

**Positive and Negative Cognitive Processing Biases in Anxiety and Depression:
Implications for Cognitive Intervention Strategies**

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Abstract

Mood-congruent cognitive bias is a common feature of both anxiety and depression. This presentation will discuss the relative roles of positive and negative cognitive processing biases on depression and anxiety. In an early study, Chan, Ho, Law, and Pau (2013) administered a visual dot-probe task to measure positive and negative attentional biases among 56 women with breast cancer and reported that negative attentional bias was positively associated with severity of posttraumatic stress symptoms and anxiety symptoms. Positive attentional bias was not related to any of the outcome measures. Another subsequent study examined the interaction effect of attentional control and attentional biases on trait anxiety (Ho, Yeung, & Mak, *Advance Online Publication* 2016). One hundred and twenty participants aged 18 years of age or younger completed a visual dot probe task to measure their attentional biases. It was found out again that negative attentional bias, but not positive attentional bias, was related to severity of anxiety symptoms. Both of the above studies show that negative attentional bias plays a more important role than positive attentional bias in anxiety and depression. In the latest study on memory bias among anxiety and depressive adolescents*, the item-method directed forgetting paradigm was used to measure intentional forgetting of positive-valence, negative-valence and neutral-valence words among 142 participants between 12.25 to 17.70 years old (mean age = 14.23 years; SD = 1.25 years). It was revealed that participants with higher level of anxiety tended to exhibit more negative memory bias (i.e. they exhibited more difficulty in forgetting negative stimuli). On the

other hand, more depressive symptoms were related to less negative memory bias, probably due to the avoidance tendency of depressive individuals. Finally, an anxiety x depression interaction effect on positive attentional bias was obtained. Individuals with higher anxiety levels would exhibit less positive memory bias (i.e. they inclined more to forget positive stimuli) only when they were also having high depression level. Anxiety had no relationship with positive memory bias among those non-depressed individuals. It is concluded that negative cognitive processing biases, including both attentional and memory biases, play a more significant role in anxiety and depression than positive cognitive processing biases. Implications on cognitive intervention strategies to reduce depression and anxiety will be discussed.

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References

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