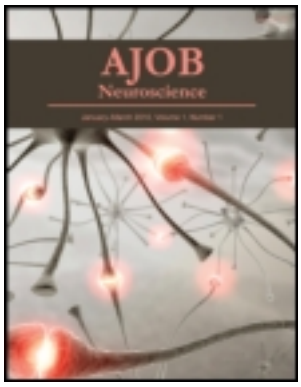

AJOB Neuroscience
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/uabn20

Addiction and Actants: The Autonomy Possible in Assemblages

Paul Boshears [a]
[a] Europäische Universität für Interdisziplinäre Studien

Available online: 18 Apr 2012

To cite this article: Paul Boshears (2012): Addiction and Actants: The Autonomy Possible in Assemblages, AJOB Neuroscience, 3:2, 59-61

To link to this article: http://dx.doi.org/10.1080/21507740.2012.666328

disease." Instead, addicts have a more complex understanding of disease and personal control (Dingel et al. 2011). The idea Pickard advances—that personal control is likely to be perceived as zero in the face of a definition of addiction that includes the word "compulsion"—does not reflect the empirical evidence.

In addition, first-person accounts from addiction scientists, public health employees, health payers, pharmaceutical industry employees, and clinicians do not support the claim that inclusion of "compulsion" in the definition of addiction is destructive and requires change; instead, cutting-edge research is viewed with a mixture of hope and concern that is not easily disentangled (Dingel et al. 2011). Through our work, we have found that researchers investigating the molecular genetic basis of addiction talk not only about the importance of understanding the biology but also of understanding how environment and social conditions contribute.

In sum, Pickard presents some interesting ideas regarding the nature of addiction, but her critique of a strong definition of compulsion does not reflect the empirical realities of the professionals who have created and use this definition in the clinic or the laboratory, nor does it reflect the dynamic understanding addicts have of their own responsibility for recovery.

REFERENCES

Claassen, L., L. Henneman, R. De Vet, D. Knol, T. Marteau, and D. Timmermans. 2010. Fatalistic responses to different types of genetic risk information: Exploring the role of self-malleability. *Psychology and Health* 25(2): 183–196.

Dingel, M. J., A. D. Hicks, M. E. Robinson, and B. A. Koenig. 2011. Integrating genetic studies of nicotine addiction into public health practice: Stakeholder views on challenges, barriers and opportunities. *Public Health Genomics* 15(1): 46–55.

Dingel, M. J., B. J. Partridge, J. E. Ostergren, M. E. Robinson, J. B. McCormick, and B. A. Koenig. 2011. How do patients define the utility of a genetic paradigm in substance-use treatment? *Alcoholism—Clinical and Experimental Research* 35(6): 196A.

Dingel, M. J., K. Karkazis, and B. A. Koenig. 2011. Framing nicotine addiction as a "disease of the brain": Social and ethical consequences. *Social Science Quarterly* 92(5): 1363–1388.

Edwards, G. 2003. *Alcohol: The world's favorite drug*. New York, NY: St. Martin's Griffin/Thomas Dunne Books.

Ho, M. K., D. Goldman, A. Heinz, et al. 2010. Breaking barriers in the genomics and pharmacogenetics of drug addiction. *Clinical Pharmacology & Therapeutics* 88(6): 779–791.

Kalivas, P. W., and N. D. Volkow. 2005. The neural basis of addiction: A pathology of motivation and choice. *American Journal of Psychiatry* 162: 1403–1413.

Keeley, B., L. Wright, and C. M. Condit. 2009. Functions of health fatalism: Fatalistic talk as face saving, uncertainty management, stress relief and sense making. *Sociology of Health & Illness* 31(5): 734–747.

Pickard, H. 2012. The purpose in chronic addiction. *AJOB Neuroscience* 3(2): 40–49.

Sanderson, S. C., and J. Wardle. 2005. Will genetic testing for complex diseases increase motivation to quit smoking? Anticipated reactions in a survey of smokers. *Health Education & Behavior* 32(5): 640–653.

Addiction and Actants: The Autonomy Possible in Assemblages

Paul Boshears, Europäische Universität für Interdisziplinäre Studien

Pickard's argument (2012) is that there is purposive action in addiction. But the use of addiction language (rather than, say, substance abuse or chemical dependence) already betrays a specific, historical project at work in the argument (Vrecko 2010). It is a metaphysical project that seeks to secure a form of autonomy and certain kinds of object relations appropriate to a particular kind of metaphysical schema. This metaphysical project carries commitments that historically have led to the tiresome arguments about the social construction of the real, a human subject hidden behind the veil of language, and objects in the world that resist us with their recalcitrance (Latour 2000). These positions maintain humans as the unique focal point of the universe and as the sole arbiters of Reason. Established as such, humans are then condemned to never have direct access to the universe itself, only knowledge of it. Addiction is an ideal subject for those interested in this philosophical dilemma. Who is the culprit in addiction? Is it the substance of abuse or a faulty dopaminergic system? Is it individuals who cannot control their urge to gamble? While I agree with Pickard's conclusion that those ravaged by the effects of what is called addiction must be compassionately understood and their treatment informed from this compassionate exercise,

Address correspondence to Paul Boshears, Europäische Universität für Interdisziplinäre Studien, Alter Kehr 20, CH-3953 Leuk-Stadt, Switzerland. E-mail: paul.boshears@egs.edu

I suggest that the focus in treatment be shifted away from talk of autonomy because addiction does not exist within one person—rather, it is networked.

What do we mean when we talk about addiction? Pickard references the National Institute on Drug Abuse as well as the *Diagnostic Statistical Manual IV–TR* and argues that their approaches not only mischaracterize the phenomenon by insisting that addiction is a chronic, neurobiological disease marked by compulsive use of habit-forming substances, but that this approach is also an impediment to effective clinical and societal treatment of the problems associated. According to Pickard, recovery is only possible when the person with an addiction is able to abstain from substances of abuse through rational decision making. Without this capacity to make a "genuine choice," we are told that it is not possible to say that the person observed doing things is acting autonomously because actions are only possible through volition. Addicts don't act as such; they are only engaged in automatic reflex. Pickard allows that there is something to the neurobiology of addiction, but ultimately these empirical accounts cannot satisfy the true problem of addiction: an individual's underpowered desire to abstain from interacting with substances of abuse.

Addiction is not a stable condition, it is not a stable manner of being in the world, and it is not a stable concept (Maddux and Desmond 2000). Addiction is comprised of the knotty interactions between human and nonhuman actors. From the actor network theorists has developed the term "actant" to describe the kinds of agency that nonhuman actors have in the world. One is not born with an innate knowledge of how to acquire, manufacture, or consume methamphetamine, for example. One undergoes an apprenticeship and is brought into the fold of the methamphetamine-using community (Boshears, Boeri, and Harbry 2011). This community is itself an unstable construct subject to the macro effects of micro decisions made—the total effect of which we call an economy, or a political election. The weather itself conspires against human agency when massive storms or floods destroy fragile social networks along with infrastructure. The material capital of buildings and school systems is lost, and those who are forced to relocate to new cities, like those fleeing Hurricane Katrina, also lose whatever social capital they may have accumulated through their persistent presence in a network of both human and nonhuman entities.

These are macro-level concerns, but what about the micro, at the level of chemical efficacy? As neuroscience continues to radically alter the landscape of what can be known of the brain, notions of intentionality continue to haunt the imagination of researchers and theorists. The findings from functional magnetic resonance imaging (fMRI) studies are frequently looked to for signs that the locus and operation of intentionality have been identified, regardless of whether this technology is even capable of meeting the task (Rommelfanger and Boshears 2011). The dopaminergic system is suspected to be usurped by substances of abuse through molecular processes (Hyman and Malenka 2001), and thus one becomes a stranger to one's own body. The organs of the human body, individually examined, reveal a network of co-emergent behaviors: excreting biochemical substances and, through embedded receptors, sensing them. The total effects of these networked interactions provide a sense of material stability over time but do significant damage to notions of an organ's autonomy. The dynamic assemblage of organs and biochemical substances being exchanged and transformed constantly points toward a sense of distributed agency.

Agency is not a clear concept, and over the centuries attempts to secure its stability over time have consistently demonstrated a clinamen (or Lucretian swerve). Both Augustine and, later, Kant held that the human will is divided against itself: The will wills, but aspects of this will actively work against that willing. Both also agree that this is the result of a radical evil in humans. Agency is commonly understood to refer to the intentional choices made by humans as they realize their goals, even as they are constrained and constituted by their environments. The capacity to create effects through deliberative action is referred to as efficacy and, among those that hold that agency is a moral capacity, the creative capacity of intentions (Bennett 2010). The ability to intend, however, is the exclusive domain of human beings and as such only humans can be said to have agency. Thus, addiction can be understood from this perspective as the result of bad intentionality, or a willful disregard of one's ability to effect change. One might argue from this perspective that a person addicted is (self-)afflicted by a profound inability to create new conditions through their actions. There is no question that substances of abuse (and, although Pickard never discusses them, addictive practices such as gambling) do something—not only to the individual said to be possessed by the addictive substances or practices, but also to their support networks and those indirectly implicated in the practice of being addicted. But agency presupposes a human actor as the root cause of an effect, so what kind of agency could an assemblage (of organs, of humans, of narcotics) possess?

The human body is a heterogeneous assemblage: the result of eons of mutation (such as the mineralization of soft cells that have become the structures called bones) and emergent responses to the environments in which they existed. The body, or any assemblage, is an actant: Neither a subject nor an object, it can be human or not and often exists as a hybrid of the two. Actants do things—they act or are granted the ability to do so by others (Latour 1996). But an actant never acts alone. Its efficacy or agency always depends upon collaboration; its capacity to produce effects is only possible in a confederation with others. So too is the case with addictions. Addictions are pernicious because they are precisely these sorts of confederated actions. Addiction is not only a pharmacological problem, it is not only a social problem, it is not only an economic problem, it is not only a pathology of one's ability to choose. It is all of those phenomena always, all the time lending their weight. They are, in Latour's (1999) terms, propositions: incentives toward or pressures in the direction of one trajectory of action rather than another. The task is to identify the contours

of these teeming phenomena and the kinds of relations that exist between them.

REFERENCES

Bennett, J. 2010. *Vibrant matter: A political ecology of things*. Durham, NC: Duke University Press.

Boshears, P., M. Boeri, and L. Harbry. 2011. Addiction and sociality: Perspectives from methamphetamine users in suburban USA. *Addiction Research & Theory* 19(4): 289–301.

Hyman, S. E., and R. C. Malenka. 2001. Addiction and the brain: The neurobiology of compulsion and its persistence. *Nature Reviews Neuroscience* 2: 695–703.

Latour, B. 1996. On actor network theory: A few clarifications. *Soziale Welt* 47(4): 369–381.

Latour, B. 1999. *Pandora's hope: Essays on the reality of science studies*. Cambridge, MA: Harvard University Press.

Latour, B. 2000. When things strike back: A possible contribution of 'Science Studies' to the social sciences. *British Journal of Sociology* 51(1): 107–123.

Maddux, J. F., and D. P. Desmond. 2000. Addiction or dependence? *Addiction* 95(5): 661–665.

Pickard, H. 2012. The purpose in chronic addiction. *AJOB Neuroscience* 3(2): 40–49.

Rommelfanger, K. S., and P. Boshears. 2011. The ethical use of neuroscience. *AJOB Neuroscience* 2(2): 19–21.

Vrecko, S. 2010. Birth of a brain disease: Science, the state, and addiction neuropolitics. *History of the Human Sciences* 23(4): 52–67.

On Purpose: Four Concerns

Wayne Skinner, Centre for Addiction and Mental Health
Barbara J. Russell, Centre for Addiction and Mental Health and University of Toronto

We welcome Pickard's article (2012) for helping to enliven ongoing inquiry and for increasing debate regarding the nature, causes, and remedies of addictions. She displaces the hegemonic view that considers addictions to be chronic, relapsing diseases by positing that they are purposive behaviors. Her article explains important implications of her position vis-à-vis diagnosis, prognosis, prevention, and treatment.

While we support the critique of the prevailing tendency to biological reductionism, we see Pickard as introducing a not-so-new binary argument that fails to appreciate the full dimensionality of addiction. The lived reality of individuals and communities experiencing substance misuse and abuse problems is more complex than Pickard allows. Four points in Pickard's analysis and recommendations reflect worrisome simplifications of addiction and its remedies.

TWO SUBGROUPS

Central to her thesis of addiction-as-purposive is Pickard's observation that most substance users eventually discontinue their use, without ever accessing treatment, as they mature and become parents or employees. Those who do not "mature out" are people with psychiatric conditions who use substances to cope with the distress of their conditions and circumstances. We do not disagree that many people have co-occurring mental health issues, either as a precondition or as a consequence of living with persistent addiction problems, or, as is often the case, a combination of both. However, Pickard presents just two types of groups with substance use problems: those who grow out of these problems by the time they reach their thirties, and those who continue because of preexisting psychiatric disorders. While both groups do exist, they do not describe the full set of people with substance use addictions.

Pickard seems to inadequately appreciate the precarious journey people must survive if they are to "mature out" by middle age. The contribution of tobacco, alcohol, and illicit drugs to the global burden of disease is considerable (Degenhardt and Hall 2012; Rehm et al. 2007). In fact, mortality "filters out" some of these individuals, while morbidity means that others arrive in middle age significantly disadvantaged. Moreover, addiction is more than a personal problem: other people's welfare is affected, ranging from family members to friends and coworkers to others who encounter impaired drivers. Even if it may abate in adulthood, problematic substance use tends to last for years and to have relapse as a defining characteristic. So, from a clinical perspective, it has aspects of chronicity and acuity. A person is sober for several months, but he suddenly and quickly returns to the prior level of misuse. He becomes abstinent again for many more months, but experiences another period of "full" misuse. The "reality" of relapse helps explain why the recovery, rather than cure, paradigm has become more meaningful for many people and their health care workers.

SELF-MEDICATION

Pickard over-relies on the self-medication hypothesis to explain the relationship between addictive behaviors and

Address correspondence to Barbara J. Russell, Centre for Addiction and Mental Health, 33 Russell Street, Toronto, Ontario, M5S 2S1, Canada. E-mail: barbara_russell@camh.net