# Article information:

Stress associated changes in Pavlovian-instrumental transfer in humans - Stephanie L. Quail, Richard W. Morris, Bernard W. Balleine, 2017  
<https://journals-sagepub-com.libezproxy.open.ac.uk/doi/full/10.1080/17470218.2016.1149198>

# Article summary:

1. The study examined the influence of reward-paired cues on instrumental performance in humans using a novel behavioural task involving a virtual vending machine.

2. The results showed that reward-paired cues separately biased action selection and influenced the rate of responding for rewards, with stress and anxiety levels affecting cue-driven response vigour.

3. Individual differences in stress experiences, as measured by the Depression Anxiety and Stress Scale (DASS), were associated with changes in cue-driven response vigour, providing initial evidence that stress affects the influence of cue-driven response vigour in humans.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article "Stress associated changes in Pavlovian-instrumental transfer in humans" by Quail, Morris, and Balleine (2017) presents a study on the influence of stress on cue-driven reward seeking behavior in humans. The study utilized a novel behavioral task involving a virtual vending machine to assess the effects of reward-paired cues on instrumental performance. The authors aimed to investigate whether stress levels, as measured by the Depression Anxiety and Stress Scale (DASS), were associated with changes in incentive motivation and action selection in response to reward cues.

One potential bias in the study is the small sample size of 24 participants, which may limit the generalizability of the findings. Additionally, the use of college students as participants may introduce bias due to their homogeneity and potentially different stress levels compared to a more diverse population. The reliance on self-report measures such as the DASS for assessing stress levels also introduces subjectivity and potential biases related to individual perceptions of stress.

The article lacks discussion on potential confounding variables that could have influenced the results, such as individual differences in cognitive abilities or previous experiences with similar tasks. Furthermore, there is limited exploration of alternative explanations for the observed effects, such as other psychological factors that may have influenced cue-driven behavior aside from stress.

The study does not provide detailed information on how stress was induced or manipulated during the experiment, which raises questions about the validity of the stress manipulation and its impact on cue-driven behavior. Additionally, there is a lack of consideration for potential ethical implications of inducing stress in participants during research studies.

The article focuses primarily on the effects of stress on cue-driven behavior without adequately discussing potential limitations or alternative interpretations of the results. There is also a lack of exploration of how individual differences in coping mechanisms or resilience to stress may have influenced performance outcomes.

Overall, while the study provides valuable insights into the relationship between stress and cue-driven reward seeking behavior in humans, it is important to consider its limitations and potential biases when interpreting the findings. Further research with larger and more diverse samples, along with more robust experimental designs, would be beneficial for confirming and expanding upon these initial findings.

# Topics for further research:

* Effects of stress on cognitive abilities and decision-making
* Alternative explanations for cue-driven behavior aside from stress
* Ethical considerations of inducing stress in research participants
* Individual differences in coping mechanisms and resilience to stress
* Methods for manipulating stress in experimental settings
* Influence of previous experiences on cue-driven reward seeking behavior

# Report location:

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