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Introduction

As this *Handbook* demonstrates, the phenomenon of addiction straddles a dizzying number of fields of enquiry; even at a very coarse disciplinary grain, it throws up biomedical, neurological, pharmacological, clinical, social, legal, political, and moral issues, among numerous others. So it is no surprise that the multitude of disciplinary perspectives, methodologies, terminologies, and research programs, all working at cross-purposes, should generate conceptual misunderstandings and disputes.

Philosophy is, of course, dedicated as a field of study to the analysis and clarification of such conceptual quandaries, and many of the particular issues that have arisen in the course of the interdisciplinary study of addiction over the past few decades will be extremely familiar to ethicists, metaphysicians, and philosophers of science. Philosophers may address these problems directly; philosophical attention to them can also be hugely beneficial to researchers in the range of other “stakeholder” disciplines by increasing the conceptual consistency and rigor of the insights they produce into the nature, treatment, and prevention of addiction. Furthermore, philosophical analysis can help to integrate different disciplinary approaches to addiction together, by elaborating the range of possible metaphysical relations between various levels of causation and epistemic relations between levels of explanation, as well as by analyzing the relations between their distinctive frameworks and definitions – facilitating, in effect, intertheoretical translation.

I begin this chapter by summarizing the historical views of the major philosophers who have discussed or described addiction, whether explicitly or in arguments clearly pertaining to it, as well as those who, according to others, seem to have suffered from it. I then turn to the literature of the past few decades, in which addiction has become a specific topic of interest for philosophers. It would be beyond the scope of this chapter (not to mention deeply tedious for the nonspecialist) to provide a comprehensive review of this literature. Instead, I will focus on four current debates about the concept of addiction, each of which clearly invites philosophical analysis. The first concerns the scope of the concept, and whether it should be restricted to substance abuse, or expanded to cover, for example, sexual, gambling, or other behavioral, compulsions. The second is the ongoing tension between biomedical accounts of addiction, focussing on physiological and neural mechanisms and effects, and accounts which focus on social patterns of addiction, for which they in turn seek social-level explanations. A third concerns the question of whether addiction should be regarded as a disease or not, while the fourth concerns the agency of addicts, and the

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degree to which they can be regarded as being in control of, and responsible for, their actions, or powerless to overcome their compulsions.

I will deal with these controversies in turn over the following five sections. Each links to important ongoing debates in the wider philosophical literature; I summarize those debates and the major positions within them, before showing their relevance for the understanding of addiction and examining some of the ways that philosophers of addiction have in recent decades applied them. Of course, there is a considerable amount of overlap between these issues; the metaphysical question whether addictions form a “natural kind,” for instance, hinges in significant part on whether they possess some causal mechanism in common, which in turn pertains to both the debate over whether addiction is caused primarily by social or biomedical phenomena, and the debate about compulsion, free will, and the moral responsibility of the addict for her actions. Nevertheless, the issues have frequently been unduly conflated too; the question whether addiction is a “brain disease,” for instance, is often regarded as settling whether or not addicts are morally responsible. Separating the issues out as far as possible in this way will allow us to gain maximum conceptual clarity, and the connections can be noted in passing.

Addiction and the Ancients

The history of Western philosophy was memorably characterized by Whitehead as “an extended series of footnotes to Plato” (1929), and, certainly, a historical overview of any philosophical topic must start with the Ancient Greeks. Addictive substances were certainly known to the Greeks; Hesiod records the cultivation of poppies for their somniferous juice, *opion*, which was recommended by such pioneering physicians as Hippocrates and Galen, while alcohol – wine in particular – was of sufficient cultural prominence to have its own God in the person of Dionysos. Intoxication seems to have had religious significance too, and the famous Oracle is now widely supposed to have made her prophecies under the influence of a natural gas vent near the temple at Delphi.

The Greeks were undoubtedly familiar with alcoholism and the abuse of opiates, too; both Hippocrates and Galen, again, identified the causes and symptoms of *delirium tremens* (Leibowitz, 1967). The philosophers in particular will have been well-acquainted; Aristotle’s most famous pupil Alexander the Great was legendary for his drunken escapades and enthusiastic consumption of opium, and he may have hastened his own mysterious early death by his prodigious over-indulgence. Moreover, the “Symposia” described by Plato, in which Socrates and others typically developed and expounded their philosophical views, were lengthy after-dinner boozing sessions not at all similar to the genteel modern staples of the academic calendar that bear their name. And, as Bruce Alexander has pointed out (2008, p. 318), Socrates does seem in Plato’s *Republic* to be describing something strongly akin to the

stereotype of addiction in his discussion of “master passions,” which may compel a man to expend:

whatever income he has . . . and next of course he'll start borrowing and drawing on capital . . . when he comes to the end of his father's and mother's resources. . . he'll start by burgling a house or holding someone up at night, and go on to clean out a temple. Meanwhile [his] older beliefs about honour and dishonour, which he was brought up to accept as right, will be overcome by others once held in restraint but now free to become the bodyguard of his master passion. . . His passion tyrannizes over him, a despot without restraint or law.

(2003, 573d-575a)

Yet it is not clear that the Greeks had any distinct concept of addiction, or that addiction in its modern sense was a significant problem in Greek society. At any rate, in the surviving writings of the Greek philosophers we find no explicit discussions of addicts or addictive behavior.

What we do find, nevertheless, are discussions of concepts which have shaped our understanding of addiction and moral responsibility ever since. In Plato's dialogue *Protagoras*, Socrates declares that it is impossible for us to act in ways that we know we shouldn't. “No one,” he states, “who either knows or believes that there is another possible course of action, better than the one he is following, will ever continue on his present course” (2009, 358b-c). Like many philosophers' pronouncements, this seems straightforwardly false on first consideration; I know perfectly well that I should finish my overdue draft of this chapter rather than going to the pub for the evening, yet against my better judgement I go to the pub anyway. But is this really “against my better judgement”? Certainly, I would prefer to go to the pub; whatever I tell the volume's editor, there is a clear sense in which this seems the better option to me, which is why I do it.

Aristotle's solution to this puzzle is to draw a distinction between our reason and our appetites. If our moral education and development has proceeded properly, reason and the appetites will be aligned; we naturally want what is good for ourselves and others to have. This is, indeed, the mark of the *eudaimon*; the “happy,” “excellent,” or “flourishing” person who serves as the moral exemplar in Aristotle's system. But if our moral development has not been fully or properly formed, and we have failed to achieve *eudaimonia*, our animal passions may be out of kilter with our reasons. In this case, very few of us will be so thoroughly corrupt or depraved that we cannot see the right course of action at all; more likely we will recognize what is best but fail to desire it as we should. Aristotle calls this condition *akrasia* or “weakness of the will” (literally, “incontinence”); although we know what we ought to do, our appetites point us to a different course of action, and we lack the strength of will to overcome them. Moral education consists in large part of developing the strength of will to resist our appetites, until they have been realigned and acting rightly becomes “second nature” to us (2004, Bk VII).

In addition to our everyday failings – missing deadlines, skipping gym sessions, having a second biscuit during a coffee break – *akrasia* has been widely thought to illuminate the moral situation of addicts. We don't suppose that addicts are unaware that their actions are wrong; yet nor do we judge those actions in the same way as we would if they were carried out by a nonaddict. Addiction, on this view, is properly regarded as a derangement of the appetites; the addict is not a moral monster or ignoramus, but simply someone whose appetitive desires are too uncommonly strong for them to overcome and observe the same moral standards as the rest of us.

This line of reasoning was taken to its extreme – as philosophers are wont to do – by the Stoics, who taught that *all* desire was at odds with the virtuous life, which could be reached only by serene acceptance of one's

lot. However, for our purposes the most notable thing about the Stoic school is not the analgesic undertone of this doctrine, but one of its prominent members; the Roman emperor Marcus Aurelius, who appears to have been the first significant philosopher who was himself an addict. Administered opium by his physician Galen, Marcus' seemingly bottomless appetite for the drug was recorded in Galen's notes, and remarked upon by his contemporaries, with his withdrawal symptoms at one point conspicuously affecting the course of a military campaign (Africa, 1961; Trancas, Borja Santos & Patrício, 2004).

Marcus was not the last philosopher of antiquity to succumb to addiction. The great Persian philosopher and physician Ibn Sina (Avicenna), perhaps the greatest intellect of the Islamic world, prescribed himself enemas of opium poppy and celery seeds for the treatment of severe colic, and is reported to have died following an overdose, perhaps deliberately administered by larcenous slaves. Sina's death was also attributed by some observers to his compulsive sexual appetites, perhaps indicating an addiction that embraced both substance and behavior.

By some distance the most remarkable such figure, however, is St. Augustine of Hippo. More than any other, the figure who marks the intellectual transition between the Greco-Roman and the Christian worlds, Augustine is perhaps best known for his *Confessions*; a text that is often regarded as the first autobiography. In it, he recounts the trauma of being forced by his mother to abandon the mother of his child – his beloved partner of eleven years – in favor of a more politically auspicious marriage, and the years of compulsive promiscuity he was plunged into as a result, before adopting chastity following a religious conversion.

Augustine seems to have had trouble controlling his sexual impulses from a young age, his teenage promiscuity having been a source of concern to his alcoholic mother and amusement to his philandering father. At sixteen, he recounts, “the madness of lust . . . took complete control of me, and I surrendered wholly to it” (2002, 24:2.2; cf. James, 1987; Soble, 2002, p. 561). To Carthage then he came as a student, as T. S. Eliot wrote, “burning burning burning burning” (1922). For several years in the great city he gave himself over to his desires, until the formation of his exclusive relationship with the mother of his child, itself a “mere bargain of lustful love” (Augustine, 2002, 52:4.2; Soble, 2002, p. 555).

He seems to have behaved stably for the duration of that relationship, until it was broken by his mother's ambition and an arranged marriage. However, his betrothed would not be of age to marry for another two years, during which time – now a professor in Milan – he threw himself headlong back into promiscuity. Augustine describes in excruciating detail his inability to moderate his sexual appetites; no middle ground was possible for him between a state of complete abstinence and one of being completely “given over” – literally, *ad-dicted* – to his obsession (Alexander, 2008, pp. 27-28; Bowers, 1990, p. 412). He describes, in terms that would become familiar over the following centuries, the sense of being inescapably compelled by his addiction:

The enemy held my will captive; therefore he kept me, chained down and bound. For out of a rebellious will lust had sprung; and lust pampered had become custom; and custom indulged had become necessity. These were the links of the chain; this was the bondage in which I was bound, and that new will which was already born in me, freely to serve you, wholly to enjoy you, God, the only true joy, was not yet able to subdue my former willfulness, strengthened by the wantonness of years. So did my two wills, one new, the other old, one spiritual, the other carnal, fight within me, and by their discord undo my soul.

(2002, 8.5-11)

He recounts more and yet more reckless behavior in pursuit of his addiction, rising to the coyly described extreme of a sexual encounter during Holy Mass, a debasement which he believed “deserved death as its reward” (2002, 3.3). Though he feels the pull of Christianity strongly, he resists it because “(t)he plain truth is that I thought I should be impossibly miserable if I had to forego the embraces of a woman” (2002, 100–101; 6.11). Augustine is tormented, divided by his desire for sex, and his desire to be free of it. *Lord, make me chaste*, he famously prayed . . . *but not yet*.

If so many of the classic themes of addiction are already present in Augustine’s story – family history and coaddiction, social and geographic dislocation, guilt and self-loathing, doubt in one’s free will, even the suspicion of moralising exaggeration – it ends with another: spontaneous remission. In the terms of a much later vocabulary of addiction, he embraced a higher power, abandoning his Manichaeic beliefs, breaking his engagement, and converting to Christianity. He renounced sex, was ordained a bishop, and devoted his energies to writing. The Lord had seen fit, finally, to make Augustine chaste.

Classifying Addiction

When we talk about “addiction,” it is not always clear how wide the term’s scope is intended to be. Is alcoholism the same *sort* of thing, in some relevant sense, as addiction to crack cocaine, or the habitual abuse of prescription opioids? Most controversially, are addictions of this putative sort – addictions to *substances* – relevantly similar to what are frequently regarded as “addictions” to certain sorts of *behavior*, such as gambling or sexual activity? And how closely do the classifications of these phenomena suggested by science correspond to the everyday or “folk” use of the term “addiction”?

In philosophers’ terminology, what we are asking here is whether or not the addictions – or some subset of them – form a “natural kind”; whether, that is, such groupings of conditions reflect real distinctions and similarities in nature, or are simply artefacts of our human interests and classificatory practices (Bird & Tobin, 2018). These poles delimit a whole spectrum of positions in the debate; very broadly speaking, we call those closer to the first “realist,” and those closer to the second “nominalist.”

But to be more precise, we should distinguish two further broad families of position. “*Naturalists*” believe, as realists do, that good classifications “carve nature at the joints” like good butchers, in Plato’s famous image (2005, 265e); the distinctions posited by our best conceptual schemes correspond to genuine, objective distinctions in the nature of the things classified. But naturalists are not thereby committed to the view that the kinds or categories posited by those schemes thereby “really” exist as abstract objects. So, the *realist* positions are a metaphysically ambitious subset of the naturalist ones. That is to say, what nominalists deny is not naturalism, the view that our classifications are rooted in and reflect natural distinctions, but realism, the view that the groupings thus classified exist abstractly. The view properly opposed to naturalism is “*conventionalism*” which holds, in its various strengths, that our classifications fail to reflect genuine distinctions in nature either because such distinctions are unknowable to us (weak conventionalism) or because no such distinctions exist (strong conventionalism). Again, the conventionalist positions are a subset of the nominalist ones; it is possible to be both a naturalist and a nominalist. Of course, one may adopt different views of different classificatory schemes; to regard, for

example, positional distinctions between soccer-players – is Mohamed Salah a winger or a wide-lying striker? – as useful but essentially arbitrary does not commit one to taking a similar view about the chemical elements.

There are a variety of reasons for supposing that “natural kinds” exist; conversely, each of these imposes conditions on what can count as a natural kind. The most influential such view is that natural kinds support inductive inferences; familiarity with some members of the kind allows us to make relevant predictions about the others, owing to their natural similarities, while in turn it is frequently the ability to make such inductive judgements reliably that alerts us to the existence of relevant similarities. This is the view advanced by W. V. Quine, perhaps the central figure in post-World War II US philosophy; we begin with a good evolved ability to discern similarities, since “creatures inveterately wrong in their inductions have a pathetic but praiseworthy tendency to die before reproducing their kind” (1969, p. 126). However, the inductions made possible by this “folk-psychological” ability allow us to develop natural science, which goes on to inductively refine and supersede our folk classifications by revealing deeper and more significant levels of similarity, producing progressively better candidates for natural kindhood.

This view is notably liberal, since any natural property will permit inductive inferences to be drawn and so count as supporting a natural kind. Moreover, as Peter Godfrey-Smith observes, some inductive inferences do not rest on shared properties or natural kinds at all; thus, electoral polling requires only that the sample be sufficiently large and drawn at random (2011). So this may be a necessary condition for kindhood, but is not a sufficient one.

A more robust, and discriminating, variant appeals to the *clustering* of such properties. In a multidimensional graph representing all the objects in the world by dots, Ruth Millikan points out, taking each of their properties as corresponding to a dimension, “all but very small areas of the graph will remain empty” and “where not empty the graph would contain mostly clumps of dots that were in close proximity along multiple dimensions, closely clustered in . . . property space. There would be a clump that was all the rabbits, say, and another that was all the Gothic cathedrals, . . . and so forth, and there would be, for the most part, very sizable empty areas surrounding each of these clusters in most dimensions” (2017, p. 12). A great number of these clusters, Millikan speculates, will exist for historical reasons; they are formed because objects are typically created by copying other existent objects in some way. More generally, in Richard Boyd’s formulation, such clusters will be supported by “homeostatic” mechanisms which in some way cause the properties in the cluster to associate with each other, thereby making divergent individuals comparatively unlikely to arise or persist. *Homeostatic property clusters* are thus self-regulating, and support much more robust, informative inductions; from some individual’s membership in the cluster, we may infer a great deal more about its properties beyond merely the visible ones which lead us to classify it (Boyd, 1991, 1999).

An alternative approach is to require that natural kinds support *laws of nature*, rather than inductive inferences. Thus, the fact that some class of items always and everywhere behaves in a particular way is explained by the members of that class possessing the relevant properties. However, this approach seems of limited use in the biological and social sciences, which it is now widely agreed contain no exceptionless, nontrivial generalizations of this sort (see e.g., Sterelny & Griffiths, 1999, p. 366).

A similar problem seems to afflict inductive accounts. The theory of natural selection requires that there be considerable variation within any biological grouping, so there is likely to be no property that all members

of the kind possess, over which inductive inferences may be drawn. Cluster-based accounts can go some way to addressing this concern, since kind-membership is determined not by possession of any particular property, but only of subsets of the clustered properties. But even these accounts have trouble grounding inductive inferences over species that display significant polymorphism; much of what we might infer from observing Great Danes will not extend to Beagles, or Chihuahuas. Nor will it do to simply locate our kinds at a different level, such as breeds, since polymorphisms seem to cross-cut any such divisions; we can learn even less about male angler-fish by observing female ones.

One solution to this conundrum begins by taking seriously Millikan's idea that the clustering of properties in biological kinds is the result of the historical processes which formed them. What unites the members of such kinds is not some (disjunctive) set of properties they possess, but their common history. Seeing kinds as historical in this way allows us to focus on several important features they possess. One of these is the fact that their members' characteristic features are not inevitable, but can change over time; famously, the typical peppered moth became much darker as the Industrial Revolution took hold of England, lightening again when pollution reduced. Likewise, criminalizing – or legalizing – a drug of addiction can radically alter the social profile of the addicted population.

So, classifying a case as belonging to a kind does not, on this view, fix its properties. On the contrary, as Ian Hacking (1995) has argued, what the criminalization/legalization case shows is that human kinds tend to be “interactive” rather than natural; any act of classification itself produces “looping” feedback effects which alter the profile of the classified kind. To identify any group by some distinctive features its members possess does not thereby bring it into existence – the features, of necessity, already exist – but it does provide its members and those around them with a new way to understand their lives. When “alcoholism” was first identified as a kind, in other words, those with drinking problems found themselves in a new conceptual world. Likewise, once we conceptualize problem gambling as an “addiction” – as Gamblers Anonymous has long done, officially followed only since 2013 by the American Psychiatric Association – we can expect such gamblers to be treated, and to regard themselves, in a similar way to alcoholics and chain-smokers; and, for better or worse, to behave (and perhaps to respond to therapy) accordingly. And this may alter those features by which we initially picked out the group beyond recognition. As Scott Vrecko (2010, pp. 40–41; cf. Foddy & Savulescu, 2010a, p. 11) points out, members of the kind “addict” were identified in the mid-twentieth century by withdrawal symptoms. Yet as our understanding of the same group has deepened and expanded, and as the group itself has responded, this has become an inessential characteristic of the kind; we recognize many addictions with no such symptoms, and cases of physical dependence on drugs like Prozac, which sometimes are not considered addictions at all. Similarly, the way we recognize afflicted groups can – through the provision of clean needles, access to therapeutic resources, etc. – have transformative effects on the overall health profile typical of their members, including particularly the incidence of comorbidity with other medical issues. Demanding that social welfare and healthcare recipients pass drug-tests before accessing resources, or labeling them as morally corrupted, conversely, may have a similarly profound, but negative, effect on health and well-being.

What we are seeing here is the idea that classifications are extremely contingent, perhaps radically so. According to Nelson Goodman (1978), this is not just a feature of the human sciences, but of classification

generally. The world does not come prepackaged into categories; if kinds are historical entities, then they must have beginnings and, in principle, ends. For any given set of data, multiple classificatory schemes of equivalent accuracy are available, and the choice between them is typically made on grounds of convenience. Classification is not then a matter of identifying or discovering the “correct” natural kinds already existing in the world, but of “making” a conceptual world by identifying and selecting relevant kinds for our purposes.

Hacking and Goodman are therefore both pluralists and nominalists about kinds – they think there are a myriad of equally accurate potential classificatory systems, none of them uniquely “real,” and the choice as to which is appropriate is determined by the purposes to which we wish to put them – but they are not conventionalists. The natural properties that form the basis of classification are genuine, for all that they may be altered by the act of classifying. It is just in respect of those properties that such kinds do prove themselves useful for our purposes; the projects of “worldmaking” (Goodman, 1978) and “making up people” (Hacking, 1986) are constrained by reality.

How much, then, rests on the kinds in question existing “abstractly”? Perhaps not a lot (Glackin, 2012). Hacking himself describes his view as a “dynamic nominalism,” but grants that one might just as well regard the same position as a “*dialectical realism*, preoccupied by the interactions between what there is (and what comes into being) and our conceptions of it” (2004, p. 2). And certainly it is open to realists, too, to reject the idea that there is a single, uniquely correct schema for the classification of kinds in nature. One can choose, instead, to adopt a realist stance toward kinds across the board, or “promiscuously.” John Dupré (1995) argues that there are countless ways of classifying the world into real, abstract kinds, all equally legitimate for some theoretical or inductive purpose or other. This *promiscuous realism* is not a conventionalist or nominalist view; it holds that genuine natural features of the world differentiate the members of natural kinds from nonmembers, and denies that the mere multiplicity of such groupings gives us any reason for modesty about their metaphysical status. Better to take our folk and scientific classifications at face value; when we say that groupings exist, we mean that they exist, whether we are talking about “living things that are vertebrates” or “living things that are kosher.” We may be concerned with either, depending on whether the natural features we are interested in have to do with physiology or religious law. The mere fact that two phenomena are kind-mates, then, doesn't necessarily tell us much more about their similarities; what matters is whether the shared features which underpin the kind are useful for diagnostic, etiological, therapeutic, or other uses.

So much for the theory, let's have the pay-off; what use is all of this metaphysical musing for the study of addiction? A key dispute concerning the terms of addiction research in recent decades has been the question whether, when we talk about “addiction,” we are dealing with one sort of thing, or many. Likewise within more narrowly grained categories; are “substance addictions” or “drug addictions,” for instance, one kind of phenomenon, or many? What is at stake in these debates is the question of similarity between ostensibly different cases, and the inductive generalizations that can be drawn over them as a result.

The answers to these questions matter because if cases are indeed relevantly similar – if they are part of the same natural kind – then we can profitably understand and treat them in similar ways. If the neurobiological phenomena characteristic of alcoholics resemble those of sex addicts, say, then pharmaceutical or behavioral interventions that are effective for one group may be similarly beneficial for the other.

And our understanding of the moral situation of alcoholics – the degree to which they are or are not “responsible for their actions” – may likewise clarify our attitudes toward those who engage compulsively in sexual behavior.

The relevance of natural kinds is double-edged, then; if they are to be useful, they should rest on underlying similarities between different cases, and they should in turn justify treating those different cases similarly. We can illustrate this with some concrete examples.

The American Psychiatric Association’s current *Diagnostic and Statistical Manual of Mental Disorders* (“DSM-5”) groups disorders according to outward phenomena involving “clinically significant disturbances of cognition, emotion or behavior,” rather than the underlying biological or neurological dysfunctions that they reflect (APA, 2013; Murphy, 2017). This prioritizes diagnostic reliability over diagnostic validity; it is concerned with categories that clinicians can identify consistently, rather than categories which “really exist” (Hempel, 1994). Accordingly, it defines a category of “Gambling Disorder” (previously “Pathological Gambling”), where the patient indulges in gambling of a sort and to a degree that causes significant problems for his or her life (e.g., Criterion 2; “Is restless or irritable when attempting to cut down or stop gambling”; Criterion 8; “Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling”). But critics have charged that this overlooks the key explanatory fact about such gamblers; despite the very different outward manifestation, their neurology is strikingly similar to those of drug addicts. Those diagnosed with Gambling Disorder typically “exhibit classic patterns of addictive behavior as a result of a specific kind of dysfunction in their dopaminergic reward system and consequent neuroadaptation impairing frontal control circuits,” and critics therefore recommend “replacing the behaviorally derived concept of PG with the neuroscientifically anchored concept of addictive gambling” (Ross et al., 2012, p. 200).

This reflects more practical concerns than a philosopher’s taste for taxonomic precision. First, the DSM-5 criteria provide at best a fuzzy basis for demarcating genuinely addicted gamblers from those who merely gamble habitually or excessively (Ross et al., 2012, p. 201ff; Murphy, 2017; see also Sinnott-Armstrong & Pickard, 2013, Griffiths, 2013). Despite the outward similarities in their defining behavior, it is crucial for the purposes of understanding and treating both groups to recognize that their brains work in fundamentally different ways. A classification combining them is likely to be profoundly misleading on both scores; it therefore provides a poor basis for inductive generalizations, if comprehension and treatment are our aims. Conversely, recognizing gambling addiction as part of a broader natural kind, “addiction,” adds to our understanding both of pathological gamblers and of other substance and behavioral addictions. Most strikingly, from 1998 onwards it began to be recognized that the opiate antagonist Naltrexone and other anticraving medications, widely used in treating alcoholism and heroin addiction, were effective in reducing the compulsion of addicts to gamble (Vrecko, 2010, pp. 42–43). These drugs act upon the endorphin and dopamine systems; that is to say, they have similar therapeutic effects in drug addicts and gambling addicts (as well as sex addiction, eating disorders, and kleptomania) because of similarities in the brain chemistry of these groups that a purely behavioral view of their conditions could not have predicted. Note again, too, how induction and classification support each other here. We posit kinds because we recognize underlying similarities among the members which will support inductive generalization; and it is the success of those generalizations that persuades us that the members are indeed similar

and the kind genuine, leading us to discover further useful similarities (though see the methodological reservations expressed in Vrecko, 2010, pp. 43–45).

Similar issues arise at every level of analysis and classification. Thus, Jeremy Pober (2013) argues that substance addictions do not themselves form a natural kind, since not all such “addicts” do share the relevant brain chemistry. Cannabis addiction, he argues, does not affect Dopamine type-2/type-3 receptor availability in the way that addiction to other legal and illegal substances seems to; the relevant sort of neuroadaptation doesn’t occur (2013, pp. 128–129). Nor does it share several other neural mechanisms that have been posited as the basis of addiction. So addiction – whether confined to substances of abuse or expanded to include behavioral compulsions – does not look like a natural kind; inductions drawn over the group will not be reliable for cannabis addicts. This is not to claim that cannabis addiction is illusory; Pober suggests splitting the kind into “S-addiction” and “T-addiction.” But it suggests that interventions effective in one type of case may not translate to other types, and that the degree of autonomy one sort of addict displays may not reflect the moral capacity we can ascribe to others. Alternatively, we might find that our generalisations do hold up; in that case, the dissimilar properties Pober identifies will not have been the ones supporting the natural kind of addiction after all.

There is a further wrinkle in our talk of kinds and induction. Human kinds, according to Hacking, are interactive; they “loop,” and alter over time. But chemical kinds, for the most part, do not. An addict is a social being, who responds to being classified as an addict by altering his or her behavior in various ways, some predictable and some not. But an addict is also, if defined neurochemically or pharmacologically rather than socially or behaviorally, a complex amalgam of biochemical reactions and processes, which are not similarly responsive to our taxonomic processes. So addicts are plausibly members of multiple kinds at once; at any rate, there are multiple levels of causation which affect them, not all of which are similarly dynamic, or responsive to the same things. An addict’s underlying pharmacology may not loop at all, and there’s an interesting and important question how much can loop without it; how much it thereby constrains kind-behavior.

Addiction and Levels of Causation

This raises another vexed question in the literature: is addiction a social phenomenon, or a biomedical or chemical one? In some sense, clearly, it seems to be both; addicts are, like all of us, both social and biochemical beings. But is one level of causation and explanation dominant over the other? Might one perhaps be epiphenomenal, just a causally inert companion of the other? Or do both work independently but in tandem, both contributing in crucial ways to the addicted person’s behavior? I’ll try to avoid getting involved in the scientific and empirical (and often philosophical) debate about which view of the relation is *right* here; rather, I’ll summarize some of the conceptual apparatus that philosophers have developed to analyze questions of this sort, and how it may bear on our understanding of addiction.

One of the defining tasks of philosophy, particularly as it has been understood in the English-speaking world since the end of the nineteenth century, has been the analysis of how different vocabularies, apparently concerned with the same subjects, are related (Brandt, 2008, chapter 1). How can we understand talk about modality – how the world *could be* or *must be* – in terms of our familiar talk about how it

actually *is*? What is the relation between brain events, like the firing of C-fibers, and mental events, like the feeling of pain? What place have moral and other *reasons* for action in the picture of the world and ourselves revealed to us by natural science? And how exactly do the theories that make up our sciences depend on the observational data our senses accrue? The question of whether addiction is primarily social or pharmacological in nature seems to have this character. Indeed, it has close affinities with the second and third of the puzzles above; the mind-body problem and the problem of morality, respectively.

A first candidate relation for this sort of puzzle would be *reduction*. That is, the vocabulary and any rules in one level of analysis might be straightforwardly translatable into those of the other or shown to be their logical consequence (Nagel, 1961). In this case, everything that can be said about social and behavioral addiction-related phenomena might have its correlate at the more fundamental neuropharmacological level, where all causal and explanatory interest resides. But this surely cannot be the case, and the view does not seem to have been advanced seriously in the literature. Looping phenomena would seem to be inexplicable on this view, as would the fact that – despite the similarities in brain chemistry – alcoholics cannot simply substitute gambling for drink, nor smokers relieve their cravings with theft or cocaine. And we would have no way to understand the persistent comparative prevalence of addictions in certain demographic groups rather than others. Instead, figures like Leshner have contended that although addiction is a neurochemical condition, it is one “for which the social contexts in which it has both developed and is expressed are critically important” (1997, p. 46).

More unusually, something like a reductive relation might be plausible in the other direction. On this view, all the interesting causal and explanatory work would be done at the social and behavioral levels. There are associated neurological phenomena, of course, because that is simply how our minds and brains work, but their significance and pervasiveness have been overstated by researchers wedded to an overly materialist worldview. Something like this position is often suggested by writers employing the rhetoric of a “myth” of addiction (Davies, 1997; Hammersley & Reid, 2002); researchers, policy-makers, and the public have been systematically misled by the idea that addictive behavior is an inevitable consequence of neurochemistry, rather than a complex of social and behavioral phenomena. Bruce Alexander, in his seminal work on the concept of addiction, distinguishes a spurious “restrictive” concept involving chemical compulsion – “a relic of 19th century temperance doctrine that penetrated the 20th century dressed up as medical or scientific knowledge [whose] origins are neither medical nor scientific and [which] does not mesh well with contemporary knowledge” (Alexander & Schweighofer, 1988, p. 159) – from the true, broader concept, a multivalent behavioral category caused throughout history by recurrent patterns of social dislocation (Alexander, 2008).

Hanna Pickard is a philosopher who seems to hold a view of this sort too, albeit rather more nuanced than this simple taxonomy suggests. Data suggest that there are overwhelmingly two classes of addicts, she argues; those with underlying psychiatric disorders and those whose addiction “peak(s) in adolescence and early adulthood and then ... (resolve) permanently, without clinical intervention, by the late twenties or early thirties” (2012, pp. 40–41). This in turn shows that addiction is not a “chronic, relapsing neurobiological disease ... characterised by compulsive use” (2012, p. 41; I consider the conceptually separate question of whether addiction is a disease in a section below) as the common image suggests; for the second group, it is neither chronic nor relapsing, whereas for the first group it is neurobiological, but not a disease of

compulsion. Rather, for those suffering from comorbid psychiatric disorders, it is used “purposively: to alleviate severe psychological distress. Consumption is a chosen means to desired ends. If the ends are no longer as pressing, or alternative ways of achieving them are available, it is possible to choose differently: Use is not compulsive” (2012, p. 42). Building on the previous vocabulary: the class of “addicts” comprises two discrete natural kinds, on this view, one of which is defined behaviorally with no distinctive neurochemical characteristics, while the other has neurological characteristics which are not distinctive to addiction, and is again defined by the behavioral response of self-medication.

Reductive views imply that one apparent level of causation can, in principle, be dispensed with entirely, or at least regarded merely as a useful shorthand. If we want to acknowledge genuine causal influences at multiple levels, some other relation is necessary. One candidate, which has generated immense quantities of discussion among philosophers while seeming entirely unknown to the rest of the world, is that of *supervenience* (Kim, 1984; McLaughlin & Bennett, 2018). A set of properties supervenes upon another just in case the first set of properties cannot change without a change in the second. Consider the property *brittle*. Panes of glass can be brittle – hard but easily broken – as can fingernails, decorative ironwork, etc. Brittleness in each of these is a matter of having a certain molecular microstructure. But brittleness does not reduce to having such a microstructure; it is realized by decidedly different microstructures in each case. The property of brittleness is thus multiply realisable; but however it is realized in a given case, it cannot change unless the microstructure changes. Any pane with the relevant microstructure will be brittle. This provides another possibility; the behavioral phenomena of addiction may supervene upon the associated facts about brain chemistry. This will allow a correspondence between neurochemical facts and behavioral ones, which still permits each a significant measure of causal autonomy.

A similar candidate relation, which has been widely discussed in recent years, is *grounding* (Bliss & Trogon, 2016). Metaphysical grounding, unlike supervenience, is *directional*. Supervenience is concerned only with modal covariance; A-properties cannot change without changes in B-properties. Grounding is concerned with the existence of properties, or objects, or facts, “in virtue of” more fundamental ones. On this view, behavioral phenomena such as compulsion are explained by neurochemical phenomena; they happen as they do *owing to* what occurs in the dopamine and endorphin systems. This reflects a shift from a “flat” ontology, where all properties are equally basic, to an “ordered” one, in which some exist or obtain in virtue of others doing so (Schaffer, 2009, pp. 354–356). The neurochemical facts are “more basic,” metaphysically speaking, than the behavioral ones; but the behavioral ones are nevertheless causally efficacious as well. In this case there will be a behavioral kind *because* there is a neurochemical kind.

Grounding also seems particularly suited to the analysis of social kinds; according to the schema outlined in a recent book by Brian Epstein (2015), social facts can hold in virtue of – be grounded by – some more basic underlying facts just in case a convention known as a “frame principle” exists establishing that grounding relation. And the facts establishing that convention are termed its “anchors.” So, for instance, a certain piece of paper (“Billy the dollar bill”) is legal tender; this social fact is grounded by the fact that Billy is printed in a certain way by the Bureau of Engraving and Printing. And it is grounded by this fact because the framing principle that all such papers printed by the BEP are legal tender is anchored by further facts about the operative statues, acts of Congress, and so forth. Likewise, various social facts about addiction

might be grounded by neurochemical facts about the brains of addicts because of framing principles themselves anchored by further facts about the law, social deprivation, genetic susceptibility, the availability of addictive substances, and so forth (Glackin, 2019). This approach allows us to describe and analyze a reticulated, multilayered range of cross-cutting causal relations between different, causally autonomous, kinds and their associated facts.

In such an intricate causal scenario, however, philosophical worries about ontological priority may add an unnecessary extra level of complexity. What matters from the point of view of both research and therapy in addiction is causal efficacy; which phenomena are doing which work. So, a less unwieldy way to capture this same intricacy is to follow the heuristic principle that Philip Kitcher terms “causal democracy” (2003). Developed initially to help analyze the complicated patterns of causal interaction between genes and environment in biological development, the principle holds that such questions cannot be satisfactorily answered by aprioristic metaphysical or methodological assumptions, but only by careful and patient case-by-case empirical research, which gives every causal factor its due. Causal democracy does not hold that all factors are equally important, or of equal metaphysical standing; it espouses equality of opportunities rather than of outcomes (Griffiths, 2016, p. 74; Stotz & Griffiths, 2016, p. 148), demanding only that “if the effect E is the product of factors in set S, then, for any $C \in S$, it is legitimate to investigate the dependence of E on C when the other factors in S are allowed to vary” (Kitcher, 2003, p. 290). Let a thousand research programmes bloom, in other words; and let all eschew “the usual preference for overly simple, often monocausal explanations,” at least until inquiries are concluded (Griffiths, 2016, p. 76).

Addiction as Disease

One persistent question in the literature concerns whether or not addiction is, or should be regarded as, a brain disease (e.g., Alexander, 2008; Foddy & Savulescu, 2010a; Leshner, 1997; Levy, 2013). But this question appears to conflate two others; whether or not it is principally neurochemical, a condition of the brain, and whether or not it is a disease. The first of these was dealt with in the previous section, albeit to no firm conclusion; I consider the second, which has not been much considered in the literature (notable exceptions are Foddy [2010] and Segal [2013]), here.

To know whether or not addiction is a disease, one thing we need to know is what it *means* for something to be a disease. There are three principal accounts of disease in the philosophical literature, plus an additional one which we should consider in this context. These can be subdivided into “*naturalist*” theories, which regard disease as a value-free, objective concept, and “*normativist*” ones, which regard it as inherently evaluative, so that it is an intrinsically bad thing for one to have a disease, even if – as when a very minor complaint such as bone-spurs prevents one from being conscripted and losing one’s life at war – it is on the whole beneficial.

The most influential account of disease, and certainly the most discussed, is the Biostatistical Theory of Disease (BST) first advanced by Christopher Boorse (1975, 1977). Boorse’s theory is a naturalistic one; its criteria purport to be value-free, and to appeal only to entities and quantities that can be observed and measured by the methods of the natural sciences. According to Boorse, disease can be defined as the absence of health, where health is regarded as statistical normality of

function. Function here is defined “causally”; an organ or trait’s function is whatever contribution it typically makes (according to the “species design”) to the body’s overall operation. Now, merely taking a statistical average across the whole population will produce some unwelcome results. For instance, almost all males will have higher levels of testosterone, and almost all females less, than the statistical norm. Likewise, since heart-rate drops steadily as one ages, the population mean will not produce a useful figure for young or old people. Accordingly, Boorse takes the relevant statistical norm to be that displayed in a *reference class*, or an age-group of a sex of a species.

There have been numerous objections to, and defenses of, the BST, which I will not attempt to summarize here. Our question is: does addiction, by the BST standard, count as a disease? It seems likely to; it represents in all age-groups a departure from normal functioning in several respects which are usually profoundly deleterious for the addict. It shortens life and impairs life-chances, it greatly increases the risk of several other diseases, and it represents in itself a severe impairment in the person’s functional ability to make and act on rational choices. One worry we might have concerns the relativizing of the standard to the reference class; if almost all members of a demographic group smoke or drink alcohol to excess, does that addiction thereby cease to count as a disease? Boorse accounts for such “universal disorders,” however, by appealing again to the species design. In some cases, he writes – dental caries and arteriosclerosis, for example – the entire reference class may have its functional ability limited by comparison to the species design because of environmental influences (Boorse, 1977, p. 567). So addiction will count as an impairment of normal functioning either relevant to the reference class’s statistical norm or, failing that, for the class as a whole in an adverse environment.

One objection is worth mentioning here, however, since it directly concerns addicted populations. As Elseijn Kingma has pointed out (2007), the liver function of alcoholics, or the lung function of smokers, will differ from that of the wider population in just the same way that the body-fat percentages of males and females, or the heart-rates of the elderly, will. We account for the latter cases by relativizing to a reference class, and saying that someone has a normal body fat percentage *for a male*, or that so-and-so’s heart-rate is in the normal range *for someone of her age*. Why not say in the same way: Nigel’s liver functions well *for an alcoholic*? The answer seems straightforward; alcoholism is a disease, whereas being male or female, or elderly, is not. But remember that the reference classes were to be used to give us an objective, value-free account of what disease is; they cannot, on pain of circularity, themselves be based on our intuitive sense of which conditions do and do not count as diseases.

The main alternative biomedical account of disease is properly speaking a normativist account, though it is sometimes regarded as a hybrid one, having both a normativist and a naturalist element. The Harmful Dysfunction Theory (HDT), developed by Jerome Wakefield (e.g., Wakefield, 1992), combines the judgements that a condition represents a dysfunction (naturalist) that is harmful for the patient (normativist). “Dysfunction” here is understood in a different sense from the BST; Wakefield appeals to the “etiological” or “selected effect” function developed by Ruth Millikan (1989). On this view, the function of a trait or organ is whatever it has evolved to do; specifically, whatever task its precursors having performed in the bodies of the organism’s ancestors helps to explain its current presence and configuration. A disease, in turn, will be where any trait or organ does not function in the way it has evolved to do, and this failure negatively impacts its owner.

Does addiction qualify on this score? It is controversial on both counts. Certainly, most addictions are harmful, though the addict may not always think so at the time (see below). But is an addiction *intrinsically* harmful – is a harmful effect a necessary condition of addiction? It certainly seems conceptually possible for some addictions to be benign, or even beneficial. That, at any rate, is what I tell myself about my morning coffee. Indeed, *all* addictions arguably are functional; they do something positive for the addict, and then do something negative to the addict. So unless harmful to the individual, addiction will not count as a disease on Wakefield's view. Many will find counterintuitive, though, the idea that the same neurochemical response to the same substance may in one circumstance be a disease, and, in another, not.

Does addiction represent a dysfunction in Wakefield's and Millikan's evolutionary sense? Perhaps. However, a number of studies have suggested that addiction is evolutionarily significant; that humans and psychoactive plants may have coevolved, or that humans have developed specific adaptations (e.g., for metabolizing alcohol; Durrant et al., 2009). This raises the possibility that addictive behavior may be functional; it may reflect an evolved response to adverse social environments. This conjecture is *extremely* speculative. But if it is true, we cannot use the HDT to classify addiction as a disease however harmful it may be, as it would then represent the system functioning in the way it was designed to (Levy, 2013).

What is the alternative to a biomedical account of disease? It, too, may be better regarded as a social kind rather than a natural kind. After all, even if there is some natural property that asthma, fractured scaphoids, prostate cancer, and myopia possess in common, it is far from clear that such a property is anything like what we have in mind when we class them together. Rather, we think of those with such conditions as having suffered a *misfortune* of some kind, as being in a bodily state that is *devalued* in certain ways, of *experiencing* their body in a disrupted fashion, or as being the proper objects of *medicalized* practices in our society (e.g., Engelhart, 1976; Glackin, 2010, 2019; Nordenfelt, 2018). Such views are termed social constructivist (or social constructionist); they assume that the diseases are a kind constructed on the basis of a certain sort of social status which its members share. Moreover, insofar as there are underlying physiological similarities between cases of disease, this is because the classification reflects a social effort to *direct the attention* of the medical profession to the treatment of those physiological features.

On this view, the disease status of addiction will hang on social attitudes to addicts and their status. And this may be a double-edged sword. One of the things we typically intend by calling something a disease is to entitle those afflicted by it to a certain moral status; we devote resources to their treatment or protection, and excuse the inconvenience their condition causes for others as beyond their control. But this "social justice" aspect of the disease concept, which seems to be conspicuous in many of its invocations by addiction researchers, is not on offer from a social constructionist account of disease. That is to say, the constructionist takes the relevant evaluative attitudes to precede the classification rather than to follow from it, so the classification cannot be used to justify holding those attitudes (Kukla, 2014). Moreover, the status of disease may itself be regarded as stigmatizing, or to reflect stigmatizing social attitudes. We can usefully compare the history of homosexuality's classification here; its declassification as a psychiatric disorder was both a major step in destigmatizing it, and a reflection of large-scale change in stigmatizing social attitudes toward gay people. On the other hand, its *initial* classification as a psychiatric disorder, prior to which it had been regarded as merely immoral, licentious behavior, was similarly

hailed as a move against stigmatization and a reflection of newly enlightened social attitudes. So it is plausible that addiction might follow the same moral trajectory over time, depending on the progress of the debates summarized in the next section.

One final theory of disease is worth considering here, not least for its connection to the issues of free will and choice, which the next section discusses, though it does not command a significant following among serious contemporary philosophers of medicine (though Pickard [2009] is a sympathetic reinterpretation by an important philosopher of addiction). The Hungarian "anti-"psychiatrist Thomas Szasz, following the nineteenth-century doctrine of Rudolf Virchow, held that the "gold standard" for disease was the presence of lesion, or damage to physical tissue (Szasz, 1960; Virchow, 1860). Szasz, a radical libertarian politically, meant this not as a vague metaphor, but as a very specific one; he abhorred the proliferation of "fiat money" not backed by gold reserves (Szasz, 2006). In analogous fashion, Szasz decried the false currency – the "myth" – of mental illness; since the mind is not the kind of thing which can have lesions, he argued, it is not the kind of thing which can become ill. "Mental illness" is not therefore a medical category at all, but rather a pretext for the use of medical institutions to repress behavior that society finds disgusting, inconvenient, or otherwise unacceptable. This is not to say that there cannot be brain diseases; the brain can have lesions the way any other physical organ can. So insofar as addiction is a distinct neurochemical kind, it may count as a disease. But insofar as it is social and behavioral, it is merely a "problem of living." The addict is somebody who makes choices to behave in particular ways, for his or her own reasons. The behavior is distinctive insofar as it displays a high degree of inelasticity (Foddy, 2010, p. 27); the addict continues acting on the same preferences, even when the costs of doing so are very considerable. But this is simply unusual economic activity, which the rest of us may disapprove of, but have no legitimate basis to restrict. To smuggle our moral attitudes under cover of a medical – and thus implicitly scientific or objective – classification would according to this perspective be to act both unjustly and in patently bad faith.

Addiction and Moral Agency

This brings us on, finally, to the issue where philosophers may have the most obvious contribution to make to debates over addiction; the problems it raises regarding morality, responsibility, and free will. Addicts regularly perform actions that, in isolation, would elicit unequivocal moral condemnation. And the fact of addiction is almost universally taken to qualify our attitudes toward the perpetrators in at least some regard; heartbreaking, degrading scenarios, and the sequences of events which bring them about, become "tragic," rather than "evil," failures of society and its support systems rather than failures uniquely attributable to the particular individuals involved. This can be double-edged; treating addicts as thereby lacking in moral agency may mitigate their wrongdoing, but often at the cost of regarding them as less than fully human, as less than full participants in a moral society in which we are accountable to others for our actions.

As is often the case in philosophy, a good place to start is to revisit the discussions of 2,000 years ago, since the question of *akrasia* continues to loom large over contemporary discussions, particularly since its revival in recent decades by R. M. Hare (1952, 1963) and Donald Davidson (1970, 1982); for a particular application of Davidson's argument to addiction, see Heather and Segal (2013, 2015). One very plausible reason

for the “orthodox conception” of addicts as acting under compulsion, and unable to control their urges, is what might be called “common-sense” Socraticism (Pickard, 2018). If a person knows their action will have unacceptable consequences, we suppose, and can avoid doing it, then they will avoid doing it. Ergo, the reasoning goes, since addicts are surely aware of the negative consequences of their actions, it follows that they must lack self-control. And if somebody is not in control of their actions, they cannot be responsible for them.

But absolving addicts of *any* responsibility in this way strikes most people as both morally and factually wrong. Various scientific studies have cast doubt upon the idea that addicts are lacking in the neurological capacity for self-control, while only minimal personal acquaintance or sociological study is necessary to debunk the image of addicts as automatons driven only by amoral compulsion; and we know that many addicts do succeed in quitting without intervention. So it cannot simply be the case that addicts are, per se, unable to control their actions. We must suppose, then, either that they are akratic – being aware of the wrongness of actions but failing to refrain from them accordingly – or that they are in some way unaware of the actions’ wrongness. Of course, this simply demarcates three extreme limits of the debate; most views of addiction will hold some combination of them, in more-or-less qualified form.

While it is commonly assumed, there is surprisingly little explicit defense of the “common-sense” view in the literature. Perhaps this should not be surprising; nobody gains tenure by arguing for what everyone already knows. So the majority of critical opinion inevitably runs against the popular stereotype, the pantomime character of *The Addict* (Pickard, 2016, p. 454). Nevertheless, the contrast in this regard with major philosophical writers of earlier generations (e.g., James, 1890) is striking.

One observation about addiction worth taking seriously, then, is that the substance or behavior of choice *really may seem genuinely beneficial* to the addict. That is, we take the Socratic inference – if acting freely, people will act as it seems to them for the best – seriously, but perform a *modus ponens* rather than a *modus tollens* over it; we don’t reject the idea that they are acting freely, but that they are failing to act in the way that – all things considered – seems to them best. Bruce Alexander (2008) points to persistent patterns of social dislocation that have, across geography and history, been accompanied by widespread phenomena of addiction. And his seminal experiments on rats appear to support the view that addictive behavior is heavily contingent on an impoverished environment (Alexander et al., 1981). Similarly, Hanna Pickard claims, the majority of addicts who are not afflicted by comorbid psychiatric disorder appear to recover permanently from the condition without intervention as they reach their late twenties or early thirties (Pickard & Pearce, 2014, pp. 166–167). Those who are so afflicted, moreover, are principally using the substances they do as “a way of coping with psychological distress” (p. 170). So the strong preferences displayed by addicts simply reflect the fact that substance abuse – or gambling, or promiscuous sexuality – seems to them the best response to their current circumstances; when circumstances improve, they cease to prefer that sort of response. Bennett Foddy and Julian Savulescu accordingly give a strikingly simple “liberal” account of addiction; “an addiction is a strong appetite” (2010b, p. 35; see also Foddy & Savulescu, 2010a, pp. 14–15).

What are the implications of this view for the moral responsibility of addicts for their actions? It might seem, at first glance, to give them full responsibility; if they are not under compulsion, then they are in control of their actions, and can be held accountable for their choices, and their

failure to assess the best course of action. But the causal antecedents of addiction are not under an individual’s control; the addict cannot reasonably be blamed for experiencing psychiatric disorder or social dislocation, and so for finding themselves in a situation where the best course of action seems as it does. This raises a problem, which philosophers have termed “Moral Luck” (Nagel, 1979; Williams, 1976); it is widely assumed that we are morally assessable only to the extent that what we are morally assessed for depends on factors under our control, yet it also frequently seems *correct* to morally assess us for things that are out of our control. Thomas Nagel distinguished four kinds of luck that might bear on moral assessment: resultant luck, or “luck in the way one’s actions and projects turn out”; circumstantial luck, or “the luck involved in “the kind of problems and situations one faces”; causal luck, or “luck in how one is determined by antecedent circumstances”; and constitutive luck, or the luck involved in one’s having the “inclinations, capacities and temperament” that one does (Nagel, 1979, p. 28). The last three of these seem clearly pertinent to the moral position of addicts. According to Nagel, the problem exposes a general issue with the possibility of moral assessment:

The area of genuine agency, and therefore of legitimate moral judgment, seems to shrink under this scrutiny to an extensionless point . . . in a sense the problem has no solution, because something in the idea of agency is incompatible with actions being events, or people being things. But as the external determinants of what someone has done are gradually exposed, in their effect on consequences, character, and choice itself, it becomes gradually clear that actions are events and people things. Eventually nothing remains which can be ascribed to the responsible self, and we are left with nothing but a portion of the larger sequence of events, which can be deplored or celebrated, but not blamed or praised.

(Nagel, 1979, pp. 35–37)

Various attempts have been made to resolve this problem. Pickard (2017), for one, outlines a framework for “responsibility without blame” allowing genuine moral agency to be acknowledged while nevertheless refraining from hostile or stigmatizing attitudes toward the affected individuals; though she confesses to initially having “no idea how this stance was so much as conceptually possible” (p. 174), Pickard describes in detail its functioning in a therapeutic community where she worked. And while the theoretical details require a great deal of further elaboration within the philosophy of action literature, philosophers should be wary in the extreme about dismissing from the couch as a-priori conceptually impossible what practitioners observe in the field.

Another possible resolution, advanced by Chandra Sripada (2018), concerns the ubiquitous phenomenon of *fallibility*. All complex human activity, he notes, however expert the practitioner, carries a nonzero possibility of failure due to error; even Homer nods, as the saying goes. The recovering addict typically faces a constant stream of drug-directed desires, each of which *individually* requires significant cognitive effort to overcome; their *cumulative* effect is therefore to significantly raise the probability of a failure of self-control. Thus, Sripada argues, it can be simultaneously true that each individual drug-directed desire is fully resistible by the addict as a free moral agent, and that the addict’s overall ability to resist eventually succumbing to those desires and relapsing is greatly diminished.

So, there is a seeming tension between acknowledging the freedom of agency addicts possess, mitigating the actions they nevertheless take, and attributing to them a full understanding of those actions’ consequences. The Aristotelian solution, of invoking *akrasia*, is a tempting one. According to Neil Levy, the neurological evidence suggests a version

of this thesis; addicts' judgement may *shift* temporarily to make the pursuit of addictive preferences seem temporarily to be the best course of action, even if at other times they would not endorse those decisions. Again, he argues, this may also explain the phenomena of addicts "maturing out" or of ceasing to act compulsively when removed to a significantly different environment (as with many of the heroin-using US servicemen who returned from Vietnam in the early 1970s); the "judgement-shift" is a response to particular environmental circumstances (Levy, 2011; see also Ainslie, 2000). Richard Holton presents a slightly different understanding of *akrasia* as a mismatch between *values* and *desires*; the addict is somebody who exhibits "an almost complete disconnection between judging an outcome good and wanting it, or, conversely, between judging it bad and not wanting it" (2009, p. 109; see also Holton, 1999).

Lubomira Radoilska's rival account counters that the Holton analysis "is best understood as an unsuccessful attempt to tackle *akrasia*. . . a secondary failure of intentional agency which follows from and is partly explained by the primary failure that it tries to redress" (2013, p. xi). On Radoilska's view, true *akratic* action is successful insofar as it brings something intended about, but fails insofar as it is wrongly aimed, and thus both intends and brings about something other than what the agent truly values. This suggests, in classic Aristotelian fashion, that addiction reflects a failure of *development*; moral actors who have matured in the species-appropriate way will not experience this sort of mismatch between their intentions and their "true" aims. But those who have not reached this point successfully, and so display "evaluative immaturity," can even find themselves acting *akratically* when the behavior in question is "devoid of pleasure. Paradoxically, this is what accounts for the sense of compulsion typically associated with addiction," but not with my blown deadline, or skipped workout (p. xi).

According to Gideon Yaffe, Holton and others wrongly interpret what neuroscientific data are available in characterizing addicts in this way. Like Levy, he takes it to show that addicts, "at the time of action, value what they choose." And this, he argues, shows that "addiction influences what people do intentionally by working through, rather than against, the valuing system" (Yaffe, 2013, p. 194). In turn, he takes this to show that the moral situation of addicts is not dissimilar to that of victims of duress, who "find themselves valuing criminal conduct more than they value refraining from such conduct. And like those under duress, and unlike those with such values who are not under duress, addicts have the values they have thanks to the fact that they bear burdens that are not, themselves, reflective of morally or legally objectionable attitudes on their parts" (p. 195). But addiction is *not*, says Yaffe, a form of duress, wherein "(i)t is not that they cannot comply; it is, rather, that they cannot be expected to bear the burdens of withdrawal that compliance would lead them to suffer" (2011, p. 116). If this is indeed the way that duress-based accounts work, as most of the literature has assumed (e.g., Husak, 1999; Morse, 2000; Watson, 1999), then they seem unlikely to be successful; only a small number of the range of conditions widely regarded as addictions involve anything like withdrawal symptoms, which are consequently no longer widely appealed to – as we have seen – in characterizing addictions. Moreover, it is not empirically clear that withdrawal-avoidance does play any significant motivational role in addicts' reasoning.

But while this corresponds to the classical legal doctrine of duress, there is another view, which may avoid these problems and has not been widely discussed in the addiction literature. In an influential article, Patrick Atiyah (1982) argued that the classical doctrine did not well

characterize the emerging case-law on *economic* duress. A better view than the idea that the agent's will was "overborne" in duress cases, he argued, was to recognize that while the agent had been presented a genuine choice, it was not the choice facing most agents, but one between evils. The problem with contracts entered into under duress is therefore not that the agent has not consented, but that she has been wrongfully faced with a set of choices in which the usual reasons not to behave in some particular way have been superseded. A duress-based account of addiction along these lines would thus acknowledge the patient's freedom of action but recognize that the "motivational space" she inhabits is radically different from that familiar to most people.

This brings such accounts into close proximity with a rich philosophical literature on the possibility of mutually inaccessible and incomprehensible ways of experiencing and inhabiting the world. Some philosophers have dismissed the very possibility as incoherent; according to Donald Davidson (1974), the description of such radically different "conceptual schemes" is self-defeating, since we could only recognize and assert their existence in the event that we could, after all, comprehend them. (To see the force of this objection, consider the commonly cited problem with Internet "listicles" with titles such as "20 words in foreign languages that can't be translated into English"; by explaining the terms to the (anglophone) reader the author has, precisely, translated them, thereby contradicting his premise). But countless others have found this a fruitful way of understanding various phenomena. One of these was Ludwig Wittgenstein, whose influential notion of "forms of life" organized and made internally comprehensible by their characteristic "language games" (Wittgenstein, 1953) has been usefully applied by Peg O'Connor – herself a recovering alcoholic – to the lived world of addiction, and its contrast with that of sobriety:

In many ways, I think active alcoholics have a form of life different from that of recovered alcoholics, as well as from that of non-alcoholics. The world we all share is the same in important respects. But in some deep ways, the lived world and its meanings are radically different. Consider some differences between people with long-term sobriety and those who are actively alcoholic, or even newly entering a recovery program. An unrecovered alcoholic often can't even understand the alcoholic who says, "Your life will be better without alcohol. You will like yourself more. You will have more friends and a lot more fun." To the unrecovered, people in recovery can seem preachy and sanctimonious. Early on, no matter how many times and in how many ways a long-timer says this, what the unrecovered person hears is more like, "Blah, blah, serenity. Blah, blah, blah, serenity," as a great Gary Larson cartoon reminds us.

Non-alcoholics can't fathom alcoholics, those of us who would risk our livelihoods, families, and whatever else we hold near and dear in order to drink. We can offer huge chains of reasoning that make sense to us, and to other alcoholics. But to non-alcoholics, unless they've been enlisted in enabling us, we can seem to be beyond logic and sanity.

(Morris, 2011)

A very recent trend in the philosophical literature, which provides another useful way to think about these issues, concerns the nature of "transformative experiences." Beginning with L. A. Paul's analysis of the experience of pregnancy (Paul, 2015a), this work concerns a certain class of experiences which by their nature cannot be the subjects of rational decision-making. This is because they are both epistemically and personally *transformative*; that is, they change our points of view, including our core preferences, and the only way to know what they are like is to have them ourselves (Paul, 2015b). Becoming a parent, according to Paul, is something that alters one's core preferences in a way that – as they never seem to tire of telling us – only someone who has experienced

it can understand. And this means that the decision to become a parent or not cannot be evaluated rationally, since one cannot, prior to the decision, access the preferences or values that would motivate one after the decision, and therefore justify it. Addiction, as O'Connor describes it, or on the model of the second form of duress we considered, may be a transformative experience of this sort; the motivational structure of the addict's world may be fundamentally inaccessible to those who are not addicted, and that of somebody recovering similarly barred to the addict. And this would explain the difficulty we commonly have in knowing how to morally assess the actions of addicts; we know perfectly well how these actions would be assessed if performed by somebody whose "motivational space" is comprehensible to us, but we also know that that of the addict is not.

Conclusions

Just as the study of addiction spans a huge number of academic disciplines, its philosophical study embraces a great many of philosophy's

subdisciplines. We have considered debates here in normative and applied ethics, the philosophy of action, metaphysics, philosophy of medicine, philosophy of psychiatry, epistemology, philosophy of biology, philosophy of medicine, and jurisprudence; no doubt a more comprehensive overview would add more to the list. This reflects the rich, cross-cutting intellectual interest of addiction as a topic of philosophical study.

It also reflects the wide-ranging and versatile toolkit which philosophers have, over the centuries, developed for the analysis of such phenomena. This conceptual apparatus is not proprietary; it represents a public resource available to investigators across all the myriad fields gathered together in this *Handbook*, and many more beside. As the various social and life sciences tell us more about addiction, philosophers will continue to be on hand to interpret and analyze the results, clarifying the issues and – perhaps – thereby suggesting further avenues for future research. Intellectually interesting though the philosophical study of addiction may be in its own right, a subdiscipline where philosophers of addiction spoke only to each other would be an arid and pointless one; the true value of the work described in this chapter lies in its potential to enable dialogue and collaboration between and across disciplines.

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