

Support is not in the eye of the supporter

The impact of social support interactions on acquired threat

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Conclusion

- Pavlovian conditioning elicited intrusive memories (intrusions) of the Conditioned Stimuli (CS)
- Levels of **social support** did not differentially influence fear extinction or number of intrusions of the CSs.
- Instead, the **perception of support** influenced number of intrusions. This effect was even greater for those reporting no intrusions at all.

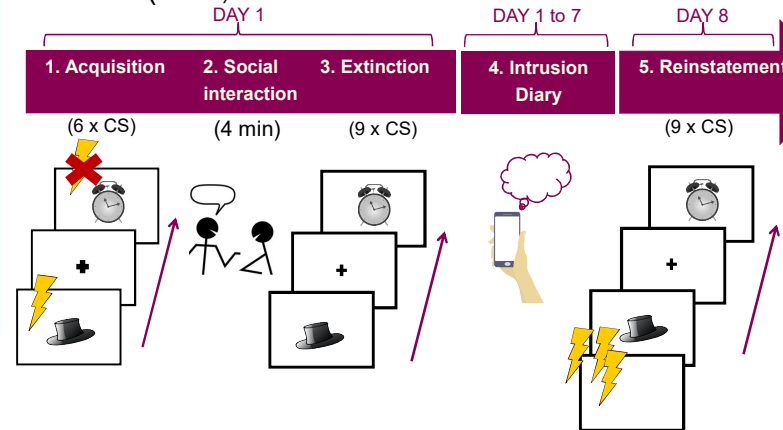
Background

- Social support works as a “buffer” by having a moderating effect on stress (1), cardiovascular reactivity (2) and experience of pain (3) during aversive experiences.
- Unclear how social interactions **after** fear conditioning impact expression of emotional memory.
- Our research could have implications for how to optimize preventive tools for clinical interventions for anxiety disorders such as PTSD.

Research Questions

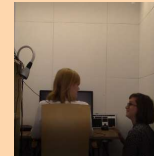
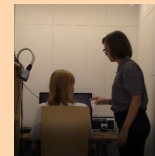
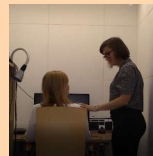
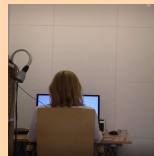
- How do social interactions affect fear extinction, fear reinstatement and number of intrusions of the CS?
- Can CS (images of neutral objects) (differently?) generate intrusive memories?

Method (N= 77)



Procedure:

- Acquisition.** Participants underwent Fear Conditioning, during which one of two CS was followed by an electric stimulation to the wrist.
- Social Interaction.** Three experimental social support conditions: *Active Support (AS)*, *No Active Support (NAS)* or *No Social Interaction (NSI, control group)*. Minimal verbal exchange. See pictures for illustration of the experimental setting and social interaction during AS manipulation:



- Extinction.** Nine non-reinforced presentations of the two CS.
- Intrusion Diary.** Participants filled in the daily diary reporting the number of intrusive memories of the two CS, for 7 days following phases 1-3.
- Reinstatement.** Three unexpected electric stimulations followed by 9 non reinforced CS presentations

Results

- Pavlovian Conditioning

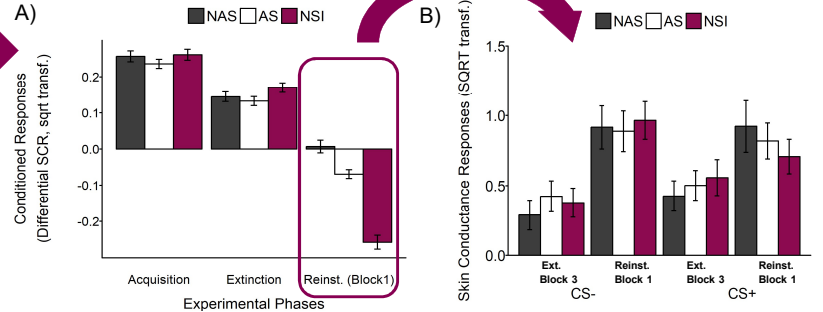


Figure A & B. Skin conductance results for the three experimental phases of Pavlovian Conditioning, by Social Support conditions

- Intrusive memories Diary

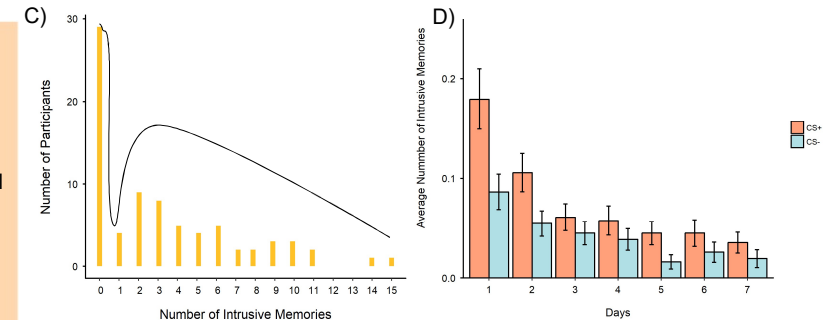


Figure C. Zero-inflated negative binomial distribution of total number of intrusive memories.

Figure D. Average Number of intrusive memories throughout the week, for both CS.

Future Perspective

- The absence of intrusions during the first week after an aversive experience is an indicator of decrease risk of later developing PTSD symptoms.
- Therefore, it is important to identify **protective factors** helping decrease the risk of developing intrusions.

References:

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- (2) Kamarck, T. W., Manuck, S. B., & Jennings, J. R. (1990). Social support reduces cardiovascular reactivity to psychological challenge: a laboratory model. *Psychosomatic medicine*, 52(1), 42-58.
- (3) Che, X., Cash, R., Ng, S. K., Fitzgerald, P., & Fitzgibbon, B. M. (2018). A systematic review of the processes underlying the main and the buffering effect of social support on the experience of pain. *The Clinical journal of pain*, 34(11), 1061-1076.



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