

Individual Differences in Substance Use and Emotion

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Statement of Originality

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University's Digital Repository**, subject to the provisions of the Copyright Act 1968.

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Lachlan Tiffen 28/03/2017

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You are my reason and my support.

You give me purpose and make it all possible.

Love, Lachie (Didda).

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Abstract

This Doctor of Philosophy in Clinical Psychology thesis was designed to explore relationships between individual differences in emotion and specific psychoactive substance involvement, which aligned it with addiction epidemiology research. The guiding research question was ‘why do some people transition to harmful substance use while others do not’. The thesis centred on translating substance related knowledge from affective neuroscience, through a discrete emotion systems model (Panksepp, 1998), to clinical psychology nomenclature. The framework came from Self Medication Hypothesis (SMH; Khantzian, 1997) propositions that the foundation of addiction vulnerability was dysfunctional self-regulation manifest in personality, which have psychopharmacological specificity. The research program contained three studies, each exploring one of three aspects of emotion enquiry; subjective experience, behaviour and physiology (Mauss, Levenson, McCarter, Wilhelm & Gross, 2005) in relation to substance involvement risk. Study 1 examined subjective experience of personality, temperament, emotional regulation and parenting. Study 1 identified emotion related constructs that significantly correlated to and regressions models that could predict significant variability in participants’ involvement with various substances. Study 2 piloted a behavioural categorisation of International Affective Picture System (IAPS; Lang, Bradley & Cuthbert, 2008) stimuli. Study 2 produced image sets representing one neutral and seven discrete emotions providing preliminary support for dual, discrete and dimensional, models of emotion. Study 3 used these image sets to elicit electrodermal activity in a pilot experiment exploring links between participant substance involvement and psychophysiological response to emotional stimuli. Study 3 indicated some differentiation of electrodermal activity components between various substance types, however, results were tentative. The research program evidence recommends separate analysis by gender and specific substances in future addiction research. It also provided evidence supporting reconceptualised SMH propositions. Although the translation of affective neuroscience through personality required refinement, other individual difference constructs that related to substance use offer interesting avenues for further investigation. This was the real legacy of the thesis; providing unique insights built on diverse, but interrelated foundations to act as guidance for future research into this most insidious and elusive problem for society.