Avoidance: From threat encounter to action execution

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Authors’ contribution


The TeARS model was developed by I.A. in discussion with the co-authors. I.A. wrote the first draft of the manuscript. Subsequent revisions were based on the feedback of all co-authors.


I.A. and T.B. designed the experiment. I.A. executed the research. I.A. and A.M.K. analyzed the data. I.A. and T.B. wrote the first draft of the manuscript. Subsequent revisions were based on the feedback of all co-authors.


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in person and over Skype taught me not only a lot about fear-conditioning, anxiety and its treatment, but also about how to become a more effective researcher. Your endless kindness and support were more than I could wish for. I sincerely hope that we could continue working together in the future, because I know I have much more to learn from you.

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Inna Arnaudova was born in Varna, Bulgaria. She graduated with University Honors in Psychology and Broadcast Journalism from American University, Washington, D.C.. Afterwards, she completed her Master’s program in Clinical Psychology at Leiden University, the Netherlands. She worked on her Ph.D. research at University of Amsterdam under the supervision of Prof. Dr. Tom Beckers and Prof. Dr. Merel Kindt from September 2011. She was a visiting graduate researcher in the laboratory of Prof. Dr. Michelle Craske at University of California - Los Angeles from August 2013 to October 2013. During her Ph.D., she also worked as a psychologist. Currently, she is a researcher at University of Amsterdam.

7.12 Other publications


7.13 Selected congress presentations


Arnaudova, I., Krypotos, A.-M., Efting, M., Kindt, M., & Beckers, T. (May 2013). Differential conditioned action tendencies following selective conditioning: Ready to avoid despite novelty. 5th European Human Fear Conditioning Meeting (EHFCM), Aflingen, Belgium. (poster)
Appendix A

Appendix to Chapter 4: Fearing shades of gray: Individual differences in fear responding towards generalization stimuli

A.1 Experiment 1

A.1.1 Sample characteristics

Table A.1: Demographic comparisons between N groups for Experiment 1

<table>
<thead>
<tr>
<th>Neuroticism groups</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Age</td>
<td>22.00 (3.01)</td>
<td>21.91 (2.39)</td>
<td>21.82 (2.79)</td>
</tr>
<tr>
<td>DASS-D ***</td>
<td>1.06 (1.73)</td>
<td>3.96 (3.07)</td>
<td>7.59 (6.30)</td>
</tr>
<tr>
<td>DASS-A **</td>
<td>1.78 (1.96)</td>
<td>3.22 (2.61)</td>
<td>6.88 (7.71)</td>
</tr>
<tr>
<td>DASS-S ***</td>
<td>2.94 (3.92)</td>
<td>5.52 (3.62)</td>
<td>12.82 (8.06)</td>
</tr>
<tr>
<td>EPQ-E ***</td>
<td>15.11 (2.97)</td>
<td>15.57 (2.47)</td>
<td>11.41 (4.30)</td>
</tr>
<tr>
<td>PSWQ ***</td>
<td>33.22 (8.42)</td>
<td>41.39 (10.46)</td>
<td>52.06 (8.87)</td>
</tr>
</tbody>
</table>

Note: **p < .05 ***p < .001

The N groups differed on all measures of negative affect (Table A.1), while no significant differences were observed in age or motivation for the experiment. Gender and counterbalancing variables were equally distributed (all ps > .36).

A.1.2 Details of the stimuli used

The color brightness of CSs and GSs ranged from 0.41 to 52.43 cd/m² with the brightness difference ranging from 1.47 to 9.93 cd/m² (measured with a Milori 171
Appendix A

Trichtomat-1 light sensor on a Color Facts Professional v6.0; Datacolor AG, Dietlikon, Switzerland).

A.2 Experiment 2

A.2.1 Sample characteristics

Table A.2: Demographic comparisons between N groups for Experiment 2

<table>
<thead>
<tr>
<th>Neuroticism groups</th>
<th>Low (SD)</th>
<th>Moderate (SD)</th>
<th>High (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>21.47 (2.90)</td>
<td>23.00 (5.68)</td>
<td>21.27 (2.43)</td>
</tr>
<tr>
<td>DASS-D **</td>
<td>1.47 (1.55)</td>
<td>3.76 (3.60)</td>
<td>6.77 (6.50)</td>
</tr>
<tr>
<td>DASS-A **</td>
<td>1.87 (2.53)</td>
<td>2.52 (2.09)</td>
<td>4.68 (4.73)</td>
</tr>
<tr>
<td>DASS-S ***</td>
<td>4.33 (4.42)</td>
<td>4.62 (3.80)</td>
<td>15.55 (8.86)</td>
</tr>
<tr>
<td>EPQ-E *</td>
<td>16.67 (2.38)</td>
<td>14.38 (4.46)</td>
<td>13.55 (4.50)</td>
</tr>
<tr>
<td>PSWQ ***</td>
<td>28.87 (6.36)</td>
<td>41.95 (9.64)</td>
<td>55.77 (13.16)</td>
</tr>
</tbody>
</table>

Note: *p < .10 **p < .05 ***p < .001

As in Experiment 1, the N groups differed on all measures of negative affect (Table A.2), while no significant differences were observed in age or motivation for the experiment. Gender and counterbalancing variables were equally distributed (all ps > .13).

A.2.2 Details of Physiological Measurements

The FPS signal was amplified with a two-stage method (Blumenthal et al., 2005) through a custom-built amplifier with an input resistance of 10 MΩ and a bandwidth of DC-1500 Hz. After sampling the signal at 1000Hz and applying a 50-Hz notch filter, peak amplitudes were calculated within 250 ms from stimulus onset using VSRRP 9.0b (University of Amsterdam, Amsterdam, The Netherlands).

The SCR signal passed through an input device with a sine-shaped excitation voltage (1V peak-peak) of 50 Hz before being converted to 0.2V/µS by a current to voltage converter. SCR was calculated by subtracting the baseline skin conductance level during one second before stimulus onset from the peak response within 7 s following stimulus onset (Pineles et al., 2009). During testing, participants had their non-dominant hand covered with a towel during SCR measurements. Before the test phase, participants were asked to squeeze with a small ball in order to improve blood circulation in the hands.
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and reacquisition. *Behavioural Processes, 90*(1), 130–141.


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