

Abstract and Introduction

The goal of the present poster is to test the interrelationships between phobias, subjective experiences of fear in response to phobia-relevant video stimuli, and avoidance behavior. Research on fear has led to two families of competing models. One model proposes that fear is a central state in which subjective and behavioral measures of fear go hand in hand. Another model proposes that subjective experiences of fear are not strongly linked with behavioral measures of fear^{1,2}. Prior studies have shown evidence for both models in different experimental contexts. Drawing on constructionist models of emotion, we recently proposed a context-specific model to account for these heterogeneous findings. Our model suggests that the relationship between subjective experiences of fear and behavioral measures of fear in response to threat, such as avoidance, will depend on the context. Here, we test our situation-dependent model in three, threat-relevant contexts – each with concomitant specific phobias: fear of heights (acrophobia), social situations (agoraphobia), and spiders (arachnophobia). We hypothesize that the relationship between phobia, subjective fear, and avoidance behavior will vary by context.

Methods and Materials

Sample and overview

- N = 55 participants were recruited from Amazon Mechanical Turk. Two did not meet the age range inclusion criteria leaving an included sample of 53 (15 females, 0 nonbinary), ages 28-64 years old.
- Participants watched a total of twenty-one, 20-second point-of-view videos depicting potentially threatening situations involving heights, social situations, and spiders. There was an even distribution of contexts, and an equal number (13) of heights, spider, and social threat videos were selected.
- Participants completed all task activities below as part of a larger set of questionnaires.

Task and Measures (Fig. 1)

Phase 1: Phobia Questionnaires

- First, participants answered phobia inventory (heights³, social situations⁴, spiders⁵).

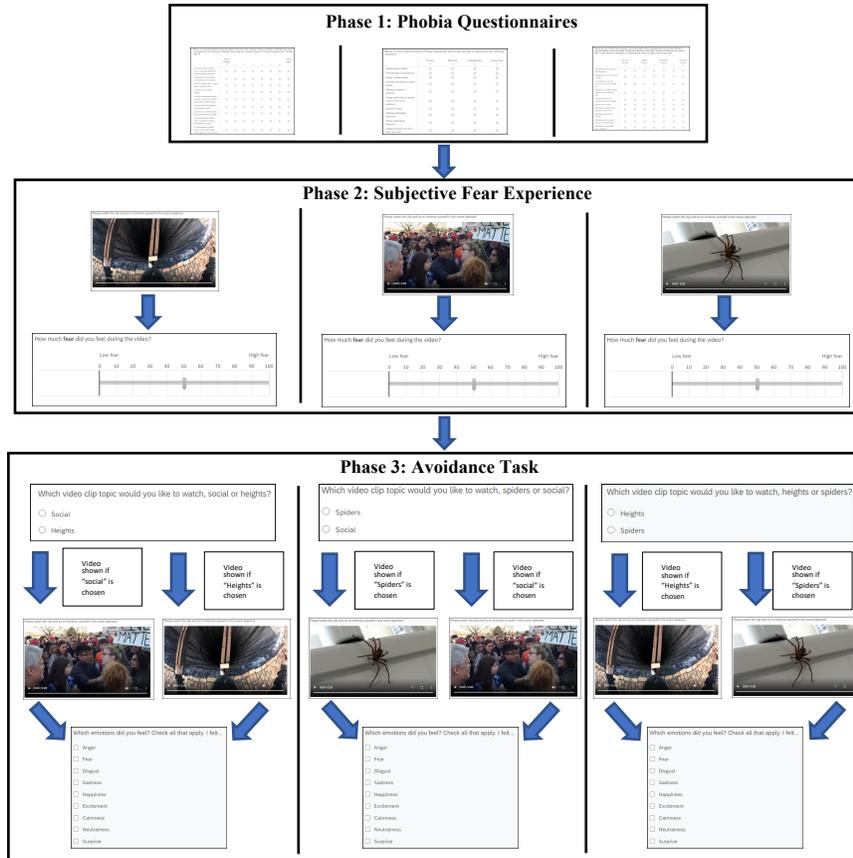
Phase 2: Subjective Fear Experience

- Participants were shown one video from each context in a random order and rated subjective experience of fear on a 0-100 continuous scale. This measure was used for subjective fear in response to one video per context.

Phase 3: Avoidance Task

- Participants were shown a separate set of videos and given a choice to a video from one of the two contexts in 18 randomly shown pairs (6 trials each): social x heights, spiders x social, social x spiders, spiders x heights.
- They were then shown a video from the selected context.
- Participants then rated their affective experience (data not presented here).

Figure 1. Diagram example of methods Phases 1 (phobia questionnaires; clip shown), 2 (subjective fear experience), and 3 (avoidance task; 3 pairs (social x heights, spiders x social, heights x spiders))



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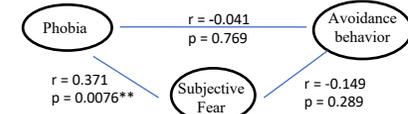
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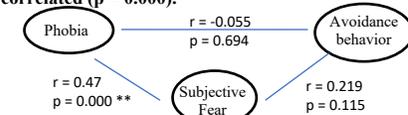
Lab website: <https://web.northeastern.edu/affectiveandbrainscienceslab/>

Results

- For Heights - while both phobia scores and avoidance behavior, and avoidance behavior and subjective fear were negatively correlated, **only phobia scores and subjective fear were significantly positively correlated (p = 0.006)**.



- For Social threat - while phobia scores and avoidance behavior were negatively correlated, and avoidance behavior and subjective fear were positively correlated, **only phobia scores and subjective fear were significantly positively correlated (p = 0.000)**.



- For Spiders - while both phobia scores and avoidance behavior, and avoidance behavior and subjective fear were negatively correlated, **only phobia scores and subjective fear were significantly positively correlated (p = 0.000)**.



Note: * refers to $p < 0.05$, ** refers to $p < 0.01$

Conclusion and Implications

- Phobia scores were significantly positively correlated with subjective fear across all three contexts (Heights, Social threat, Spiders), meaning the higher the phobia scores, the higher the subjective fear.
- These findings are consistent with a context-general model for the relationship between phobia and subjective fear of stimuli, but a context-dependent model for the relationship between phobia and behavioral avoidance of stimuli.
- Future steps: we will use fMRI to investigate the neural bases of fear avoidance, and whether different brain patterns of activation, in this case the choice to avoid, predicts fear.
 - A better understanding of people's decision-making could help improve clinician's understanding and ability to help clients who use avoidance decision-making and behavior.

References

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