

Open Peer Commentaries

Voluntary Control of Behavior and Responsibility

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Hyman's (2007) sensible, sophisticated, and balanced article makes the following important points about addictions. Whether addiction should be considered a disease, a moral failure, or sometimes both, is an open question. The primary criterion of addiction is behavioral, namely, compulsive drug seeking and using in the face of negative consequences. Even if addicts have difficulty controlling their behavior, they are not zombies or automatons, but instead act intentionally to satisfy their desire to find and use drugs. The neural mechanisms of addiction are still controversial but will surely be found. Environmental variables play an important role in explaining addictive behavior.

Hyman (2007) offers his view of the most plausible candidate for an explanatory mechanism, which involves abnormal usurpation by drugs of the potent dopamine system that regulates reward. This usurpation makes drugs highly salient to the addict at the expense of other, more adaptive goals, creates craving if use is delayed, and thus undermines the addict's ability to avoid seeking and using. Hyman concludes that recent neurobiological work suggests that "some apparently voluntary behaviors may not be as freely planned and executed as they first appeared" (2007, 8). This conclusion is the pay-off from neurobiology for understanding voluntary control of behavior. One implication, Hyman notes, is that addicts may not be as responsible for their conduct as some think (2007, 8).

One consistent conceptual difficulty in this area is to define *voluntary*, a task Hyman (2007) undertakes only by implication. It is useful to distinguish literal involuntariness and metaphorical involuntariness. In cases of literally involuntary behavior, the body moves but it is not human action because it is not a result of the agent's intentions. Reflexes and tremors are examples. Any bodily movement (or failure to move) that is a product of the agent's intentions is an action, and involuntariness is only metaphorical. We may conclude that for various reasons we wish to characterize an action as involuntary, say, to avoid ascribing responsibility for it, but then we need to have criteria for metaphorical involuntariness.

Hyman's (2007) criteria for involuntariness are that the planning and the execution of some intentional behaviors may not be "free." Others writing about addictions often use the phrase *loss of control*. These criteria are more like conclusions than premises, however. Before we can reach any conclusion about moral or legal implications, we need to know the criteria for free and unfree, or for control and loss of control. Whether addiction's causal mechanism is primarily genetic, neurobiological, psychological, sociological, or some combination of these—as is almost certainly the case—involuntariness is a conclusion we reach about behavior. Consequently, we must have behavioral criteria for the conclusion that the addict's seeking and using behavior is unfree or beyond his or her control.

Let us begin with the behavioral phenomenology of addiction. Here, in brief, is what we knew before we had a neuroscientific foundation for causal hypotheses. Some people who use drugs over time develop a powerful, insistent desire to take drugs, often termed a *craving*, a desire that is stimulated and enhanced by the environmental cues that are associated with the activity. They engage in repetitive seeking and using behavior that is termed *compulsive* because the addict reports that he or she subjectively feels compelled to use drugs and the activity continues despite markedly and often disastrously negative life effects. Even if they are able to quit, addicts are in substantial danger of re-engaging in drug use. (The ability of addicts to quit temporarily or permanently is an inconvenient fact for the most reductionist disease account. Few diseases can be in remission or cured by intentionally suppressing their definitional signs.)

What can we infer from this description? It is reasonable to conclude that drug use causes some type of change in the person that increases desire to extremely high levels. Viewed objectively, most addiction is not rational in the sense that few people would on reflection choose to be in a position that caused them so much misery. For the same reason, we can infer that addiction undermines the addict's rational capacities and that avoiding the behavior is very difficult, making use appear compulsive. Finally, the risk of relapse

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among quitters suggests that the predisposing causal mechanisms persist, even if the former addict is not using at a given time. Note, that we could draw these inferences prior to any neurobiological understanding of the addict's brain.

These inferences raise two familiar excusing conditions: lack of rational capacity and compulsion. Of the two, I believe and have argued at length elsewhere (Morse 2006), lack of rational capacity is the better explanation of why addiction might excuse or mitigate responsibility and in fact explains perceived loss of control. In brief, the argument is that the addict's strong desires—the “go” mechanism—make it very difficult for the addict to think straight about what he or she has good reason to do—the “stop” mechanism. If the go mechanism is sufficiently strong, it will make it very difficult for the stop mechanism to work properly. If the stop mechanism is independently weakened, then the go mechanism gains increased motivational advantage.

It is just this loss of capacity to bring good reason to bear that makes it so difficult to control oneself. After all, most of our self-control measures use our capacity for rationality directly or indirectly. A picture of a pig on the refrigerator door, for example, is meant to remind the overeater of the good reasons not to eat at just the moment he or she is about to indulge. When the craving is greatest, the addict can scarcely think about anything except using drugs despite the many rational incentives not to do so and constructs self-defeating rationalizations if necessary. Anyone who has ever been in a state of strong desire for something that they know is not good for them will find this account all too familiar.

Diminished capacity to bring reason to bear rationally to evaluate and to control one's conduct can be caused by a large number of variables in addition to craving. Consider rage, for example. Whatever causal mechanism is at work, there is a common final behavioral pathway. What is doing the potential work of mitigation or excuse is the final pathway, diminished rationality, rather than any particular brain mechanism. This, I suggest, is the best interpretation of the behavioral criteria for lack of cognitive control, for the inability to “freely plan and execute” behavior. Lack of voluntariness really means lack of rational capacity. The brain mechanisms do help us to understand, however, how dysfunctional behavioral regulation occurs.

Hyman is concerned that understanding of this type of dysregulation has “not yet penetrated folk psychology” (2007, 8). This observation may be largely correct, but in some circumstances the law already takes rage and other untoward feeling states into account for assessing respon-

sibility. The so-called “provocation/passion” rule that reduces an intentional killing from murder to manslaughter is an example. Ordinary people also tend to be more forgiving if an agent acts badly but has some sympathetic reason, such as stress or grief, for acting out of character.

What is more, neurobiological findings about the brain mechanisms for addiction and other states that undermine rationality do not cast doubt on the folk psychological model of human behavior. The capacity to bring rationality to bear is a continuum concept. As the person finds it increasingly difficult to bring reason to bear, the case for mitigation or excuse likewise increases. Indeed, diminished capacity for rationality is a classic folk psychology excusing condition. Consider the legal defense of insanity, for example.

Most people who suffer from such diminution do not become automatons, as Hyman (2007) recognizes. They retain some capacity for rationality; they do act intentionally. The question for morality and law, then, is always how much loss of rational capacity justifies mitigation and excuse. This is a normative question, a matter of practical reason that science cannot resolve. Science can, however, help determine how much loss of rational capacity has occurred. But, ultimately, the question for the law and morals is behavioral, not brain states. People, not brains, are held responsible, are praised and blamed, rewarded and punished. If the brain findings and behavior are inconsistent, the behavior must be our guide.

Finally, the addict's rationality is often severely compromised at the time of drug seeking and using, but it is not compromised at all times for most addicts. Instead, the addict's rationality waxes and wanes. When the addict is not in a strong drive state, he or she is capable of taking the steps to prevent maladaptive behavior that the addict knows will result when craving revives. The addict is responsible for later non-responsible behavior because the addict is responsible for failure to avoid the later behavior. Philosophers call this *diachronous responsibility*. It may be part of the reason that people are unwilling fully to excuse addicts, even if their condition can be considered a disease and even if they are non-responsible at the time of taking drugs or other illegal acts resulting from addiction.

REFERENCES

- Hyman, S. E. 2007. The neurobiology of addiction: Implications for voluntary control of behavior. *American Journal of Bioethics (AJOB-Neuroscience)* 7(1): 8–11.
- Morse, S. J. 2006. Addiction, genetics, and criminal responsibility *Law & Contemporary Problems* 69(1): 167–209.

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