Emotional dysregulation in dysphoria: Support for emotion context insensitivity in response to performance-based feedback

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Abstract

The Emotion Context Insensitivity (ECI) hypothesis predicts that individuals experiencing a sad mood will show diminished reactivity to emotionally evocative stimuli and will not differentiate emotional responses across contexts. Previous work has primarily been limited to studying depressed individuals' emotional responses to film clips, images, and autobiographical memories. The current study builds upon this work by examining emotional reactivity of dysphoric (n = 47) and non-dysphoric (n = 54) individuals to positive and negative feedback about their performance on a task they were led to believe measured social intelligence. Overall, dysphoric individuals reported higher negative emotion and lower positive emotion than non-dysphoric individuals before, during, and after feedback. However, consistent with ECI, dysphoric individuals displayed attenuated emotional reactivity to negative feedback compared to controls. Further, dysphoric individuals' emotional response did not differ to positive and negative feedback, whereas the non-dysphoric group appropriately differentiated their emotional response across these contexts. Findings support the ECI hypothesis and broaden its scope to include emotional reactivity to self-relevant performance feedback.

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Emotion dysregulation has been implicated in various forms of psychopathology such as substance abuse disorders, anxiety disorders, and externalizing disorders (e.g., Gross, 2007). Difficulty regulating emotions is also thought to play a key role in the maintenance and etiology of several mood disorders, such as Major Depressive Disorder. Examples of emotional dysfunction in depression include persistent sad mood, anhedonia, increased crying, and blunted affect. As a result, depression is often conceptualized as a dysfunction of emotion regulation (e.g., Kring & Bachorowski, 1999). This has also led to a closer exploration of the interaction between emotions and mood disorders such as depression (e.g., Byslma et al., 2007; Kring & Bachorowski, 1999, for reviews).

The terms emotion and mood, although often used interchangeably colloquially, have been precisely defined (Gross, 2007; Rottenberg & Gross, 2003; Watson, 2000). Mood is commonly defined as a state that is slow moving, weakly linked to specific elicitors, and capable of lasting anywhere from hours to days. Generally, moods are less intense than emotions. Conversely, emotion describes responses that are more adaptive, briefer in duration, yet stronger, and occur in response to a meaningful stimulus. Emotions are generally displayed through subjective experience (e.g., excitement), physiological arousal (e.g., elevated heart rate), or behavior (e.g., running from a feared stimulus).

Initially, the interaction between mood and emotion was characterized by the mood congruency hypothesis. According to this hypothesis, emotional reactions are strengthened (or potentiated) when mood state and emotional state are congruent and are weakened (or attenuated) when they are incongruent (Rosenberg, 1998). Following this conceptualization, a depressed individual would experience a diminished positive reaction to a pleasant stimulus (positive attenuation), while showing increased sadness in response to a sad or negative stimulus (negative potentiation).

Support for mood congruency in depression has been limited, however, particularly for negative stimuli (Byslma et al., 2007; Rottenberg, Gross, & Gotlib, 2005a). Rather than experiencing negative potentiation in response to negative stimuli, depressed individuals appear to experience the opposite—an attenuated response. Depressed individuals also report smaller changes in subjective sad emotion in response to a sad film (Rottenberg, Kasch, Gross, & Gotlib, 2002). Further, depressed criers showed smaller changes in emotional experience than non-depressed criers (Rottenberg, Gross, Wilhelm, Najmi, & Gotlib, 2002). Attenuated emotional responses among depressed individuals have also been observed in subjective response to visual images and participants’ own thoughts (Rottenberg et al, 2005a). Although there are instances when depressed and non-depressed individuals respond similarly to evocative stimuli (e.g., emotional response to sad images, Dunn, Dalgleish, Lawrence, Cusack, & Ogilvie, 2004; ability to imagine negative future events, Holmes, Lang, Moulds, & Steele, 2008), a recent meta-analysis indicated that depressed individuals in general report a reduced emotional response to negative stimuli (Byslma et al., 2007).

Interestingly, depressed individuals also seem to have an attenuated emotional response to positive stimuli. For example, depressed individuals have reduced subjective emotional responding when viewing hedonically pleasant stimuli, such as food and erotic coeds (Sloan, Strauss, Quirk, & Sajatovik, 1997), amusing film stimuli (Rottenberg et al., 2005a; Rottenberg et al., 2002), and pleasant slide images (Dunn et al., 2004; Sloan, Strauss, & Wisner, 2001). Berenbaum & Oltmanns (1992) found that, in addition to pleasant films, depressed individuals displayed a diminished response to appetitive stimuli, such as sweetened drinks. Based on this literature, Byslma et al. (2007) and Rottenberg et al. (2005a) have concluded that depression also attenuates emotional responding to positive experiences.

Attenuated emotional reactivity appears to have consequences for how depressed individuals regulate their emotions across contexts. Kaviani et al. (2004) found that depressed patients displayed less change in affect from positive to negative film clips, and rated them more similarly than non-depressed controls. Additionally, although depressed individuals reacted with more happiness to normative stimuli than to idiographic stimuli, Rottenberg et al. (2005a) observed no differences in depressed individuals’ self-report of sadness after viewing an acutely sad film of themselves compared to viewing a pleasant film of themselves. Depressed individuals also reported less happiness than non-depressed individuals across all valence contexts, suggesting their emotional responding was