

No level has primacy in what is called addiction: “Addiction is a social disease” would be just as tenable

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Heilig and colleagues [1] give us an erudite and wide-ranging defence of the proposition that addiction should be described as a brain disease. I have little disagreement with most of what the article has to say. But it has a crucial fault, in my view: it slides easily from the proposition that “neurobiology is an undeniable component of addiction” to the quite different statement, “addiction is a brain disease”. The latter statement is a claim that the neurobiological level is the driving force in what is called addiction. But an equally strong argument could be made for other levels as driving forces for what gets called addiction. Consider, for instance, the north American opioid epidemic of recent years. There is a strong argument to be made that major driving forces in the epidemic’s occurrence were the unique US marketing provisions for prescription opioids and the avarice of market actors (e.g., [2], [3]). Or consider the effects of religious movements such as Islam or social movements such as the 19th century temperance movement in driving down rates of alcohol addiction. Using such examples, it can be argued quite strongly that “addiction is a social disease”. Someone from another background could equally argue that “addiction is an infectious disease”, since the substance use behaviours are usually passed along from one to another, and use is most often social and often commensal. But in fact elements of what gets called addiction are located at each of such levels.

A prime motivation for Leshner’s statement that “addiction is a brain disease” was about funding for research. For Leshner, as head of the National Institute of Drug Abuse (NIDA), the “brain disease” formulation was the argument that was perceived as most likely to secure more resources for NIDA from the US Congress, and also a justification for the increasingly large share of resources for alcohol and other drug research which have gone into neurobiological research [4]. Meanwhile, study of the “social and interpersonal factors” has considerably lagged [5]. A secondary motivation for pointing attention to the neurobiological and other levels within the individual, particularly for addictions which have a legal market, such as tobacco, alcohol, pharmaceuticals, and now cannabis in the US, is that it diverts attention away from legal market actors and forces that profit from the substance as a commodity. This dynamic could be seen clearly in the alcohol industry support of the early American alcoholism movement’s framing of alcohol use in terms of a defect in the individual, rather than anything to do with the promotion of their product [6].

To redress the balance, there is a need for more substantial societal investment in epidemiological, social and policy research, with particular attention to studies which test strategies to reduce levels of addictive behaviours and comestibles and the associated problems. Given the social aspect of these behaviours and problems, this involves research methods which look beyond the individual

level. Study designs which evaluate effects of factors at cultural and policy levels need to be given a stronger priority, looking beyond individual-level designs.

So, an appropriate response to Heilig and colleagues is: value multilevel studies and yes, we should certainly acknowledge that neurobiology is an undeniable component of addiction. But that does not mean that we should characterise addiction as a brain disease, assigning primacy to that level, any more than we should characterise addiction as a social disease.

Funding and Disclosure

There was no funding support for preparation of this letter. The author's position at La Trobe University is supported by a grant to the Centre for Alcohol Policy Research, La Trobe University, from the Foundation for Alcohol Research and Education, an independent not-for-profit Australian foundation working to stop the harm caused by alcohol. There are no competing financial interests to disclose.

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