

Addiction Unlimited

A review of

Damian Thompson

The Fix

***How addiction is invading our lives
and taking over your world***

(London: Collins, 2012)

Introductory comments

Given the seriousness of its subject matter, it might seem insensitive to joke that I couldn't put this book down, but in truth *The Fix* is a highly readable account of the hydra-headed reality of contemporary addiction. Author Damian Thompson, a journalist with a PhD in sociology, and himself a former alcoholic, describes with disarming candour the 'addictive desires' to which he is subject, and which he believes are far more common than most of us would like to admit. Indeed, it is precisely the prevalence of such desires that makes them a target for those whose job it is to manipulate us into consumption of one form or another, and this is really what *The Fix* is about.

The science of addiction

The book doesn't present any groundbreaking research. The perspective is more sociological than neuroscientific, although brain chemistry is central to the story, and Thompson's exposition of it is lucid and interesting. He points out that the scientific jury is still out on the precise causes of addiction. Although the role of neurotransmitters – such as dopamine and the opioid system – in reinforcing certain behaviours is well understood, there is less certainty about what causes some people to cross the line into debilitating addiction, while others evade this outcome. One thing that Thompson is adamant about, however, is that addiction is not a disease.

As an alcoholic, Thompson attended the AA 12-step program and is open about the benefits he received from it, but he attributes the success of the method to the 'remarkable power of peer-group moral support' (p. 34), despite – rather than because of – its adoption of the 'disease model' of addiction. For Thompson, the disease model is pernicious, because it removes 'will' from the picture. Not that his tone is moralising – he recognises the adverse circumstances that can lead to some forms of addiction – but he favours an account, more traditional in my view, that sees addiction in terms of habit formation. In this context, he approvingly cites psychologist Dr Stanton Peele, who 'argues that AA preserved the temperance movement's message of total abstinence – deeply rooted in American Protestant society – while relieving guilt by naming illness rather than sin as the cause of addiction' (p. 44). Thompson finds the jargon of addiction specialists to be fuzzy and superficial: 'They'll use a term like "compulsion" without exploring the philosophical questions it raises about free will' (p. 43); and he accuses them of a circular logic: 'heavy drinkers who give up alcohol of their own accord ... cannot have had the disease and were therefore never alcoholics in the first place' (pp. 35–36). The problem, of course, is that there is no diagnostic test for the 'disease' of addiction, unlike cancer or tuberculosis.

Countering the disease model, Thompson presents both anecdotal evidence and the results of large-scale research. In the former category is his account of Robin and James, friends from similar backgrounds who both drifted from alcohol to hard drugs. But while Robin gradually turned his life around with great effort, James committed suicide. Thompson points out that if Robin had died during his addiction phase, as nearly happened, the specialists would have felt vindicated in attributing his fate to a disease. Since he recovered through his own efforts, however, the conclusion must instead be that he never had the disease.

The disease model is not supported at an epidemiological level either, as extensive US government research conducted with Vietnam veterans demonstrates. Fearing a massive public-order problem caused by thousands of heroin-addicted GIs returning to American cities, the government commissioned a study of 400 users who described themselves as addicted. What they found, however, was that 88% of the subjects kicked the habit once they returned to civilian life. It seems very likely that it was the extreme circumstances in Vietnam, coupled with availability and peer behaviour, that was the cause of the addiction. Once the circumstances changed, for most of the soldiers the addiction was overcome. For Thompson, this identifies a key factor in addiction, which he describes as the 'availability hypothesis'. Following Professor Michael Gossop, a leading researcher at the National Addiction Centre, King's College, London, he describes different 'dimensions of availability': physical, psychological, economic, and social. The Vietnam GIs ticked all of the boxes.

Chapter 3 takes a closer look at the science of addiction. The role of dopamine is discussed, as is the opioid system, which contains the brain's morphine-like compounds (endorphins). The former seems to have more to do with desire (wanting), and the latter with pleasure (liking). The surprising fact for me was that the former is stronger than the latter – our bodies reward *wanting* more than *liking*, although the latter plays a role in the former. Grafted onto this schema is what Thompson calls the Go and Stop impulses. The Go impulse is very primitive and we share it with animals. Dopamine is central to this urge. The Stop impulse is associated with the frontal lobes and is highly developed only in adult humans – it helps us to manage the Go impulse by reasoning about the consequences of immediate reward. I might observe that, if we leave out the technical vocabulary, none of this would have been news to the philosophers of the ancient world, who developed reasoning about desire to a high degree.

The point about the brain chemistry is that the same chemicals are involved in any form of addiction, be it 'substance' or 'process' addiction. The effects of different 'recreational' drugs on the brain may vary, and can be observed in addict behaviour (pp. 60–63), but 'dopamine is still the master drug' (p. 63). It plays a role in fastening onto 'cues', and here Thompson links the rarer experience of addicts to our everyday experience. The physiological effect of cues has been understood at least since Pavlov, but the point here is the continuity of the experience – 'ordinary' and 'addictive' represent different points on the same spectrum, and that is significant to the case that Thompson is making: 'the brain's reward circuits don't necessarily distinguish between supposedly innocent and supposedly dangerous pursuits ... addictive behaviours are accompanied by physical changes in the brain – whether or not they involve drugs' (p. 65).

This brings us to the heart of the argument about brain chemistry and addiction, and it recalls what was said earlier about the will and habit formation. The following key passage is worth quoting in full:

Why does science have such a hard time getting to grips with the phenomenon of addiction? In a nutshell, because human brains, as opposed to animal ones, can instruct the body to perform an almost infinite number of *voluntary* (and therefore unpredictable) actions. And, contrary to the beliefs of disease-model advocates and the huge therapeutic industry, addictive behaviour is essentially voluntary. Addicts may be influenced by their disordered brain chemistry to make bad choices, but they are choices nonetheless. (p. 67)

For Thompson, addiction is a disorder describing how ‘people *choose* to do things that are not in their best interests ... addicts are those who consistently seek damaging short-term rewards’ (p. 70). He doesn’t rule out an inherited predisposition, since, for example, alcoholism is known to run in families, but unlike a genetically inherited disease, no one has isolated a specific gene for alcoholism, and Thompson isn’t sanguine about the prospects of finding one: ‘since addiction consists of complex sequences of voluntary acts, such neurological reductionism is a waste of time’ (p. 70). Here he anticipates much of the theme for the remainder of his book. Hard drugs are not physically, psychologically, economically, or socially available to most of us, but there are many other substances, objects, and processes that are, and the producers of such things have a very strong interest in getting – and keeping – us hooked on them.

The chapter concludes with some semantic considerations that emerge from the science. First, ‘the old distinction between “psychological” and “physical” addiction is misleading’ (p. 72). We can be physically addicted to something, meaning that its consumption or repetition is reinforced by changes in the brain, but it is nonetheless reversible if the behaviour changes. Second, ‘dependence’ can mean different things. A diabetic may be dependent on insulin, meaning that he will die without it; but a heroin addict will not die without heroin. Thompson urges that ‘wanting’ and ‘liking’, though not scientific terms, ‘can be used unambiguously because they correspond to discrete urges governed by different brain mechanisms ... [and] we can say with some confidence that, increasingly, our wanting urge is overwhelming our liking urge’ (p. 72). He argues that corporations have become very adept at manipulating our environment ‘to make us as greedy as possible’ (p. 73).

The business of addiction

Chapter 4 links what has already been said about brain chemistry and the availability hypothesis, with what we know about evolutionary biology, and applies this knowledge to our contemporary world, with some historical examples that lend support to the argument. A key paragraph is the following:

In evolutionary terms, we essentially have the brains and bodies of hunter-gatherers. Our biochemistry has changed a bit in response to our dramatically altered surroundings, but not nearly enough for us to be able to adjust to them without damaging ourselves. Most people don’t reach the point of becoming addicts; but this mismatch between our bodies and our environment is the fundamental problem of addiction, and it is common to all humanity. (p. 76)

The biological goal of evolution is survival, and the mechanism that drives it is pleasure. Pleasure rewards the behaviour that increases our chances of survival. The problem is that our brain chemistry keeps pushing us towards those pleasurable experiences after our biological needs have been met: ‘We have no way of switching off the hunter-gatherer instincts inherited from the mammals that preceded us, which have developed over hundreds of thousands of years’ (p. 79).

Technology plays a central role in the struggle for survival. Thompson defines technology as ‘an infinite number of tools, crafts and techniques that, thanks to scientific discoveries, have the potential to make life more bearable for us’ (p. 80). Technology ‘allows us to achieve greater rewards for less effort ... [it] pushes the *work-to-reward ratio* in the direction of rewards – and usually short-term rewards at that’ (pp. 80–81).

Problems begin when – due to urbanization, industrialization, and capitalism – we arrive at a situation of unlimited availability. The well-known example of sugar is given: useful in the form of occasional fruit for hunter-gatherers, but positively dangerous in the quantities that we are now consuming it. This brings us to the concept of ‘addictive epidemics’ (p. 87). Heroin addiction among Vietnam GIs was an example of this, and Thompson provides others, such as the eighteenth-century ‘Gin Craze’ in London – the ‘first recorded epidemic of drunkenness in history’ (pp. 84–7); and, in the same century, the epidemic of opium smoking in China (pp. 89–92). In both cases, the epidemics involved a combination of technological developments and other social factors, leading to ‘availability’ in the senses discussed earlier.

Moving on from heroin, alcohol, and opium, Thompson points out that addictive urges needn’t involve ‘substances’ at all, and he gives the examples of casinos and strip clubs, both being cases where the thrill-seeker ‘is endlessly teased with cues that signify sudden wealth or a glorious sexual encounter’ (p. 93). It’s not important that the customer knows deep-down that these expectations are unrealistic, since his brain chemistry leads him to ignore the long-term consequences in favour of a ‘short-term buzz of excitement’ (p. 93).

For Thompson, there is no tidy explanation of what tips people over into self-destructive behaviours, but he asks us to step back and remind ourselves of the big picture:

The only things limiting our ability to stimulate ourselves to the point of frenzy are our fragile biology and our common sense. Western society has moved beyond the point where addictive epidemics can easily be distinguished from everyday behaviour; the dynamics of addiction and the dynamics of the free market simply have too much in common. (p. 94)

Dramatically illustrating this point is the example of the German pharmaceutical company, Bayer, which commercialized the drug diamorphine in 1898, marketing it as a syrup for ‘coughs, colds and “irritation”’ (p. 95). It was trademarked as Heroin, ‘to indicate its “heroic” properties’ (p. 95). (Diamorphine had first been synthesized by an English chemist in 1874, but Bayer led commercialization after Felix Hoffmann independently re-synthesized it.) Although they had been searching for a less addictive form of morphine, they ended up producing a substance that was *more* addictive, and then making it readily available with dreadful consequences. We now know that once demand has been created, limiting supply becomes ineffective, because addicts will switch to other substances, and even to non-substance forms of addiction:

Addictive behaviours aren’t necessarily locked on to specific things: in a world where there are practically limitless pleasurable experiences on offer, obsessive behaviour becomes promiscuous: it can grab hold of any object or activity that promises us a hit. (p. 98)

Most of the rest of the book applies this argument to various modern forms of addiction. Chapter 5 is devoted to sugar, which Thompson points out shares some of the psychoactive properties of 'recreational' drugs. Lab tests at Princeton University indicate that sugar induces cocaine-like reactions in rodents (pp. 107–8). Beyond the substance itself, however, is all of the daily behaviour that surrounds it, and which surrounds our consumption (and over-consumption) of food in general: 'the food industry not only engineers food that exploits our natural preference for sugar, fat and salt, but also grabs our attention when we're not eating, employing cues that awaken our wanting instinct' (p. 123).

Chapter 6 considers the social phenomenon of binge drinking. Public drunkenness has become more prevalent, even among women, and its effects are graphically portrayed not just in the traditional media but on social-media platforms like YouTube. The 'narrowing of the alcohol gender gap ... [means that] women are now exposed to changes in brain chemistry that had previously been restricted to men' (pp. 134–5). A large part of this chapter is autobiographical, but Thompson draws out the implications, describing himself as 'a fairly typical casualty of an environment saturated with my drug of choice' (p. 141). He goes on to link the social change in drinking patterns to the related ingestion of recreational drugs, which are being synthesized at an increasing rate, and often available at low cost on the Internet. The acceleration of the process makes it virtually impossible for the authorities to keep up. The conclusion is a pessimistic one:

Government scientists are scrambling desperately to classify these drugs and warn young people of the dangers of taking them. But the underground laboratories, and their new digital sales departments, are too far ahead. It's a lost cause. (p. 150)

Chapter 7 takes a look at the converging problem of prescription medication. Drugs like Adderall and Ritalin, designed to treat ADD and ADHD (controversial diagnoses in their own right), have become widely prescribed, particularly in the US. These stimulants have been adopted as cognitive-enhancing drugs, particularly by students who are under pressure to perform, and they are traded accordingly. The social pressure on students to drink, at parties or in clubs, has resulted in widespread self-medication, often involving carefully-planned sequences of alcohol, amphetamines (legal and illegal), painkillers (e.g. codeine), and tranquilizers.

What we're confronting here goes further than a blurring of the boundary between legal and illegal drugs. Also evaporating are the distinctions between the legal, inappropriate and unlawful use of medicines, plus the difference between medication and self-medication. (p. 159)

The pattern doesn't necessarily end with graduation either, but can be carried over into a high-pressure workplace. Research indicates, however, not only that the drugs are damaging, but that they deliver no long-term cognitive enhancement. In the case of such self-medicating high achievers, Thompson suggests that 'it might be worth checking on the state of their brain chemistry in a few years' time' (p. 171).

The next two chapters take us beyond substance abuse to forms of non-substance addiction, such as 'gaming' (Chapter 8) and pornography (Chapter 9), both being areas where computer technology has created unheard-of forms of addiction.

The title of Chapter 8 ('Gaming, the new gambling') is a succinct summary of its content. A watershed event was the passing of a law in the US in 2006, making online betting illegal and preventing any company from providing it there. People who had been addicted to online gambling switched instead to online gaming, and gaming companies recruited programmers from the now-illegal industry. The switch would have been relatively smooth for them because, as Thompson points out, the two activities employ similar 'reward dynamics' (p. 174). He describes them with an evocative phrase: 'brain-hijackers with transferable skills' (p. 180). Supporting this claim is a statement from an anonymous Silicon Valley gaming company CEO:

We design an environment in which losses are insignificant and there are regular reassurance mechanisms. Then we make modifications to that environment and monitor which combinations of punishment and encouragement keep users playing for longer. We engineer the game very precisely to keep players enjoying it for the longest possible time, and we use complex software to help us monitor what the entire installed user base of players is doing with their copy of the game. (p. 181)

Who are these players? Thompson points out that 'it isn't just children who are getting trapped in cyberspace' (p. 176). There are adults who spend hours in front of a screen tweaking their online personas (avatars), purchasing virtual real estate, furniture, and clothing, and interacting with other avatars in an immersive virtual world (e.g. Second Life). Corporations take male and female preferences into account and tailor their games accordingly. Furthermore, not only has the 'traditional' gaming market mushroomed, but a host of other software applications has been 'gamified' (p. 177), including email, Twitter and Facebook. That such applications are now installed on multiple platforms (smartphones, tablets, laptops and desktop computers) means that we are increasingly bombarded with visible and audible notifications that give us a buzz of excitement.

Although games and social media technologies might appear trivial by comparison with some forms of addiction, Thompson believes we are facing 'yet another social epidemic, born out of the marriage of marketing and reward-responsive brain chemistry' (p. 183). He numbers '300 internet addiction clinics in China alone, catering to some of the estimated 17 million game and internet addicts in that country' (p. 188).

A troubling implication of this burgeoning online interaction is that 'relationships in the real world will resemble those in the digital one: transitory, accelerated, pragmatic associations that provide a hit of narcissistic reassurance rather than lasting bonds between close friends' (p. 194). If this sounds far-fetched to some, Thompson concludes, consider that 'by the end of 2011, Facebook was being cited in a *third* of divorce cases in the UK' (p. 195).

Chapter 9 tells a similar story, but this time it is digital pornography that is of concern. Men are more prone to this addiction, but women are affected. It is a difficult area to research, but the available data 'suggests that the sexual appetites of countless millions of people are being manipulated in ways for

which there is no historical precedent' (p. 196). Of all the addictions that Thompson describes in the book, 'it's the one that comes closest to panicking the experts' (p. 198).

By contrast with the pre-digital version, digital porn has become increasingly explicit, in response to the jaded appetites of consumers. This includes a 'drift towards violence and cruelty' (p. 204). Furthermore, although porn has always taken advantage of new technologies, the Internet has made it available on an unprecedented scale, frequently without cost, and to children as well as adults.

Thompson cites psychiatrist Norman Doidge, whose 2007 book, *The Brain that Changes Itself*, has made popular the idea of 'neuroplasticity'. For Doidge, 'internet porn is addictive in roughly the same way as drugs' (p. 211). In the mid- to late-1990s, he noticed that some of his male patients complained of problems with normal sexual performance, and he ascribed this to brain rewiring, brought on by repeated bursts of dopamine in response to explicit pornographic images. The business side of porn may not be as systematic as online gaming, but the effects on the brain are just as pernicious, if not more so.

The examples provided by Thompson demonstrate that this problem is affecting males of all ages and backgrounds, with publicised cases revealing the collection of hundreds of thousands of illegal images. This is one of the instances where addiction reveals obsessive-compulsive traits. Like other forms of addiction, internet porn exploits loneliness, and masquerades as an antidote to it. It is a case of the progressive replacement of people by things, in this instance by increasingly hard-core images.

The title of the final chapter ('Deliver us from temptation') has religious overtones, perhaps reflecting Thompson's academic and professional background – his PhD was in the sociology of religion, and he has been religious affairs correspondent of *The Daily Telegraph* and editor-in-chief of the *Catholic Herald*.

In this chapter, we return to the big picture, to get some sense of what we are confronting. Regarding legalisation of drugs, Thompson points out that the resulting changes to lines of supply would not provide any remedy for addiction. Furthermore, technological changes mean that the boundary between legal and illegal drugs has become blurred, and, in any case, many abused drugs are already easy to get hold of (e.g. Adderall, Ritalin, codeine).

As a way of understanding addiction in the 21st century, Thompson adopts the pyramidal model proposed by Dr Adi Jaffe, a former addict and dealer turned academic psychologist. According to this model, the pyramid is divided into thirds: the bottom third represents ordinary people whose addictive impulses are 'difficult, but not impossible, to excite'; the middle layer consists of 'vulnerable individuals whose natural reaction to stress is to search for a fix'; at the top are those we consider addicts in the real sense, 'with their wide-open "wanting" pathways who are capable of developing an all-consuming obsession with anything from candy bars to sadomasochistic sex acts' (p. 237). In the light of the preceding chapters of his book, Thompson proposes that we are witnessing an upward trend within this pyramid:

More of us find ourselves in the category of addict or the intermediary layer of vulnerable consumer. More of us are at risk than ever before of developing crippling addictive behaviours.

Ignoring potentially harmful temptations involves significantly more willpower than it once did. (p. 238)

If, as Thompson argues, addiction is not *caused* by brain malfunction, but rather the opposite – ‘addictive behaviour, influenced above all by the available supply of addictive substances and experiences, can sometimes cause brain abnormalities’ (p. 238) – then the social implications are enormous.

Thompson refers to ‘the sudden disappearance of political and cultural obstacles that limited the geographical spread of particular addictive products and practices’ (pp. 240–41). These include the fall of the Berlin Wall, hi-tech globalization, migration, organized crime, and long-haul travel (which ‘has changed the attitude of students and young professionals towards mind-altering drugs, which they have seen consumed in developing countries as part of the natural rhythm of life – or so they like to think, in their romantic way’, pp. 244–5). The changes are too rapid to be described as ‘generational’ and they place a huge burden on our psyches:

One way or another, everybody in the Western world has to confront the quickening of desire. It’s true that many people can’t afford to pursue more than a few of those desires. Most of us, however, face an intensity of temptation that we can only intermittently resist. Managing those temptations draws deeply on our psychological resources: it can dominate our thoughts and swallow up our time. (p. 246)

The modern consumer society only exacerbates this burden, since it is ‘partly fashioned around our inability to exercise willpower’. Indeed, our livelihoods often depend on ‘other people’s vulnerability to temptation’, which implies that we are all implicated: ‘The multiplication of choice, the expansion of the free market and the stimulation of greed are so tightly interwoven as to be almost indistinguishable from each other’ (p. 258). The result is that the ‘addictive personality ... is fast becoming the default personal style of disoriented modern citizens’ (p. 259).

The medical model may appear to lighten the burden by making us think that ‘addictions are not so much the product of our actions as something we are unlucky enough to have acquired’ (p. 247), which Thompson describes as ‘a recipe for learned helplessness’ (p. 249), but it will not help us in the long term. In the final analysis, he believes that ‘addiction is a disorder of choice, and we’re not doomed to carry on making bad choices to the point of helplessness’ (p. 259):

Perhaps we need to rediscover the vigilance that protected our hunter-gatherer ancestors. The quicker we are to spot the technological tricks that manipulate our “wanting” impulse, the greater will be our chance of resisting them. That’s if we want to, of course. (p. 260)

Concluding comments

The Fix is written for a general audience, although the influence of Thompson’s background in sociology is detectable. With minimal use of scientific jargon, he makes a plausible case for the continuity between extreme forms of addiction, which we might all recognise, and the more mundane experience of giving in to temptation, whether the object of our desire be food, prescribed medication,

or digital distractions. Furthermore, he suggests that our contemporary way of life is pushing us into addictive-type behaviours.

A recurring theme in the book is that addiction involves the progressive replacement of people by things. This is particularly evident where addiction intersects with obsessive collecting (a form of OCD), but it is not limited to such cases. Even the people in an addict's life often become a means to the object of his addiction. And addicts often end up alone in their bedroom or sitting room, whether they are addicted to alcohol or gaming.

Describing himself as a former addict, he refuses to accept the 'medical model' that claims addiction is an incurable disease. Although he acknowledges the role of 'situation and context', and agrees with Malcolm Gladwell (*The Tipping Point*, 2000) that we tend to 'overestimate the importance of character traits' (p. 88), his description of addiction as a 'disorder of choice' is entirely compatible with traditional accounts of habit formation.

We know from their writings that ancient philosophers like Plato and Aristotle well understood the human psyche to be a battleground between competing influences. Notwithstanding the power of irrational forces, they regarded rationality as the defining characteristic of human beings, and they claimed that the ordered psyche was one in which the irrational was submitted to the rational. Ancient philosophical schools, such as the Epicureans and the Stoics, developed a sophisticated understanding of desire and emotion, including a hierarchy of different kinds of pleasure, and they elaborated exercises to help students strengthen the will against temptation. Their goal was *eudaimonia*, often translated as 'flourishing', in the sense of a fulfilling human life. They were concerned with 'normal' desire, rather than the extreme of addiction, though doubtless they would have seen the two lying along a spectrum, with the latter being the developmental endpoint of a dissolute life, one in which there was no attempt to subjugate the lower desires.

Thompson, perhaps judiciously, doesn't bring such historical considerations into his account, which is generally factual and descriptive rather than moralizing. I believe it is significant, however, that he leaves open the door to what the ancients have to teach us. Although no stranger to addictive desires himself, he refuses to shirk responsibility for his own poor choices in the past. Rather, he returns, like the escaped prisoner in Plato's cave allegory, to help liberate his erstwhile fellow captives, and warn against complacency in a world increasingly governed by desire.

Simon Kidd
Perth, Western Australia
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