Deconstructing constructive criticism: The nature of academic emotions associated with constructive, positive, and negative feedback

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ABSTRACT

This study's approach to understanding *constructive criticism*, a ubiquitous learning experience but understudied topic in educational research, involved distinguishing it from positive and negative feedback via the emotions associated with receiving feedback. Undergraduates' perceptions of constructive criticism revealed that nearly all included an element of improvement, with many adding aspects of mentioning strengths or weakness and manner of delivery. Second, as students contemplated receiving constructive, positive, and negative feedback, they reported different emotions, both as indicated by different emotion factor structures for each of the feedback situations and by the magnitude to which they endorsed each factor. Third, students who defined constructive criticism as more disapproving endorsed lower levels of pleased satisfaction than students who held more optimistic views of what constitutes constructive criticism. Fourth, students identified as feedback-seekers reported higher levels of pleasant and lower levels of unpleasant emotions than feedback-avoiders after constructive and positive feedback.

1. Introduction

Learning in the classroom, whether at the K-12 or postsecondary level, teems with a wide variety of emotions (Do & Schallert, 2004; Linnenbrink, 2006), and these emotions can stimulate or hinder self-regulated learning, achievement, and well-being (Pekrun, 2006). Achievement-related emotions include both unpleasant[1] emotions such as boredom, shame, and anxiety, as well as the more pleasant emotions of pride, hope, relief, and enjoyment (Pekrun, 2006; Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011). Moreover, emotional experiences are inextricably interwoven with motivational and cognitive processes (Op't Eynde & Turner, 2006).

One situation likely to arouse a variety of emotions is that of receiving performance feedback, a ubiquitous experience in achievement settings (Pekrun, Cusack, Murayama, Elliot, & Thomas, 2014). Typically understood as feedback that provides a path to improvement, *constructive criticism* is particularly felicitous at highlighting the interplay of emotions and learning. Winne and Butler (1994) defined constructive feedback as "information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory, whether that information is domain knowledge, metacognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies" (p. 5740). Constructive feedback has also been defined as "specific, considerate, and avoided attributing poor performance to internal causes" (Baron, 1988, p. 200). Additionally, when asking college students for their understanding of what makes feedback constructive, research has found enough variance in what students reported (Fong, Williams, Schallert, & Warner, 2013) to encourage us to pursue in the current study the question of how students conceptualized what is involved in constructive criticism. Furthermore, little research has examined the emotional responses following different types of feedback and individual characteristics that may influence such affective responses.

1.1. Feedback and emotions

Research has overwhelmingly supported that providing feedback is one of the most powerful influences on learning and an integral part of the teaching/learning process (Bangert-Drowns, Kulik, Kulik, & Morgan, 1991; Hattie & Timperley, 2007; Shute, 2008). In spite of research on effective feedback practices, teachers struggle when evaluating student work as to what might or might not constitute constructive feedback (Sansone, Sachau, & Weir, 1989). As Kilbourne (1990) reported, educators generally believe that constructive feedback is a sensitive and difficult art in teaching, perhaps because of the complexity of emotional and motivational factors students experience when receiving constructive

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[1] In line with Schutz and Davis (2000), and because of our need to refer to positive and negative feedback, we decided to refer to positive and negative emotions as *pleasant* and *unpleasant* emotions, respectively.

feedback. Furthermore, feedback that provides improvement strategies has not always been reported to motivate students (Dujinhouwer, Prins, & Stokking, 2012).

In his control-value theory of achievement emotions, Pekrun (2000) positioned feedback as one of several environmental factors that can have a proximal influence on students' emotions. The theory posits that the control and value appraisals students make of achievement situations mediate the influence that feedback and other social factors have on emotions. Pekrun (2006) further explained that achievement emotions differ according to focus, whether it be on prospective outcomes, retrospective outcomes, or the activity itself. When the focus is on prospective outcomes, emotions are associated with anticipating either success or failure, hope as opposed to anxiety. For retrospective outcomes, emotions come with discovering whether one has been successful or not, pride as opposed to shame. For activity emotions, affective responses are associated with whether engaging in the task is enjoyable, boring, or frustrating, for example. Because feedback is an important aspect of achievement situations, often marking whether one has been successful at a task or failed at it, we reviewed the literature for how emotions were associated with feedback, first examining the more general literature before turning to the few studies that looked at affective responses to feedback in academic situations.

In non-academic domains, scholars have suggested that emotions have a significant impact on a person's ability to receive and process feedback effectively (Sargeant, Mann, Sinclair, van der Vleuten, & Metsemakers, 2008). For example, in a study examining the effect of emotions on physicians' acceptance and use of performance feedback, Sargeant et al. (2008) found that the many participants who received negative feedback experienced unpleasant emotions that were so strong and troubling, they were still remembered 2 years later. Many physicians did not accept and use the feedback, and those who ultimately accepted it did so with great difficulty.

Emotional responses to feedback may mediate the effects of feedback on subsequent behavior (Baumeister, Vohs, DeWall, & Zhang, 2007; Fishbach, Eyal, & Finkelstein, 2010). Pleasant emotions signal sufficient progress towards a goal whereas unpleasant emotions signal insufficient progress (Carver & Scheier, 1998), but when applied to feedback, pleasant emotions from praise may arrest goal pursuit whereas unpleasant emotions from criticism may motivate such pursuit (Cassidy, Ziv, Mehta, & Feeney, 2003). Furthermore, Ilies and Judge (2005) reported that affect mediated how participants adjusted their goals, downwardly if they had received negative feedback or upwardly after positive feedback. A study on organizational behavior found that negative feedback evoked defensiveness, anger, and repudiation of the feedback (Niemann, Wisse, Rus, Van Yperen, & Sassenberg, 2014).

As for the literature specifically focused on academic learning situations, research has shown that both positive and negative feedback trigger emotions that have the potential either to support or interfere with learning (Hargreaves, 2013; Hattie & Timperley, 2007). Turner and Schallert (2001) found that lower self-efficacy and higher levels of both intrinsic and extrinsic goal orientations predicted feelings of shame in undergraduates receiving exam feedback. Moreover, high instrumental value of the course distinguished students who were resilient following failure feedback as compared to those who were not. In a study of secondary school students' emotions to anticipated feedback, Pekrun et al. (2014) assessed the impact of three feedback conditions: self-referential (relative to their individual level of progress), normative (relative to the performance of others), and no feedback (control). Participants reported experiencing significantly greater hope and pride when expecting self-referential feedback. Anticipating normative feedback increased mainly unpleasant emotions. Although their research sheds light on the interplay of achievement emotions while anticipating feedback, it does not account for students' emotional responses upon receiving feedback, which we expected possibly to differ both in strength and valence from anticipated feedback.

1.2. Feedback-seeking: an individual difference characteristic

Given the importance of feedback on learning, feedback-seeking is a relevant individual trait to examine (Ashford & Cummings, 1983; Cassidy et al., 2003). Two underlying psychology perspectives support why individuals may seek feedback. First, research has indicated that individuals tend to seek favorable information about themselves to maintain a high level of self-esteem (Elliot et al., 2000). Thus, they are motivated to receive affirming evaluations. Second, Swann and Read (1981) argued that individuals may desire feedback in order to verify their self-views, even if these views are ego-threatening, with the goal of maintaining logical coherence between self-perceptions and the feedback provided by experience. Research has indicated a relationship between feedback-seeking and self-perceptions of the feedback-receiver (Brown, Ganesan, & Challgall, 2001). Children with a low sense of perceived competence tended to avoid feedback even when the feedback might help them improve (Bandura, 1990). Other studies have shown that students with low ability more willingly sought negative feedback (Cassidy et al., 2003; Ruble & Flett, 1988). Understanding that feedback-seeking may influence how different types of feedback may be received, we investigated its influence in this study.

1.3. Rationale

Understanding student emotions and when and how they occur is important because they influence motivation and learning (Schutz & Pekrun, 2007). As control-value theory would predict that negative feedback may elicit unpleasant emotions and positive feedback engender pleasant emotions, the question remains regarding the emotions elicited by constructive criticism (Pekrun, 2006). Because constructive criticism contains both encouraging and discouraging elements, we explored whether constructive criticism more closely related to positive or to negative feedback in terms of emotional responses. We hypothesized that constructive criticism would elicit its own characteristic set of emotional responses.

With the goal of furthering our understanding of three types of feedback situations, we used undergraduates' survey responses in order to compare their emotional responses associated with positive and negative feedback to those accompanying constructive feedback. We hoped that differences in students' emotional responses could reveal what makes these three kinds of feedback situations distinct from one another. Disentangling the variety of emotions experienced when receiving constructive feedback compared to positive and negative feedback can provide a diagnostic that informs instructors how the feedback they are providing influences students' emotions. We hypothesized that students whose conceptions of constructive criticism included either more disapproving or approving elements would report greater self-reported unpleasant or pleasant emotional responses, respectively. In addition, we examined whether the impact of feedback on emotions differed along a number of individual characteristics such as students' definitions of constructive feedback, level of feedback-seeking, and gender.

2. Method

2.1. Study design

We chose to use a survey design, asking participants to provide their emotional responses to imagined feedback situations, for the following reasons. First, in order to serve as a richer base for their ratings, students were asked to reflect upon the sum of their feedback experiences and not just one single feedback event. Second, we wanted to acknowledge that perceptions of the same feedback statement as either *positive, negative,* or *constructive* would be dependent on individuals' own subjective experiences, and thus, there was no advantage of providing the same artificial feedback given the different interpretations such feedback would