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Book Review

Addiction: Entries and Exits. Edited by Jon Elster. New York: Sage, 1999

This edited volume presents findings and conclusions from various disciplines involved in studying the nature and development of addictions. Because it includes essays from philosophers, economists, psychiatrists, historians, sociologists and neurophysiologists, it provides a unique reference for any scientist interested in learning more about this topic regardless of discipline. In one volume it presents important issues being addressed across disciplines and brings the current state of knowledge from all of these disciplines together in one place.

The fact that this book presents essays from multiple disciplines is both its primary strength and primary weakness. It is a strength because it provides the opportunity, as Jon Elster suggests in his introduction, to develop an understanding of addiction in light of the cognitive, moral and cultural capacity of human beings. It would be difficult to return to the simplifying assumptions of any one discipline in light of the empirical findings presented from each. However, by presenting essays from leading scientists in each of these disciplines it also becomes painfully obvious that there is not yet a common vocabulary across the disciplines that would facilitate a more comprehensive and integrated approach to understanding and treating addiction. Concepts such as rationality, cravings and even addictive behaviors vary from chapter to chapter and discipline to discipline.

Perhaps the most obvious discrepancy in definition, at least to me as an economist, is the varied interpretation of what Becker and Murphy mean by a rational model of addiction.[1] If examined within historical context, the Becker–Murphy model is a response to earlier theories that proposed that addiction is the result of consumer myopia (or short-sightedness) and unstable preferences. The Becker–Murphy model illustrates that even foresighted people (whom they refer to as 'rational') with fixed tastes can become addicted. It is the forward-looking behavior, and the fact that consumers are believed to consider the impact of current consumption on future well-being, that makes the model rational, not the assumption of fixed tastes. Although several of the authors in this volume criticize the Becker–Murphy model, including Ole-Jorgen Skog, Jon Elster, Ted O'Donogue, Matthew Rabin, and George Ainslie, their criticisms are based on parametrizations of the rational addiction model, not on the fundamental concept that individuals are forward looking. For example, Skog's criticism focuses on the assumption of exponential discounting instead of the perhaps more realistic assumption of hyperbolic discounting. Similarly, Ted O'Donogue and Matthew Rabin criticize the assumption of stable preferences over time. Recent work by economists explicitly addresses some of the criticisms regarding the original parametrization of the rational addiction model, such as the assumption of perfect information[2] and time consistency,[3] and do so maintaining the assumption of rationality, or forward-looking behavior. Somehow this basic definition of rationality as forward-looking behavior has been confused with the assumptions of fixed tastes and exponential discounting and has led many to attack what they believe is meant by rationality. In fact, the same authors in this book who attack rationality use the assumption of forward-looking agents in their own constructs. So, technically speaking, their models are rational models as well. This confusion just illustrates the fact that much work still remains developing a common language and understanding across disciplines as to the concepts and constructs used to define addiction.

Although the disciplines differ in their definition of, approaches to and assumptions about addiction, some common themes emerge across all the disciplines presented in this volume. First, human addiction, unlike animal addiction, is not characterized by irresistible cravings that lead to compulsive and mechanical behavior. Although humans addicted to substances may be susceptible to 'overpowering desire', a phrase used in the first chapter by Gary Watson (a philosopher), they are still capable of choice and, in many cases, control. An example frequently provided throughout the volume to illustrate this point is that of orthodox Jews who give up smoking on holy days only to resume their smoking habits once the holidays have past. The fact that addicts are believed to be subject to powerful, but not irresistible urges, implies that treatment options exist that assist addicts in developing resistance skills to overcome these powerful urges.

A second common theme presented throughout this volume is that individual choice is not time consistent. When faced today with the choice between a small reward tomorrow and a large reward in the future, individuals today will choose the large reward. However, when tomorrow comes, many individuals will change their mind and decide that the small immediate reward is more desirable than waiting for a larger reward in the future. As various authors point out in this volume, this sort of time inconsistency provides an immediate explanation for several aspects of addictive behavior, including becoming addicted and relapsing after an otherwise successful quit attempt. In fact, George Ainslie in his chapter even stipulates that all addictive behavior can be attributed solely to time inconsistency in discounting. Although several other authors (Jon Elster, Olav Gjelsvik, Ted O'Donoghue and Matthew Rabin, Ole-Jorgen Skog) acknowledge that it is a contributing factor, they do not attempt to explain addiction solely as a function of inconsistencies in discounting future rewards and punishments over time. They generally concur, however, that time inconsistency can lead people to deviate from their original plans or lead them to experience temporary preference reversals. The chapters by Ole-Jorgen Skog (chapter 5) and Ted O'Donoghue and Matthew Rabin (chapter 6) provide particularly useful constructs in which to think about the implications of time-inconsistent preferences within the context of a causal model of addiction.

A third theme carried throughout the volume is that addiction is at least partially shaped by our environment, whether through the frequency of situations or cues, which elicit positive use behavior, or through our belief structure that causes us to give greater weight to pro-consumption information and messages. In his chapter on emotion and addiction, Jon Elster provides the most direct discussion of how cognitive distortions, generated internally or from our social environment, impact our ability to make informed rational decisions. Cognitive distortions can result from particular emotions associated with use (e.g. shame) or outside influences such as peer pressure. The significance of our cognitive motivation is further highlighted by Eliot Gardner (chapter 3). Although much of his chapter focuses on the neuroadaptations that have been identified in response to consumption of addictive

substances, he fully acknowledges the importance of environment in perpetuating the decision to use an addictive substance by stating '(i)t is well-accepted clinical knowledge that short-term detoxification and behavioral extinction of drug taking are easy to accomplish; but craving and vulnerability to drug-triggered relapse, cue-triggered relapse, and stress triggered relapse persist for months, years and even decades' (p. 58).

Although each chapter provides some useful insights, the chapter by Helge Waal and Jorge Morland (chapter 4), which examines the main 'choice-theoretic' approaches to addiction within the context of neurobiological findings, is a real gem. The authors do an outstanding job of linking findings from the various disciplines and interpreting them within the context of findings in neurobiology. It is this type of effort and insight that will lead to a truly integrated multidisciplinary construct for analyzing the development and machinations of addiction.

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