Interview with Howard Shaffer of
the Division on Addiction at Cambridge Health Alliance

Defining addiction, making research more transparent, and dealing with the DSM-V

By Dirk Hanson
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(The "Five-Question Interview" series.)

Like many incredibly busy people, Dr. Howard J. Shaffer, associate professor of psychology at Harvard Medical School, is generous with his time. This paradox works to the advantage of Addiction Inbox readers, as Dr. Shaffer, the director of the Division on Addiction at the Cambridge Health Alliance, a Harvard Medical School teaching affiliate, has graciously consented to be the next participant in our "Five-Question Interview" series. In addition to maintaining a private practice, Dr. Shaffer has been a principal or co-principal investigator on a wide variety of research projects related to addiction, including the Harvard Project on Gambling and Health, and a federal research project focusing on psychiatric co-morbidity among multiple DUI offenders. He is the past editor of the Journal of Gambling Studies and the Psychology of Addictive Behaviors.

1. Addiction is not like most medical/mental disorders. If you have cancer or schizophrenia, for example, you can't recover by abstaining from certain things. What's your response to those who say that the disease model of addiction is misleading?

We should remember that the concept of disease is difficult to define. This makes deciding whether addiction is a disease most difficult. However, I think most people accept the idea that addiction reflects a kind of dis-ease. Whenever people get into this disease model debate, it's useful to remember that most models of addiction are misleading, and the disease model is no exception. The map is not the territory, the menu is not the meal, and the diagnosis is not the disorder.

Scientific models are simplified representations of complex phenomena. Models of addiction focus our attention to certain features of addiction and blind us to other potentially important aspects of the disorder.1 **For example, the moral model of addiction suggested that bad judgment was the cause and piety was the solution. Some neurobiological models of addiction suggest that molecular activity is the cause and medication is the solution. Both of these views are simplifications.**

Rather than trying to fit addiction into a particular box, I prefer to think of addiction as a complex multidimensional syndrome – with interactive biological, psychological, and social causes. In this way addiction is similar to other medical, mental and behavioral disorders than we previously have considered. My colleagues and I have been developing a syndrome model of addiction 2-4 that suggests people are vulnerable because of biological, psychological and social

influences. **When vulnerable people are exposed to a social context that reliably and robustly shifts their subjective state in a desirable direction, they are at the highest risk for developing addiction.** What I like about this kind of model is that it holds the potential to help us determine who is at most risk so that we can predict the development of addiction – just like we can predict who is at risk for cardiovascular and other diseases. This kind of etiological model will help us establish primary and secondary prevention programs that can reduce the onset of addiction.

2. You have a book coming out soon about problem gambling and how it can be managed. Is gambling a legitimate addiction?

Gambling, as well as most other behavior patterns, can become excessive, lead to adverse consequences, and squeeze out many previously important and healthy behavior patterns. 5,6 Some behavior patterns like eating broccoli rarely lead to addiction, but other improbable behaviors like listening to music, or playing video games might.

I don't think about the idea of a "legitimate" addiction anymore, though I used to. Now I think about addiction as a unitary disorder that has a variety of expressions. For example, AIDS is a syndrome with many different expressions. Syndromes like AIDS and addiction are complex because not all of the signs and symptoms associated with the disorder are present all of the time. Gambling addiction is more rare than alcohol dependence. However, the characteristics of different expressions of addiction and the sequelae across sufferers are more similar than different. Further, the treatments – including the medications – that are effective with one expression of addiction often work with another expression. **Scientific evidence suggests that behaviors, such as excessive gambling, and substance use, such as cocaine, have similar effects on the neurocircuitry of reward – how the brain processes information to produce the experience of pleasure.**

For a pattern of behavior, whether substance involved or not, to be considered as an addiction, it must reliably and robustly shift subjective experience in a desirable direction, lead to adverse consequences, and be associated with identifiable underlying biological and psychological features, for example, genetic influences and trauma.

3. You host the Transparency Project. What is it and why did you create it?

The Transparency Project is the world's first data repository for addiction-related industry-funded research. Most people don't realize that private industry funds the majority of scientific research. This particular funding stream is important. However, tobacco industry funded research properly encouraged people to worry that private funding can adversely influence research. In fact, I think observers should worry about the potential bias that might accompany any research, including research supported by public funding sources. There is no warranty that can assure unbiased research, except sound methods and careful data analysis reflecting sound scientific principles. Furthermore, critics shouldn't presume that research is biased just because it has a particular kind of funding source. **We are encouraging scientists who have received industry funding to send their data to the Transparency Project so that others can download and use their data.** This should magnify the value of the data by having others analyze it similarly or differently from the original research. This strategy also should help observers both confirm and question findings, thereby leading to important dialogues about the central issues that are so very important to the advance of scientific knowledge.

4. What's going on right now at the Division on Addiction that you are particularly excited about?

During 2012, we are celebrating our 20th anniversary at the Division on Addiction. The syndrome model is emerging as an important conceptual guide to our work going forward; we are very excited to see that others are similarly interested in this perspective. Very soon, for example, the American Psychological Association will be releasing another of our new books, the APA Addiction Syndrome Handbook. **I am also very excited about our DUI research 7-11 as well as our efforts to develop new technology that will help lay interviewers—those often staffing DUI treatment programs—to assess complex psychiatric disorders and triage patients into the care they so desperately need.** This is our Computer Assessment and Referral System or CARS project. Lots of people around the world are expressing interest in coming to the Division to study and conduct research focusing on addiction. For me, it is very satisfying to see young people come to the field of addiction with a sense of curiosity, wonder and scientific rigor that have not always been present in this area of interest.

5. How do you feel about the proposed DSM-V changes regarding addiction?

By now, most people interested in addiction are aware that the American Psychiatric Association has expressed some interest in moving Pathological Gambling from the impulse control disorder category to a new Addiction and Related Disorders category. **This would represent the first time that the term "addiction" appears in the DSM. If this happens, it is a big deal and, in my opinion, represents a step forward.** In many ways it reflects a syndrome model perspective toward addiction. Although pathological gambling has clinical, epidemiological, etiological, physiological, and treatment commonalities with substance use disorders, my colleague Ryan Martin and I have noted that these similarities also exist among the substance use disorders and a variety of other behavioral expressions of addiction (e.g., excessive shopping). A relatively large literature evidences these commonalities. **Consequently, we think that the DSM-V work group should avoid creating a long list of addictions and related disorders/diagnoses organized by the objects of addiction**. Instead, the syndrome model of addiction encourages an addiction diagnosis that is independent of the objects of addiction, other than as a clinical feature. Diagnostic systems need to identify the core features of addiction and then illustrate these with substance-related and behavioral expressions of this diagnostic class. Conceptualizing addiction this way avoids the incorrect view that the object causes the addiction and shifts the diagnostic focus more sharply toward patient needs.

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