

Status and Constitution in Psychiatric Classification

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Abstract

Debates surrounding the nature of mental disorder have tended to divide into an objectivist camp that takes psychiatric classification to be a value-free scientific matter, and a normativist camp that takes it to be irreducibly values-based. Here we present an overlooked distinction between *status* and *constitution*. Questions of the form “What is x?” are ambiguous between status questions (“What gives something the status of an x?”), and constitution questions (“Given that something has the status of an x, what is it made of?”). We elucidate this distinction in detail, and argue that normativism is uniquely well-placed to answer status questions while objectivism provides answers, where they are available, to constitution questions.

Keywords psychiatry, classification, objectivism, normativism

Introduction

Many debates in the philosophy of psychiatry concern questions of the form, “What is x?”, where x is a phenomenon of psychiatric interest. This could be something very general, such as “mental illness”, “mental disorder”, or “psychopathology”; or something more specific, like “addiction”, “depression”, “psychosis” or “schizophrenia”. While there are many different positions in these debates, at a certain level of abstraction we can identify two opposing camps. In one camp are objectivists (sometimes called “naturalists”), whose aim is to identify a set of value-free, descriptive facts that determine whether an agent qualifies as mentally ill, or exemplifies a specific condition or state. In the other camp are those who

consider psychiatry to be an irreducibly normative matter, determined by values embedded in the society in which diagnosis is made.¹

Recently, however, attention has been drawn to the fact that questions of the form “What is x ?” permit of two quite different – but often equally legitimate – readings. When we ask what kind of thing x is, we might be enquiring about how x is realised, manifested, or constituted in the world; or we might be asking about the conditions that must be satisfied in order for a thing to count as an x (Roberts et al. 2019; Glackin 2019). Following Roberts et al. (2019), we will label questions of the first type “constitution questions”, and those of the second type “status questions”. Stated plainly, when someone asks the question “What is x ?” it is prudent to consider whether they intend a status or a constitution question (or indeed, which question is most sensible given the context, and hence which one they *ought* to be asking, regardless of their intentions, which may be vague or misguided).

As we will see in more detail below, status questions concern the facts *in virtue of which* an entity belongs to a particular category (i.e. has a particular status), and questions of this sort proliferate across many domains. Elsewhere in philosophy, for example, we might enquire about the facts in virtue of which something is, say, an artwork, or a mental state, or a voluntary action. These are questions of status or individuation – they concern what makes it the case that a phenomenon should be classified in one way rather than another.

Constitution questions, on the other hand, concern the material ingredients and architecture of the target of enquiry; they are answered by looking at an entity’s composition, structure, and functional organisation. We address questions of this kind when, for instance, we dissect a creature to observe its anatomy; look beneath the

¹ There are a variety of hybrid or mixed accounts on the market, which we address in more detail later on.

bonnet of a car; or inspect a compound under a microscope. Many scientific pursuits concern questions of constitution, such as projects in biology or chemistry.²

The distinction between questions of status and questions of constitution arises in the psychiatric domain too, and has major consequences for how the debate between objectivism and normativism is to be conceptualised.³ When we ask “What is mental disorder?”, for example, we might be asking one of two distinct questions that share the same surface language. On the one hand, we might be asking a status question: “In virtue of what does a person qualify as mentally unwell?” On the other hand, we might be asking a constitution question: “What are the neurobiological underpinnings of mental disorder?”, where this enquiry might be directed towards an individual patient (“What are the material underpinnings of this person's psychiatric condition?”) or towards a general category (“Can we find a common material substrate for this type of mental disorder?”). For example, we might ask “What is addiction?”, where our enquiry divides into a status question (“In virtue of what does a person qualify as an addict?”) and a pair of constitution questions (“What are the biological underpinnings of this addict's condition?”, and “Is there a common basis for addiction in the human brain?”).

In this paper, we start by briefly presenting the current state of play between objectivists and normativists, both at the level of pathology in general, and at the level of more specific phenomena of psychiatric interest. The precise details of different objectivist and normativist positions are unimportant, given the very general nature of our contribution. Then, we articulate our central distinction between status and constitution, and distinguish three different kinds of status, settling on the last of these as being of particular relevance to psychiatry. Next, we apply this groundwork to the

² Having said this, even in these descriptive scientific enterprises, statuses, as distinct from constitutions, play a role. For example, in zoological anatomy, what makes the bone of a quadruped a “femur” rather than a “humerus” is derived from similarities to the bipedal, human case.

³ We believe that the distinction applies within wider debates surrounding the nature of disease and dysfunction (and, perhaps, to discussions of the nature of disability), but we restrict our attention to psychiatric matters in this paper.

debate between normativism and objectivism. The position we end up with attributes the most central role in the project of psychiatric classification to the normativist, for it is normativism that has priority in answering questions of status. Nonetheless, it leaves open an explanatory role for objectivism, in addressing questions of constitution where it is possible to do so. Finally, we rehearse some objections and replies.

1. The Current State of Play

In this first section we present the opposition between objectivism and normativism, firstly as it plays out in the main battleground of distinguishing the pathological from the non-pathological, and, secondly, for specific categories like addiction, depression, and psychosis. We do so relatively schematically, since the debate has been well rehearsed elsewhere (e.g. Simon 2007, Glackin 2019).

1.1. Objectivism vs. Normativism about Pathology

An objectivist (or naturalist) about pathology in general (and mental disorder in particular) wants to cash out the nature of pathology in terms of value-neutral, descriptive, scientific facts; typically, those concerning the operation of the brain.

Perhaps the most prominent objectivist position, the biostatistical model (e.g. Boorse 1975, 1977, 1997), holds that the neural underpinnings responsible for psychiatric phenomena are those that “depress a functional ability *below species-typical levels*” (Boorse 1977: 542, our emphasis). In short, a person with a psychiatric disorder is one whose brain exhibits a functional impairment that is statistically significant.⁴ For the objectivist, the psychiatric facts are settled by the neurological, biological, evolutionary, and statistical facts. Whether someone is ill in general, or mentally ill in

⁴ For recent critical attention, see e.g. Cooper 2002; Ereshefsky 2009; Kingma 2010; Gagné-Julien 2020.

particular, is not dependent on a human perspective, whether individual or societal, but is simply a question of objective, scientific fact. Objectivism also manifests itself in the insistence that psychiatry is, or should be, nothing but a branch of neuroscience (see some of the entries in Bortolotti and Broome 2009, and a running theme throughout Murphy 2005). Take, for example, the claim that “[o]ne of the fundamental insights emerging from contemporary neuroscience is that mental illnesses are brain disorders” (Insel & Quirion 2005: 2221).

The normativist, in contrast, argues that a person qualifies as psychiatrically ill partly in virtue of the evaluative attitudes that are present in society. The starting point for the normativist is a conception of mental disorder as *bad* for the agent in some more or less rich sense. Put simply, a particular condition, or a particular set of symptoms, is regarded as a mental disorder because it involves harm, distress, impairment, a failure to flourish, or an inability to function freely and rationally. These are value-laden concepts that escape objective, scientific characterisation. They reflect societal concerns in deeming what is healthy or normal, what is required to live a happy life, what kind of suffering reaches the threshold for medical intervention, and so forth. Because the subjects of mental disorder are human beings embedded in human relationships, our evaluative attitudes arise in our capacity as care-givers, friends, and family-members; colleagues and neighbours; as well the institutionalised roles of psychiatry and surrounding professions. For the normativist, these evaluative considerations are essential to the business of psychiatric classification, which cannot be conducted on a purely value-neutral basis (see, e.g., Fulford 1989).

The fundamental dividing line between objectivism and normativism, then, rests upon the role of evaluative human attitudes and social norms in determining the presence and absence of psychiatric disorder. Subjective preferences, social expectations, judgements about thresholds of harm and adversity, or conceptions of the good life are excluded under objectivism, but central under normativism. Notice that this is a disagreement that unfolds at the *theoretical* level (Kingma 2014); that is, it is a dispute about the "core features" of psychiatric phenomena - what gives them their

essential nature. All parties agree that normative considerations arise in the *practical* domain; for example when a society must decide who is to be granted access to finite medical resources, or who is an appropriate target of moral concern (Kingma 2014). Objectivists and normativists diverge in their answers to "what is x ?" questions, not (necessarily) in their answers to "how should we deal with x in our society?" questions.

1.2. Objectivist and normativist tendencies for specific disorders

We can discern objectivist and normativist tendencies at work in debates that concern individual psychiatric conditions such as addiction, depression and psychosis. Consider, for example, the radically objectivist thesis that "addiction is a brain disease" (Leshner 1997; Heilig et al. 2021); namely, a detectable pathological neural condition. In fact, Leshner's original study used structural brain imaging to detect anatomical differences between the brains of addicts and non-addicts, and then equated addiction with those brain differences.

Now consider a starkly contrasting view, namely, that addiction constitutes something like a harmful lack of control (e.g. Frankfurt 1971; Levy 2013; Henden 2019). On such a view, were someone to exhibit such problematic behaviour in the absence of the anatomical differences, they would still count as an addict. And, conversely, the presence of the brain differences but without the harmful deficits in self-control would entail that the agent did not count as an addict.

Even further along this (roughly) normativist spectrum are more sociologically inspired glosses on addiction (e.g. West & Brown 2009) that highlight not only infringement of the norms of an individual's rational goal-directed agency, but also the role of societal norms in something counting as addiction. To simplify, the fundamental idea is that differing societal attitudes to different activities bias the threshold at which a behavioural dependence is deemed problematic. Compare, for example, alcohol and heroin. If someone is relatively high-functioning (successful professionally, happy with their home and family life etc.) but drinks alcohol every

evening, and finds it very difficult not to, they may be encouraged by a doctor to cut down their drinking for their long-term health, but they will typically not be thought of as “an addict” (nor “an alcoholic”). However, someone who injects heroin every evening, even if it is as part of an “unwinding” ritual within a generally high-functioning lifestyle, is far more likely to be deemed “an addict”.⁵ This is not because the dependency on heroin is stronger, or even more harmful, than its alcohol-based comparator, but rather that alcohol use is normalised within society. Needless to say, this is the precise antithesis of a view according to which addiction is an objective brain disease.

Similar opposing trends can be seen with depression, psychosis and other conditions besides. See, for example, Nancy Andreasen’s (1997) claim that depression and schizophrenia are brain diseases that should be both understood and conceptualised through neuroscience and neurobiology. One of the most popular accounts of depression is the “monoamine hypothesis” (Delgado 2000), according to which depression is identified with abnormally low levels of monoamines, most prominently serotonin (but some accounts also appeal to noradrenaline and dopamine). Quite aside from recent work (e.g. Moncrieff et al. 2022) casting doubt on the *empirical* plausibility of a monoamine-based account of depression, a normativist may argue that it is *conceptually* confused to equate depression with any kind of neurotransmitter, or any other neural, deficiency. No, on such a view depression is a state of low mood that has enough duration and severity that the person is harmed, impeded from flourishing, and/or needs help.

Again, such normativist moves can be taken even further beyond the norms of individual flourishing, and incorporate socio-cultural variation. For example Chentsova-Dutton et al. (2014) present studies that suggest that some cultures have higher thresholds for low moods than others (i.e. they normalize them more). Thus, what might be readily flagged as depression in one culture (e.g. Southern Europe or

⁵ See also Sinnott-Armstrong & Summers, 2020: 87.

the USA), might not be flagged as depression in another (e.g. Northern Europe or Scandinavia). Taking a deeply pragmatic approach according to which “being mentally ill” simply means, “needing a certain kind of help”, there is not simply cross-cultural variation, but variation within a culture across the different demands of different individual’s lives. Somebody with caring responsibilities, or impending exams, could have their lives more negatively impacted by relatively moderate levels of low mood than someone with fewer demands placed on them.

The same arguments play out for psychosis, which might be equated with dopamine dysregulation (Kapur 2003), or instead treated as a condition defined by harmful, distressing, or disruptive (i.e. *bad*) disconnections from reality (see Jackson & Fulford 2002 for discussion).

2. The Varieties of Status

Later, we will argue that the debate between objectivism and normativism typically conflates two types of ‘What is x ?’ question - a question about the status of x and a question about the constitution of x - and that when we recognise this, the disagreement between the two camps looks very different. In particular, it shifts from a first-order dispute to a disagreement about which question is the one we should be asking. Before we make that step, we clarify the notion of a ‘status question’ and highlight three types of answer that such a question might call for: i) answers that make no reference to the attitudes of any social group or thinker; ii) answers that include non-evaluative attitudes of a social group or individual; and iii) answers that appeal (also) to evaluative attitudes of a social group or individual.

Assigning something a ‘status’ is an intuitive feature of both folk and scientific classificatory practices. To possess a status, in the promiscuous and pluralistic sense that we intend here, is simply to occupy a location within a certain intelligible

taxonomy; to be a thing of a recognised and non-arbitrary type.⁶ To attribute a status to an entity is thus simply to label it as belonging to a certain category – for instance the category ‘mammal’, or ‘food’, or ‘engine’. Some taxonomies attempt to carve nature at its joints, while others are developed to serve more everyday projects. For instance, an ordering of subatomic particles falls into the former class, while a breakdown of the players in a cricket team falls into the latter.

Consider how status questions of the form “In virtue of what is this an *x*?” might be answered in some of these ordinary examples. This object is an engine in virtue of the fact that it can perform the function of converting power into motion. This creature is a mammal in virtue of the fact that it nourishes its young with milk. This item counts as food in virtue of its being safe and convenient for human consumption. We can answer status questions like these without any reference to the mental states of an individual or group: the categories are indifferent to what anyone thinks about them. On the other hand, some statuses rely for their existence on the attitudes of one or more people. It is commonplace in the study of social ontology to maintain that institutional artefacts like ‘money’, for example, are generated and sustained by a society’s collective intentions and commitments (e.g. Searle 1995). Finally, there are statuses that rest upon attitudes with a positive or negative valence, and reveal a society’s distinctive values, such as ‘vermin’, ‘natural disaster’, ‘litter’, or ‘hero’.

In this section, we briefly unpack these ways of dividing up the world, in order that we may better understand the terrain in the particular case of psychiatric classification.

2.1. Mind-independent statuses

⁶ Cf. Dupré (1993). We prefer the vocabulary of “status” to that of “kind”, because the former does not come with the baggage of the natural kind debate. “Status” is intended as a broad and permissive term that applies to everyday categories as well as to those identified by natural science.

Some things are individuated according to mind-independent features. The natural sciences, for example, often aim to construct classificatory schemes that extrapolate away from the idiosyncratic attitudes, values, and tastes of human practitioners (see Page 2006 for a disambiguation of different forms of mind-dependence). A taxonomy of minerals, butterfly species, or celestial bodies, for instance, classifies its members according to observer-independent characteristics such as composition, size, or structure. When we ask “In virtue of what is this a quartz (or a red admiral, or a dwarf planet)?”, the answer need make no reference to the intentional states of any person or community.

Notice that there are a multitude of mind-independent facts that might determine an object’s status. Some statuses are determined *narrowly*: an object belongs to its category in virtue of facts that concern its internal materials and architecture. The periodic table, for example, is a classificatory scheme that distinguishes its members according to their subatomic constituents. Once we know that this strip of metal is composed of zinc atoms, for example, we know what it is in virtue of which it merits the label ‘zinc’. We settle the question of what gives the object this status by zooming into the microphysical level – in other words, there is no real gap between status and constitution questions for categories of this sort.

Other mind-independent statuses are determined *widely*: by causal, historical, or relational facts. Something is classified as a ‘moon’, for example, partly by reference to the larger body around which it orbits; and something is a ‘footprint’ only if it is the product of a specific generative process (Dretske 1988). It is not possible to establish whether an entity belongs to a wide category like these simply by looking inside its material boundaries: even if it has all of the observable characteristics of a moon (a sunburn, a grandmother, a photograph), it only has this status if it is suitably related to something else. Here, then, facts about material constitution do not (indeed, *cannot*) settle facts about status – reference to the object’s wider environment is required. But these wider contextual or relational facts do not themselves depend on human perspective.

2.2. Value-free mind-dependent statuses

Next, we draw attention to entities whose status is determined, at least in part, by the mental states of a person or group. Social or institutional statuses such as 'banknote', 'chess piece', or 'geopolitical border' have this character: it is plausible that an object belongs to one of these categories in virtue of some intersubjective consensus, joint intention, and/or collective judgement (e.g. Haslanger 1995; Hacking 1999). The answer to "In virtue of what is this a passport?", for instance, must refer to attitudes held by those who participate in a particular legal institution, who have reached the collective verdict that objects like this entitle the bearer to international travel. The precise role of individual and collective mental states in the construction of social ontology is a complex and contested matter (for example, Haslanger 1995 distinguishes "strongly" and "weakly" "pragmatically constructed" social kinds), but for our purposes it is sufficient to recognise that the relevant status-contributing attitudes in many standard cases do not include normative judgements of approval or disapproval. It is not inherent to the concept of a postage stamp or a traffic light, for example, that it is liked or disliked, sought-after, resented, or treated with suspicion.

A status of this kind can float (almost) entirely free from the object's material constitution.⁷ Nearly anything can be the Queen in a chess game, for example, provided it meets minimal parameters of size and rigidity. This functional status is determined by the conventions of the human institution of chess-playing, not by the material constitution of the piece. For something to *be* a chess Queen, it does not matter whether it is made of wood or ivory, a bottle-top, or whatever is at hand – and this holds true of artworks, currency, and similar social artefacts.⁸

⁷ "Parking tickets have no underlying nature about which we could be mistaken and in this they differ from gold.", Davies 2010: 25.

⁸ Some functional statuses, meanwhile, are plausibly mind-independent (e.g. being a lung or an eye) - the point being emphasised here is that an item's function is not determined by evaluative attitudes.

2.3. Evaluative mind-dependent statuses

Thirdly, there are statuses that *are* bound up with more robustly evaluative practices. Consider the category ‘weed’ (Cooper 2005, Davies 2010). Certain plants attract the evaluative attention of gardeners on the basis of features that are regarded as problematic: being unsightly; being in competition with flowers or vegetables; exhibiting uncontrolled growth and spread. Here, the weed status reflects the shared values of a particular horticultural community, who favour tidy lawns and space for chosen produce to flourish. In an alternative context where different preferences operate (for instance, a wildflower meadow (Cooper 2005)), an object such as a dandelion might lack its status as a weed.

Evaluative statuses can be found across an array of normative domains, reflecting such concerns as the moral, aesthetic, and prudential interests of a particular linguistic community. Some have straightforwardly negative connotations, such as ‘vermin’, ‘hazard’, ‘litter’, or ‘emergency’, and flag things that are apt to harm or displease those who deploy the classification. Others are positive and reveal approving attitudes, such as ‘masterpiece’, ‘hero’, ‘treasure’, or ‘delicacy’. To have such a value-laden status is to be a target of societal attention; something to which a community is not indifferent, and towards which a range of co-ordinated responses are typically mobilised. Animals that are attributed the evaluative status of ‘vermin’ or ‘pest’ in a given community, for example, are subject not only to individual attitudes of disapproval but to public efforts of prevention and control. A state of affairs that merits the status of an ‘emergency’ or ‘crisis’ (such as an escalating forest fire, or a mechanical failure on an aircraft) is one towards which ameliorative interventions are directed with special urgency. In many cases, the evaluative attention a phenomenon receives is institutionally scaffolded, in the sense that there are codified procedures for how the entity is to be dealt with; an official chain of command; shared conventions and regulations concerning when the status attribution

is to be made; and so forth.⁹ Classifying something as having an evaluatively-rich status, that is, is a socially distributed practice shaped by a history of common interests and preferences, and embedded within a culture's formal and informal traditions.

In cases like these, when we ask a status question of the form "In virtue of what is this an x ?", the answer has two dimensions. On the one hand, there are the features of x that solicit the evaluative attention of a particular community, such as how x behaves within a domain of concern. And on the other hand, there are the community's evaluative attitudes towards x , such as disapproval, worry, frustration, pride, acclaim, or distress, where these attitudes are not only private and internal, but find their expression in shared interventions upon x . In virtue of what are rabbits 'vermin' in this agricultural setting, for example? Firstly, that they breed quickly and consume resources that have been allocated to the growing of crops. Secondly, that this is an unwanted and undesirable threat to farmers' interests that renders rabbits a target of co-ordinated action. Unlike mind-independent statuses such as 'river' or 'quartz', and unlike mind-dependent but value-free statuses such as 'parking ticket' or 'tennis ball', to classify something with an evaluative status is to flag its societal *significance* – not simply to situate it within some neutral and descriptive taxonomy.

3. Constitution and its Relationship to Status

Each of the statuses identified so far picks out a category of phenomena in the world, enabling us to cast a net around such things as butterflies and footprints; national flags and road signs; pests and emergencies. When we turn to *constitution* questions, we enquire about the physical manifestation of these phenomena: what are the individual members of these categories made of, and do they all share anything in common at this level? Once we have settled the question of what it is in virtue of which all of these things share a status, that is, we can ask about how they are constituted,

⁹ For example, at what level of severity an event should be officially classified as a state of emergency.

what their structure is, what their spatial location and boundaries are, and so forth. Do moons all have, or tend to have, a common geological makeup, for example? Are all British pound coins made of the same alloy?

For a restricted range of cases, status facts and constitution facts align without remainder; they are one and the same. This entity has the status of being a diamond, for example, simply in virtue of its chemical composition and structure; it is individuated on the basis of its distinctive material ingredients. To know what a diamond *is*, in short, is to know that it is a solid form of carbon in possession of a rigid crystalline structure.¹⁰ Indeed, this may well be another way of approaching the question of what makes something a “Natural Kind”, a kind of thing that fundamentally exists in nature. With Natural Kinds, status questions and constitution questions invite the same answer. What gives this the status of being “Water”? That it is H₂O. Given that it is water, what is this made of? H₂O.

Elsewhere, however, status facts and constitution facts come apart. Several things can have the same status (e.g. that all are games, modes of currency, cakes, predators, or items of clothing) while having nothing in common at the level of constitution, for example. Conversely, entities might share a physical makeup while belonging to distinct social categories (different household objects made from paper or plastic, say).

It will be instructive to briefly note some of the ways in which these gaps can emerge in our epistemic practices. Firstly, note that one set of facts can be known even while we are ignorant of the other. We might find some ancient artefact, for instance, and analyse its physical substructure in minute detail without knowing what kind of object it is. Conversely, we might have an exhaustive grasp of the social status of an object - say, a tax collector, a religious icon, or a driver's license - without much knowledge of its material composition.

¹⁰ Note that if a diamond or ruby has the status of being a *jewel* (a precious stone used in ornamentation), then this evaluative status cannot be known simply by looking at its physical constitution.

Secondly, note that the two sets of facts can serve divergent explanatory and practical purposes. The social, mind-dependent status of a passport may be significant for an agent who is first learning about international travel, for example, while the material properties of the passport are of special relevance for a counterfeiter. The status of a portrait as an early example of neoclassicism interests the art historian, while the specific composition of its oil paint matters to the project of restoration. The evaluatively-laden status of these discarded objects of litter governs the attention of the clean-up team, while their material ingredients catch the eye of their colleagues in recycling.

Sometimes, a project relies upon an interlocking or cross-cutting understanding of both status and constitution facts, with the agent shifting their attention from one to the other. We can mobilise efforts to eradicate this patch of weeds, while leaving the crops intact, by keeping track of which plants have the undesirable status and which are to be saved. And we might pursue this enterprise by attending to the biochemical properties of the plants in question, for instance if we are to design a targeted herbicide. Here, facts of constitution inform a project that is shaped by our evaluative, status-based concerns: we have cast our net around the weeds in order to pursue our horticultural agenda, and we take steps to intervene upon these entities on the basis of their physical properties.

To close this section, notice that the distinction between status facts and constitution facts makes room for certain epistemic errors and biases. Perhaps the most basic misunderstanding would be for an enquiry to mistake one set of facts for the other. We can imagine, for example, a person who mistakenly thinks that banknotes are defined in terms of their material features, ignoring its societal status as a means of currency. This individual might secure valuable knowledge of, say, the woven polymeric structure of the note; its size, shape, and resistance to wear. But to think that the banknote status is settled by these facts would be to neglect the wider network of economic and legal institutions in virtue of which the object has that status. A related misconception would be for the banknote-theorist to come to the conclusion

that *all* objects that bear this defining social status must share a common material realisation; ie. that the discovery of this dollar bill's physical properties reveals the underlying nature of all banknotes.

Consider how errors of these kinds might arise in regard to objects whose status is derived evaluatively. Attending too narrowly to the material constitution of an entity might, in this case, come at the expense of misunderstanding its status as a target of human concern and intervention. A naïve botanist, for example, might be presented with a list of garden weeds and mistakenly come to believe that this is a category - like 'helianthus' or 'brassica' - that is united by a common underlying biology, rather than by the interests and preferences of the horticultural community.

Conversely, the social-evaluative status of an entity may mislead an agent into thinking that it is not a suitable object of empirical enquiry. The fact that nothing counts as a pest or an heirloom, for example, unless it is the target of subjective attitudes of approval or disapproval may encourage a person to conclude that pests and heirlooms are thereby not real phenomena. But this is to ignore the collection of tangible worldly objects that fall into each category - various rabbits, termites, and bedbugs; various bracelets, family portraits, and cutlery sets - none of which is mysterious or out of bounds to scientific scrutiny.

4. Recasting the objectivism / normativism debate

There is a meaningful distinction between status and constitution questions in the domain of psychiatric classification. When we ask “What is mental disorder?”, “What is addiction?”, or “What is depression?”, for example, we might be asking about the facts in virtue of which a person counts as having the condition. Or we might be asking about the characteristic material underpinnings of the condition, if there are any.¹¹ Once we observe that these questions might merit different kinds of answer, we

¹¹ Parallel considerations arise for enquiries into the nature of disability. Whether a condition counts as a disability is a question of normative status - whether it presents everyday difficulties for an

can see that the disagreement between normativism and objectivism is fundamentally recast. In short, we propose that normativists provide the most cogent answers to psychiatric status questions, while objectivism is best construed as a thesis concerning the physical constitution of psychiatric phenomena. However, this is not to say that there is no disagreement remaining: it is simply of a different nature. There is a tacit disagreement about which question we should be asking: status or constitution? In our view, it is the status question that has conceptual priority for psychiatric classification. To this extent, we side with the normativist.

The normativist provides answers to psychiatric *status* questions, and takes them to be settled by appeal to wide states of affairs that include the evaluative attitudes and attention of a social group, without necessary reference to any underlying etiology. The facts in virtue of which a person has a mental disorder, that is, concern her symptomatic presentation and how it is evaluatively regarded in her society. It is an individual's overt behaviour, including testimony concerning their inner mental life, that makes them a complex target of concerned attention: some visible pattern of action, thought, experience, motivation, affect, or reasoning that impinges upon her flourishing over time. In practice, psychiatric diagnosis takes place in a clinical setting, and involves a multi-step process of dialogue and enquiry that unfolds between doctor and patient. The procedure brings the individual's symptoms into the open, often aided by a diagnostic manual such as the DSM-V, and sheds light on the kind and degree of harm or disruption these cause for the agent and those around her.

To possess a certain psychiatric status *just is* to be a suitable subject of a complicated range of value-laden attitudes such as care, sympathy, concern, caution, vigilance, respect, and motivation, and of the societal interventions these bring into action. A person who has the status of being an addict, for example, is party to societal

individual, for example, and how society is (and ought to be) organised to accommodate those difficulties. But how any disability is realised in a person's brain, body, or wider social context is another question altogether - a question of constitution.

attention that is not simple disapproval or dislike, but often includes compassion and understanding, alongside the withdrawal of reactive attitudes of condemnation and blame (Pickard 2017). Interested parties, such as doctors and family members, are motivated to intervene – through treatment and therapy, moral support, advice, and encouragement. These evaluative attitudes, and the co-ordinated interventions that they mobilise, are institutionally scaffolded: they unfold within shared, social practices that are informed by medical knowledge and supported by rule-governed procedures. It follows that although psychiatric statuses are determined by appeal to social and evaluative facts, they are not thereby arbitrary. Rather, they reflect the defining aims, norms, and commitments of the enterprise of psychiatry (and mental healthcare more generally); namely, to identify, treat, and care for those who are in need of intervention.

The evaluative considerations foregrounded by the normativist come apart, epistemically and in the working practice of psychiatry, from narrow facts about a person's neural functioning. This is simply to say that, for the normativist, we can know who is to be attributed the status of mental disorder (in general or specific terms) without knowing much – if anything – about the condition of their brain. It is the social-evaluative considerations that allow us to cast our net around the target of psychiatric enquiry, prior to the secondary task of establishing whether those within the net have anything in common at the neural level. The discovery that they share some similar material substructure - if we were lucky enough to achieve it - would inform our understanding of the condition and feed into treatment development. But this does not eclipse the fact that the net is cast around the phenomenon of interest at the social, evaluative level.

It follows that the normativist answer to questions of psychiatric status is *wholly consistent with, but does not demand, an objectivist account of the constitution of those very phenomena*. That is, once we have established which persons are subject to psychosis, suffer from depression, or have an anxiety disorder, for instance, it is an open empirical question as to what underpins these conditions, and whether each has a

distinctive underlying neural substrate. There is therefore no legitimate entailment from the claim that mental disorders are individuated on the basis of evaluative attitudes to the conclusion that they have no objective basis in material reality. The normativist is entitled to commit to a naturalistic approach to the investigation and treatment of the phenomena granted the status of mental disorder. With answers to psychiatric status questions in hand, scientific enquiry can pursue questions of constitution and their practical consequences – such as prospects for pharmaceutical intervention, gene therapies, and other techniques that operate at the biological level. That values play a role in individuating mental illness from mental health, and in marking out specific types of mental disorder, is thus no threat to the scientific credentials of psychiatric medicine.

This way of thinking about the debate enables us to regard normativism and objectivism as compatible answers to two different questions: a question about the status of psychiatric disorder and a question about the constitution of the things that have that status, and which may well be heterogeneous. When we ask a specific individuation question like "What is substance use disorder?", for example, a status answer makes ineliminable reference to normative factors such as social problems and risky use, and thus we identify addicts on an evaluative basis. Then, we can leave it to empirical research to establish what individual persons who exhibit socially problematic behaviours of repetitive consumption have that is causally relevant at the neural level, and whether they all have the same thing in common. In an ideal world, a distinctive biomarker of addiction would be discovered, enabling targeted pharmacological or therapeutic intervention, but that would never be *definitional* of addiction. Such a biomarker would, instead, be a fortuitous and productive empirical discovery.

Notice that to *deny* this picture, the objectivist must regard constitution facts as somehow privileged - as tracking the "real" nature of mental illness, such that we can set the social and evaluative considerations aside. This kind of thinking can be detected in more radical formulations of objectivism, such as when people say

"addiction *is* a brain disease". It is natural to read language like this as implicitly excluding social-evaluative considerations: addiction is a brain disease, *and so it isn't* a disvalued proclivity towards unwanted patterns of behaviour. Indeed, it is hard to make sense of stronger varieties of objectivism unless they are taken to have this implication.

The error that is often made here is akin to the following. Suppose you cast your net around the set of all known weeds, and you develop a herbicide that kills all and only those weeds. While the delineation of weeds is grounded in our evaluative practices concerning the plants that annoy us, the development of that herbicide involves a careful, descriptive, scientific investigation into what all of these plants have in common. Suppose that, after you develop your herbicide, you then encounter an unwanted plant that is resistant to your chemical intervention, because it has a slightly different physical makeup from the members of the set of weeds for which you developed your herbicide. To insist that this pesky plant is not a weed because of its resistance to your herbicide would clearly be a mistake. But it is the same kind of mistake that is made by the insistence that addiction is to be identified with certain anatomical abnormalities in the brain (Leshner 1997), or that depression is to be identified with monoamine deficiency (Delgado 2000), or that types of anxiety disorder are to be distinguished according to their neural basis (Argyropoulos et al. 2001).

Consider another scenario in which a psychiatrist diagnoses 100 people with substance use disorder, on the grounds that each of them has entrenched habits of drug-seeking behaviour that impinge negatively on their working lives and interpersonal relationships. Suppose further that brain-scanning techniques reveal that 99 of the patients share a distinctive neural abnormality, while the 100th patient lacks this underlying biomarker of the disorder. All 100 agents have the addiction status, in virtue of exhibiting the same socially disvalued pattern of behavioural,

motivational, and experiential symptoms; and all of the individuals but one have constitution facts in common.¹²

We propose that the discovery of the constitution facts in this case would, and should, do nothing to revise the psychiatrist's judgement that the 100th patient is also a subject of substance use disorder. The absence of the biomarker is not a state of affairs that could possibly undermine the attribution of this social-evaluative status to the agent. When the symptoms are present, and when they are sufficiently disruptive to the agent's wellbeing that they flag society's evaluative attention, the disorder is present; and this status cannot be overturned by appeal to facts about the brain. This is, of course, not to say that the discovery that patient 100 lacks the same difference is irrelevant. It may well follow that this patient requires a different intervention, but it doesn't mean that this person doesn't really have substance use disorder. It rather shows that it is, after all, possible to suffer from substance use disorder without that brain difference.

For practical reasons, we could nonetheless subdivide the category on the basis of this discovery, since the differential diagnosis might yield more effective and targeted treatment pathways. But this is a differentiation between two things that retain psychiatric status, not a removal of psychiatric status from one of the two. The stipulation that the subtype that has a biomarker should be seen as the "proper" version of the disorder (that was originally identified at the practical and normative level) would be arbitrary.

The same point applies in reverse. Suppose we were to discover the putative biomarker of substance use disorder in the brain of a person who exhibits *no* tendency towards risky drug-seeking behaviour. Here, we would have no inclination to attribute the disorder to the agent; the neural facts are not privileged or authoritative when the symptoms, and the social attitudes that target them, are missing. Indeed, the

¹² Sinnott-Armstrong & Summers (2020: 87) run a similar case in which a biomarker is found in 99 percent of cases of depression. Provided that the final 1 percent of patients exhibit depressed feelings, thoughts, and activity, they argue, the absent biomarker does not tell against a depression diagnosis.

so-called "constitution facts" have no explanatory role to play at all. The very same issues apply to depression, psychosis and, indeed, all psychiatric categories that pick out a certain kind of problem and that aren't purporting to pick out a thing in nature (i.e. a "Natural Kind").

So, to sum up, how does this leave the objectivism/normativism debate? It reconceives it, and shows how both camps may be right, but right about different things. However, our sympathies are firmly with the normativist. Objectivists tend to make a problematic backwards inference from the investigation of constitution, to making definitional claims on that basis.

But the assumption that mental disorder in general, and specific mental disorders in particular, will have a common underlying constitution is a mistake. If, for instance, a distinctive biomarker for a specific condition like addiction were to be empirically unearthed, that would be a discovery of potentially huge clinical significance. But it cannot be assumed in advance that something of socio-evaluative homogeneity (i.e. unity of status) will have any biological homogeneity of constitution. In the example of this discovery, it should lead one to say that, fortunately, all cases of addiction (in this possible world) are constituted thus (and treatable thus). It should not lead one to say that that's what addiction fundamentally is. What addiction is fundamentally is a certain kind of problem that afflicts someone's life.

This leads us from a point against the objectivist, to a point in favour of the normativist. Earlier we said that there isn't simply *ambiguity* when it comes to status and realisation questions, there are times when one *ought* to be asking one rather than the other. In this respect, the normativist has correctly chosen a status question and in so doing has correctly identified the *kind* of enterprise that psychiatry is. Psychiatry, in particular, and medicine in general, exists in society in order to help people with the problematic conditions they face.

Another final thing worth mentioning, before we examine some clarificatory objections, is that our distinction between status and constitution is a very different

way of negotiating objectivist and normativist considerations than the one adopted by what we might call "hybrid" accounts of psychiatric classification. Wakefield's "harmful dysfunction" account (Wakefield 1992), or Glackin's "grounded disease" account (Glackin 2019), propose that some objective component and some normative component are individually necessary, but only jointly sufficient, for the presence of psychiatric disorder. For Wakefield, a dysfunction that isn't harmful isn't enough of a problem to count as disease, but something that is harmful without dysfunction is just the wrong kind of problem to be medical. Something similar can be said of Glackin's view: a disease needs to be suitably problematic, but has to be grounded in a "fundamental biological reality" (2019: 258), otherwise we are not talking about a distinctly medical problem.

Though we have sympathies with these approaches, we think that they, too, are unhelpfully running together questions of status and constitution. More specifically, they combine normative and objective components into an answer to a single question: a status question. In contrast, on our view, psychiatric status is socio-evaluative, given the kind of enterprise that psychiatry is, and constitution is not. In a departure from these hybrid theorists, moreover, we hold that mental disorder may often be, but doesn't have to be, grounded in or otherwise involve biological dysfunction.

Now we move on to examine some objections and replies. Interestingly, these objections to normativism are precisely what lead hybrid theorists (most explicitly Glackin) to add an objective necessary condition that we eschew.

5. Objections and replies

So far, our primary claim has been that acknowledging the distinction between status questions and constitution questions can enable us to reconceptualise the dispute between normativism and objectivism concerning psychiatric classification.

Moreover, we have given a central role to the evaluative attitudes and social practices of a diagnostic community, arguing that these have priority in settling psychiatric status questions - they are the primary facts in virtue of which a person has or lacks a particular mental disorder. In this section, we test our proposal against well-known philosophical objections to normativism, and show that our distinction provides resources to answer them.

The three main objections that are typically levelled at the normativist are:

- 1) The objection from *healing borders*,
- 2) The objection from *pernicious relativism*,
- 3) The objection from the *distinctiveness of medical problems*.

Let us examine and respond to these in turn. We hope to show that these challenges dissolve when we adopt our central distinction between status and constitution.

5.1. Healing borders

The objectivist worries that, if the normativist is right, someone can be healed simply by crossing a border from a societal context where their condition is deemed pathological to a context where it is not. This is clearly not a problem for the objectivist, who can point to the agent's unchanging neural state as the locus of their mental disorder. We, however, don't wish to commit ourselves to an objective criterion, so don't we open ourselves up to the same objection?

Our view is that this issue only *looks* problematic because people don't distinguish between status and constitution. How can you be 'fixed' if nothing inside you changes? All you have done is travel. Our response is as follows. You *can*, in principle, lose a psychiatric status, but, in practice, it will depend on the sorts of

conditions that we are talking about.¹³ Can we conceive of a (relevantly developed) human society in which florid psychosis, or chronic depression, or persistent and debilitating anxiety are *not* deemed problematic, and so are ignored by psychiatric medicine? To the extent that we can, it is not obvious that we are imagining a society that has a functioning practice of psychiatry at all. The point is that there are inevitably core similarities among what societies deem to be worthy of evaluative attention and intervention. As Fulford (1989) pointed out, the more aligned our values are, the less visible their presence, but this is not to say that they are not present.

We are certainly not suggesting that bones magically mend, or that viruses disappear, at the crossing of a border. But this is all at the objective level of constitution anyway. At the level of status, broken bones and viral infections are likely to retain their status as medical problems, and appropriately so. While evaluative statuses will vary, as will values more generally, it is not the case that anything goes. Some societies are more progressive, imaginative, humane, and so on, than others. So in answer to the question: Can a person who is gay become ill by moving to a less progressive society? Well, their illness status will certainly change in the eyes of society, but not necessarily *appropriately*, and that leads us on to the next objection.

5.2. Pernicious relativism

This objection stems from the possibility that a certain society might categorise non-pathological behaviour as symptomatic of psychiatric disorder, due to entrenched value systems that differ from our own. In the 19th century, some victims of slavery were diagnosed with 'drapetomania' - the supposedly uncontrollable and manic urge to abscond from captivity. The worry for the normativist is whether they

¹³ Again, it is helpful to compare this case to that of disability. It is plausible that a condition that counts as a disability in one society may not count as a disability in another - for example, when the latter society is highly accommodating of different sensory or mobility needs. This can be true even while the underlying biological facts of the matter do not change.

have the resources to explain why the enslaved persons did not thereby have a disorder. If to be ill is simply to be subject to certain evaluative attitudes, then aren't these people ill? The same would apply to homosexuality, and other problematic pathologizations. Notice, again, that a view that requires an objective criterion (objectivist or hybrid) has a ready-made answer to this. These people aren't ill because there is nothing objectively, biologically wrong with them.

According to our position, this rightly identifies that drapetomania and homosexuality should not be seen as disorders or illnesses, but it misidentifies the nature of the error. The error here is a moral/societal error, *not a descriptive one*: it's not a scientific inaccuracy, it's an injustice.

To unpack this further, an objectivist must construe the error as a factual, descriptive one. It is therefore as if there was a *discovery* that slaves weren't mentally ill. The objectivist is going to have to say 'these people didn't have a mental disorder because their brains didn't show any abnormality'. This seems to imply (or at least we'd need to hear more about why it doesn't imply) that *if they had* had a brain anomaly, they would indeed have been mentally ill, in their resistance to being held in slavery. On our view, the error is not a descriptive one, but an error of values: it is an error that concerns the morality of enslavement. And as many theorists have pointed out (e.g. Blackburn 1998), when people don't have the values that we have, that's not a particularly thorny issue: we use our values to negatively evaluate theirs, and carry on the business of carving out the sort of society in which we want to live. In other words, when we say that something *shouldn't* be pathologized, we are simply making another normative claim, but this time targeting evaluative systems rather than the phenomena themselves.

5.3. The distinctiveness of medical problems

The third and final objection starts with the idea that different people have different kinds of problems. If the normativist is simply claiming that illness is a

condition that is disvalued in a particular way, then there is the challenge of articulating specifically *medical* dimensions of disvalue. This is brought into relief especially clearly when contrasted with views that appeal to an objective criterion. The challenge doesn't arise for these theorists since what distinguishes mental illness from, say, poverty and unhappiness, is that there is something objectively, biologically, wrong with the agent. As Glackin (2019) writes, "a satisfactory account of the disease-concept should tell us what is specifically *medical* about diseases, that differentiate them from other disvalued conditions such as being a pub bore, or the hapless devotee of a terrible football team" (p.272).

Our account can make the distinction, but an objective criterion (which is Glackin's suggestion of "grounding") is not the way to go. Being in a bad marriage, or in poverty, or whatever, isn't made *not* a medical problem because of the absence of something biologically, objectively wrong with the person, i.e. not because of the underlying causes of the unhappiness, but because of the kind of problem we are talking about (and of course, "a problem" is an evaluative and practical status of which there are different kinds). The question of different kinds of problems must be settled at the level of status, not constitution. So, what gives something a status as a medical problem? Simply that it is appropriate for society to conceptualize, and intervene on, said problem through medicine. Now that appropriateness may well be explained by intervening biologically thanks to medical scientific progress ("the fixing of something biologically wrong", if you go in for that sort of normativity (although see Amundson (2000)) but it needn't be. You only need to look at the plethora of different things that qualify as successful medical interventions (pain management, obstetrics, rehabilitative treatments) to see that the focus on malfunction is wide of the mark. Broaden your search beyond "the medical" to "the clinical" and you'll see it even more clearly (prescribing social interaction, exposure to nature, cardiovascular exercise, bed rest, a low-salt diet, etc.).

If divorce, a new partner, or having £3000 transferred into your bank account spells an end to your problem, then your problem is not a medical one. This is circular,

but not viciously so. It does justice to medicine, psychiatry and clinical professions, as institutions that exist to serve particular practical roles in society. This has the advantage of allowing us to see that, and why, the boundaries of “the medical” (and “the clinical”) are fluid. There is wiggle room, and we just want our decisions to reflect our values.

6. Concluding Remarks

When we enquire as to *what* some psychiatric phenomenon is, we might be asking one of two different types of question. We might be asking a status question: in virtue of what does a person qualify as mentally ill, or subject to disorder x, y, or z? Or we might be asking a constitution question: what, if anything, is the specific material basis of their disorder? We would do well, we have argued, to acknowledge the difference between these two epistemic projects. For once we do so, we realise that the traditional debate between normativism and objectivism concerning psychiatric classification can be recast. Psychiatric status questions are answered by appeal to symptoms that are the target of societal care, concern, and intervention, and are thus fundamentally normative in character. Psychiatric constitution questions are answered by appeal to the empirical discovery of underlying mechanisms and substrates, in the event that this is possible, and are thus fundamentally objective in character.

On one interpretation, our contribution here is one of adding clarity and nuance. We are reconceptualising a longstanding debate between the objectivist and the normativist. However, we do in fact come out in favour of normativism. Because while there is the ambiguity between status and constitution questions, there are times when we *should* be asking one question and not the other. When asking about what mental illness *is*, we should be asking a status question and settling this question by appeal to the evaluative attitudes and practices of a society.

Having said this, our position also frees up scientific investigation into the very

things that have a certain status, without having to labour under misguided definitional pressures. If the quest for biomarkers is seen as definitional rather than simply a statistical diagnostic aid, however, then it is a fool's errand. Perhaps it will be discovered that all cases of the things to which we assign a particular psychiatric status have the same constitution. But that will be hostage to empirical fortune. Why prejudge that all of the instances of a particular kind of problem, detrimental to people's lives in the same way, are underpinned by the same underlying mechanisms and substrates? What might also happen, of course, is that we discover that evaluative statuses like "addiction" or "delusion", cast their nets around phenomena, a subset of which (a *core* of which) has a unified, objective nature. There we will have stumbled upon what some would refer to as a "Natural Kind". But that would require us, i) to coin a *new* natural kind term for that unified subset, and ii) not to dismiss the other phenomena as no longer *really* "addiction" or "delusion". That would be to misunderstand that these already pick out a perfectly valid status at a socio-evaluative level.¹⁴

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References

- Amundson, R., (2000). Against normal function. *Studies in History and Philosophy of Science (Part C: Studies in History and Philosophy of Biological and Biomedical Sciences)*, 31: 33–53.
- Andreasen, N. C. (1997). Linking mind and brain in the study of mental illnesses: A Project for a Scientific Psychopathology. *Science*, 275(5306), 1586–1593.
- Argyropoulos, S.V., Bell, C.J., and Nutt, D. (2001). Brain function in social anxiety disorder, *Psychiatric Clinics of North America*, 24:707-722.
- Blackburn, S. (1998). *Ruling passions: A theory of practical reasoning*. New York: OUP.
- Boorse, C., (1975). On the distinction between disease and illness, *Philosophy and Public Affairs*, 5: 49–68.
- Boorse, C., (1977). Health as a theoretical concept, *Philosophy of Science*, 44: 542–573.
- Boorse, C., (1997). A rebuttal on health, in J. M. Humber and R. F. Almeder (eds.), *What is disease?*, Totowa, NJ: Humana Press, 3–143.
- Broome, M. & Bortolotti, L. (2009). *Psychiatry as Cognitive Neuroscience: Philosophical Perspectives*. New York: Oxford University Press.
- Chentsova-Dutton, Y. E., Senft, N., & Ryder, A. G. (2014). Listening to negative emotions: How culture constrains what we hear. In W. G. Parrott (Ed.), *The positive side of negative emotions* (pp. 146–178). The Guilford Press.
- Cooper, Rachel (2005). *Classifying madness: A philosophical examination of the diagnostic and statistical manual of mental disorders*. Springer.
- Davies, S. (2010). *Philosophical Perspectives on Art*, Oxford: Oxford University Press.
- Delgado P. L. (2000). Depression: the case for a monoamine deficiency. *The Journal of clinical psychiatry*, 61 Suppl 6, 7–11.
- Dretske, F. (1988). *Explaining Behavior: Reasons in a World of Causes*. MIT Press.
- Dupré, J. (1993). *The Disorder of Things: Metaphysical Foundations of the Disunity of Science*. Harvard University Press.

Ereshefsky, M. (2009). Defining 'health' and 'disease'. *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences*, 40 (3):221-227.

Frankfurt, H. G. (1971). Freedom of the will and the concept of a person. *Journal of Philosophy*, 68 (1):5-20.

Fulford, K. W. M., (1989). *Moral theory and medical practice*, Cambridge: Cambridge University Press

Gagné-Julien, A-M. (2020). Towards a socially constructed and objective concept of mental disorder. *Synthese* 198 (10): 9401-9426.

Glackin, S.N. (2019). Grounded disease: Constructing the social from the biological in medicine. *Philosophical Quarterly*, 69 (275):258-276.

Hacking, I. (1999). *The social construction of what?* Cambridge, MA: Harvard University Press.

Haslanger, S. (1995). Ontology and Social Construction. *Philosophical Topics*, 23 (2):95-125.

Heilig, M., MacKillop, J., Martinez, D., Rehm, J., Leggio, L., & Vanderschuren, L. J. M. J. (2021). Addiction as a brain disease revised: Why it still matters, and the need for consilience. *Neuropsychopharmacology*, 46(10), 1715-1723.

Henden, Edmund (2019). Addiction as a disorder of self-control. In Hanna Pickard & Serge Ahmed (eds.), *The Routledge Handbook of Philosophy and Science of Addiction*. Routledge.

Insel, T. R., & Quirion, R. (2005). Psychiatry as a clinical neuroscience discipline. *JAMA*, 294(17), 2221– 2224. <https://doi.org/10.1001/jama.294.17.2221>

Jackson, M. & Fulford, K. W. M. (2002). Psychosis good and bad: values-based practice and the distinction between pathological and nonpathological forms of psychotic experience. *Philosophy, Psychiatry, and Psychology*, 9 (4): 387-394.

Kapur S. (2003). Psychosis as a state of aberrant salience: a framework linking biology, phenomenology, and pharmacology in schizophrenia. *The American journal of psychiatry*, 160(1), 13–23. <https://doi.org/10.1176/appi.ajp.160.1.13>

- Kingma, E. (2010). Paracetamol, poison, and polio: Why Boorse's account of function fails to distinguish health and disease. *British Journal for the Philosophy of Science*, 61 (2): 241-264.
- Kingma, E., (2014), "Naturalism about health and disease: Adding nuance for progress", *Journal of Medicine and Philosophy*, 39(6): 590–608. doi:10.1093/jmp/jhu037
- Levy, N. (2013). Addiction is not a brain disease (and it matters). *Frontiers in Psychiatry* 4 (24):1-7.
- Leshner, A.I. (1997). Addiction is a brain disease, and it matters. *Science* 278, 45-47.
- Moncrieff, J., Cooper, R. E., Stockmann, T., Amendola, S., Hengartner, M. P., & Horowitz, M. A. (2022). The serotonin theory of depression: a systematic umbrella review of the evidence. *Molecular psychiatry*, 1-14.
- Murphy, D. (2005). *Psychiatry in the Scientific Image*. MIT Press.
- Page, S. (2006). Mind-independence disambiguated: Separating the meat from the straw in the realism/anti-realism debate. *Ratio*, 19 (3):321–335.
- Pickard, H. (2017). Responsibility without blame for addiction. *Neuroethics*, 10(1), 169-180.
- Roberts, T., Krueger, J. & Glackin, S. (2019). Psychiatry beyond the brain: externalism, mental health, and autistic spectrum disorder. *Philosophy Psychiatry and Psychology*, 26 (3):E-51-E68.
- Searle, J. (1995). *The Construction of Social Reality*. Free Press.
- Simon, J. (2007). Beyond naturalism and normativism: Reconceiving the 'disease' debate. *Philosophical Papers*, 36 (3): 343-370.
- Sinnott-Armstrong, W. & J.S. Summers (2020). Which biopsychosocial view of mental illness? In Will Davies (ed) *et al, Psychiatry Reborn: Biopsychosocial Psychiatry in Modern Medicine*, Oxford: OUP. 82-96.
- Wakefield, J.C., (1992). The concept of mental disorder, *American Psychologist*, 47: 373–388
- West, R., & Brown, J. (2009). *Theory of addiction*. Oxford: Wiley-Blackwell.