

Rationality and Society

<http://rss.sagepub.com/>

The Economics of Szasz : Preferences, Constraints and Mental Illness

Bryan Caplan

Rationality and Society 2006 18: 333

DOI: 10.1177/1043463106066377

The online version of this article can be found at:

<http://rss.sagepub.com/content/18/3/333>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Rationality and Society* can be found at:

Email Alerts: <http://rss.sagepub.com/cgi/alerts>

Subscriptions: <http://rss.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://rss.sagepub.com/content/18/3/333.refs.html>

THE ECONOMICS OF SZASZ

PREFERENCES, CONSTRAINTS AND MENTAL ILLNESS

Bryan Caplan

ABSTRACT

Even confirmed economic imperialists typically acknowledge that economic theory does not apply to the seriously mentally ill. Building on psychiatrist Thomas Szasz's philosophy of mind, this article argues that most mental illnesses are best modeled as *extreme preferences*, not constraining diseases. This perspective sheds light not only on relatively easy cases like personality disorders, but also on the more extreme cases of delusions and hallucinations. Contrary to Szasz's critics, empirical advances in brain science and behavioral genetics are largely orthogonal to his position. While involuntary psychiatric treatment might still be rationalized as a way to correct intra-family externalities, it is misleading to think about it as a benefit for the patient.

KEY WORDS • heterogeneous preferences • mental illness • rationality

Do we want two types of accounts about human behavior – one to explain the conduct of sane or mentally healthy persons, and another to explain the conduct of insane or mentally ill persons? I maintain that we do not need, and should not try, to account for normal behavior one way (motivationally), and for abnormal behavior another way (causally). Specifically, I suggest that the principle, 'Actions speak louder than words,' can be used to explain the conduct of mentally ill persons just as well as it can the behavior of mentally healthy persons. Thomas Szasz, *Insanity: The Idea and Its Consequences* (1997: 352)

1. Introduction

Even the staunchest proponents of economic imperialism have long made an exception for the seriously mentally ill. Posner (1998: 258) remarks that:

Rationality and Society Copyright © 2006 Sage Publications. Vol. 18(3): 333–366.
www.sagepublications.com DOI: 10.1177/1043463106066377

If a person is insane either in the sense that he does not know that what he is doing is criminal (he kills a man who he thinks is actually a rabbit) or that he cannot control himself (he hears voices that he believes are divine commanding him to kill people), he will not be deterred by the threat of criminal punishment.

Cooter and Ulen's (1988: 237) *Law and Economics* text is more explicit:

If the promisor's preferences are unstable or not well-ordered, then he is unable to conclude a perfect contract. The law says that such people's promises are unenforceable because they are legally incompetent. For example, children and the insane do not have stable, well-ordered preferences, and, as a result, their promises are unenforceable.

Even Milton Friedman (1962: 33) concurs: 'Paternalism is inescapable for those whom we designate as not responsible. The clearest case, perhaps, is that of madmen. We are willing neither to permit them freedom nor to shoot them.'

Though these authors are usually eager to bring social phenomena into the orbit of economics, they not only make an exception for severe mental illness; they treat the exception as uncontroversial. Over time, however, diagnoses of mental illness have become increasingly widespread.¹ Epidemiologists now report that 20% or more of the USA population suffers from mental illness during a given year (Kessler et al. 1994). A seemingly small loophole in the applicability of economics has grown beyond recognition.

This article argues that much if not all of the loophole should never have been opened in the first place. Most glaringly, a large fraction of what is called mental illness is nothing other than unusual preferences – fully compatible with basic consumer theory. Alcoholism is the most transparent example: in economic terms, it amounts to an unusually strong preference for alcohol over other goods. But the same holds in numerous other cases. To take a more recent addition to the list of mental disorders, it is natural to conceptualize Attention Deficit Hyperactivity Disorder (ADHD) as an exceptionally high disutility of labor, combined with a strong taste for variety.²

Consider how economists would respond if anyone *other than* a mental health professional described a person's preferences as 'sick' or 'irrational'. Intransitivity aside, the stereotypical economist would quickly point out that these negative adjectives are thinly disguised *normative* judgments, not scientific or medical claims. Why

should mental health professionals be exempt from economists' standard critique?

This is essentially the question asked by psychiatry's most vocal internal critic, Thomas Szasz. In his voluminous writings, Szasz has spent over 40 years arguing that mental illness is a 'myth' – not in the sense that abnormal behavior does not exist, but rather that 'diagnosing' it is an ethical judgment, not a medical one.³ In a characteristic passage, Szasz (1990: 115) writes that:

Psychiatric diagnoses are stigmatizing labels phrased to resemble medical diagnoses, applied to persons whose behavior annoys or offends others. Those who suffer from and complain of their own behavior are usually classified as 'neurotic'; those whose behavior makes others suffer, and about whom others complain, are usually classified as 'psychotic'.

The American Psychiatric Association's (APA) 1973 vote to take homosexuality off the list of mental illnesses is a microcosm of the overall field (Bayer 1981). The *medical science* of homosexuality had not changed; there were no new empirical tests that falsified the standard view. Instead, what changed was psychiatrists' *moral judgment* of it – or at least their willingness to express negative moral judgments in the face of intensifying gay rights activism. Robert Spitzer, then head of the Nomenclature Committee of the American Psychiatric Association, was especially open about the priority of social acceptance over empirical science. When publicly asked whether he would consider removing fetishism and voyeurism from the psychiatric nomenclature, he responded, 'I haven't given much thought to [these problems] and perhaps that is because the voyeurs and the fetishists have not yet organized themselves and forced us to do that' (Bayer 1981: 190). Even if the consensus view of homosexuality had remained constant, of course, the 'disease' label would have remained a covert moral judgment, not a value-free medical diagnosis.

Although Szasz does not use economic language to make his point, this article argues that most of his objections to official notions of mental illness fit comfortably inside the standard economic framework. Indeed, at several points he comes close to reinventing the wheel of consumer choice theory:

We may be dissatisfied with television for two quite different reasons: because the set does not work, or because we dislike the program we are receiving. Similarly, we may be dissatisfied with ourselves for two quite different reasons: because our

body does not work (bodily illness), or because we dislike our conduct (mental illness). (Szasz 1990: 127)

Explicitly wedding standard economic concepts to Szasz's philosophy of mind allows us to spell out his position with new clarity and force. How so? Consumer choice theory has two basic building blocks: preferences and budget constraints. Inside of this framework, how would one model physical disease? By and large, as an inward shift of the budget constraint: When you have the flu, for example, your peak level of physical performance declines. In contrast, most mental diseases amount to nothing more than unusual preferences; they do not affect what a person *can* do, only what they *want* to do. An oft-repeated slogan states that 'Mental disease is just like any other disease', but elementary microeconomics highlights a disanalogy with a distinct Szaszian flavor. To call someone physically ill is (usually) a descriptive claim about what a person is *able* to do; to call someone mentally ill is (usually) a normative claim about what preferences he *ought* to change.

In addition to unusual preferences, the mentally ill are often said to suffer from *delusional beliefs*. This criterion has greater economic appeal than bald complaints about preferences: Since the rational expectations revolution, economists have routinely equated systematically biased beliefs with 'irrationality' (Caplan 2002; Sheffrin 1996; Thaler 1992). In practice, however, only *unpopular* delusions provoke diagnoses of mental illness. Adherence to the dogmas of an established religion or ideology – no matter how bizarre – almost never attracts psychiatric attention. Originating your own bizarre belief system frequently does.⁴ In Szasz's (1990: 215) words:

If you believe you are Jesus or that the Communists are after you (and they are not) – then your belief is likely to be regarded as a symptom of schizophrenia. But if you believe that Jesus is the Son of God or that Communism is the only scientifically and morally correct form of government – then your belief is likely to be regarded as a reflection of who you are: Christian or Communist.

Once again, mental health specialists' covert standard is not scientific or medical, but moral: Absurd beliefs shared by millions are 'healthy'; equally absurd beliefs held by a lone individual are 'sick'. While economists have only begun to study the demand for irrational beliefs (Akerlof 1989; Akerlof and Dickens 1982; Caplan 2001), there is little if any reason to treat 'popular' and 'niche' delusions asymmetrically.

I organize this article as follows. The next section summarizes the distinctive features of Szasz's position and corrects popular misconceptions about it. Section 3 considers the best way to model disease in economic terms. Section 4 explains why at least a high fraction of mental illnesses must be formalized in the opposite way, as preferences. Section 5 analyzes the 'hard cases' of hallucinations and delusions. Section 6 argues that the progress of brain science and behavioral genetics sheds little light on deeper questions about the nature of mental illness. Section 7 concludes.

2. A Brief Survey of Szasz

Thomas Szasz is probably best known for his opposition to involuntary mental hospitalization. His (1990: 107) rejection is categorical and impassioned:

Involuntary mental hospitalization is like slavery. Refining the legal or psychiatric criteria for commitment is like prettifying the slave plantations. The problem is not how to improve or reform commitment, but how to abolish it.

Unfortunately, his policy advocacy overshadows the more novel aspect of Szasz's thought: his philosophy of mind. For Szasz, the most salient fact about human motivation and thought is its vast heterogeneity. Even if we limit the sample to people with a 'clean bill' of psychiatric health, the range of desires and viewpoints is amazingly wide (Caplan 2003; Piedmont 1998). There are monks and prostitutes, mountain climbers and shut-ins, CEOs and beach bums, Sunni Muslims and Trotskyist splitters. Great works of literature are perhaps the most powerful evidence of human diversity: think of the chasms between Iago, Brutus or Falstaff in Shakespeare; Pierre, Rostov or Anna Karenina in Tolstoy; Javert, Frolo or Quasimodo in Hugo. Indeed, one of the lessons of literature is that characters' superficially inexplicable behavior becomes intelligible once you see it from their perspective.

Now consider the common sense view of mental illness: 'You would have to be *crazy* to do that!' or, as Sylvia Nasar (1998: 18) describes schizophrenia, 'More than any other symptom, the defining characteristic of the illness is the profound feeling of incomprehensibility and inaccessibility that sufferers provoke in other people. Psychiatrists describe the person's sense of being separated by a

“gulf which defies description” from individuals who seem “totally strange, puzzling, inconceivable, uncanny, and incapable of empathy, even to the point of being sinister and frightening.” Szasz faults the common sense view for refusing to take human heterogeneity seriously. What makes you think that no human being would *prefer* a life of day-dreaming, play-acting, daily heroin use or sadism? Is this any less credible than other unusual preferences that now escape psychiatric stigma, such as being gay, entering a convent, or ‘speaking in tongues’ in a Protestant church? As Szasz (1997: 64) critically observes:

It is wonderfully revealing of the nature of psychiatry that whereas in natural science there is a premium on the expert observer’s *ability to understand* what he observes . . . in psychiatry there is a premium on the expert’s *inability to understand* what he observes (and to understand it less well than the object he observes, which is typically another person eager to proffer his own understanding of his own behavior).

Thus, psychiatrists’ inability to understand economist Donald McCloskey’s desire to become Deirdre led to two short but involuntary hospitalizations. But she (1999: xiv) maintains that she simply would rather be a woman than a man:

In response to your question Why? ‘Can’t I just be?’ You, dear reader, are. No one gets indignant if you have no answer to why you are an optimist or why you like peach ice cream. These days most people will grant you an exception from the why question if you are gay . . . I want the courtesy and the safety of a whyless treatment extended to gender crossings.

Szasz maintains that it is equally easy to ‘get inside the heads’ of most of the other people psychiatrists diagnose as mentally ill. Their behavior is extreme, but their motives are familiar. As Szasz (1990: 121) uncharitably puts it: ‘Among persons categorized as mentally ill, there are two radically different types. One is composed of inadequate, unskilled, lazy, or stupid persons; the other, of protesters, revolutionaries, those on strike against their relatives or society.’⁵

The strong temptation to label individuals who fit either description as ‘mentally ill’ is a predictable byproduct of human heterogeneity. If people in close proximity – such as families – have radically different goals, conflict is almost sure to arise. This makes the concept of mental illness *strategically* useful, both as an

excuse for deviant behavior and as a justification for harsh measures to combat it. As Szasz (1990: 135) puts it: 'Mental illness is a myth whose function is to disguise and thus render more palatable the bitter pill of moral conflicts in human relations. In asserting that there is no such thing as mental illness I do not deny that people have problems coping with life and each other'. But despite its social function, mental illness is *metaphorical*, like 'lovesickness' or 'homesickness'.

Another strain of Szasz's thought emphasizes the lack of neurological evidence that the putatively mentally ill suffer from brain diseases:

Demonstrable bodily lesion is the gold standard of medical diagnosis. Without practical convertibility into gold, the value of paper money rests on faith. Without conceptual convertibility into bodily lesion, the diagnosis of disease rests only on faith. Unbacked by gold, paper money is *fiat* money – the politically irresistible incentive for debauching the currency, called 'inflation.' Unbacked by lesion, diagnosis is *fiat* diagnosis – the medically irresistible incentive for debauching the concept of disease, called 'psychiatry'. (1990: 9)

While he grants that such neurological evidence has occasionally surfaced – most famously in the case of paresis (syphilis of the brain) – such cases are remarkably rare (Szasz 1976). In fact, paresis and schizophrenia are so different that the proven neurological basis for the former makes it *less* likely that there is any neurological basis for the latter. A person with paresis 'exhibited objective neurological signs; the illness was characterized by a rapidly downhill course with an invariably fatal outcome; and at autopsy, the patient's brain showed easily identifiable morphological (structural) abnormalities'. In contrast, a person with schizophrenia 'exhibits no neurological signs; the illness is not characterized by a rapidly downhill course and is never fatal; and at autopsy, the patient's brain shows no identifiable morphological abnormalities. Some analogy' (Szasz 1997: 89). Consistent with these observations, schizophrenia still does not receive an entry in as comprehensive a work as *Anderson's Pathology* (1996).

Eminent psychiatrists occasionally admit the difficulty of connecting mental illness to brain abnormalities. In *The Harvard Guide to Psychiatry*, Renshaw and Rauch (1999: 84) grant that 'Current understanding of the pathobiology underlying primary psychiatric disorders is quite limited, and pathognomonic imaging profiles

indicative of specific psychiatric disorders have not been identified'. Even the intensive and long-running search for a biological cause of schizophrenia has been surprisingly unsuccessful, especially taking publication bias into account. *The Diagnostic and Statistical Manual of Mental Disorders (DSM)*, Fourth Edition, Text Revision (APA 2000) acknowledges that 'No laboratory findings have been identified that are diagnostic of Schizophrenia' (2000: 305). Another chapter in *The Harvard Guide to Psychiatry* asserts that brain abnormalities are common in schizophrenics, but acknowledges that 'no single abnormality is found in all or even most brains from schizophrenic patients' (Tsuang et al. 1999: 264). Breggin (1991: 84) questions even these limited findings on the grounds that almost all subjects in modern brain research on schizophrenia have histories of heavy anti-psychotic medication, which itself is known to cause brain damage. Brain autopsies conducted on schizophrenics before the introduction of anti-psychotics generally found no abnormalities.

Most psychiatrists predictably minimize the importance of their field's past failures, but Szasz sees strong and uncomfortable implications. One is that until the brain lesions underlying a mental illness have been found, psychiatrists ought to be far less certain that an illness even exists. Another is that if the absence of lesions in a given brain were affirmatively proven, psychiatrists ought to admit that the individual is not sick, no matter how odd his behavior is (Szasz 1997: 78).

At times, Szasz seems to make the stronger claim that since mental illnesses are metaphorical, empirical study of their biological basis is a category error: 'Looking for the organic etiology of mental illness is like looking for the caloric content of food for thought' (1990: 131). But Szasz does not literally rule out empirical research on this question. When his critic Seymour Kety objects that 'Our ability to demonstrate and elucidate pathological disturbances is limited by the state of the art, and to assume their absence because they have not been demonstrated is a *non sequitur*', Szasz (1997: 51) responds:

True enough. But I do not maintain that the nonexistence of pathological findings in schizophrenia proves there are none; I maintain only that a promise of such findings is only a promise, until it is fulfilled . . . If psychiatrists had to pay interest on their promises of pathological lesions, as borrowers must pay lenders, the interest alone would already have bankrupted them; instead, they keep issuing the same notes, undaunted by their perfect record of never meeting their obligations.

As mentioned earlier, perhaps the greatest misconception about Szasz's work is that it is primarily a critique of involuntary mental hospitalization. Only a minority of his writings deal with psychiatric commitment, the insanity defense, or other policies related to mental illness. The bulk deals with philosophy of mind. Whether or not one agrees with his controversial position, it should be clear to any reader of the full Szaszian corpus that this stance is his most original and intellectually challenging contribution. Indeed, one could consistently embrace Szasz's philosophy of mind, but advocate involuntary commitment on efficiency grounds as the best way to reduce the negative externalities that extreme eccentrics impose on their families and society.

Another misconception about Szasz is that he denies the connection between physical and mental activity. Critics often cite findings of 'chemical imbalances' in the mentally ill. The problem with these claims, from a Szaszian point of view, is not that they find a connection between brain chemistry and behavior.⁶ The problem is that 'imbalance' is a moral judgment masquerading as a medical one. Supposed we found that nuns had a brain chemistry verifiably different from non-nuns. Would we infer that being a nun is a mental illness?

A closely related misconception is that Szasz ignores medical evidence that many mental illnesses can be effectively treated.⁷ Once again, though, the ability of drugs to change brain chemistry and thereby behavior does nothing to show that the initial behavior was 'sick'. If alcohol makes people less shy, is that evidence that shyness is a disease? An analogous point holds for evidence from behavioral genetics. If homosexuality turns out to be largely or entirely genetic, does that make it a disease?

Szasz's philosophy of mind is unquestionably contrarian, and often provokes negative reactions.⁸ The remainder of this article maintains that – unlike the standard view of mental illness – Szasz's main theses are strikingly consistent with basic microeconomics. Reframing Szasz in economic terms helps make his aphoristic thought both easier to understand and more introspectively plausible. Economists may be reluctant to fully embrace the Szaszian approach, and Szasz might object that my economic reading misses important facets of his thought. Nevertheless, my thesis is that there are significant gains to trade between the economic approach to human behavior and Szasz's analysis of mental illness.

3. Disease as Constraint

Consider normal physical diseases, such as cancer and influenza. *Anderson's Pathology* describes their main symptoms:

The usual course of untreated cancer is continuous local and metastatic extension with progressive systemic effects, all of which combine to weaken the host in diverse ways until cachexia and death from sepsis or bronchopneumonia, or both, ensue. About half of the deaths in cancer patients result from infection . . . Other causes of death in these patients include organ failure, tumor infarction and hemorrhage, and carcinomatosis. (Lieberman and Lebovitz 1996: 540)

Sudden onset of headache, myalgias, fever, and chills are classic symptoms of most influenza-induced illness. Although sore throat and dry cough are common, they are rarely self-reported because of the overwhelming systemic symptoms, which predominate. Influenza produces such a rapid onset of high fever that febrile seizures are frequently triggered in children. (Hinrichs et al. 1996: 923)

How can these conditions be formally modeled? (Grossman 1972). Basic consumer theory makes the answer clear: It shifts your budget constraint inwards. If influenza or cancer actually kills you, your lifetime budget constraint shifts drastically inwards. But even if you escape the worst outcome, you lose on many other margins. Influenza moves a normal temperature outside of your budget set; cancer makes you more vulnerable to other diseases. Furthermore, in both cases your physical abilities typically decline. For example, you will probably be unable to walk at your normal speed.

Figure 1 illustrates the latter effect. If a person had 24 hours of time to divide between walking and resting, and a healthy person faced budget constraint A, then after contracting the flu or cancer, the same person would face a budget constraint such as B. A sufficiently sick person might collapse if he tried to walk for more than a few miles – suffering from reduced endurance as well as reduced speed. Then the budget constraint of the sick person would differ more starkly from the healthy person's, as shown by the kinked constraint in Figure 2.

Almost every traditional medical condition one can name can be modeled as an inward shift of one or more budget constraints. If your legs are paralyzed, the maximum amount you can walk under your own power falls to zero. If you have the common cold, the good of 'not-sneezing' suddenly falls on the wrong side of your budget set. If you have a stroke, the maximum number of words you can speak per minute shifts inwards. Mental retardation

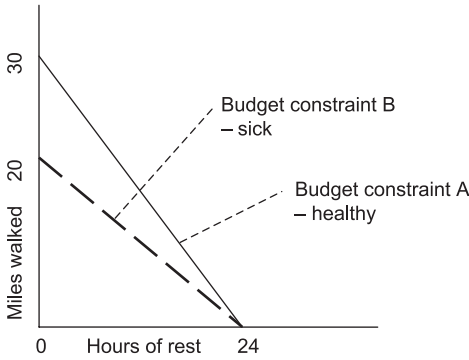


Figure 1. Illness as a budget constraint

puts a high score on an IQ test beyond your reach, and common forms of brain damage impair your memory.

Budget constraints shift in for many reasons other than disease. But traditional medical conditions and shrunken budget sets go hand in hand.⁹ It is nearly paradoxical to assert, ‘All of my abilities are at their peak levels and I expect them to remain so,¹⁰ but I am nevertheless sick.’

This is not to say that the preferences of the sick might not shift as well. For example, the indifference curves of a person with an upset stomach might shift to put more value on carbonated beverages. But for almost any ordinary disease or injury, shifts in preferences – if

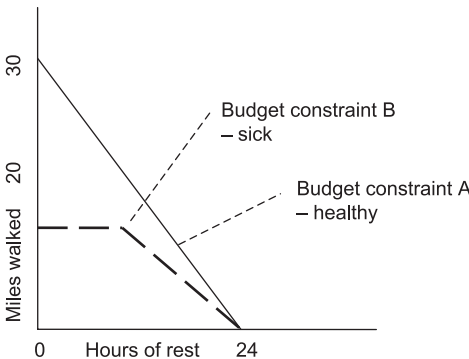


Figure 2. Illness as a kinked budget constraint

any – *accompany* shifting constraints. You can be physically sick without changing your preference orderings, but you cannot be physically sick without changing what you can do.

4. Mental Illness as Extreme Preference

Most mental illnesses do not fit the preceding template. Consider a paradigmatic case such as substance abuse. In what sense does this illness shift one's budget constraint inwards? It is hard to see how it does. If one were to formalize it in economic terms, the natural strategy would be to model it as an *extreme preference*.

Note that 'extreme' does not mean 'intransitive' or 'not-well-ordered.' Cooter and Ulen (1988) probably speak for many economists when they deny that the preferences of the severely mentally ill are well-ordered. But in fact, not only do individuals with mental disorders typically have transitive preferences; they usually have *more* definite and predictable orderings than the average person.¹¹ People with Alzheimer's disease may not have well-ordered preferences, but as Sylvia Nasar (1998: 324) explains, insanity is almost the opposite of senility:

[T]he delusional states typical of schizophrenia often have little in common with the dementia associated with, for example, Alzheimer's disease. Rather than cloudiness, confusion, and meaninglessness, there is hyper-awareness, over-acuity, and an uncanny wakefulness. Urgent preoccupations, elaborate rationales, and ingenious theories dominate.

A person with anti-social personality disorder (ASPD), to take a less dramatic example, is also unusually transitive. Unlike most of us, he feels no need to strike a delicate balance between his own welfare and the welfare of others; he puts his own interests first and last. It is also worth pointing out that several mental disorders, such as obsessive-compulsive disorder (OCD) and narcissistic personality disorder (NPD), come close to classifying transitivity as *symptom* (APA 2000: 462, 717).

It is also implausible to interpret most mental illness using a 'hyperbolic discounting' or 'multiple selves' model (Ainslie 1992). These might fit a moderate drug user who says he 'wants to quit'; one symptom (albeit not a necessary condition) of substance dependence is 'a persistent desire or unsuccessful efforts to cut down or control substance use' (APA 2000: 197). But they do not fit the

hard-core drug addict whose only wish is to be left alone to pursue his habit. The same holds for most serious mental disorders: They are considered 'serious' in large part because the affected individual continues to pursue the same objectionable behavior over time with no sign of regret or desire to change.

What then are 'extreme' preferences? In brief, they are preferences that few people share or condone, with large life consequences, that nevertheless satisfy the axioms of choice theory (Varian 1992). McCloskey's autobiography, describing her 'crossing' from Donald to Deirdre, offers an especially vivid example. As she (1999: 82) puts it:

Donald had a conversation with himself about whether what he was doing was unusual. On the one hand, I wonder why more people aren't doing this. But then, You don't get it, do you, Donald? Most people don't want to change gender.

Puzzled in return. *Oh. You don't say. That's funny.*

But is it not the case that most people with preferences extreme enough to attract psychiatric attention are also extremely unhappy?¹² It depends on which extreme preferences one has. People with ASPD or NPD have *inflated* senses of self-worth almost by definition. In any case, if most people with extreme preferences are unhappy, this is weak evidence that their preferences are somehow inconsistent or irrational. Unpopular preferences – medicalized or not – naturally tend to reduce happiness. People with normal preferences can simultaneously 'be themselves' and be liked. People with abnormal preferences have to balance these two goals. Furthermore, unlike religious and cultural minorities, people with unique extreme preferences cannot easily retreat into an accepting subculture.

I now examine three common mental disorders – substance abuse, ADHD and ASPD. In each case, the leading 'symptoms' of these 'illnesses' – such as McCloskey's preference for being a woman – turn out to be nothing more than unpopular preference orderings. There is no reason to think that individuals with these preferences fit the rational economic actor model less well than anyone else. The descriptions often make it clear that individuals with these conditions act exactly as one would expect a rational economic agent with unpopular preferences. Indeed, as we shall see, there are a few 'symptoms of mental disorder' that economists routinely assign to homo economicus.

4.1. *Substance Abuse*

The *DSM* (APA 2000: 199) classifies substance abuse as ‘A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period’. Table 1 lists the criteria, all of which are preference-based. Take criterion 1: ‘recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home’. It is only a small step to translate this into the language of economic theory. If you have an unusually strong taste for alcoholic beverages or drugs – a taste so strong that you willingly risk family, friends and career to satisfy it, then you suffer from substance abuse.

From an economic point of view, however, what is so puzzling about a person who prefers consuming alcohol to career success or family stability? Life is full of trade-offs. The fact that most of us would make a different choice is hardly evidence of irrationality. Neither is the fact that few alcoholics will *admit* their priorities; expressing regret and a desire to change is an excellent way to deflect social and legal sanctions.

The other three criteria in Table 1 fit the same pattern. You will be diagnosed as a victim of substance abuse if you use alcohol/drugs when it is ‘physically hazardous’ – in other words, if your taste is so strong that you are willing to take high safety risks (for yourself or others) to satisfy it. You can also be diagnosed if you have ‘recurrent substance-related legal problems’ – presumably because you have such a strong preference for alcohol/drugs that you are undeterred by ordinary expected punishments. The final criteria almost repeats the first – using the substance even though it causes ‘recurrent social or interpersonal problems’. The *DSM* definition strikingly fails to mention intransitivity. In fact, the people most likely to be diagnosed with severe substance abuse are heavy users who have no desire to change their lifestyle.

4.2. *Attention-Deficit Hyperactivity Disorder*

Substance abuse is a particularly straightforward case for economists to analyze, since it involves the trade-off between (1) one’s consumption level of a commodity and (2) the effects of this consumption on other areas of life. But numerous mental disorders have the same structure. One way to be diagnosed with ADHD,

Table 1. Some DSM-IV-TR diagnostic criteria for substance abuse

-
- (1) Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g. repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household).
 - (2) Recurrent substance use in situations in which it is physically hazardous (e.g. driving an automobile or operating a machine when impaired by substance use).
 - (3) Recurrent substance-related legal problems (e.g. arrests for substance-related disorderly conduct).
 - (4) Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g. arguments with spouse about consequences of intoxication, physical fights).
-

Source: APA (2000: 199).

for example, is to have six or more of the symptoms of inattention shown in Table 2. Overall, the most natural way to formalize ADHD in economic terms is as a high disutility of work combined with a strong taste for variety. Undoubtedly, a person who dislikes working will be more likely to fail to ‘finish school work, chores or duties in the workplace’ and be ‘reluctant to engage in tasks that require sustained mental effort’. Similarly, a person with a strong

Table 2. Some DSM-IV-TR diagnostic criteria for ADHD

-
- (1) Often fails to give close attention to details or makes careless mistakes in schoolwork, work or other activities.
 - (2) Often has difficulty sustaining attention in tasks or play activities.
 - (3) Often does not seem to listen when spoken to directly.
 - (4) Often does not follow through on instructions and fails to finish school work, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions).
 - (5) Often has difficulty organizing tasks and activities.
 - (6) Often avoids, dislikes or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework).
 - (7) Often loses things necessary for tasks or activities (e.g. toys, school assignments, pencils, books or tools).
 - (8) Is often easily distracted by extraneous stimuli.
 - (9) Is often forgetful in daily activities.
-

Source: APA (2000: 92).

taste for variety will be ‘easily distracted by extraneous stimuli’ and fail to ‘listen when spoken to directly’, especially since the ignored voices demand attention out of proportion to their entertainment value.

A few of the symptoms of inattention – especially (2), (5) and (9), are worded to sound more like constraints. However, each of these is still probably best interpreted as descriptions of preferences. As the DSM uses the term, a person who ‘has difficulty’ ‘sustaining attention in tasks or play activities’ could just as easily be described as ‘disliking’ sustaining attention. Similarly, while ‘is often forgetful in daily activities’ could be interpreted literally as impaired memory, in context it refers primarily to conveniently forgetting to do things you would rather avoid. No one accuses a boy diagnosed with ADHD of forgetting to play videogames.¹³

4.3. *Anti-social Personality Disorder*

Homo economicus arguably suffers from this disorder by definition. Table 3 lists some of the *DSM*’s diagnostic criteria, any three of which are almost sufficient for a positive diagnosis. Since homo economicus always plans ahead – most notoriously with his unlimited use of backwards induction – symptoms (3) and (6) do not apply. But as a narrowly selfish being, homo economicus lacks remorse (symptom 7). Insofar as deceitfulness leads to personal profit, homo economicus is deceitful (symptom 2). And while homo economicus

Table 3. Some DSM-IV-TR diagnostic criteria for antisocial personality

-
- (1) Failure to conform to social norms with respect to lawful behaviors as indicated by repeatedly performing acts that are grounds for arrest.
 - (2) Deceitfulness, as indicated by repeated lying, use of aliases or conning others for personal profit or pleasure.
 - (3) Impulsivity or failure to plan ahead.
 - (4) Irritability and aggressiveness, as indicated by repeated physical fights or assaults.
 - (5) Reckless disregard for safety of self or others.
 - (6) Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or honor financial obligations.
 - (7) Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated or stolen from another.
-

Source: APA (2000: 706).

of course worries about his *own* safety, the safety of others concerns him only if he is financially responsible for it. In any case, all of the symptoms of ASPD are exclusively about preferences – for narrow selfishness, high discount rates and affinity for violence.

Admittedly, not all cases are easy to classify. I have some control over my heartbeat, but it is impossible for me to reduce it to 10 beats per minute. Is the number of times my heart beats per minute a constraint or a choice? The distinction between constraints and preferences suggests an illuminating test for ambiguous cases: Can we change a person's behavior purely by changing his incentives? If we can, it follows that the person was *able* to act differently all along, but preferred not to; his condition is a matter of preference, not constraint. I will refer to this as the 'Gun-to-the-Head Test'. If suddenly pointing a gun at alcoholics induces them to stop drinking, then evidently sober behavior was in their choice set all along. Conversely, if a gun-to-the-head fails to change a person's behavior, it is highly likely (though not necessarily true) that you are literally asking the impossible.¹⁴

Obviously most physical diseases would pass the gun-to-the-head test. Pointing a gun at a paralyzed man will not enable him to walk, nor can you frighten a cancer patient into living longer. Conditions like mental retardation and Alzheimer's disease are also highly likely to pass the gun-to-the-head test. Smart people occasionally play dumb, and the elderly might feign senility from time to time; but most people who appear to have very low cognitive ability really do.

The same cannot be said, however, for the large majority of mental disorders. Though the gun-to-the-head test rarely happens, most people with mental disorders respond to far milder incentives. During the course of any given day, individuals diagnosed with substance abuse, ADHD and ASPD act contrary to their impulses because giving in to them would be too expensive. Studies of demand elasticity normally find that consumption of hard drugs is quite sensitive to price (van Ours 1995); in fact, the psychiatric literature on 'contingency management' shows that a high percentage of heavy users of alcohol and drugs will go cold turkey for a moderate price (Higgins and Petry 1999). Even lazy people with a strong taste for variety will complete a boring task if their life is on the line. Anti-social personalities are prone to perform acts 'that are *grounds* for arrest', but that does not mean that they take actions that surely end in severe punishment.

Suppose one grants that at least a large fraction of mental illnesses are nothing more than extreme preferences. What follows? Most importantly, it confirms the core Szaszian thesis: psychiatric diagnoses are not descriptive judgments comparable to a diagnosis of cancer, but normative judgments about whether preferences are good or bad, right or wrong. Disputes about whether 'X is a mental illness' cannot be resolved by more and better empirical research, but only – if at all – by ethical reasoning.

5. Mental Illness, Systematic Bias, and Preferences Over Beliefs

At this point, one might reasonably object that I consider only the easiest targets. Perhaps ADHD is a medicalized label for laziness. But what about the symptoms that we intuitively associate with full-blown psychosis or 'insanity' – delusions and hallucinations?

5.1. Delusions

The DSM defines a delusion as 'a false belief based on incorrect inference about external reality that is firmly sustained despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof or evidence to the contrary', adding the further condition that 'The belief is not one ordinarily accepted by other members of the person's culture or subculture (e.g., it is not an article of religious faith)' (APA 2000: 821). Another reference source more succinctly defines a delusion as 'a *fixed false belief* (excluding beliefs that are part of a religious movement)'.¹⁵ These definitions are striking on several levels. Most obviously, why are religious beliefs exempt from this stigma? What about quasi-religious political movements like Leninism or Nazism, comprised almost entirely of fixed false beliefs (Hoffer 1951)? What about religious movements with a small number of members? One member?

One could eliminate the 'religious exemption' and conclude that the fraction of the population suffering from delusions has been greatly underestimated. However, the exemption does seem to have a rationale: The cognitive faculties of the overwhelming majority of religious believers are functional. Outside of religion, they habitually adjust their beliefs in response to evidence. So it is natural to interpret their embrace of improbable religious doctrines as a

choice to relax ordinary intellectual standards. Doing so allows them to enjoy not just the social benefits of religious participation (Iannaccone 1998). It also provides direct personal benefits, such as a sense of identity and meaning.

In other words, just because a person believes patent absurdities does not imply that he *cannot* believe otherwise, that changing his mind is outside his choice set. Instead, he may have *preferences over beliefs* (Akerlof 1989; Akerlof and Dickens 1982; Caplan 2001, 2000). If individuals have to choose between maintaining a cherished worldview and giving the other side a fair hearing, many would rather forego the latter. The competing hypothesis, of course, is that a person wants to grasp the truth, but lacks the cognitive resources to process evidence or detect errors.

From this perspective, it is worth considering how most psychiatrists would have diagnosed the founders of the world's leading religions. What would they make of their assertions that God speaks with them, giving them revelations to deliver to the rest of mankind? Were they paranoid schizophrenics? A more plausible account is that they were people who wanted (among other things) to believe in their own cosmic importance – and managed to convince others to accommodate them. And there is every reason to think that such motivations remain salient to many people today, though in a more secular age religious themes will be less prominent. But variations on the theme of 'I am a leading figure in world history, locked in combat with powerful enemies' have a timeless appeal to human vanity.

If religious 'fixed, false beliefs' stem from the refusal to *exercise* one's cognitive faculties, as opposed to *defective* cognitive faculties, why might not the same hold for non-religious fixed, false beliefs (Shermer 2002)? Perhaps they too provide a sense of identity and meaning. This is essentially Szasz's view: People largely become schizophrenics because they find reality too unpleasant to cope with:

What the psychiatrist calls a 'delusion of persecution' is one of the most dramatic human defenses against the feeling of personal insignificance and worthlessness. In fact, no one cares a hoot about Jones. He is an extra on the stage of life. But he wants to be a star. He cannot become one by making a fortune on the stock market or winning a Nobel prize. So he claims that the FBI or the Communists are watching his every move, are tapping his phone, and so forth. Why would they be doing this, unless Jones were a very important person? In short, the paranoid delusion is a problem to the patient's family, employers, and friends: to the patient, it is a solution to the problem of the meaning(lessness) of his life. (1990: 116)

What about paranoid schizophrenic John Nash, who in fact *did* win a Nobel prize? Surprisingly, he fits Szasz's profile, because Nash's great ambition was not to earn a Nobel prize in economics, but the coveted Fields Medal in mathematics. In 1958, he failed to win it, and given his age he had little hope of ever doing so. As his biographer Sylvia Nasar (1998: 229) explains: 'One can almost imagine a sniggering commentator inside Nash's head: "What, thirty already, and still no prizes, no offer from Harvard, no tenure even? And you thought you were such a great mathematician? A genius? Ha, ha, ha!"'. And Nash's personal problems – a gay or bisexual man, unhappily married, and expecting a child – were at least as serious as his professional disappointments.

Since, as Nash later observed, 'rational thought imposes a limit on a person's concept of his relation to the cosmos', he escaped into a world of fantasy, where his failures no longer mattered. His biographer confirms the subjective benefits: 'For Nash, the recovery of everyday thought processes produced a sense of diminution and loss . . . He refers to his remissions not as joyful returns to a healthy state, but as "interludes, as it were, of enforced rationality"' (Nasar 1998: 295). His choice to abandon his academic career was much in the spirit of Robert Frank's (1985) *Choosing the Right Pond*: If Nash could not be a Fields Medalist, his next choice was to be Emperor of Antarctica, not a second-rate mathematician.¹⁶

Is it inconceivable that anyone could or would choose to be a paranoid schizophrenic? Many psychiatrists found Nash's eventual recovery astounding, leading some to question the original diagnosis (Nasar 1998: 350–3). But Nash's first-hand account is that his return to rationality was a *choice*:

Gradually I began to intellectually reject some of my delusionally influenced lines of thinking which had been characteristic of my orientation. This began, most recognizably, with the rejection of politically-oriented thinking as essentially a hopeless waste of intellectual effort. (Nasar 1998: 353)

It is noteworthy that Nash consciously decided to stop thinking about the two subject matters where normal people routinely embrace 'fixed, false beliefs': not just politics, but religion as well (Nasar 1998: 354). He compares his recovery to dieting.¹⁷ Despite its short-run emotional benefits, he decided to stop indulging his daily temptation to hide from life:

Actually, it can be analogous to the role of willpower in effective dieting: If one makes an effort to 'rationalize' one's thinking one can simply recognize and reject the irrational hypotheses of delusional thinking. (Nasar 1998: 354)

Intellectual dieting would be an implausible solution if one were utterly disconnected from reality. But his biographer explains that this describes neither Nash nor the typical schizophrenic:

[T]he ability to apprehend certain aspects of everyday reality remains curiously intact. Had anyone asked Nash what year it was or who was in the White House or where he was living, he could no doubt have answered perfectly accurately, had he wished to. Indeed, even as he entertained his most surreal notions, Nash displayed an ironic awareness that his insights were essentially private, unique to himself, and bound to seem strange or unbelievable to others. (Nasar 1998: 324–5)

In fact, 'While he was ill, Nash traveled all over Europe and America, got legal help, and learned to write sophisticated computer programs' (Nasar 1998: 19).

Nash describes the behavior of his son – also a diagnosed paranoid schizophrenic – in comparable terms: 'I don't think of my son . . . as entirely a sufferer: in part, he is simply *choosing* to escape from "the world"' (Nasar 1998: 385). The father's attitude is not so shocking considering his son's objection whenever urged to complete his PhD: 'Why do I have to do anything? My father doesn't have to do anything. My mother supports him. Why can't she support me?' (1998: 346). Nash's biographer laments his 'insensitivity' on this point (1998: 385), but who is in a better position to understand his son's state of mind?

Even if John Nash chose his condition, it does not follow that every schizophrenic does the same. But it underscores the point that there are two competing hypotheses to explain the existence of delusions.¹⁸ In economic terms, one is preferences, the other is constraints. To deal with this complex issue, it is once again helpful to consider the Gun-to-the-Head Test. If maintaining a fixed, false belief would result in death, does the believer 'unfix' it? If he does, sound cognition must have been in his choice set all along, but for whatever reason falsehood was more appealing.

At least in the case of religious 'fixed, false beliefs', people who pass the gun-to-the-head test are rare.¹⁹ Gaetano Mosca (1939: 181–2) provides one intriguing illustration:

Mohammed, for instance, promises paradise to all who fall in a holy war. Now if every believer were to guide his conduct by that assurance in the Koran, every time a Mohammedan army found itself faced by unbelievers it ought either to conquer or to fall to the last man. It cannot be denied that a certain number of individuals do live up to the letter of the Prophet's word, but as between defeat and death followed by eternal bliss, the majority of Mohammedans normally elect defeat.

Perhaps the tiny minority of willing martyrs really did have defective brains that literally prevented them from seeing the world as it is. But even here, historical accounts of the martyrs raise significant doubts. Rodney Stark (1996: 163–89) argues that they were heavily motivated by community support and adulation, which they often enjoyed for years due to lags in the Roman legal system. Furthermore, martyrs often discussed their temptation to give in. One rarely feels 'tempted' by an option that is not available to us in the first place: I am not tempted to win an Olympic gold medal in swimming. Socrates' *Apology* is perhaps the most striking case of a man with unimpaired cognitive faculties who died for his beliefs. Indeed, before drinking the hemlock, Socrates demonstrated critical thinking abilities far *in excess* of the normal range (Ahrensdorf 1995). Blaming his decision on a brain defect is most implausible.

While the mentally ill rarely face the Gun-to-the-Head Test, a large fraction respond to less extreme incentives. The mentally ill routinely modify their behavior to avoid psychiatric hospitalization and unpleasant treatments. As psychiatrist Peter Breggin (1991: 61) reports, '[T]he drugs cause so much discomfort. . . that patients often stop saying what they believe to avoid getting larger doses and to bring a more speedy end to the treatment. As many ex-patients have told me, "I learned right away I'd better shut up or I'd get more of that stuff."' This is so common that psychiatrists often suspect that 'recovered' patients are merely concealing their symptoms.²⁰ The fear of more extreme treatments like electroconvulsive therapy (ECT) often affects behavior far beyond the walls of the psychiatric hospital. In one case study of female shock therapy patients, 'Three of the ten women lived in dread of ECT for years afterward; and therefore they refrained from expressing any angry feelings toward their husbands, for fear of being sent back to the hospital for involuntary shock treatment' (Breggin 1991: 200).

Patients' responsiveness to incentives is well known to those who administer the incentives. A case study on the attitudes of shock therapists observed that shock was used 'as a threat against difficult patients. Personnel on the hospital would warn, "You will go on the

shock list” (Breggin 1991: 212). Even when treating mentally ill children, psychiatrists recognize that incentives change behavior:

Used to saying what he thought with his dad, Sammy made the mistake of ‘talking back’ to one of the doctors. He was told that patients had to ‘earn’ their liberties and was reduced to the lowest disciplinary level – no visitors, no books, no radio, ‘no nothing’, as he later told his dad. (Breggin 1991: 294)

At least for many delusions, the fact that you would *try* to feign recovery shows that your degree of irrationality – not just outward behavior – is incentive-sensitive. Nash is once again an excellent example. ‘I thought I was a Messianic godlike figure with secret ideas’, he tells us. ‘I became a person of delusionally influenced thinking but of relatively moderate behavior and thus tended to avoid hospitalization and the direct attention of psychiatrists’ (Nasar 1998: 335). But if Nash were literally *constrained* to see himself as a ‘godlike figure’, he would have imagined that he could free himself at any moment.²¹ He would be unable to grasp that – in reality – his freedom depended on a psychiatrist’s diagnosis, so he would have no motive to ‘beat the system’. But try to beat it he did, regularly acting more normally to avoid or end commitment: ‘When I had been long enough hospitalized . . . I would finally renounce my delusional hypotheses and revert to thinking of myself as a human of more conventional circumstances’ (Nasar 1998: 295). He also firmly grasped the social process of commitment, knowing, for instance, that his sister would probably try to commit him after their mother’s death (1998: 330–1). Perhaps most strikingly, to deter others from committing him, Nash did not threaten divine retribution, but ordinary social sanctions like divorce (from his wife), and breaking off relations (with his sister).

There is more systematic evidence from so-called ‘token economy programs’ that mental patients substantially change their behavior in response to modest material rewards (Corrigan 1995; Stuve and Salinas 2002). These programs pay patients fixed numbers of tokens for desired behavior. Tokens can be redeemed for benefits like snacks, magazines, grounds passes, and the right to wear non-institutional clothing. Paying patients turns out to be a highly effective way to improve hygiene, group participation and adherence to ward rules, and deter threats and violence. It can also curtail ‘screaming, ritualistic behaviors, mannerisms, responsiveness to hallucinations, and the frequency of delusional talk’ (Stuve and Salinas 2002: 824).

Since hospital residents typically have the most extreme problems, it is striking that their behavior is so price elastic. Furthermore, at least in many cases this indicates that their delusions – not just their outward behavior – respond to incentives. If a mental defect literally compels you to see yourself as all-powerful, why would you chase after petty monetary rewards? If, in contrast, the cause of megalomaniacal delusions is preferences rather than constraints, we should expect patients to start ignoring them as the material cost of adhering to them rises. As it turns out, when the price of being wrong goes up, even the delusional start to recognize the difference between reality and their self-aggrandizing worldview.

5.2. *Hallucinations*

Perceptions, unlike beliefs, rarely contain an element of choice. Even if you put a gun to my head and tell me to see a blank wall in front of me rather than my computer, I will not because I cannot. People who genuinely experience hallucinations have the same problem. If you are under the influence of a hallucinogenic drug, you see things that do not exist even if you would rather not (hence the ‘bad trip’) (APA 2000: 250–3). From an economic perspective, hallucinating is similar to being blind or deaf; seeing or hearing the real world lies outside your budget constraint. Of all the symptoms of mental illness, hallucinations are the least objectionably modeled as constraints.

The same does not hold, however, for *claiming* to hallucinate. Initially, it seems unlikely that anyone would lie about such a thing. However, Szasz (1997: 117) maintains that such skepticism is well-grounded:

[W]hen a grisly, unsolved crime is reported by the press and the police look for the person who did it, innocent people often come forward and confess to the crime. Such a confession is never accepted on its face value as true; on the contrary, it is treated with the utmost skepticism. On the other hand, when a person lodges a psychiatric complaint against himself, it is not investigated at all.

In both cases, people pretend to have seen or heard things that did not happen because they prefer negative attention to none at all. Consider people who claim to have been abducted by aliens. Why do they do it? Well, if beings from other worlds travel all the way to earth just to probe you, you must be a pretty important person.

In the pre-modern period, one could get the same feeling by claiming to see and talk to angels or demons: '[W]omen in the sixteenth and seventeenth centuries were often accused of (and even allegedly experienced or confessed to) having illicit sexual encounters with aliens – in this case the alien was usually Satan himself . . .' (Shermer 2002: 97).

Fabrication aside, minimal scrutiny often reveals that what superficially sound like reports of hallucinations are only delusions.²² As Shermer (2002: 96) recounts:

While dining with the abductees, I found out something very revealing: not one of them recalled being abducted immediately after the experience. In fact, for most of them, many years went by before they 'remembered' the experience.

Like most delusions, their stories usually reflect a choice to relax normal intellectual standards, not lack of ability to impose these standards. Shermer (2002: 95) describes the abductees as 'perfectly sane, rational, intelligent folks' overall. Yet they exempt their abduction beliefs from straightforward objections:

[A woman] said that the aliens actually implanted a human–alien hybrid in her womb and that she gave birth to the child. Where is the child now? The aliens took it back, she explained. One man pulled up his pant leg to show me scars on his legs that he said were left by the aliens. They looked like normal scars to me . . . One man explained that the aliens took his sperm. I asked him how he knew that they took his sperm, since he had said he was asleep when he was abducted. He said that he knew because he had an orgasm. I responded, 'Is it possible you simply had a wet dream?' He was not amused. (2002: 94)

Szasz similarly maintains that many alleged hallucinations are only eccentric descriptions of ordinary experience. To take the most common form (APA 2000: 300), psychiatrists routinely equate 'hearing voices' with auditory hallucination. But when a person feels guilty, we often say that he 'hears the voice of conscience'. Such a person will often not just feel guilty; thoughts such as 'What you're doing is wrong!' repeatedly come to mind. To take a stronger case, the DSM treats 'a voice keeping up a running commentary on the person's behavior or thoughts, or two or more voices conversing with each other' as an exceptionally serious symptom (APA 2000: 312). But this describes any person deliberating between major life options over an extended period of time.²³ While these examples might seem to stretch the meaning of 'hallucination', it is the

DSM that explicitly fails to distinguish whether 'the source of the voices is perceived as being inside or outside of the head' (APA 2000: 823).

An analogous point holds for 'seeing things'. To equate this with visual hallucinations is not the only interpretation, nor even a particularly plausible one. It is more natural to interpret it as *imagination*. I cannot literally *see* Satan just because I want to, but I can visualize a red being with horns and a pitchfork on demand.

How could genuine hallucinations be identified, even in principle? The gun-to-the-head test remains a helpful benchmark. If a person's perception 'suddenly improves' after the cost of seeing and hearing nonexistent things goes up, that is strong evidence that his senses were functioning fine all along.

In the absence of incentives, it depends heavily on the trustworthiness of the source. It is suspicious if a person who claims to hallucinate also happens to put a low value on truth in other contexts. Conversely, if a person who shows no inclination to bend the truth in any other situation claims to have strange visual or auditory experiences, his self-reports have to be taken more seriously.

In the DSM, having both delusions and hallucinations is almost a sufficient condition for schizophrenia (APA 2000: 312). However, the preceding analysis suggests that a person who says he has hallucinations but not delusions is more credibly diseased than a person who claims to have both. If most delusions arise out of a choice to relax normal intellectual standards, then the delusional suffer from a credibility gap. Can the self-reports of a man who finds solace in a version of 'I am a leading figure in world history, locked in combat with powerful enemies' be trusted when we ask him to distinguish between direct observation, recovered memories, and day-dreaming? Imagine asking Joseph Smith if he literally saw and conversed with the angel Moroni (Hardy 2003). Given his overall worldview, he might not consider it a lie to treat his dreams or musings as on par with direct experience.

6. Orthogonality of Behavioral Genetics and Brain Science

The most sophisticated critics of Szasz grant that he is a brilliant debater, but add that he conveniently ignores hard scientific data from both brain science and behavioral genetics. Psychiatrist

Seymour Kety (1974: 961) famously remarked that 'if schizophrenia is a myth, it is a myth with a powerful genetic component'. Szasz seldom if ever cites contrary empirical findings. The natural inference is that such findings do not exist.

What this inference overlooks, however, is that brain science and behavioral genetics usually ask questions orthogonal to Szasz's thesis. Return to the case of homosexuality. Does evidence of a strong genetic component raise the probability that homosexuality is a disease after all? It is hard to see how it would. Twin and adoption studies have found that genetics explains a substantial fraction of variation in almost every form of human behavior (Harris 1998; Segal 1999). Such studies can teach you about the cause of a condition *already known to be a disease*, but not separate diseases from non-diseases.

During the period when homosexuality was classified as a mental illness, psychiatrists heavily debated the extent to which it was inborn or environmental. The purpose of this debate was not to determine if homosexuality was in fact a disease, which was taken as given. Rather, competing theories had different implications for the best way to cure it (Bayer 1981: 18–40). This perspective is hardly surprising: ordinary physical disease has both genetic and environmental causes, and the point of distinguishing them is to develop better treatments, not ascertain whether they are 'really diseases'.

A similar point holds for brain science and mental illness. If homosexuals were found to have verifiably different brain chemistry than heterosexuals, that would not raise the probability that being homosexual is a disease. Brain science is no more able to determine whether other forms of behavior are diseases. In most cases, this conclusion is obvious: If charity, or kindness to children or church attendance correlated with brain states, would anyone take this as evidence of their pathological character?

The brain scientists' critique of Szasz takes on a straw man. It essentially asserts: 'Your theory predicts no correlation between mental illness and brain states. Since there *is* a correlation, your theory is false'. But every major theory of mind from materialism to Cartesian dualism predicts a correlation between mental states and brain states. To take advances in brain science as 'mounting evidence' for one side reveals only a failure to understand the other side.

In a similar vein, brain science sheds little light on whether a condition arises out of preferences or constraints. Yes, constraints must have some biological basis; but the same is true of preferences. Even if a chemical were isolated that correlated perfectly with love of chocolate, that would not show that what appeared to be a preference was really a constraint. Rather it would show that a preference had a biological basis – which presumably we thought all along.

One might take Szasz's failure to present original empirical evidence as the usual strategy of the *a priori* obscurantist. But this takes for granted that the empirical evidence is relevant to the debate. Szasz (1990: 216) asks: 'If Christianity or Communism were called diseases, would psychiatrists look for their chemical and genetic causes?' It would be a mistake to interpret his rhetorical question as an attack on genetics and brain research. On the contrary, it is perfectly legitimate for a scientist to search for the chemical or genetic correlates of Christianity, communism or anything else. The Szaszian point is that even if a scientist discovered a 1:1 correlation between having a gene and being a Christian that would not prove Christianity to be a disease. To reach that kind of conclusion it would be necessary to show that individuals with the 'Christian gene' are literally unable – not merely unwilling – to think rationally about their worldview; to show, in economic terms, that Christian belief is a constraint rather than a choice.

7. Conclusion

Economists recognize the benefits of specialization. Only with hesitation, then, can economists focus their attention on an unfamiliar discipline and conclude that experienced professionals have been making elementary mistakes. However inconsistent psychiatry's main theses seem to be with basic consumer theory, one might think it foolhardy to conclude that they are wrong.

At the same time, economists also recognize not only that rent-seeking is a ubiquitous force, but that most rent-seekers create and internalize public-interested justifications for their activities (Klein 1994). It is not overreaching for economists to criticize domestic auto makers' arguments for protectionism. The auto makers know more about the details of their own industry, but economists are better at interpreting those details. Equally importantly, economists

are trained to consider the costs of a policy for everyone in society, not merely groups with the most political influence.

From a rent-seeking perspective, skepticism about psychiatry is common sense. Rent-seeking is only a side activity for the auto industry, but it lies at the core of psychiatry. As Szasz (1990: 178) puts it, 'The business of psychiatry is to provide society with excuses disguised as diagnoses, and with coercions justified as treatments'. Like lobbyists, one of psychiatrists' main jobs is to argue in favor of exceptions. Some explain why their client should not have to pay the normal price for his behavior; others, why a person willing to pay the normal price for his behavior should be prevented from engaging in it nonetheless.

From this perspective, the divide between an intermediate economics textbook and the DSM is predictable. Consumer theory does not make an exception for extreme preferences. On the contrary, the more heterogeneous preferences are, the more important it is to charge uniform prices. Making people pay the full social cost of their behavior is the way that we *find out* if their preferences are as extreme as they say. The DSM avoids these conclusions by redefining extreme behavior to be a 'disease like any other'. 'Some people prefer to have mental disorders' then sounds as implausible as 'some people prefer to be sick'.

Nevertheless, people with extreme preferences often create negative externalities, especially for their families. Some economists might conclude that the psychiatric perspective on mental illness is scientifically mistaken but pragmatically useful. Political constraints make it difficult to regulate preferences merely because they are extreme. Using the obscurantist language of mental illness helps circumvent these constraints.

Conversely, there are efficiency reasons for political reluctance to regulate extreme preferences. Most obviously, there is the Coasean argument: If familial side payments are insufficient to induce normal behavior, it is a sign that the deviant values his deviancy more than his family values his normalcy. Calling extreme preferences 'diseases' makes it easy to misinterpret unwanted treatment as a benefit for the patient rather than a cost.

Treating extreme preferences as a disease also opens up a wide range of moral hazard problems. The Americans with Disabilities Act specifically refuses to count sexual behavior disorders, compulsive gambling, kleptomania, pyromania and substance use disorders resulting from current use of illegal drugs.²⁴ But the moral hazard

problem of the covered disorders – such as alcoholism – is probably comparable or greater.

‘Economic imperialism’ has often led economists to study another discipline and defend what until then had been an unpopular minority view. If the isomorphism between Szasz’s view and basic consumer theory is genuine, the economics of mental illness will be no exception. Economists have a great deal to learn from psychiatry, but at the same time economists need to make the difficult argument that the Szaszian view is far from crazy. In fact, it is good economics.

Acknowledgements

I would like to thank Jim Schneider, Tyler Cowen, Alex Tabarrok, Mike Huemer, Fab Rojas, Robin Hanson, Don Boudreaux, Dan Houser, Todd Seavey, Pete Boettke, Eric Crampton, Steve Miller, Zachary Gochenour, Kail Padgitt, Brian Doherty, Kevin McCabe and three referees for helpful comments and discussion. Steve Miller provided excellent research assistance. The standard disclaimer applies.

NOTES

1. Psychiatrists now prefer to talk in terms of ‘*having* a mental *disorder*’ rather than ‘*being* mentally *ill*’ (APA 2000: xxxi, emphasis added). For the sake of readability, I use both expressions interchangeably.
2. The disorder of ADHD was first introduced in the DSM-III-R (APA 1987), but this was essentially a relabeling of the DSM-III’s (APA 1980) Attention Deficit Disorder. The latter was however a significant change relative to its precursor, ‘hyperkinetic reaction of childhood (or adolescence)’ in the DSM-II (APA 1968).
3. For a complete bibliography, see <http://www.szasz.com/publist.html>
4. Relatively *new* religions with small numbers of members – often called ‘cults’ – have however been subject to a degree of psychiatric stigma (Iannacone 2003). If a very small group (usually a couple or a family) shares a common delusion, its members may be diagnosed with shared psychotic disorder (APA 2000: 334).
5. Except in tone, the latter description almost exactly matches one from the biography of John Nash: ‘Nash was choosing the “path of most resistance,” and one that captured his radical sense of alienation. Such “extreme contrariness” aimed at cultural norms has long been a hallmark of a developing schizophrenic consciousness. In ancestor-worshipping Japan the target may be the family, in Catholic Spain the Church. Nash particularly desired to supercede the old laws that had governed his existence, and, quite literally, to substitute his own laws, and to escape, once and for all, from the jurisdiction under which he had once lived’ (Nasar 1998: 271).

6. Breggin (1991) however notes that most claims about 'imbalances' are tautologous: If a drug changes behavior in a desired way, the drug ipso facto 'corrects an imbalance'. The *Comprehensive Textbook of Psychiatry's* entry on lithium certainly fits this pattern: 'Theories abound, but the explanation for lithium's effectiveness remains unknown. Patients are often told it corrects a biochemical imbalance, and, for many, this explanation suffices. There is no evidence that bipolar mood disorder is a lithium deficiency state or that lithium works by correcting such a deficiency' (quoted in Breggin 1991: 174).
7. Breggin (1991: 60) raises the question of what 'counts' as successful treatment. It is clear that psychiatric drugs and electroshock make people more docile and apathetic, but other benefits are much more questionable. 'Since drugged patients become much less communicative, sometimes nearly mute, it's not surprising that they say less about their hallucinations and delusions. Had the investigators paid attention, they would have noticed that the patients also said less about their religious and political convictions as well as about their favorite sport or hobby.'
8. For an especially thoughtful critique, see Seavey (2002).
9. Admittedly, today's constraining diseases may stem from yesterday's lifestyle choices. I might be sick today because I smoked or even deliberately drank bacteria. But the same holds for more familiar cases. For example, my current wage depends on my past work experience.
10. The latter clause is necessary because an ailment might have an incubation period or go through cycles of outbreak and remission.
11. One exception is dissociative identity disorder, commonly referred to as 'multiple personality disorder' (APA 2000: 529).
12. I would like to thank an anonymous referee for raising this question.
13. See for example the profile of 'Andy: A Hyperactive Child' in Breggin (1991: 275-6).
14. Thus, if a person has lexicographic preferences, they will choose death rather than change their behavior, even though life was inside their choice set.
15. BehaveNet 2004. <http://www.behavenet.com/capsules/disorders/delusion.htm>
16. Perhaps a better comparison could be drawn between Nash's decision and Denethor's suicide oration in *The Return of the King*: "'I would have things as they were in the days of my life,'" answered Denethor, "and in the days of my long-fathers before me: to be the Lord of this City in peace, and leave my chair to a son after me, who would be his own master and no wizard's pupil. But if doom denies this to me, then I will have *naught*: neither life diminished, nor love halved, nor honour abated'" (Tolkien 1994: 836).
17. Once Nash wanted to abandon delusional thinking, then, his dieting analogy suggests the possible relevance of self-control problems or hyperbolic discounting (Ainslie 1992). But this would still be a poor model of Nash's condition during the many years when he felt little desire to change.
18. A third hypothesis that must explain part of the data is that the delusions are deliberate fabrications. As Szasz (1990: 117) succinctly remarks, 'If a man lies about his car so he . . . can get more money for it, that is rational economic behavior; if he lies about himself to get attention, that is irrational madness. We respond to the former by bargaining about the price, to the latter by treating mental illness.'

19. Political 'true believers' who pass the Gun-to-the-Head Test are rarer still. Even in the modern world, suicide attacks are chiefly committed by religious rather than secular zealots (Iannacone 2003).
20. See for example Nasar (1998, especially pp. 260, 330–1).
21. As Jesus maintained according to Matthew 26: 51–53: 'With that, one of Jesus' companions reached for his sword, drew it out and struck the servant of the high priest, cutting off his ear. "Put your sword back in its place," Jesus said to him, "for all who draw the sword will die by the sword. Do you think that I cannot call on my Father, and he will at once put at my disposal more than twelve legions of angels?"' (*The Holy Bible* 1984: 740–1).
22. The DSM curiously overlooks this point in an especially pertinent case: 'In some cultures, visual or auditory hallucinations with a religious content may be a normal part of religious experience (e.g. seeing the Virgin Mary or hearing God's voice)' (APA 2000: 306). Presumably this does not mean that millions of devout believers have malfunctioning eyes and ears.
23. Note that even if you did experience auditory hallucinations, it hardly follows that you have to obey them. The Son of Sam killer claimed to follow a dog's orders (Szasz 1997: 206–7). Assuming he was not lying (as he later admitted he was), one could still ask: Do you always do what you're told?
24. <http://www.usdoj.gov/crt/ada/reg2.html>

REFERENCES

- Ahrens Dorf, Peter. 1995. *The Death of Socrates and the Life of Philosophy*. Albany, NY: State University of New York Press.
- Ainslie, George. 1992. *Picoeconomics: The Strategic Interaction of Successive Motivational States Within the Person*. Cambridge: Cambridge University Press.
- Akerlof, George. 1989. 'The Economics of Illusion.' *Economics and Politics* 1: 1–15.
- Akerlof, George and William Dickens. 1982. 'The Economic Consequences of Cognitive Dissonance.' *American Economic Review* 72: 307–19.
- American Psychiatric Association. 1968. *Diagnostic and Statistical Manual of Mental Disorders*, second edition. Washington, DC: American Psychiatric Association.
- American Psychiatric Association. 1980. *Diagnostic and Statistical Manual of Mental Disorders*, Third Edition. Washington, DC: American Psychiatric Association.
- American Psychiatric Association. 1987. *Diagnostic and Statistical Manual of Mental Disorders*, third edition, revised. Washington, DC: American Psychiatric Association.
- American Psychiatric Association. 2000. *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, text revision. Washington, DC: American Psychiatric Association.
- Bayer, Ronald. 1981. *Homosexuality and American Psychiatry: The Politics of Diagnosis*. New York: Basic Books.
- Breggin, Peter. 1991. *Toxic Psychiatry*. New York: St Martin's Press.
- Caplan, Bryan. 2000. 'Rational Irrationality: A Framework for the Neoclassical Behavioral Debate.' *Eastern Economic Journal* 26: 191–211.
- Caplan, Bryan. 2001. 'Rational Ignorance versus Rational Irrationality.' *Kyklos* 54(1): 3–26.

- Caplan, Bryan. 2002. 'Systematically Biased Beliefs about Economics: Robust Evidence of Judgemental Anomalies from the Survey of Americans and Economists on the Economy.' *Economic Journal* 112: 433–58.
- Caplan, Bryan. 2003. 'Stigler-Becker versus Myers-Briggs: Why Preference-based Explanations Are Scientifically Meaningful and Empirically Important.' *Journal of Economic Behavior and Organization* 50: 391–405.
- Cooter, Robert, and Thomas Ulen. 1988. *Law and Economics*. New York: Harper-Collins Publishers.
- Corrigan, Patrick. 1995. 'Use of a Token Economy with Seriously Mentally Ill Patients: Criticisms and Misperceptions.' *Psychiatric Services* 46: 1258–63.
- Frank, Robert. 1985. *Choosing the Right Pond: Human Behavior and the Quest for Status*. New York: Oxford University Press.
- Friedman, Milton. 1962. *Capitalism and Freedom*. Chicago, IL: University of Chicago Press.
- Grossman, Michael. 1972. 'On the Concept of Health Capital and the Demand for Health.' *Journal of Political Economy* 80: 223–55.
- Hardy, Grant. 2003. *The Book of Mormon: A Reader's Edition*. Urbana, IL: University of Illinois Press.
- Harris, Judith. 1998. *The Nurture Assumption: Why Children Turn Out the Way They Do*. New York: Free Press.
- Higgins, Stephen, and Nancy Petry. 1999. 'Contingency Management: Incentives for Sobriety.' *Alcohol Research and Health* 23: 122–7.
- Hinrichs, Steven, Christopher Harrison and Sheryl Haggerty. 1996. 'Viral Diseases.' In *Andersons Pathology*, tenth edition, eds Ivan Damjanov and James Linder, pp. 886–950. St. Louis, MO: Mosby.
- Hoffer, Eric. 1951. *The True Believer: Thoughts on the Nature of Mass Movements*. New York: Harper and Row.
- The Holy Bible: A New International Version*. 1984. East Brunswick, NJ: International Bible Society.
- Iannacone, Laurence. 1998. 'Introduction to the Economics of Religion.' *Journal of Economic Literature* 36: 1465–1495.
- Iannacone, Laurence. 2003. 'The Market for Martyrs.' Global Prosperity Initiative Working Paper #35. Mercatus Center, George Mason University.
- Kessler, R. C., K. A. McGonagle, S. Zhao, C. B. Nelson, M. Hughes, S. Eshleman, H. U. Wittchen and K. S. Kendler. 1994. 'Lifetime and 12-month Prevalence of DSM-III-R Psychiatric Disorders in the United States: Results from the National Comorbidity Survey.' *Archives of General Psychiatry* 51: 8–19.
- Kety, Seymour. 1974. 'From Rationalization to Reason.' *American Journal of Psychiatry* 131: 957–63.
- Klein, Daniel. 1994. 'If Government is So Villainous, How Come Government Officials Don't Seem Like Villains?' *Economics and Philosophy* 10: 91–106.
- Lieberman, Michael and Russell Lebovitz. 1996. 'Neoplasia.' In *Andersons Pathology*, tenth edition, eds Ivan Damjanov and James Linder, pp. 513–47. St. Louis, MO: Mosby.
- McCloskey, Deirdre. 1999. *Crossing: A Memoir*. Chicago, IL: University of Chicago Press.
- Mosca, Gaetano. 1939. *The Ruling Class*. New York: McGraw-Hill.
- Nasar, Sylvia. 1998. *A Beautiful Mind*. New York: Simon and Schuster.

- Posner, Richard. 1998. *Economic Analysis of Law*. New York: Aspen Law and Business.
- Renshaw, Perry and Scott Rauch. 1999. 'Neuroimaging in Clinical Psychiatry.' In *The Harvard Guide to Psychiatry*, ed. Armand Nicholi, pp. 84–97. Cambridge, MA: The Belknap Press of Harvard University Press.
- Seavey, Todd. 2002. 'Freedom of Choice, Cigarettes, and Thomas Szasz.' *Liberty* 16(10): 35–44.
- Segal, Nancy. 1999. *Entwined Lives: Twins and What They Tell Us About Human Behavior*. New York: Dutton.
- Sheffrin, Steven. 1996. *Rational Expectations*. Cambridge: Cambridge University Press.
- Shermer, Michael. 2002. *Why People Believe Weird Things: Pseudoscience, Superstition, and Other Confusions of Our Time*. New York: Henry Holt and Co.
- Stark, Rodney. 1996. *The Rise of Christianity: A Sociologist Reconsiders History*. Princeton, NJ: Princeton University Press.
- Stuve, Paul and Julian Salinas. 2002. 'Token Economy.' In *Encyclopedia of Psychotherapy*, vol. 2, eds Michel Hersen and William Sledge, pp. 821–7. New York: Academic Press.
- Szasz, Thomas. 1976. *Schizophrenia: The Sacred Symbol of Psychiatry*. New York: Basic Books.
- Szasz, Thomas. 1990. *The Untamed Tongue: A Dissenting Dictionary*. La Salle, IL: Open Court.
- Szasz, Thomas. 1997. *Insanity: The Idea and Its Consequences*. Syracuse, NY: Syracuse University Press.
- Thaler, Richard. 1992. *The Winner's Curse: Paradoxes and Anomalies of Economic Life*. Princeton, NJ: Princeton University Press.
- Tolkien, J.R.R. 1994. *The Return of the King*. New York: Houghton Mifflin Company.
- Tsuang, Ming, Stephen Faraone and Alan Green. 1999. 'Schizophrenia and Other Psychotic Disorders.' In *The Harvard Guide to Psychiatry*, ed. Armand Nicholi, pp. 240–80. Cambridge, MA: The Belknap Press of Harvard University Press.
- van Ours, Jan C. 1995. 'The Price Elasticity of Hard Drugs: The Case of Opium in the Dutch East Indies, 1923–1938.' *Journal of Political Economy* 103: 261–79.
- Varian, Hal. 1992. *Microeconomic Analysis*. New York: W.W. Norton and Co.

BRYAN CAPLAN is an associate professor at the Department of Economics and Center for Study of Public Choice at George Mason University. Most of his research studies the nature and effect of irrational political and economic beliefs. His articles have been published in the *American Economic Review*, the *Economic Journal*, the *Journal of Law and Economics*, *Social Science Quarterly*, and many other outlets. Caplan also has a book on voter irrationality forthcoming from Princeton University Press.

ADDRESS: Department of Economics, Center for Study of Public Choice, and Mercatus Center, George Mason University, Fairfax, VA 22030, USA [email: bcaplan@gmu.edu].