Is that fear I see?

ray norbury

Abstract

Cognitive theories of depression posit that negative schemata constrain how emotional information is attended to, processed and recollected (Beck et al., 1979). Numerous studies have demonstrated an association between acute depression and preferential processing of negative information and/or impaired processing of positive emotional information (Bradley et al, 1995; Gilboa-Schechtman et al., 2002; Gur et al., 1992; Peckham et al., 2010; Ridout et al., 2003; Surguladze et al., 2004) which persists into periods of remission (Anderson et al., 2011; Bhagwagar et al, 2004; Hayward, et al., 2005). Emerging evidence also suggests that these behavioural abnormalities are present prior to the onset of illness and therefore reflect a trait vulnerability marker for depression. For example, Chan and colleagues (Chan, et al., 2007) reported that high neuroticism (a recognised risk factor for depression) was associated with reduced latency to classify negative vs. positive personality descriptors, reduced positive memory intrusion at subsequent recall and reduced capacity to recognise happy facial expressions as compared to individuals with low levels of neuroticism. We have also shown that late chronotype, also recognised as a risk factor for depression, is associated with increased capacity to recognise sad vs happy facial expressions (Berdynaj et al., 2016; Horne, Marr-Phillips, Jawaid, Gibson, & Norbury, 2017).

Less well understood is whether bias towards emotionally positive stimuli relates to resilience. The concept of resilience can be thought of as a stress coping ability with positive adaptation and outcomes in the face of adversities (Connor & Davidson, 2003) and should act as a buffer against the harmful effects of future stressors. In support of this notion Sherrin and colleagues (Sheerin et al., 2017) in a longitudinal study reported that higher resilience was a protective factor against future internalising psychopathology. Moreover, using the dot-probe task to assess individual differences in attentional bias towards happy or angry facial expressions Thoern et al., (Thoern, Grueschow, Ehlert, Ruff, & Kleim, 2016) observed that healthy participants with a greater attentional bias towards happy faces reported higher trait resilience. This finding may have implications for a number of stress-related disorders and suggests that increasing the tendency to attend to emotionally positive stimuli could render individuals more resilient. However, Thoern and colleagues did not take into account individual differences in neuroticism, circadian preference or depressive symptomatology (three recognised risk factors for depression). The aims of the current proposal, therefore, are to: 1) replicate the findings of Thoern and colleagues, i.e. that increased attention to positive emotional stimuli predicts trait resilience, 2) extend this work to include emotion recognition, and 3) explore the interaction between risk factors for depression, resilience and attentional bias/emotion recognition

Citation: ray norbury Is that fear I see?. **protocols.io**
dx.doi.org/10.17504/protocols.io.pradm2e
Published: 25 Apr 2018

Protocol

Step 1.
Invite your participant to complete the consent form and be ready to respond to any questions.

Step 2.
You should at the same time add the unique identifier (e.g. RN001 – YOUR initials then the participant number. Each participant should have a different identifier – RN001, RN002 …)

Step 3.
Login to the testing computer and navigate to the experimental files on your N-drive/One drive.

Step 4.
Navigate to the first experimental folder (e.g. Is_that_fear_I_see) and within that the first task folder e.g. 1_Dot_Probe. Run the experiment as you have been shown. When prompted enter the subject number (1,2,3,4), the session number will always be 1. Repeat for the remaining experiment. To avoid potential order effects you should counterbalance the order of experiments. A simple way to do this would be to use the order 1,2 for odd numbered subjects and the order 2,1 for even numbered subjects (e.g. RN001 - 1_Dot_Probe; 2_Ambiguity, RN002 ; 2_Ambiguity, 1_Dot_Probe etc.). IT IS IMPORTANT THAT YOU ENTER THE CORRECT SUBJECT NUMBER – IF NOT YOUR FILES MAY GET OVERWRITTEN!

Step 5.
Please remember to name your files correctly, if you think you may be at risk of overwriting a file STOP and CHECK.

Step 6.
At this point you should read the following instructions to your participant (the order of these will depend on the participant number) :Dot Probe“We are now going to show you two faces on the screen at a time. They will be immediately followed by an asterix on either the left or right side of the computer screen. Please indicate with the “z” and “m” keys on the keyboard which side the asterix appeared on (if on the left press z, if on the right press m). Please respond as quickly and as accurately as you can. If you think you have made a mistake do not worry, just wait for the next trail to appear.

Step 7.
Once the experiment has finished you should open the next experiment (remember you do not need to close EPrime to do this you can navigate to the other experimental folder). Enter the participant details just as above At this point you should read the following instructions to your participant:Ambiguity“We are now going to show you some more faces. One face will appear on the screen at a time and it might look a little strange or kind of fuzzy – that is deliberate. Your task is to indicate, by button press, if you think the expression is fearful (if so press the ‘f’ key), or happy (if so press the ‘h’ key). You will then be asked to indicate how confident you are about your decision (press 1 if you are very sure, 2 if sure and 3 if unsure). We are now ready to start. Please place two fingers from your right hand on the f and h keys and three fingers from your left hand on the 1,2 and 3 keys.

Step 8.
When you have finished both the experiments you should have a number of additional files in each experimental folder. The most important ones end with the extension .edat2 (e.g. UR_Dot_Probe-1-1.edat2) and the .txt extension (e.g. UR_Dot_Probe-1-1.txt)

Step 9.
Once you have finished the session thank your participant and give them a copy of the debrief form (make sure you have included the participant identifier on the debrief form).

Step 10.
At the end of your session please email to me all the *.edat2 and *.txt files.

Step 11.
At this point you do not need to do anything else with your data. Please do not rename any files, move any files into different folders or run any macros.

Step 12.
If you are any doubt about these instructions come and speak to me. It is important we avoid losing data.