



Editorial: Special Issue on Addiction

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Publication of this special issue coincides with the long-awaited publication of the fifth version of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM 5; American Psychiatric Association, 2013). It is interesting to note that although most members of the public have an idea what 'addiction' is, the term makes no appearance as a diagnostic label in DSM 5 and indeed it did not appear in previous versions of the DSM either. What most people would think of as 'addiction' is captured by the diagnostic category of substance use disorder in DSM 5. This label views alcohol and drug problems as operating on a continuum, with patterns of non-dependent substance use that may pose some risk to health at the beginning of a continuum, and severe dependence at the opposite end of this same continuum. Many researchers would agree that there is no reliable qualitative distinction between heavy but non-dependent substance users and severely dependent users, so the formal abolition of this distinction in DSM 5 has generally been favourably received. The treatment of substance use disorders as operating along a continuum is also useful for experimental psychopathology researchers, because it means that the core psychological processes that underlie the transition from benign to more harmful and dependent patterns of substance use can be studied and modelled in different groups of substance users, ranging from those who use substances only 'socially', up to and including patients who are receiving detoxification treatment for the physical symptoms of dependence.

How does substance use disorder develop, and what psychological processes cause it to worsen? A number of theoretical models have risen to prominence over the past few decades, including those based on dysregulation of the reward system and accompanying problems with mood regulation (Koob, 2013), the incentive-motivational properties of drug-related cues (e.g. the sight and smell of alcoholic drinks) (Berridge, Robinson, & Aldridge, 2009), deficits in behavioural control ('disinhibition') (De Wit, 2009) and the strengthening of automatic appetitive processes (Stacy & Wiers, 2010). One recent review of the literature was able to incorporate predictions from many of these models, resulting in perhaps the most comprehensive account of addiction to date (Goldstein & Volkow, 2011).

This special issue contains contributions from internationally recognised groups of researchers who have investigated many of these psychological processes in a range of different populations. Young adults begin their relationship with alcohol in social contexts, so the first paper in the special issue (Larsen et al.) is an investigation of social influence processes on alcohol consumption in the laboratory. They found that levels of social engagement were not related to imitation of drinking behaviour.

The paper by Jones et al. tested the influence of alcohol cues on craving, disinhibition, and alcohol consumption in the laboratory. Contrary to expectations, alcohol cues did not increase disinhibited responding although they did lead to increased alcohol craving and alcohol consumption. The paper by Watson et al. describes an investigation of the motivational mechanisms that underlie automatic approach tendencies evoked by smoking-related cues. Their results reveal that smoking approach tendencies were increased immediately after participants had smoked a cigarette.

The next two papers investigate the relationships between negative affect and alcohol use disorders. Coskunpinar et al. show that the personality trait of negative urgency (the tendency to act impulsively when in a negative state) mediates the relationships between negative affectivity and problem drinking, and it is also directly correlated with the strength of attentional biases for alcohol cues. The study reported by Woud et al. tested the hypothesis that negative affect words would prime the activation of alcohol-related concepts in alcohol-dependent patients, a hypothesis that was not supported in this study.

The final paper in the special issue (Littel et al.) also studied a population of alcohol-dependent patients, and they used electrophysiological methods to study motivated attention for alcohol-related and other valenced cues. Contrary to expectations, they found no difference between alcohol-dependent patients and controls in P3 amplitudes evoked by alcohol-related cues, and indeed at fronto-central sites these event-related potential amplitudes were blunted in alcohol-dependent patients compared to controls, a finding which resonates with some previous studies that used other measures of attention.

This collection of papers provides an indicative snapshot of the hot topics and research methods that are advancing our knowledge of substance use disorders, and they reveal the important niche that experimental psychopathology occupies. I hope that you enjoy reading them and that they stimulate you to conduct related projects and submit them to the journal. Finally, I should point out that the two papers in this special issue that I co-authored (those by Jones et al. and Littel et al.) were handled by Editor-in-Chief Andy Field, and we are not related!

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