone is an assessment of his 'competence'. If a person is adjudged incompetent, say through dementia, to manage financial affairs, there are legal procedures to assess this, which may make sense. The question really is one of agency: to what extent is a person in a given state to be adjudged not to be a rational agent, not capable of handling his own affairs, and therefore subject to deprivation of major civil liberties? What are the criteria in the case of suicide, particularly if the actor at the time is not psychotic, or even showing particular signs of mental disturbance—except for the wish to die, or more accurately, the wish not to be alive, with dying merely the means.

McHugh & Slavney simply define suicidality, whether or not there is accompanying psychosis, disorientation, delirium, dementia, or any other lack of mental clarity, as 'incompetence'. This means that under no conditions must the desire to die be allowed to be fulfilled. But many humane people with strong objections to suicide or assisted suicide feel no qualms at all

about euthanising beloved, terminally ill and suffering pets. Surely my sick and aged cat is not 'competent' to tell me whether or not he is suffering to the point where the quality of his life is no longer worth sustaining. But out of sheer humanity, *as a moral act*, I have to make the decision to end his life, and I do so on the grounds of careful observation and an attempt at empathy. Though the cat is not human, at least it is a mammal, and I make certain assumptions (perhaps slightly anthropomorphic, but still I think justified) based on that. I know from long experience what a healthy and happy cat looks and acts like, and I also take veterinary advice. If the cat is dehydrated, anorexic, indifferent, depressed, in respiratory distress, with no hope of recovery, it is generally construed as an act of mercy to end his suffering.

My decision here is similar to the one that some doctors make when confronted with patients who are clearly suffering and do not have any expectation of quality of life, but cannot make their wishes known. It is not unheard of for doctors to 'make sure' that neonates with conditions that will lead to short lives and great suffering simply fail to survive even the most heroic critical care¹². Nor is it uncommon for doctors to invoke the 'doctrine of double effect' in treating patients with intractable terminal pain: that is, give sufficient analgesia to relieve the pain (first effect), even in the knowledge that such a dosage is likely to lead to death (second effect). This is usually legally permissible, and does not count as 'euthanasia' or 'assisted suicide'. And in the case of patients who cannot communicate their condition verbally, but are in a state similar to that of the cat mentioned above, at least some humane physicians will simply go ahead off their own bat and overdose.¹³ Are we to be less humane about ending suffering for fellow humans than we are about our pets? If we can make judgements of quality of life for organisms we love but do not even share a language with, and cannot explain things to, why should we not be able to make the same judgements for ourselves? Surely we know more about how we feel and whether we want to go on living than we can know about any Other, whether human or not.

The only case I can think of where there might be a justification for the forcible prevention of a suicide is patent psychosis. But there is still a question in my mind about whether the wishes of the psychotic patient, if he is going to harm only himself, should not be regarded with some compassion, or at least not dismissed out of hand. It may very well be that under the proper medical regime the distress that is provoking suicidality will go away; but it is equally possible that it will only do so under conditions that will render his life considerably less than optimal (e.g. heavy sedation leading to confusion, the side-effects and risk of movement disorders from antipsychotic drugs: I would certainly rather be dead than tanked up on Thorazine and a Parkinsonian before my time, drooling and stumbling and confused). But even if the

¹²In such cases of course the process of care and/or withdrawal of care is undertaken in full consultation with the baby's parents.

¹³I base this assertion on numerous conversations with doctors who have told me this and given me perhaps more detail than I would like to have about their own practice. Unfortunately, even in the interests of scholarship and citation of sources I cannot name names, so the reader will have to take my word.

psychotic state is judged to be only temporary, could it not be the case that here the future (as constructed by the doctor) is not really relevant, but only relief from present distress?¹⁴ I am not sure about this, but I think the question is worth raising even in this extreme situation. Certainly for the non-psychotic, or those whose mental state is not determinable (e.g. patients comatose or disoriented after a failed suicide attempt), there are grounds for very careful thinking about procedure, and avoiding the knee-jerk reflex of ‘rescue’.¹⁵

The unbearable darkness of being

The [...] pain of severe depression is quite unimaginable to those who have not suffered it, and it kills in many instances because its anguish can no longer be borne. The prevention of many suicides will continue to be hindered until there is a general awareness of the nature of this pain. Through the healing process of time – and through medical intervention or hospitalization in many cases—most people survive depression, which may be its only blessing; but to the tragic legion who are compelled to destroy themselves there should be no more reproof attached than to the victims of terminal cancer.

—William Styron, *Darkness visible. A memoir of madness* (1990)

The unipolar depressive, even in remission; the manic-depressive, even in his tingliest hypomanias; such people often live perpetually *in umbra mortis*, their thoughts even at their brightest are typically shadowed, however faintly at a given time, by a muted longing for death. Thoughts of suicide are an inextricable part of life. One friend wrote to me during a very bad depression in the southern hemisphere spring:

Yes, springtime has always been my favourite season for planning my suicides—usually at its peak around my birthday in early September. The smell of jasmine triggers it for me, and there is a great bush of it here just outside the window.

She knew we all do this: ‘planning my suicides’ says it with just the right touch of casualness, habitualness, and observation of the often potent effect of beauty as a trigger. The darker the mood, the more the untouched and untouchable beauty of the outside world becomes an offense;

¹⁴ The standard argument that the person attempting suicide will be ‘grateful’ for having been saved (once the ‘confusion’ is eliminated) is fallacious. How does one know in a given case? How many ‘saved’ suicides try again and again, and how many succeed? I am not sure that such a judgement is really safe, especially if the doctor(s) involved cannot think beyond a fundamentalist ‘pro-life’ position, which is often the case. I return to this matter at the end of the chapter.

¹⁵ A doctor friend who often treats failed suicides tells me that the extent to which he will repair the damage done in the attempt depends on his judgement of the seriousness of the attempt, and the likelihood of an even worse quality of life due to the injuries sustained in the attempt. If he judges that the suicide was truly serious, or if the patient’s quality of life will be significantly impaired if he survives, he either does not do the necessary repairs, or uses some other strategy to insure non-survival. To me this is a fine example of a doctor as a healer in the best sense, not a blind follower of the Hippocratic Oath.

nostalgia for a once-experienced (or once partly-experienced, or even just wished-for) ability to enjoy it becomes a reason for suicide. It is the mood of Housman's poem:

Into my heart an air that kills
 From yon far country blows:
 What are those blue remembered hills,
 What spires, what farms are those?

That is the land of lost content,
 I see it shining plain,
 The happy highways where I went
 And cannot come again.

—*A Shropshire lad*, XL

We are, as my friend L puts it, 'high-maintenance people'. We do not live unreflectingly and easily. The very act of living takes more energy than for many others, the constant calibration of mood and avoidance of danger and fear of new episodes is fatiguing, often to the point where suicide becomes a reasonable option out of sheer tiredness, the unwillingness to face yet another day, and all the work it takes just to talk to people, be polite, live with one's own head. I speak now for perhaps a small group, but I know enough of us to believe we constitute an important minority, and like all non-criminal minorities in civilised societies we too ought to have rights—especially when these do not compromise the rights of others. One of these must surely be the right to die, when circumstances are appropriate.

Appropriateness can be judged only by the individual concerned, since no matter how articulate he may be, his private mental state is not accessible to anyone else. Though I should add that those of similar persuasions may have a special empathy, and be unsurprised by someone in a bright and sunny mood who still in the background thinks constantly of death, and even, in pure euthymia, achieves it. As I write this, for instance, I am in full remission, probably the best in over a decade. My mood is as good as I've known it; I'm working, thinking, reading, talking to people, listening to music, watching cricket and enjoying it all. But still, today as any other day when the vet provides me with a month's supply of phenobarbital for my epileptic dog, a certain number of tablets get creamed off into the family suicide-bottle. This is an act of pure and affectless routine, a kind of prudential housekeeping, taking out a death-insurance policy as neutrally as others take out life-insurance. Whatever else it may be, it is not 'confused'.

For us, life at its very best, enjoyable and productive as it may be, still carries a burden and a shadow. It is never or rarely joy uncorrupted, there is a background of unconquerable blackness, or fear of its return, and a knowledge that some day it may get too much to bear. And aside from that there are other possibilities too, terminal illness, loss of mental power ... all of them with the potential for tipping the precarious balance in favour of death, for those who are not fully in love with life.

Our background darkness and lack of unproblematic love for life often raises problems

with our non-depressed friends, who feel a sense of failure or frustration. No matter what they do, how much they extend themselves, with what sincerity and strength and love, we remain at bottom hopelessly miserable, and sometimes kill ourselves. Friends may take this almost as an insult: we have been putting ourselves out for you to the maximum, trying to be a joy in your life, and everything is thrown back in our faces. However much we strive in good faith to introduce some brightness into your life, it's as if we'd done nothing, as if we'd never existed. But we are not normally devoid of gratitude; they simply have no power to do anything because the disease allows no entry. My friend K noted in an exchange on this topic:

It's very hard to get people to understand that it is Not Up To Them how you feel, or up to you. I suspect that no matter how much experience you've had with depressives, it's almost impossible to believe something as outlandish as the fact that sometimes we wake up wishing we were dead for no 'reason' at all, and there's nothing anyone can do.

This is one of the motivations for our strong tendency to see ourselves as a kind of separate culture, sometimes living in a separate if adjoining world. In moments of luck we can sometimes reach each other; but for much of the time, nobody from Outside can reach us. Regardless of our connections and attachments and loves, which may deep and passionate as anybody else's, to a large extent we live and die in a hermetic and impenetrable world.

Nobody who has not lived this way for decades has the authority to tell me that things will get better, or that I have an obligation to live on whether they do or not. Obligation to whom? Since I am an atheist and materialist, and do not believe in an afterlife or a 'soul', religious objections to suicide are irrelevant (if curious and historically and anthropologically interesting).

Freedom, love and the ethics of suicide

Du bist sehr verzweigt, und nur die größten Drohungen können dich zusammenfassen.

–Elias Canetti, *Die Fliegenpein* (1992)¹⁶

The only arguments left that could force a negative evaluation of suicide would be ethical, in a non-universal, purely interpersonal sense. If I kill myself the people whom I love and who love me will be devastated, as I would be if they did the same. But since I have lived so long with the daily thought of self-inflicted death, or death in general and its desirability, I often find it very hard indeed to put myself in the shoes of others who would be more disturbed by my topping myself than I would be sympathetic and distressed if they happened to. Here I suppose I might turn the charges of lack of empathy and imagination I have levelled at others against myself.

One of the commonest moral arguments against suicide (except for those who are totally

¹⁶ 'You are exceedingly fragmented, and only the greatest stress can put you together'.

alone in the world, where it loses its force since it has no consequences) is the effect that such an act has on survivors: family, friends, lovers. Surely the residue of guilt and pain, and among the unenlightened, stigma, is such that suicide is a damaging, selfish and antisocial act. Mark Williams writes (1998: 225):

Like someone trying to escape from a blazing house-fire, the suicidal person is focused on escape. He or she has tunnel vision, which prevents them imagining what the act would do to others. They are completely self-absorbed. The feelings of other people do not appear in their calculations.

He characterises this as a ‘catastrophic failure of empathy, the complete breakdown in understanding how others will react’. But this is not universally true: many suicides do carefully consider such factors before making their decision, and weigh up, as well as they can, the costs to others against the benefits to themselves, and even discuss these matters in detail with the people most likely to be affected (as my wife and I did, and I have done—though with ambiguous results and considerable disagreement—with my best friends). The obverse of this coin is that the objector to the suicide displays the same failure of empathy and understanding; though in the case of partners and close friends, especially if they themselves are not or have never been seriously depressed, this may be unfair.

True, the aftermath of a suicide is often horrendous, and others may bear the scars for life, while the ‘perpetrator’ (on this interpretation) is happily out of it. But note the assumption behind this: the claim that your obligation to others is at least as great as, and may take priority over, your obligation to yourself. Other people’s ‘happiness’ (the scare-quotes reflect the often nearly unbearable stress of living with a terminally ill or seriously depressed person) takes precedence over yours. But who, after all, has to *live* my life? Is martyrdom really that attractive and admirable? Merely staying alive may be the equivalent to martyrdom for the seriously depressed or terminally ill. If one does not accept the religious arguments, and is not of the totalitarian and paternalistic disposition that rejects autonomy, there is only one reasonable conclusion: *Nobody has the moral authority to compel another person to live.*¹⁷ An individual’s most central and private concern is his own life.

Why should a civilised regard for autonomy and integrity of the human being not extend to life itself under all conditions, at all ages? What do I own more than my life, which was given to me without my consenting or even being consulted?¹⁸ Pardon the paradox: of course there was no ‘me’ before the act that produced me, but once I was there I was, like any organism, a potential victim. Let me quote again a passage from Bernhard’s *Alte Meister*, which I used in the

¹⁷ Lara Davison has pointed out to me that this is distinct from the claim that other persons, e.g. your best friends, may have a ‘moral interest’ in your survival, and may have the right to intervene, at least up to a point, to try to make you survive. But in the end you have the countervailing right to refuse.

¹⁸ In terms of law and the discourse of political philosophy, I do not really ‘own’ my life or my self, because these are not properties that can be alienated. I use the term loosely, because I cannot think of another one that carries the same force.

previous chapter in a slightly different connection. This casts what to many people is a shocking light on parenthood and the parent-child relationship; but it describes a situation that is attested over and over, and struck me with a powerful sense of rightness when I read it. This is *my* life, I thought, this is what it was really like, and to a large, but now perhaps decreasing extent still is. It may be bizarre and distressing, even ‘inhuman’, but it is the way things are for many, and gives some insight into why I in particular (and people with similar histories) feel rather differently about certain matters than others:¹⁹

My parents made me, and when they saw what they’d made they were terrified and wished they could have unmade what they’d made. And since they couldn’t stuff me in the wardrobe, they stuffed me into the dark hole of childhood, which I never escaped during their lifetime [...] To make a child and give ‘the gift of life’, as it’s so hypocritically called, is nothing but to bring a fatal misfortune into the world [...]

To say that one had a fortunate childhood and thereby to show respect for one’s parents is nothing but a sociopolitical commonplace [...] We respect our parents, instead of accusing them of the crime of procreation, he said yesterday. For thirty-five years I was imprisoned in the pit of childhood, he said. For thirty-five years they tortured me [...] They committed two crimes against me [...] they oppressed me, without asking my permission they produced me and once I had been produced and hurled into the world, they oppressed me, they committed the crimes of procreation and oppression against me. (109-11)

Note the characterisation of procreation and upbringing as ‘crimes’, specifically crimes against the innocent who are brought into the world through parental irresponsibility. Those who have had certain kinds of experiences (my wife’s mother was a sadist and sociopath, my father was a tyrant of doubtful sanity) simply do not view procreation and ‘the miracle of birth’, ‘the gift of life’, with the same sanguine or innocent eyes as others. (There is in fact a serious philosophical argument to the effect that procreation is always at best morally dubious, from the point of view of potential infliction of harm. The nonexistent cannot be harmed by being deprived of the benefits and potential pleasures of existing; whereas the existent can always be subject to harm. For the details see Benatar 1997.)

For many chronic depressives who lived from earliest childhood under nearly unendurable stress and abuse, psychic or physical, memory and guilt are permanent toxic presences. Our childhoods (or our versions of them) are always with us; there is a sense, regardless of how well we know it to be unfounded, that we are guilty of some terrible but unspecified crime. My friend of the unconsummated September suicides wrote in another letter that what triggered many of her worst episodes was

this long distance persecution which always works on oldest children who want to be good girls even though they know they are bad girls. It’s the way Calvinism gets us all the time. I am left guessing as to my heinous crimes, so must search my soul. And you have some inkling of what’s in there [...] So that’s a big possibility, as is the other obvious possibility of the Jewish need to always want to go somewhere else, so

¹⁹This of course is a description of only one subset of depressives; I discuss this group because I belong to it and know it best. But the argument applies to all of us.

they won't get me.

This absurd but potent conviction often will not go away, and blights the rest of our lives. In our 40s, in our 60s, we are still haunted by parental monsters, the image of our childhoods, or diffuse and targetless guilt and fear.

Suicide is in a way the ultimate freedom. And acceptance of another's right to end his own life is the clearest possible recognition and granting of respect to that person, even an act of selfless love. Under certain conditions death is the most humane solution for all concerned, provided one takes a particular, perhaps radically autonomist, view of individual rights. The central point is this: officious attempts to prevent a necessary suicide show a lack of respect for the Other, a refusal to contemplate the Other as separate, autonomous, and endowed with certain 'natural rights'. These rights may not be taken as 'natural' in the legal sense, but they ought to be in the moral. What after all is moral behaviour? Is it obeying fossil codes (which may or may not have been relevant or useful ages ago), or acting at least so as to minimise harm to others? If we accept this reasonable definition, then it becomes very difficult indeed to find a true moral objection to suicide. If moral behaviour includes 'selflessness', as it appears to do for many, then trying to prevent a suicide because of *your* likely subsequent misery is at least as selfish as the suicide's insistence on escape to evade *his* misery. I am not sure that arguments from potential harm to others can get us any further than this impasse.

So in the end it seems that my self and life, however touched by the concerns of others, are still indefeasibly mine. If this is the case, then as an American citizen I can invoke the preamble to the *Declaration of independence*, which tells me that I have certain inalienable rights, one of which is the right to 'the pursuit of happiness'. If my vision of happiness should turn out to be the achievement of my own death (rather than something antisocial like paedophilia or serial murder), I see no reason why I should be prevented by anybody from pursuing it.

My ethic of self-destruction however would demand at least a dual social engagement, one part personal, and the other impersonal. I would feel obliged to discuss my intentions with those who would be most affected, listen to them, argue with them if necessary, take all they say into account, and then decide. But if the compulsion at the time should be too strong for that, the need too immediate, I still have responsibilities. Even *in extremis* I should be obliged to avoid a sickening mess and as much of the trauma of discovery as possible. Sometimes the most shocking part of a suicide for survivors is the condition in which the body is found, and it is only right to take steps to avoid that being as horrible as it can be. And finally: under no conditions is it permissible to make others, particularly strangers, the unwitting means of one's own death. It is bad enough that my loved ones will have to live with it; it would be unconscionable to inflict it as well on some unknown train-driver who will have to live the rest of his life with the image of what he has inadvertently done. The right to suicide carries with it the countervailing demand that one at least attempt to show maximal compassion toward everyone involved—ineffectual as that may be.

But what if ...? Enforced benevolence and the opaque future

The future is dark, which is on the whole, the best thing a future can be, I think.

—Virginia Woolf, *Diaries*, 16 January 1915

Despite all the fine and principled talk preceding this, I seem to have left out something crucial. I have not considered in detail the delicacies of aborting the future in the face of the impossibility of knowing it. What if the intending suicide, prevented from completion, would have had a good life later on? What if the ‘doctor knows best’ principle, while morally repugnant in its authoritarian shape, may encode something really important, transcending the attitudes of those for whom it is apparently more a source of power and control than an instrument of benevolence? And these are not the only people who might with some passion try to save a suicide against his will: there are caring doctors as well, whose interest is entirely focussed on the ‘victim’ rather than their own role in the drama.

Here is an example of the problem, from close to home. As I write this, and for some weeks preceding, I have been in quite amazingly good shape—for me. I seem to be riding a long, fine-quality remission, even improving. This is not the sort of thing I could or would have predicted six months ago, or that anybody, medical or not, could have.

Am I now weakening the argument of this chapter, perhaps fatally? After all, if I had killed myself at any of the times when I desperately wanted to, I would not have had the delightful experience of this remission, of a magically enhanced quality of life, increased productiveness, a strength in the face of adversity I had never suspected I could have. This suggests the obverse of my charge that doctors infantilise patients by enforcing precautions against suicide. Perhaps the depressed infantilise themselves by trying to commit suicide, even at the darkest times, given the opacity of the future, and the possibility that it might bring good things not imagined? After all, it is supposedly a classic mark of immaturity not to be able to tolerate adversity, even more not to be able to postpone immediate gratification. If I had killed myself years ago, this book would not have been written, I would not be enjoying my remission, I would not even know of the possibility that this late on in a nearly lifelong depression remissions of new and precious kinds could happen.

I have to answer yes, no, undecided. This is a desperate problem, and I have no solution. The easy answer might be simply that such speculation is an irrelevancy. Since at this imagined and possible (or impossible) future time I would be dead, there would be no ‘I’ to know anything about it, no grounds for regret; my absence makes the possibility of remission a dead issue. Corpses do not get better (or worse). What might have been (as opposed to what is pretty well expected to have been) is simply not up for consideration. So I, and those who love me, have been exceedingly and unexpectedly lucky that I did not kill myself, and lived to see better and better days. On the other hand I might just as well not have killed myself and got more and more

miserable over the years. Or killed myself and left the question suspended. I suppose the only final response in the face of this prophetic indeterminacy is a pretty crude and simple one, for me or anybody else in the same boat. If every hand is both a winner and loser, there is no way we can ever tell. In the face of our invincible ignorance there is unfortunately only one response to the possibility of lost golden futures: tough shit baby—that's the way the world is.

9 ENVOI: THE LAST JOURNAL ENTRY

Facilis descensus Averni,
 Nocte atque dies patet atri ianua Ditis;
 Sed reuocare gradum superasque euadere ad auras,
 Hoc opus, hic labor est.

—Virgil, *Aeneid* VI.126ff¹

Do I have nothing to look forward to but dying in my sleep? Yes and no. After that cold, legalistic discussion of self-inflicted and other death—except for the mention of my current remission—it might seem strange that I am still here, and writing. What could be an epilogue to that? Perhaps the fact that I am indeed still here and wanting to write is itself an epilogue of sorts, a touch of the positive after the icy negativity of what came just before. But there are, finally, some (ambivalently) optimistic and not totally deathly things to say.

Strangely, I have just realised, during this last long remission, that the name for what chapter 1 describes is a *breakdown*. Simple, colloquial, familiar. Odd that I never saw it before, but only from my current position perhaps halfway up an unstable and likely unscaleable hill of repair, that I had a nearly classical ‘nervous breakdown’. Before I began to know what was wrong with me, and started the journal that makes up most of chapter 1 and chapter 6, I used to keep sporadic notes of things that happened and seemed significant, or weird. Looking through some papers I came across a note to myself about myself from 1994, made during a trip to Edinburgh for a conference. I think this was the point when I started acknowledging that there was something really wrong, that I was tipping over some kind of precipice.

Odd experience. Walking down by Waverley Station. A pinched-looking busker playing the pipes (well) launched into O Flower o’ Scotland, in a slow, much slower than customary, beautifully ornamented pibroch style. Superb. Just stood there looking up at the castle. Suddenly found myself on going back to hotel about to weep. This is the first time in over a year that *anything* has actually moved me—like an unfreezing, freeing of the waters. Am I going insane, or have I been? I’m actually sitting here almost crying.

You know how I am about synchronicity, etc., well bugger me if as I came back from dinner, approaching Princes Street from St Andrews Sq I heard Flower o’ Scotland again, and there was the same piper, in a different place, and I had to pass him to get into the hotel. What is this? It somehow rounded off the day, and scared the shit out of me.

Couldn’t sit still, went out for a walk, round to George Street, nearly dark now, church towers and crowstepped gable-ends outlined black against a luminous pinkish yellow sky. Here the church of St Andrew & St George, that glorious *rational* 18th-c. tower. That church helped to put the piper in perspective. Wild things out of the Highlands subdued by the Enlightenment. Better. Can now maybe go to

¹Easy is the descent into Hell:/Night and day the black gates of Dis [Hades] lie open;/But to recall one’s steps and escape up into the air./That is an accomplishment, that is a labour’.

bed.

That was the last time in years that I was moved enough by anything to feel even remotely close to tears, except maybe once or twice listening to Bach, once the slow movement of the Mozart clarinet concerto. The momentary 'freeing of the waters' was perhaps a presage of what could someday happen, an augury of something like the 'normal' (though not previously for me). It was freezing that dominated the following years; even the manic rages were cold. Depression is a stiffness of the spirit, wraps you in icy linen in yourself as your own sarcophagus.

But now I have somehow loosened, I am exhumed, the metaphorical freeing of the waters is once more plausible and laden with significance. I recall one hideously cold April day in Helsinki, after two weeks of silent snow, skeletal birches and black pines, frozen water, driving to the airport along the river Vantaa, and suddenly seeing for the first time breaking ice, the waters moving again after the stasis of winter, alive. Is this what rebirth is about? I now more often inhabit clear uplands, there is less need to keep up my dark facade, to look in constant trepidation over my shoulder, to cultivate customary suits of solemn black as an artificial protection, regardless of my current mood, so the contrast will be less devastating when the real thing comes. I can even love again, relish my friends, look coolly on death and life, or better coolly on the first and with some inkling of joy at the second.

Improvements. I am not just in remission, but a better, at least at very rare times almost skittish and loopy magical kind of remission. Unstable, some deep depressions, a lot of general flatness, frequent bouts of anxiety and black twitchy hypomania, but coupled with occasional bright hypomania and periods of what seems to me 'normal' mood, not unpleasant but without any particular affective colouring.

The story moves between two doors of hell; a couple of Virgils, perhaps myself included, a Beatrice or two, drugs above all have somehow got me through both. Though even the exit from Hell is only the entrance to Purgatory, and there are sixty-odd cantos to get through yet before the real light appears, if it ever will. Perhaps I have traversed Purgatory too, without knowing. But somehow the starlight coming through now is good enough for the present, I even have my fine moments, my exaltations and exultations, things I thought were banished forever, disappeared down the plughole my brain and I had carefully constructed over the decades for just this arcane purpose. (But again, so as not to tempt fate, I must remember another song, this time by John Anderson: 'There's a light at the end of the tunnel/Just hope it ain't a fast-moving train'.)

I haven't really invoked Dante before, though the imagery of the *Commedia* has been with me as it always is, a Baedeker for the most critical of journeys. Only now I have some idea of what it's really about, and the poem is not a versification of a theology only (though it does *that* better than any other) but a real journey, and I've taken at least the first third. I have now seen the *botafumario*² sweeping majestically down the south transept in the cathedral of Santiago de

² The *botafumario* is a giant baroque silver censer, about five feet tall, swung down the hundred-odd feet of the transept during special services. It's like a pendulum or a bell at the end of a rope operated by eight skilled men, rushing down fantastically ten feet or so over the heads of the congregation from the far end of the

Compostela, the incense pouring out in huge clouds as the priest (hieratic, with a numinous theatricality despite his commonplace bald head and glasses) says 'spiritus', and I know that journeys to the underworld and out take place in this world, all the time, and I have been on one, and still am. I could bracket and define the past decade and a half with two passages from *Inferno*, the first two verses and the last:

Nel mezzo del cammin di nostra vita
mi ritrovai per una selva oscura,
che la diritta via era smarrita.

Ahì quanto a dir qual era è cosa dura
questa selva selvaggia ed aspra e forte,
che nel pensier rinnova la paura !

—*Inf.*I.1ff³

salimmo suso, ei primo ed io secondo
Tanto ch'io vidi delle cose belle
che porta il ciel, per un pertugio tondo;

e quindi uscimmo a riveder le stelle

—*Inf.* XXXIV. 136ff⁴

I am released to see some stars again, at least from time to time. I am free in a way now, partly through learning to live with what is unavoidable, and I find more joy than I ever expected to feel in the newly visible, fresh and lovely contingencies of the world.⁵

transept, past the altar and back. It is one of the most terrifying and joyful sights in the world, the billowing smoke of the incense somehow an embodiment of the archetype of Spirit. (Which of course I don't believe in.). More and more what counts in life is metaphor. Thank you M for teaching me this.

³ 'In the middle of the road of our life/I came to myself in a dark wood /where the straight way was lost. O it is such a hard thing to tell/how harsh and powerful that savage wood was/that the fear renews itself in thought'.

⁴ 'We climbed up, he [Virgil] first, me second/until I saw those lovely things that the sky bears, through a round opening; and then we came forth to see the stars again'. William Styron (1990: 84) also chose these same two passages to epitomise his experience of depression and remission, though I had apparently forgotten that, and chose them myself because they seemed so right. I was pleased in rereading Styron to find those verses there. Who knows, maybe I got the idea of using them from him.

⁵ But a caveat. I know my enemy. However I may appear to have triumphed over sickness, or perhaps better how sickness has tended to retreat, I am not whole and never will be. This does not contradict the careful and ambivalent optimism that pervades much of this chapter, but is its obverse. My disease and my bereavement, since I have undergone both sickness and the death of love, have left scars, deep and unhealable. Maybe I'm even better for them, but no matter, they are there and the ineffaceable background of whatever other picture I present, and the future is always uncertain and still frightening. I still check my moods when I wake in

But despite the partial remission, even occasional happiness (never felt that as long as I can remember), still the lurking fear, only somewhat dimmer than before, the firm certainty of new episodes. I doubt that many of the new ones will be quite as cataclysmic as the old, as if once you've gone through hell the second or tenth journey is already familiar, you say what the fuck, I've been through this before, I know who lives down there. The great difference is that now I can say it—though the suicide option still hangs there ready for the time, if it comes (no longer *when* it comes). I still think, but a bit more mutedly, of suicide and death, of a time when it all may come back, the floodgates open, god knows what tsunami is waiting there for me. But it's now more abstract than before, remote and translucent, relatively unthreatening for the moment. (At 6.40 AM this present Thursday, so as not to pre-empt things.)

But there are still days, as there always will be, when my perpetual walkabout across the landscape of my brain leads me from the Mediterranean south of Africa and heads North, Cape Town dissolves into Iceland. I can wander here too even under the African sun in a barren lunar landscape over lava flows wrinkled and congealed like black Devon cream on the verge of butter, revisiting myself as years ago in Reykjavík, alone, uncommunicative and unable to communicate, shivering in a polar wind astride the Atlantic Ridge and watching the swans and eider ducks and hearing the fulmars and petrels scream at the edge of the world.

The lifting of the worst clouds has brought out a soft-centredness in me, almost a romanticism, a sentimentality, that early in my *Life in the Sarcophagus* I would not have admitted to, probably in fact could not have felt. The old Hard Man, the waspish malcontent, the eternal pessimist and cynic, the destroyer, the obscene, obsessive stand-up black comedian, is still a comfortable persona, still integral to me. I still wear it occasionally, if much less often than before, but there's something else now, maybe the result of having gone through this *descensus Averni* and not died. I wonder often if this isn't a false dawn; I will always wonder about such things, because from the beginning I was made this way, and the paths my life has taken early aborted the possibility of an innocent and unreflecting optimism.

But most of the low moods when they strike now are somewhat less depressed and tenebrous, more elegiac. Is this farewell, disengagement? Probably not right now, but perhaps a preparation, even in the midst of increasing wellness and work. And music, back again, a more and more intimate part of my life, a groundwork of my salvation or persistence. A consolation that I could not properly avail myself of before, a consolation even designed by some designers. I return endlessly to the late Haydn quartets in my lowest moods, and now I know why, because he made them for that. I came across a letter of his, in which he describes what his music does for him and is intended to do for others:⁶

the morning, to see where I am and if I can guess what's coming.

⁶ My translation. I found this letter in a tourist guidebook to Haydn's birthplace, *Haydn-Geburtshaus Rohrau* (Mödling: Druckerei St. Gabriel, 1985), p. 6.

Often, when I am ringed about with all manner of impediments, which rise up against my work, when the strength of my spirit and body sinks and the life I have entered on is hard to bear—then a secret feeling whispers to me, there are so few happy and satisfied people here below, grief and sorrow follow them always, perhaps your work will be a momentary spring from which the sorrowful and those weighed down by the affairs of the world can, for a moment, draw peace and recovery. [1802]

That I can do this now is a sign of something positive and good; I have not put my sickness behind me but, I don't know how, made something of it that sometimes feeds rather than feeding on. I feel an elegiac happiness; a peculiar notion perhaps, a muted happiness intertwined of course with dullness and depression and agitation and panic, but a background with occasional bursts of startling and gorgeous fireworks and agitated mixed states or the black curtain dropping over both the 'normal' and the rare manic explosions.

I feel I ought to end with the last of Strauss' Four Last Songs, I'd like this page to have a recording on it, but for those who know the music, and even those who don't, here is the poem he set in his old age. Not only for the reader to think about, but as a tribute and consolation for those who have helped me through this, my Virgils and my Beatrices:⁷

Wir sind durch Not und Freude
gegangen Hand in Hand,
vom Wandern ruhen wir beide
nun überm stillen Land.

Rings sich die Täler neigen,
es dunkelt schon die Luft,
zwei Lerchen nur noch steigen
nachträumend in den Duft.

Tritt her, und laß sie schwirren,
Bald ist es Schlafenszeit,
daß wir uns nicht verirren
in dieser Einsamkeit.

O weiter, stiller Friede!
So tief im Abendrot,
wie sind wir wandermüde –
ist dies etwa der Tod?

⁷ Joseph von Eichendorff, 'Im Abendrot' ['In the gloaming']. 'Through distress and joy we have/walked hand in hand/We both rest now from our wandering/Above the silent countryside. Around us the valleys bow their heads/already the air darkens./Only two larks still rise/half-dreaming, in the scented air. Come here, and let them flutter./Soon it will be time to sleep./So that we do not lose ourselves in this solitude./O spacious, quiet peace!/So deep in the Twilight,/how tired we are of wandering–/is this perhaps Death?'

. Glossary

This glossary is not exhaustive, though I have tried to include any technical term used in the book that might not be immediately familiar to my imagined readership. In some cases I've included relatively familiar words that need more precise definitions in context. **Boldface** within an entry indicates that the word in question is separately defined in the glossary. Acronyms (e.g. GABA) and initialisms (e.g. SSRI) will be found in their proper alphabetical positions. Prefixes and suffixes are hyphenated at the point of attachment, e.g. prefix *a-*, suffix *-ia.*; roots, like *-gluc-/glyc-* 'sugar' will have hyphens at both ends, to indicate that prefixes and/or suffixes can be attached (*hypo-glyc-aemia*).

a- (before a vowel *an-*) negative, not (*a-boulia, an-hedonia*).

aboulia Lack of will or desire to act.

acetylcholine A major **neurotransmitter**, involved in muscle contraction and the activation of the **parasympathetic** nervous system.

ACTH Adreno-cortico-tropic hormone. The chemical signal from the **pituitary** that causes the **adrenals** to release **cortisol** and similar 'stress hormones'.

adrenaline Also *epinephrine*. A hormone produced by the **adrenal medulla**, that is part of the stress response.

adrenals Two **endocrine** glands situated above the kidneys, that produce **adrenaline** and various **steroid hormones**.

AED Anti-epileptic drug (also *anticonvulsant*).

affect emotion, state of feeling

agonist A chemical that promotes or increases the activity of another by binding to its **receptors**. A substance that decreases the activity of another is an *antagonist*.

allele A variant form of a gene.

alkaloid an alkaline, nitrogen-containing chemical found in a plant, presumably evolved as a

defense against predators: e.g. atropine, hyoscine.

amine An organic (carbon-based) chemical containing an amine group, $-NH_2$ –i.e. an ammonia molecule (NH_3), lacking one hydrogen. Those with only one group are *monoamines*.

amino acid An weak organic acid containing a carboxyl group $-COOH$. Strings of amino acids form **proteins**.

amnesia Loss of memory. This may be *retrograde* (loss of previous memory); or *anterograde* (inability to lay down new memories.)

amygdala A structure in the **limbic system** responsible for emotions such as fear and aggressiveness, storage of traumatic memories, and the recognition of faces.

anergia Lack of energy.

anhedonia The inability to feel enjoyment or pleasure.

anti- (**ant-** before a vowel: *anti-histamine*, *ant-acid*). Against, counteracting.

antagonist see **agonist**

anterograde see **amnesia**

anti-hypertensive A drug used for lowering blood-pressure.

anticholinergic Acting against **acetylcholine** by binding to its **receptors**. Anticholinergic drugs tend to produce raised blood pressure and pulse-rate, dry mouth, constipation and urinary difficulty.

antihistamine An **antagonist** of **histamine**.

antipsychotic Also *neuroleptic*. A drug, usually a **dopamine antagonist**, that reduces the symptoms of **psychosis**.

anxiolytic A drug that reduces anxiety, lit. ‘dissolves’ it.

aphasia Loss of speech.

ataxia A movement disorder (permanent or temporary) involving clumsiness and lack of limb control.

auto- Self-

autonomic nervous system A branch of the nervous system concerned with control of blood-pressure, digestion, and many other functions. It has two branches, the *sympathetic* (activated mainly by **adrenaline** and **noradrenaline**) and the *parasympathetic* (activated mainly by **acetylcholine**). Sympathetic arousal produces the **fight or flight** response (raised blood pressure, etc.); the parasympathetic has the opposite effects.

axon The process extending from a neuron that carries information away from it, to a **synapse**.

BDNF Brain-derived neurotrophic factor. A **protein** necessary for the maintenance, growth and regrowth of **neurons**.

benzodiazepine A class of sedative or tranquillising drugs including Valium and its relatives.

bipolar A type of mood disorder in which the patient switches between depressed and elevated mood states. Also *manic depression*.

blindsight The unconscious recognition of objects in cases where there is damage to the visual **cortex** but the eyes are intact.

blockade Any process that prevents **receptors** from binding the appropriate molecules.

brain stem The most 'primitive' or ancient part of the brain, consisting of the medulla (controlling breathing and heartbeat) and other structures just above the spinal cord.

-cardi- Pertaining to the heart.

Capgras delusion The conviction that partners, relatives or friends are not 'real' but are clever facsimiles inhabited by others.

catalyst A substance that promotes a chemical reaction without being changed itself.

CBT **Cognitive behavioural therapy**. A type of psychotherapy based on the assumption that

psychiatric disorders are due to ‘erroneous thinking’, and that changes in thought and behaviour can produce improvement or cure.

cerebellum An outgrowth of the **brainstem** that controls automatic movement and fine motor coordination, and some aspects of learning.

-cerebr- Pertaining to the brain.

cerebrospinal fluid (CSF) The lymph-like fluid that surrounds the brain and spinal cord, bringing nutrients and taking away wastes.

chromosome A molecule of DNA wrapped around a core of protein, carrying a specific set of genes.

circadian. Of bodily rhythms that operate on roughly 24-hour clock, such as the control of hormone secretion, sleep, etc. Other rhythms are *infradian* (less than a day), or *ultradian* (more than a day). The sleep cycle is circadian, blood sugar rhythms are infradian, and the menstrual cycle is ultradian.

CNS Central nervous system (brain and spinal cord).

comorbid Of a disease occurring with another.

confabulation The unintentional invention of stories to substitute for absent or unwanted memories.

cortex The outer layer of a multilayered organ; in the brain, the evolutionarily newest and topmost layer. In discussing the brain *cortex* and the adjective **cortical** normally refer to the **neocortex**.

cortical Referring to the cerebral cortex, more broadly to the ‘higher’ cognitive functions, as opposed to *subcortical*. The **limbic system** and **brain stem** are subcortical structures.

cortisol A **steroid hormone** produced by the **cortex** of the **adrenal** gland, involved in stress-response.

Cotard delusion The conviction that one is dead.

CRH Corticotrophin Releasing Hormone, a **hormone** that ultimately causes the release of **cortisol**, as well as having other effects in the brain.

cyclo- Circular, cyclic.

cyclothymia Rapidly changing mood states; a mild form of **bipolar** disorder.

delusion An erroneous belief, (e.g. that the CIA is monitoring your thoughts through your radio, or that you have been abducted by aliens).

dendrite A branch-like tubular fatty structure coming off the cell body of a **neuron**, that connects with other dendrites or the terminal buttons of **axons**.

diathesis A hereditary predisposition to an illness.

dissociation A condition in which parts of the self or personality appear to some degree 'separate' entities.

DNA Deoxyribonucleic acid, the substance in which the genetic code is written.

dopamine An **amine neurotransmitter** controlling arousal, initiation of movement, aspects of memory and reward, and sensations of pleasure.

Doppelgänger. A 'duplicate' self that appears to follow one around, or is met face-to-face.

dorsal Referring to the back surface (of the body or an organ).

down-regulation Decrease in the number of **receptors** for a particular substance, due to an increase in supply. The opposite is *up-regulation*, in which receptor numbers increase as the supply decreases.

DSM The *Diagnostic and statistical manual of mental disorders*, published by the American Psychiatric Society.

dualism The belief that 'mind' and 'body' or 'brain' are separate; normally that the mind is non-material whereas the brain is 'merely' material, and therefore cannot be capable of thought or consciousness in itself.

dys- negative version of what follows .

dysphoria low mood.

dysthymia A general state of low mood bordering on serious depression

ECT Electroconvulsive therapy. The induction of seizures under controlled conditions for the treatment of depression and other psychiatric diseases.

EEG Electroencephalogram. The output of a device that measures the electrical activity of the brain non-invasively through the scalp.

-emia-, -aemia- Condition involving the blood (e.g. *hypo-glyc-emia* 'low blood sugar').

en- In.

endo- In(side of).

endocrine Of a gland that secretes its product directly into the bloodstream rather than through a duct (e.g. the **thyroid** or **pituitary**).

endorphin A morphine-like substance produced in the brain, controlling pain and sometimes producing euphoria (as in the 'runner's high').

enzyme A **protein** that acts as a **catalyst** in reactions inside the body.

epinephrine see **adrenaline**

-ergic Activated by or utilizing a particular neurotransmitter, as in *serotonergic*, *dopaminergic*, etc

eu- Good, healthy.

euthymia 'Normal' or 'good' mood.

excitatory see **inhibitory**

exo- Out(side of).

exogenous Originating from outside (the mind or body).

expression The production of **protein** by a gene.

extra- Out(side of).

fight or flight response The result of activation of the **HPA**. Involves raising of pulse-rate and blood-pressure, release of insulin and **adrenaline**, turning off of sexual and excretory systems.

firing The production of an electrical current ('action potential') in a **neuron**.

frontal lobe The anterior lobe of the **neocortex**, situated roughly behind the eyes and forehead, the site of most 'higher' cognitive function.

GABA Gamma-aminobutyric acid, an important **inhibitory neurotransmitter**.

gamete A sex cell (sperm or ovum), with only half the species complement of **chromosomes**.

-gen- Generate, give birth, produce (e.g. *endo-gen-ous* 'produced from inside').

genome The full set of genes possessed by any organism; its 'genetic definition'.

genotype The genetic constitution of an individual (including those genes that are not **expressed**), as opposed to its *phenotype*, its physical appearance or behaviour.

-gluc-/ -glyc- Pertaining to sugar.

glucose A simple sugar, the body's main source of energy.

glutamate The main **excitatory neurotransmitter** in the brain..

glutamine An **amino acid** playing an important role in the nervous system, possibly involved in bipolar disorder and certainly in Huntington's disease.

glycogen The insoluble form (a starch) in which **glucose** is stored in the liver and other parts of the body, prior to release into the bloodstream.

hallucination A sensory experience with no external input, but generated from the brain itself: normally visual or auditory, but can sometimes be olfactory as well.

hemi-, half-

hemiplegia Paralysis on one side of the body.

hetero- different from.

heterozygotic Of a pair of twins from different fertilisations, hence genetically no more alike than any arbitrary pair of siblings ('fraternal' twins); as opposed to *homozygotic* twins, from the splitting of one **zygote** ('identical' twins).

heterozygous Having two different **alleles** of the same gene. If both maternal and paternal alleles are the same, the organism is *homozygous* for that particular gene.

hippocampus A structure in the limbic system primarily concerned with the establishment of memory and maintenance of mood.

Histamine An **amine** involved in inflammatory and allergic processes among others; **antagonists** at certain histamine **receptors** can cause somnolence and/or weight gain.

homozygotic see **heterozygotic**

homozygous see **heterozygous**

hormone A substance (most often a **steroid** or **peptide**) that sends chemical messages from one part of the body to another, or activates physiological processes: e.g. cortisol, testosterone, oestrogen.

HPA The hypothalamic-pituitary-adrenal axis. A system which, under stress, is responsible for setting the '**fight or flight**' reaction in train, and inducing the release of **adrenaline** and **cortisol**.

Huntington's disease A hereditary neurological disease causing movement disorder, dementia and death.

hyper- More than/above normal.

hyperthymia Slightly elevated mood.

hypersomnia Excessive sleep.

hypnotic A drug designed to aid sleep, a 'sleeping pill'.

hypo- Less than/below normal.

hypomania A state of elevated mood, not quite reaching **mania**.

hypothalamus A structure in the **limbic system** below the **thalamus**, concerned with 'housekeeping' tasks (maintaining blood sugar levels, etc.), sexual arousal, and response to stress.

hypothymia Slightly lowered mood.

-ia Indicating a state or condition.

in vitro Of an experiment or phenomenon occurring outside a living organism.

in vivo Of an experiment or phenomenon occurring inside a living organism.

infradian see **circadian**

inhibitory Of a chemical or neural circuit that acts to prevent or decrease the **firing** of **neurons**; the opposite type of action is *excitatory*.

labile Fluctuating, unstable.

lateralisation Specialisation of function to one cerebral hemisphere.

limbic system The 'old mammalian' brain, those subcortical structures primarily concerned with emotion and life-sustaining processes

lipid Fatty substance, e.g. cholesterol.

mania A state of extremely elevated mood, verging on or reaching the **psychotic**.

MAOI Monoamine Oxidase Inhibitor; an antidepressant drug that disables **monoamine oxidase**.

medulla The inner core of a multilayered organ. See **cortex**.

mixed state A mood episode which simultaneously shows both manic and depressive features.

monoamine see **amine**

monoamine oxidase A class of enzymes that degrade **monoamine neurotransmitters**.

mood stabiliser A drug such as lithium carbonate that reduces or prevents cycling between manic and depressed states.

MPD Multiple personality disorder. A controversial kind of **dissociation**, in which the patient appears to have 'multiple personalities' or as they're often called 'alters', which behave as if they were independent persons. It is not known whether this is a real illness or a therapist-generated artifact.

myelin A fatty substance wrapped around the **axons** of most nerves, speeding the conduction of current.

neocortex the evolutionarily most recent part of the mammalian brain, the outer convoluted layer.

neuroleptic see **antipsychotic**

neuron A specialised nervous system cell that transmits information by means of electrical current and release of **neurotransmitters**.

neurogenesis The growth or replacement of **neurons**.

neurotransmitter Broadly, any substance that activates, inhibits or conveys information to a **neuron**.

noradrenaline An **amine neurotransmitter**, related to **adrenaline**, differing only in having one methyl group (-CH₃) instead of two. (This was once thought to be the 'normal' form of such compounds, hence *nor-*). Also *norepinephrine*.

norepinephrine see **noradrenaline**

nucleus accumbens A small structure in the **limbic system**, richly supplied by **dopamine** neurons. It is one of centres for 'reward' and the sensation of pleasure.

occipital lobe The hindmost lobe of the **neocortex**, concerned primarily with vision.

ontogenetic Pertaining to the origin and development of an individual (e.g. fetal or embryonic growth).

opiate A drug made from, or containing or chemically and physiologically similar to opium.

opioid An opium-like substance, usually one made by the body itself

panic attack A very severe form of acute anxiety, involving palpitations, hyperventilation, and frequently fear of death.

parasympathetic nervous system see **autonomic nervous system**

parietal lobe The lobe of the **cerebral cortex** posterior to the **frontal**, above the **temporal**, and anterior to the **occipital** lobe.

Parkinsonism A movement disorder produced by degeneration of certain **dopamine neurons**, characterised by stiffness, inability to initiate or stop movement, and tremor.

-path- Pertaining to a diseased state.

peptide A small **protein**, consisting of a short chain of **amino acids**.

perfusion The supply of blood to a given part of the body.

-phor- relating to state of mind, as in eu-phoria.

-phren- Pertaining to thought or general cognitive function.

piloerection The erection of hairs, as in 'hair standing up on the back of your neck', or on balder parts of the body 'goose-bumps'.

phenotype see **genotype**

phylogenetic Pertaining to the evolutionary history of a species or other grouping.

pineal gland/body A glandular object in the midline of the brain, above the **hypothalamus**. Concerned with reacting to light and organising **circadian** rhythms.

pituitary or *hypophysis*. A portion of the lower **hypothalamus**, often referred to as an **endocrine** gland, but actually part of the brain.

polarity The 'upness' or 'downness' of mood; e.g. depression vs. **mania**.

polymorphism A variation at some locus in a gene in members of a population.

postsynaptic Of a **neuron** that is downstream of a **synapse** and receives **neurotransmitters** from it.

presynaptic Of a **neuron** that is upstream of a **synapse** and discharges **neurotransmitters** into it.

projection A single **neuron** or bundle constituting a functional pathway, originating in one part of the brain and ending up in another.

protein The basic material that living things are made of. Proteins are chains of **amino acids** of varying lengths and three-dimensional structures.

proximate cause The cause in a chain of causes closest to the effect.

-psych- Pertaining to the mind.

psychomotor Pertaining to (both) mental and physical behaviour, normally its speed (hence *psychomotor retardation*, etc.)

psychosis (Adj *psychotic*) Loosely (and with diagnostic tact), a state in which a person is disconnected from 'consensual reality', normally through having **hallucinations**, **delusions** or both.

psychotropic Of a drug or other substance acting on the mind.

PTSD or **Postraumatic stress disorder** A condition following severe stress or trauma (e.g. rape, witnessing atrocities), characterised by 'flashbacks' of the original scene, hypervigilance, often aggressiveness, fear, depression and proneness to violence and nightmares.

receptor A protein structure, part of which protrudes from the outer membrane of a cell, and part of which pierces the membrane and enters the interior. Receptors are specifically designed to accept molecules of a certain shape, and communicate a specific message to the interior of the cell, or in

some cases to allow substances directly into the cell.

REM Rapid eye-movement sleep. The stage in sleep when the body muscles are largely paralysed and the eyes move rapidly beneath the closed eyelids. This is when most dreaming occurs.

retrograde see **amnesia**

reuptake The reabsorption of a **neurotransmitter** from the **synapse** into the **neuron** that has released it. Many antidepressants work by inhibiting this process. The machinery for this process is often called the *reuptake pump*.

SAD Seasonal affective disorder. A mood disorder that responds to the seasons, specifically to light.

schizophrenia A complex **psychotic** disorder or group of disorders involving clusters of ‘negative’ symptoms (withdrawal, depression) and ‘positive’ ones (hallucination, delusion, mania), and a general ‘splitting’ of the patient from the usual everyday world. Not as usually thought ‘split personality’.

serotonin An **amine neurotransmitter**, implicated in the maintenance of mood as well as other functions, and the primary target of most antidepressants.

SNRI **Serotonin** and **noradrenaline reuptake** inhibitor. A class of antidepressants including Effexor.

somatic Referring to the body.

spectrum A ‘range’ or ‘scale’ along which various forms of a condition can be placed, without sharp distinctions between positions: e.g. the depression spectrum, the autism spectrum.

SSRI Selective **serotonin reuptake** inhibitor. A class of antidepressants including Prozac.

steroid A fatty organic compound built around a structure of seventeen carbon atoms in four interlocking rings. Among the most biologically important are cholesterol, testosterone, and **cortisol**. Synthetic steroids like cortisone, etc. are used as anti-inflammatory and immunosuppressive agents.

subcortical Generally referring to structures below (and older than) the **neocortex**, e.g. the **limbic system**.

sympathetic nervous system see **autonomic nervous system**

synapse The meeting-point of the **axon** of one **neuron** with the **dendrites** of another, or with a muscle or other structure; the junction across which information is signalled from one neuron to another.

tachycardia Excessively rapid heartbeat.

TCA see **tricyclic**

temporal lobe The lobe of the **neocortex** immediately behind and below the **frontal** lobe, concerned with memory, hearing, religiosity and aspects of language function.

thalamus A structure in the **limbic system** that acts as a kind of 'way station' or transducer for sensory input, as well as being involved in memory.

-thym- mood.

thyroid An **endocrine** gland situated in front of the larynx, which controls many aspects of energy use and metabolism, and also affects mood.

Tourette's syndrome A dysregulation of the **dopamine** system presenting as tics, twitching, barking and making other strange noises, and uncontrollable obscenity.

transporter proteins Protein molecules that bind to **neurotransmitters** and take them back into the **neuron** that has released them, i.e. the mechanical agents of **reuptake**.

tricyclic A class of antidepressants so called because of their three-ring molecular structure.

-tropic Affecting the item that comes before it.

ultimate cause The first in a chain of causes leading to an effect.

ultradian see **circadian**

unipolar Of a depressive disorder having only one polarity, i.e. alternations between 'normal' mood

and depression.

up-regulation see **down-regulation**

ventral Pertaining to the lower side of the body or an organ.

ventral tegmental area An area in the **limbic system** that is stimulated by **dopamine**, part of the brain's 'pleasure system'.

white matter the collective name for the substance in the brain composed of the **axons** of **neurons** coated with **myelin**.

zygote A fertilised ovum, containing full chromosome complements from both parental **gametes**. This term applies only before the first cell-division, after which it becomes an embryo.

References

For 'classics' like Burton's *Anatomy of melancholy*, or *Boswell's Life of Johnson*, of whatever age, I have generally given the date of first publication and one of the great number of modern editions or downloadable versions on the Internet.

Acton, G.S. *et al.* 2001. Depression and stages of change for smoking in psychiatric outpatients. *Addictive Behavior* 26.621-31.

Allport, G.W. 1961. *Pattern and growth in personality*. New York: Holt, Rinehart & Winston.

Altschuler, L.L. *et al.* 1995. Antidepressant-induced mania and cycle acceleration: a controversy revisited. *American Journal of Psychiatry* 152.1130-38.

American Psychiatric Association, 1994. *Diagnostic and statistical manual of mental disorders*. 4th ed. Washington D.C.: American Psychiatric Association.

Anda, F.R. *et al.* 1990. Depression and the dynamics of smoking.. *Journal of the American Medical Association* 264.1541-9.

Angst, J. 1997. Epidemiology of depression. In Honig & van Praag (eds.) 1997.

Anon., 2000. Icelandic population does not show seasonal mood change. *Reuters Medical News*, 16 February 2000. <http://psychiatry.medscape.com/reuters/prof/2000/02/02.16/ep02160b.html> .

Andrade, C. 2008. Molecular mechanisms underlying electroconvulsive therapy-induced amnesic defects: a decade of research. *Indian Journal of Psychiatry* 50(4).244-52. Available on PubMed Central at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755145/?tool=pubmed>.

Antonietti, A. Corradini, A., Lowe, E.J. (eds.), 2008. *Psycho-physical dualism today*. Lanham, MD: Lexington Books.

Ashton, H. & Stepney, R. 1983. *Smoking. Psychology and pharmacology*. London: Tavistock, 1983.

Bannister, R. 1992. *Brain and Bannister's clinical neurology*, 7th ed., rev. Sir R. Bannister. Oxford University Press.

Barnard, C. 1981. *Leef goed sterf goed. 'n doktor se pleddoi vir genadedood en selfmoord*. Cape Town: John Malherbe.

Baron-Cohen, S. (ed.). 1997. *The maladapted mind. Classic readings in evolutionary psychopathology*. Hove: Psychology Press.

Barondes, S.H. 1999. *Mood genes: hunting for origins of mania and depression*. London: Penguin.

Bartolomucci, A. & Leopardi, R. 2009. Stress and depression: preclinical research and clinical implications. *PLoS ONE* (4.1), <http://www.plosone.org/article/imfoLdoi/10.1371/journal.pone.0004256>.

- Bass, E. & L. Davis, 1988. *The courage to heal: a guide for women survivors of child sexual abuse*. New York: HarperPerennial.
- Beauchamp, T.L. & J.F. Childress, 1989. *Principles of biomedical ethics*. 3rd ed. Oxford University Press.
- Beck, A.T. 1967. *Depression: causes and treatment*. Philadelphia: University of Pennsylvania Press.
- Beck, A.T. *et al.* 1979. *Cognitive theory of depression*. New York: Guildford.
- Benatar, D. 2000. Euthanasia and assisted suicide: the right to life and its corollary. *Specialist Medicine* (June 2000), 354-8.
- Benatar, D. 1997. Why it is better never to come into existence. *American Philosophical Quarterly* 34:3 .345-55.
- Benson. L.D. (ed.). 1987. *The Riverside Chaucer*. Oxford University Press
- Berger, M. & Riemann, D. 1993. 'REM sleep in depression—an overview', *Journal of Sleep Research* 2.211-23
- Bernhard, T. 1988. *Alte Meister*. Frankfurt: Suhrkamp.
- Bezchlibnyk-Butler, K.Z. & Jeffries, J.J. *Clinical handbook of psychotropic drugs*. 8th ed. Seattle: Hogreffer & Huber.
- Bierce, A. 1911. *The Devil's dictionary*. Collected Works, vol. 7. Repr. 1999, Oxford: Oxford University Press.
- Blackmore, S. 1999. *The meme machine*. Oxford University Press.
- Bliss, T. 1998. The physiological basis of memory. In Rose (ed.) 1998.
- Blood, A.J. & Zatorre, R.J. 2001. Intensely pleasurable responses to music correlate with activity in brain regions implicated in reward and emotion. *Proceedings of the National Academy of Sciences* 98.11818-23.
- Bolon, K. 1998. Cognitive-behavioural therapy for depression. *The Journal of Depression and Anxiety* 1,1. 24-5
- Boswell, J. 1791. *Life of Johnson*. Reprint, Oxford Standard Authors. Oxford: Oxford University Press.
- Branch, D.R. 1999. Genetics of nicotine dependence may influence prevention. *Clinical Psychiatry News* 27(6):33.
- Bruder, C.E.G. *et al.* 2008. Phenotypically concordant and discordant monozygotic twins display different copy-number-variation profiles. *American Journal of Human Genetics* 82.763-71
- Burt, E.A. 1954. *The metaphysical foundations of modern science*. New York: Anchor Books. :
- Burton, R. 1621. *An anatomy of melancholy*. Downloadable version at <http://www.gutenberg.org/letext/10800>.
- Cairns-Smith, A.G., 1996 *Evolving the mind: on the nature of matter and the origin of consciousness*. Cambridge: Cambridge University Press.

- Calvin, W.H. & Ojemann, G.A. 1994. *Conversations with Neil's brain*. New York: Basic Books.
- Capua, T. & Shapiro, C.M. 2007. Commentary on a critique for the *Journal of Psychopharmacology*: NICE – excellence or eccentricity? Reflections on the z-drugs as hypnotics review. *Journal of Psychopharmacology* 21.117-17.
- Carey, P. *et al.* 2008. Anxiety disorders. In Murray *et al.* (eds.) 2008.
- Carver, D. 1997. Mixed state heterogeneity: a mural of mood and temperament. Report on a paper by H. Akiskal, Online coverage from the 150th Annual meeting of the American Psychiatric Association, May 18-21, 1997: <http://www.medscape.com/Medscape/CNO/1997/APA/CME-select/0.../IS26B.akiskal.htm>.
- Caspi, A. *et al.* 2003. Influence of life stress on depression: moderation by a polymorphism in the 5-HTT gene. *Science* 301: 386-9.
- Clare, A. 1994. With Spike Milligan. *Depression and how to survive it*. London: Arrow Books.
- Conway, M.A., Collins, A.F., Gathercole, S.E., & Anderson, S.J. (1996). Recollections of true and false autobiographical memories. *Journal of Experimental Psychology: General*, 125. 69-95.
- Costafreda, S.G. *et al.* 2009. Prognostic and diagnostic potential of the structural neuroanatomy of depression. <http://www.plosone.org/article/info:doi/10.1271.pone0006353>.
- Covey, L.S. *et al.* 1997. Major depression following smoking cessation. *American Journal of Psychiatry*, 145.263-5.
- Crews, R. 1997. *The memory wars. Freud's legacy in dispute*. London: Granta Publications.
- Crick, F. 1994. *The astonishing hypothesis*. London: Simon & Schuster.
- Crone, I.B. & Bloor, R. 2008. Alcohol problems. In Murray, R.M. (ed.) 2008.
- D'haenen, H.A.H. 1997. Brain imaging in depression. In Honig & van Praag (eds.) 1997.
- Damasio, A. 1994. *Descartes' error*. New York: Grosset/Putnam.
- Damasio, A. 2003. *Looking for Spinoza. Joy, sorrow and the feeling brain*. Orlando & Austin: Harvest Books.
- David, R. *et al.*, 1996. Split minds: multiple personality and schizophrenia. In Halligan & Marshall (eds.) 1996.
- Davies, P.J. 1984. Mozart's illnesses and death. *Musical Times* cxxv, 437ff, 554ff.
- Davies, P.J. 1987. Mozart's manic-depressive tendencies. *Musical Times* cxxviii, 123-6, 191-6
- Dawkins, R. 1998. *Unweaving the rainbow* London: Penguin.
- Dennett, D.C. 1992. *Consciousness explained*. London: Penguin..
- Dennett, D.C. 1996. *Kinds of minds. Toward an understanding of consciousness*. New York: Basic Books.

- Dennett, D.C. 2004. *Freedom evolves*. London: Penguin.
- DeRubeis, R.J. *et al.*, 1999. Cognitive behavior therapy equivalent to medication for severe depression, *American Journal of Psychiatry* 156.1007-13 (1999).
- DeRubeis, R.J. *et al.* 2008. Opinion: Cognitive therapy vs medication for depression: treatments and neural mechanisms. *Nature Reviews Neuroscience* 9.788-96.
- Donnelly, J. (ed.). 1998. *Suicide: Right or wrong?* 2nd ed. Amherst NY: Prometheus Books, 1998).
- Downward, J., 2001. The ins and outs of signalling. *Nature* 411.759-62.
- Draft suicide assessment guidelines, December 1993*. Developed by the Risk advisory Committee of the Risk Management Foundation of the Harvard Medical Institutions. <http://www.rmf.org/b3557.html>.
- Drevets, W.C. *et al.*, 1997. Subgenual prefrontal abnormalities in mood disorders. *Nature* 386.824-7.
- Duggan, C.F., 1997. Course and outcome of depression. In Honig & van Praag (eds.) 1997.
- Du Preez, P. 1991. *A science of mind. The quest for psychological reality*. London: Academic Press.
- Ellis, H.D. & T.C. Szulecka, 1996. The disguised lover: a case of Frégoli delusion. In Halligan & Marshall (eds.) 1996.
- Eysenck, H.J. 1970a. Principles and methods of personality description, classification and diagnosis, in Eysenck (ed.) 1970b.
- Eysenck, J.H. (ed.), 1970b. *Readings in extraversion-introversion. I, Theoretical and methodological issues*. New York: Wiley.
- Feighner, J.P. & Boyer, W.F. (eds.) *The diagnosis of depression*. Chichester: John Wiley.
- Fieve, R.R. 1997. *Moodswing*. 2nd ed. New York: Bantam Books.
- Fink, M., 1997. Electroconvulsive therapy in affective disorders: efficacy and mode of action. In Honig & van Praag (eds.) 1997.
- Forrest, D. 1999. Using benzodiazepines not a 'crime'. *Medical Tribune* 40(1):4.
- Fowler, J.C. *et al.* 1996. Inhibition of Monoamine Oxidase B in the brains of smokers. *Nature* 379.733-6.
- Fremon, C. 1991. Love and death. *Los Angeles Times Magazine*, 27 January 1991: 17-21, 35. Reprinted in Donnelly (ed.) 1998.
- Freud, S. 1917. Mourning and melancholia. In J. Strachey *et al.* (eds.). *The standard edition of the complete psychological works of Sigmund Freud*, vol. 14.73-102. Reprint 1999. New York: Vintage Books.
- Freud, S. 1933. *New introductory lectures on psychoanalysis*. Reprint 1966. New York: Norton.

- Gershon , E. 1990. Genetics. In Goodwin & Jamison 1990.
- Godwin, G. 1991. *Father Melancholy's daughter* . London: André Deutsch
- Goodwin, F.K. & Jamison, K.R. 1990. *Manic depressive illness*. Oxford: Oxford University Press.
- Graber, G.C. 1998. Mastering the concept of suicide. In Donnelly (ed.) 1998.
- Greenfield, S. 2008. *i.d. The quest for identity in the 21st century*. London: Sceptre.
- Gregory, R.L. 1984. *Mind in science*. London: Peregrine Books..
- Gregory, R.L. (ed.). 1987. *The Oxford companion to the mind*. Oxford: Oxford University Press.
- Griffiths, A.P. 1994. Wittgenstein, Schopenhauer, and Ethics. In *Understanding Wittgenstein* (Royal Institute of Philosophy Lectures, VII, 112).
- Gualtieri, C.T. 1995. The contribution of the frontal lobes to a theory of psychopathology. In Ratey (ed.) 1995.
- Haldane E.S. & Ross, G.R.T.(eds.). 1967. *The philosophical works of Descartes*. Cambridge: Cambridge University Press.
- Halligan, P.W. & J.C. Marshall (eds.). 1996. *Method in madness: case studies in cognitive neuropsychiatry*. Hove: Psychology Press.
- Hamer, D. & Copeland, P. 1999. *Living with our genes*. London: Macmillan.
- Hanissian J, n.d. A broader definition of mixed states (Online coverage from the 150th Annual Meeting of the American Psychiatric Association, accessible at Medscape Conference News Online), <http://www.medscape.com/Medscape/CN0/1997/APA/CME-Select/05.../IS43B.perugi.htm>
- Harlow, J.M. 1868. Recovery from the passage of an iron bar through the head. *Massachusetts Medical Society* 2.327-46.
- Healey, D, 1998. *The antidepressant era*. Cambridge, MA: Harvard University Press.
- Honig, A. & van Praag, H.M. (eds.). 1997. *Depression. Neurobiological, psychophysiological and therapeutic advances*. Chichester: Wiley.
- Horrobin, D. 2001. *The madness of Adam and Eve: how schizophrenia shaped humanity*. London: Bantam Press.
- Hughes, T. 1998. *The birthday letters*. London: Faber & Faber.
- Hughes. T. (ed.). 1981. *Sylvia Plath: collected poems*. London: Faber & Faber.
- Humphry, D. 1991. *Final exit. The practicalities of self-deliverance and assisted suicide for the dying*. Eugene, OR: The Hemlock Society.

- Jackson, S., 1986. *Melancholia and depression: from Hippocratic times to modern times*. Yale University Press.
- James, W. 1884. What is an emotion? *Mind* 9.188-205.
- Jamison, K.R. 1993 *Touched with fire: manic-depressive illness and the artistic temperament*. New York: Simon & Schuster.
- Jamison, K.R. 1995. *An unquiet mind A memoir of moods and madness*. New York: Knopf.
- Keedwell, P. 2008. Upsides of being down. *The Guardian* 27/2/08.
- Kendler, K.S. *et al.* 1993. The lifetime history of major depression in women: reliability of diagnosis and heritability. *Archives of General Psychiatry* 50.863-70.
- Kendler, K.S. *et al.* 2000. Stressful Life Events and Previous Episodes in the Etiology of Major Depression in Women: An Evaluation of the "Kindling" Hypothesis. *American Journal of Psychiatry* 157.1243-1251.
- Kendler, K.S. *et al.* 2008. Does bereavement-induced depression differ from major depression associated with other stressful life events? *American Journal of Psychiatry* 165.1449-55.
- Kirn, W. 1997. Living the pharmaceutical life, *Time*, 29 September 1997: 55.
- Klein, R. 1993. *Cigarettes are sublime*. London: Picador.
- Kopczuk, W., & Slemrod, J. 2001. Dying to Save Taxes: Evidence from Estate Tax Returns on the Death Elasticity. *National Bureau of Economic Research Working Paper* No. W8158, March 2001.
- Kraepelin, E. 1921 *Manic-depressive insanity and paranoia*. Edinburgh: Livingstone. Repr. 1976. New York: Arno Press.
- Kramer, P.D. 1994. *Listening to Prozac*. London: Fourth Estate.
- Kramer, T.A.M., 2000. Recovery vs. response. *Medscape Mental Health* 5(4).
- Krishnan, V. & Nestle, E.J. 2008. The molecular biology of depression. *Nature* 455.894-902.
- Kukil, K.V. (ed.), 2000. *The journals of Sylvia Plath, 1950-1962*. London: Faber & Faber.
- Libet, B. 1981. The experimental evidence of subjective referral of a sensory experience back in time. *Philosophy of Science* 48.182-97.
- Linden, D.J. 2006. How psychotherapy changes the brain. *Molecular Psychiatry* 11: 528-538.
- Locke, J. 1690. *Essay on human understanding*. Available at <http://www.arts.cuhk.edu.hk/Philosophy/Locke/echu>.
- Loftus, E.F., 1992. When a lie becomes memory's truth. *Current Directions in Psychological Science* 1.121-2.
- Loftus, E.F. & Loftus, G. R. 1980. On the permanence of stored information in the human brain. *American*

Psychologist 35.409-20.

Loftus, E.F. & Pickrell, J. 1995. The formation of false memories. *Psychiatric Annals* 25. 720-725.

López-Ibor, J.J. Jr. 1991., The masking and unmasking of depression. In Feighner & Boyer (eds.) 1991.

McCauley, J. *et al.* 1997. Clinical characteristics of women with a history of childhood abuse. *Journal of the American Medical Association* 277.1362-8.

McGuffin, P. 2008. Affective disorders. In Murray *et al.* 2008.

McGuire, M. & Troisi, A. 1998. *Darwinian psychiatry*. Oxford: Oxford University Press

McHugh, P.R. & Slavney, P.R. 1998. *The Perspectives of psychiatry*. 2nd ed. Johns Hopkins University Press.

Maclean, P.D. 1990. *The triune brain in evolution. Role in paleocerebral functions*. New York: Plenum Press.

Maddox, J. 1998. *What remains to be discovered. Mapping the secrets of the universe, the origins of life, and the future of the human race*. New York: Free Press.

Maes, M. 1997. The immune pathophysiology of major depression. In Honig & van Praag (eds.) 1997.

Maj, M. 2008. Depression, bereavement and “understandable” intense sadness: should the DSM-IV be revised? *American Journal of Psychiatry* 165.1373-5.

Mamo, D. & Kapur, S. 2008. Imaging of brain structure and function: relevance to psychiatric disorders. In Murray *et al.* (eds.) 2008.

Mann, T. 1947. *Doktor Faustus*. Frankfurt: Fischer.

Martin, P., 1997. *The sickening mind*. London: HarperCollins.

Medawar, P. 1967. *The art of the soluble*. London: Methuen.

Medawar, P. 1984. *Pluto's republic*. Oxford: Oxford University Press.

Meninger, K. 1963. *The vital balance*. New York: Viking.

Monroe, S.M. & Harkness, K.L. 2005. Life stress, the “kindling” hypothesis, and the recurrence of depression: considerations from a life stress perspective. *Psychological Review* 112.417-45.

Moram, M. 2008. Beck: understanding of depression ready for new paradigm. *Psychiatric News* 43,14. 21.

Mullen, P.E. *et al.* 1996. The long-term impact of the physical, emotional and sexual abuse of children. *Child Abuse and Neglect* 20.7-21.

Murray, R.M. *et al.* (eds.) 2008. *Essential psychiatry*. 4th ed. Cambridge: Cambridge University Press.

- Nagel, T. 1974. What is it like to be a bat? *Philosophical Review* LXXXIII. Reprinted in *Mortal questions*, 1979. Cambridge: Cambridge University Press.
- Neisser, U. & Harsch, N. 1992. Phantom flashbulbs: false recollections of hearing the news about *Challenger*. In Winograd, E. & Neisser, U. (eds.) *Affect and accuracy in recall*. New York & London: Cambridge University Press.
- Nesse, R.M. & Williamson, G .C. 1995. *Evolution and healing: the new science of Darwinian medicine*. London: Weidenfeld & Nicholson.
- O’Keeffe, T.M. 1981 .Suicide and self-starvation. *Philosophy* 58.349-63. Reprinted in Donnelly (ed.) 1998.
- Oscar-Berman, M. & Marinkovič, K. 2007. Alcohol: effects on neurobehavioral functions and the brain. *Neuropsychology Review* 17.239-57.
- Pearce, D. 2008. The good drug guide. The responsible parent’s guide to healthy mood-brighteners for all the family. <http://www.biopsychiatry.com>
- Penfield, W. & Rasmussen, T. 1950. *The cerebral cortex of man: a clinical study of localization of function*. New York: Macmillan.
- Pezawas, L. *et al.* 2005. 5HTLPR polymorphism impacts human cingulate-amygdala interactions: a genetic susceptibility mechanism for depression. *Nature Neuroscience* 8.828-34.
- Philips, D.P. & D.G. Smith, 1990. Postponement of death until symbolically meaningful occasions. *Journal of the American Medical Association* 263:1947
- Pies, R. 2008. The anatomy of sorrow: a spiritual, phenomenological, and neurological perspective. <http://www.peh.med.com/content/3/1/17>.
- Pinker, S. 1997. *How the mind works*. London: Penguin.
- Pinker, S. 2002. *The blank slate*. London: Penguin.
- Plath, S. 1963. *The bell jar*. London: Heinemann.
- Polatin, P. & R.R. Fieve, 1971. Patient rejection of lithium carbonate prophylaxis. *JAMA* 218.864-6
- Pontini, F.E. *et al.*, 1996. Effects of nicotine on the nucleus accumbens and similarity to those of addictive drugs. *Nature* 382.255-7.
- Post, R.M. 1992. Transduction of psychosocial stress into the neurobiology of recurrent affective disorder. *American Journal of Psychiatry* 149.999-1010.
- Poynton, A.M. & P.K. Bridges, 1997. Psychosurgery: now into the next millennium, in Honig & van Praag (eds.) 1997
- Ramachandran, V.S. 1999. *Phantoms in the brain*. London: Fourth Estate.

- Ramachandran, V.S. 2003. *The emerging mind*. London: Profile Books.
- Ratey, J.J. (ed.) 1995. *Neuropsychiatry of personality disorders*. Oxford: Blackwell.
- Ratey, J. J., 2001. *A user's guide to the brain*. London: Little Brown.
- Ridley, M. 1999. *Genome: the autobiography of a species in 23 chapters*. London: Fourth Estate.
- Risch, N. *et al.* 2009. Interaction between the serotonin transporter gene (5-HTTLPR), stressful life events, and risk of depression. A meta-analysis. *Journal of the American Medical Association* 301 (23).2462-2471.
- Robbins Landon , H.C. 1989. *Mozart. The golden years 1781-1791*. New York: Schirmer.
- Robinson, J. 1988. *On the demon drink*. London: Mitchell Beazley.
- Rose, S. (ed.). 1998. *From brains to consciousness? Essays on the new sciences of the mind*. London: Penguin.
- Rudgley, R. 1998. *The encyclopaedia of psychoactive substances*. London: Little, Brown.
- Ruse, M. 1993. *The Darwinian paradigm: essays on its history, philosophy, and religious implications*. London: Routledge.
- Russell, B. 1918. *A free Man's Worship*. In Burt 1954.
- Ryle, G. 1984. *The concept of mind*. Chicago: University of Chicago Press.
- Sacks, O. 1986. *The man who mistook his wife for a hat*. London, Pan Books.
- Sacks, O. 1991. *Awakenings*. 2nd edition. London: Picador.
- Sacks, O. 1995. *Migraine*, 2nd ed. London: Picador.
- Sapolsky, R. 2004, *Why zebras don't get ulcers*. 3rd ed. New York: Henry Holt.
- Sartorius, N. 1991. The classification of depressive disorders in the tenth revision of the International Classification of Diseases (ICD-10). In Feighner & Boyer (eds.) 1991.
- Scham, P.C. & Kendler, K.S. 2008. Genetic epidemiology. In Murray *et al.* (ed.) 2008.
- Schneck, C.D. 2009. Mixed depression: the importance of recovering subtypes of mixed mood states. *American Journal of Psychiatry* 166.127-30.
- Schuckit, M.A., 2000. Alcohol and alcoholism. <http://psychiatry.medscape.com/HOL/articles/2000/09/ho125/pnt-ho125.html>.
- Scott, J. 2001. Cognitive therapy for depression. *British Medical Bulletin* 57. 101-13.
- Scott, J. & A.T. Beck 2008. Cognitive behavioural therapy. In Murray *et al.* (eds.) 2008.

- Shimizu, F. *et al.* 2003. Alterations of serum levels of brain-derived neurotrophic factor (BDNF) in depressed patients with or without antidepressants. *Biological Psychiatry* 54.70-75.
- Shneidman, E.S. 1965. Preventing suicide. *American Journal of Nursing* 65.111-16. Reprinted in Donnelly (ed.) 1998.
- Silberstein, S.D. 2000. Migraine, cluster, trigeminal neuralgia, and mood disorders: common ground for treatment (2000). <http://www.psychiatry.medscape.com/Medscape/Neurology/TreatmentUpdate/2000/tn07/toc-tu07.html>.
- Slater, L. 1998. *Prozac diary*. London: Hamish Hamilton.
- Smith, J.M. & Smith, N. 1999. The genetic population structure of pathogenic bacteria. In Stearns (ed.) 1999.
- Smith, J.M. & Szathmáry, E. 1995. *The major transitions in evolution*. Oxford: Spectrum.
- Smith, K.A. & P.J. Cowen, 1997. Serotonin and depression. In Honig & van Praag, (eds.) 1997.
- Smythies, J.R. 1992. Brain and consciousness. In Trimble & Bolwig (eds.) 1992.
- Solomon, A. 2002. *The noonday demon. An anatomy of depression*. London: Vintage.
- Souery, D. *et al.* 1997. Advances in the genetics of depression. In Honig & van Praag (eds.)1997.
- Squire, L.R. 1998. Memory and brain systems. In Rose (ed.) 1998.
- Stahl, S.M. 2000. *Essential psychopharmacology of depression and bipolar disorder*.Cambridge: Cambridge University Press.
- Stahl, S.M. 2009. *The prescriber's guide. Stahl's essential psychopharmacology*. 3rd ed. Cambridge: Cambridge University Press.
- Styron, W. 1990. *Darkness visible. A memoir of madness*. London: Picador.
- Sutherland, S. 1998. *Breakdown: a personal crisis and a medical dilemma*. 2nd ed. Oxford University Press.
- Swan, G.E. & Lessor-Schlaggar. 2007. The effects of tobacco smoke and nicotine on cognition and the brain. *Neuropsychology Review* 17.259-73.
- Szasz, T. 1961. *The myth of mental illness*. New York: Harper.
- Temple, C. 1993. *The brain: an introduction to the psychology of the human brain and behaviour*. London: Penguin.
- Trimble, M. R. & Bolwig, T. 1992 (eds.). *The temporal lobes and the limbic system*. Petersfield: Wrightson Biomedical.
- UK ECT Review Group 2003. Efficacy and safety of electroconvulsive therapy in depressive disorders: a systematic review and meta-analysis. *Lancet* 8;361(9360):799-808.

- Valenstein, E.S. 1986. *Great and desperate cures. The rise and decline of psychosurgery and other radical treatments for mental illness*. New York: Basic Books.
- Vallee, B.L. 1998. Alcohol in the Western world. *Scientific American* 278:6.62-7.
- van Praag, H.M. 1997. Demoralization and melancholy: concerning the biological interface between traumatic life experiences and depression. In Honig & van Praag (eds.) 1997.
- Videbech, P. & Ravnkilde, R. 2004. Hippocampal volume and depression: a meta-analysis of MRI studies. *American Journal of Psychiatry* 161. 1957-66.
- Wang, J-W. *et al.* 2008. Chronic fluoxetine stimulates maturation and synaptic plasticity of adult-born hippocampal granule cells. *Journal of Neuroscience* 28.1373-83.
- Warnock, M. 2000. *A Memoir: People and Places*. London: Duckworth.
- Weinstein, E.A. 1996. Reduplicative misidentification syndromes. In Halligan & Marshall (eds.) 1996.
- Weiskrantz, E.K. *et al.* 1974. Visual capacity in the hemianopic field following a restricted occipital ablation, *Brain* 97: 709-28.
- Whybrow, P. 1987. *A mood apart. A thinker's guide to emotion and its disorder*. London: Picador.
- Williams, M. 1997. *Cry of pain: understanding suicide and self-harm*. London: Penguin.
- Wilson, M.L. *et al.* 2008. BDNF increases homotypic olivocerebellar reinnervation and associated fine motor and cognitive skill. *Brain* 1 April 2008.
- Wolpert, L. 1999. *Malignant sadness. The anatomy of depression*. London: Faber.
- Woolf, V. 1997. *A moment's liberty. The shorter diary*. Ed. A.O. Bell. London: Pimlico.
- Wurtzel, E. 1995. *Prozac nation. Young and depressed in America. A memoir*. London: Quartet Books.
- Young, A.D. & Leafhead, K. 1996. Betwixt life and death: studies of the Cotard delusion. In Halligan & Marshall 1996/