Attentional biases to positive and negative information in depression: Are there really related to rumination and interpersonal problems?

Audrey Krings¹, Alexandre Heeren², Philippe Fontaine³, Yun-Marie Vandriette³ & Sylvie Blairy¹

¹Psychology and Neuroscience of Cognition, Liège University, Liège, Belgium
²Department of Psychology, Harvard University, Cambridge, MA, USA
³Psychiatry service, CHU of Charleroi, Charleroi, Belgium

Introduction

Research has shown that depression is associated with attentional biases toward negatively and positively-valenced stimuli (Duque & Vazquez, 2015). Yet, symptoms of depression as well as cognitive mechanisms of depression are characterized by a huge heterogeneity in their expression (Rush et al., 2007). Results regarding attentional biases are sometimes incongruent and this may be explained by this heterogeneity.

As a consequence, this study investigates the association between attentional biases to positive and negative information with two often reported mechanisms involved in the maintenance of depression: rumination (Moberly & Watkins, 2006) and interpersonal problems (Locke et al. 2016). Three different kind of material were used for that: pictures, faces, and words.

Method

Three groups (n=69)
- (1) with major depressive disorder (MDD);
- (2) with dysthymic mood (dysphoric);
- (3) without dysthymic mood or past MDD (Control).

- Semi-structured diagnostic interview (M.I.N.I.)
- Self-report scales based on:
  - Depression symptoms (BDI-II) (Beck, 1996)
  - Anxiety (STAI-T) (Zuckerman & Kuhlman, 1987)
  - Interpersonal problems (IIP-32) (Andrews & Withey, 1976)
  - Rumination (RRS) (Petrie et al., 2000)
- Three modified version of the exogenous cuing paradigm (i.e. faces, pictures, and words) with three emotions (neutral, sad and happy). *adapted

Results

Preliminary analysis

Suppression of x Outliers » : <200 ms , > 2000ms

Suppression of x deviated » : 1,96 ET > or < mean of reaction time

Calculation of « cue validity effect » (CV) / « inhibition of return effect »

Results

- F-tests to check the « enhanced cue validity effect », all p > .05
- ANOVA 3 groups (MDD, dysphoric, control) X 3 emotions (neutral, sad, happy) on CV scores in all three tasks, all p > .05
- Correlations analysis between attentional biases and Interpersonal problems
- Corrélation analysis between attentional biases and Rumination

Discussion

No significant Group x Emotion effect

irrespective of the group, relation between attentional biases and other variables were globally inconsistent in each task

Extreme Sensitivity of the paradigm chosen (Koster et al., 2005)

Length of the experimentation - Fatigability

Focusing on depressive symptomatology severity but less on heterogeneity of symptoms (Duque et al., 2010)

Remove anxiety in comorbidity but what about clinical reality?

Collect further data to enhance the statistical power

Focused on anhedonia, attentional control,...