Reanalysis of Psychological Paper: Computer Game Play Reduces Intrusive Memories of Experimental Trauma via Reconsolidation-Update Mechanisms

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Abstract

There are a few moments in the creation and recollection of memory where this process can be interrupted. This can be used to help people who are suffering from the results of tramatic memories. This study examined the process of reconsolidation, the recollection of a memory, to determine if there is a way to inturrupt this process using a cognitive task. The cognitive task used in this experiment was a simple game of Tetris.

Keywords: reconsolidation, cognitive task

Word count: X

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Methods

Participants

52 participants (31 female, 21 males) which consisted of university students and the general public. 65% of the participants were students.

Material

The details of the trauma exposure and the reconsolidation task are detailed in James et al. (2015)

Procedure

The experiment was performed both in the lab and at home in the form of a diary. They watched a traumatic film and were then assinged to either the cognitive task group or the no task (control) group.

Data analysis

We used R (Version 3.5.2; R Core Team, 2018) and the R-packages *data.table* (Version 1.12.2; Dowle & Srinivasan, 2019), *devtools* (Version 2.0.1; Wickham, Hester, & Chang, 2018), *dplyr* (Version 0.8.0.1; Wickham, François, Henry, & Müller, 2019), *ggplot2* (Version 3.1.0; Wickham, 2016), *papaja* (Version 0.1.0.9842; Aust & Barth, 2018), *summarytools*

(Version 0.9.2; Comtois, 2019), *usethis* (Version 1.4.0; Wickham & Bryan, 2018), and *xtable* (Version 1.8.3; Dahl, Scott, Roosen, Magnusson, & Swinton, 2018) for all our analyses.

Results

Using a between subjects one-factor ANOVA, with intervention type as the independent variable, I did not find that there was a significant difference between the four intervention groups (No-task control, Reactivation Plus tetris, Tetris only, Reactivation only). There was no main effect of intervention type $F(1, 70) = 0.11$, $MSE = 11.42$, $p = .744$, $\hat{\eta}^2_G = .002$.

Discussion

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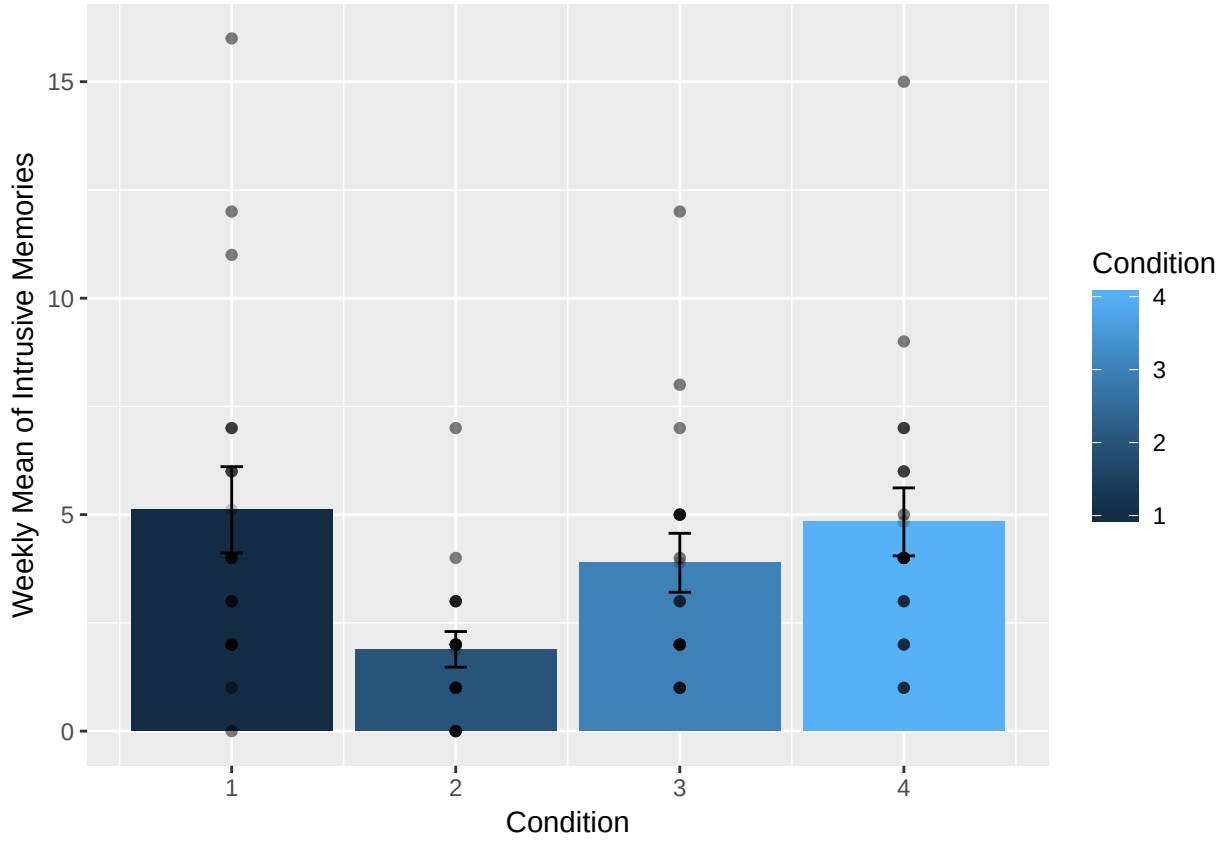
Weekly Mean of Intrusive Memories
15
10
5
0
1
2
3
4
Condition
Condition
4
3
2
1

Figure 1