RAT PARK: How a rat paradise changed the narrative of addiction

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## Introduction

'Rat Park' (Alexander, et al., 1978) is the name given to a series of studies beginning in the 1970s and led by Bruce K. Alexander in his laboratory at Simon Fraser University, Vancouver, Canada, where he found that rats living in a social environment were less likely to self-administer oral morphine than those housed in isolation. Alexander and his colleagues interpreted these findings as evidence of the importance of environment in the development and maintenance of addiction, and their neat, intuitive concept has captured public imagination. Popular *TED* talks (Hari, 2015) about addiction cite the study, and the experiments have even been turned into a comic and animation with millions of views. Organizations campaigning for more progressive drug laws use the paper as a touchstone (Hall, et al., 2017), for the importance of consideration of environmental factors in the development and responses to substance use disorders (Global Commission on Drug Policy, 2017).

## Conclusion

Rat Park is no doubt an important and interesting set of studies, and the core message it suggests—that addiction is more complicated than a biological response to consumption of a drug—is a hugely important one, but that does not mean that we should not read the study itself with a critical eye, or use it to suggest that environment is the only important factor in the development and maintenance of problematic drug use....

Rat Park was broadly aligned with other behavioral pharmacology findings at the time it was conducted... It highlighted important considerations when designing experimental manipulations and the influence that environmental factors might have on rat models of addiction. However, whether it is truly an accurate model of human addictive behavior is more questionable. It is certainly true that numerous studies since Rat Park have shown the importance of environment in influencing human drug use, particularly in early years, but when considering socio-ecological models of health, drug use, drug choice, maintenance and development of problematic use or disorder, these are not simply a product of social environment (or lack thereof), but a complex interaction of individual risk (genetic and environmental) integrated within a larger social system, which are themselves complex and multi-levelled. However, this is not to construct a 'straw man' out of Rat Park—it has endured because advocating policy change requires a 'good story' and a simple narrative that has, or should have, at least some basis in evidence (Cairney, 2017).