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Is it always good to provide positive feedback to students? The moderating effects of culture and regulatory focus

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ABSTRACT

To extend the previous research findings by Heine et al. (2001) and Idson and Higgins (2000) to educational setting, two experimental studies were conducted to examine the moderating role of culture (Study 1) and regulatory focus (Study 2) on the motivational consequences of success and failure feedback. College students (N = 111 for Study 1 and N = 93 for Study 2) received alleged feedback on their performance of a novel task. Results across the two studies replicated the previous findings and showed that success was motivating to students from the Western culture and students with promotion focus whereas failure feedback was motivating to students from the Eastern culture and students with prevention focus. The current studies provide empirical evidence for the replicability of previous research findings in the educational context. They also point to the future directions for the investigation of self-view and motivation.

1. Introduction

> "*Your chances of success in any undertaking can always be measured by your belief in yourself.*"
>
> [Robert Collier]

Words from the American writer Robert Collier remind us of the conventional wisdom that maintaining a positive self-view is the key to success. This notion is supported by many studies (e.g., Bandura, 1982; Seligman, 1995; Taylor & Brown, 1988). In educational setting, research findings indicate that positive self-view is associated with many desirable outcomes, such as higher persistence in the face of failure (Heine et al., 2001), higher motivation (Peetsma, Hascher, van der Veen, & Roede, 2005) and better performance (Cambra-Fierro & Cambra-Berdún, 2007; Jones, Audley-Piotrowski, & Kiefer, 2012). The motivational benefits of viewing oneself favorably are believed by laymen as well as researchers.

However, the benefits of positive self-view are more complicated than expected. For example, a longitudinal study by Robins and Beer (2001) showed that college students' positive self-view predicted their school disengagement but not their academic performance nor graduation rate. College students with an inaccurate positive self-view also engaged in more self-handicapping behaviors (Kim, Chiu, & Zou, 2010). Gresham, Lane, MacMillan, Bocian, and Ward (2000) reported that third graders with excessive positive self-view reported lower academic competence and motivation. Conversely, some studies on upward social comparison indicated that individuals with negative self-view may exhibit positive consequences on motivation (Blanton, Buunk, Gibbons, & Kuyper, 1999; Marx & Roman, 2002). Taken together, these studies reveal inconsistent findings about positive and negative self-views. Studying the circumstances under which positive or negative self-view is motivating or demotivating is important because it may resolve the inconsistencies and provide useful implications to educational practices. As general self-view might be dynamic and elusive, self-view elicited by specific academic situations, such as unanticipated successes or unavoidable failures, is more feasible for study with experimental manipulation. Thus, the current studies took a step backward by investigating the self-view arising from success or failure feedback and the effects of feedback on motivation.

Although motivation after success or failure is well documented in the literature of social psychology (e.g., Heine et al., 2001; Idson & Higgins, 2000; Van-Dijk & Kluger, 2004), it is less validated in the educational context. Given the need for generalizability and the recent call for replication of previous research findings (e.g., Lindsay, 2015), the current studies are timely endeavors. By studying the moderating

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effects of culture and regulatory focus, the current studies attempted to replicate the findings of Heine et al. (2001) and Idson and Higgins (2000), respectively.

1.1. Culture and motivation

In Western culture, where independent self-construal is emphasized (Markus & Kitayama, 1991), individuals are more attentive to positive information, such as positive features of the self (Heine, Lehman, Markus, & Kitayama, 1999) or success outcomes. In Hamamura, Meijer, Heine, Kamaya, and Hori's (2009) study, American participants were more sensitive to approach-related information and had a better memory for the positive information. Similarly, when American participants were asked to imagine the situation that they did not win a game (a success-forgone situation) or that they did not lose the game (a failure-avoidance situation), they perceived the success-foregone situation as more important (Lee, Aaker, & Gardner, 2000). In Heine et al.'s (2001) study, the American participants were found to be more persistent on a novel task after success feedback.

In Eastern culture, where social acceptance and the interdependent self-construal are emphasized (Markus & Kitayama, 1991), individuals are more attentive to negative information or failure outcomes. The Japanese participants in Hamamura et al.'s (2009) study were found to be more sensitive to avoidance-related information and had a better memory for the negative information. The Chinese participants in Lee et al.'s (2000) study perceived the "not losing" situation (failure-avoidance situation) as more important than the "not winning" situation (success-forgone situation). In educational setting, students from Eastern culture tended to be more likely to pursue avoidance goal (Elliot, Churkov, Kim, & Sheldon, 2001), and their performance in a novel task were better explained by fear of failure (Eaton & Dembo, 1997). Similarly, Heine et al. (2001) found that their Japanese participants were more persistent after failure feedback and also viewed the failure feedback as more important and diagnostic to their performance.

Taken together, individuals from Western and Eastern cultures seem to react differently to the positive and negative information. If they are given positive and negative feedback in academic setting, what would be their self-view and the subsequent motivational reaction? Study 1 adopted a similar paradigm of Heine et al. (2001) and extended the dependent measures by including performance and persistence. The measure of self-view was also included to indicate the impact of success or failure feedback. It was expected that students from the Western culture are more motivated after success feedback whereas those from the Eastern culture are more motivated after failure feedback.

1.2. Regulatory focus, culture and motivation

Another moderator that may explain the relation between feedback and motivation is regulatory focus, a personality variable. The regulatory focus theory postulates two independent regulatory focus, namely the promotion focus and the prevention focus (Higgins, 1998). Driven by the attainment of achievements, accomplishments and the pursuit of the ideal-self, individuals with promotion focus are oriented to fulfill their hopes, wishes, and aspirations. They are concerned with maximizing their positive outcomes with the approach-oriented strategies, such as risk taking and eager advancement (Shu & Lam, 2011). By contrast, individuals with prevention focus are oriented to meet their duties, obligations, and responsibilities. Their behaviors are primarily guided by the pursuit of the ought-self and the avoidance of losses and failures. They are concerned with minimizing the negative outcomes with the avoidance-oriented strategies, such as vigilant stand and prudent move (Shu & Lam, 2011).

The differential characteristics of the promotion and prevention focuses imply that individuals with different regulatory focus react differently to positive and negative outcomes. For example, individuals with promotion focus were more motivated after success (Idson & Higgins, 2000; Shu & Lam, 2011; Van-Dijk & Kluger, 2004) and more inspired by positive role models (Lockwood, Jordan, & Kunda, 2002). Individuals with prevention focus were more motivated after failure and more inspired by negative role models. Interestingly, most of these individual differences resemble to the cross-cultural differences between individuals from Western and Eastern cultures (Higgins & Spiegel, 2004). Indeed, Lee et al. (2000) found that individuals from Western culture emphasize more on promotion-framed information, whereas individuals from Eastern culture emphasize more on prevention-framed information. Despite these empirical evidences, there are few studies investigating the moderating effects of both regulatory focus and culture in the same research program. The current research might be one of the first few research programs that investigate cultural and individual moderators with the same experimental paradigm and same set of dependent measures. As an attempt to replicate Idson and Higgins's (2000) study, Study 2 investigated whether success feedback would be motivating to students with promotion focus while failure feedback would be motivating to those with prevention focus.

2. Study 1

2.1. Design and participants

A 2 (feedback: success vs. failure) × 2 (culture: Western vs. Eastern) experimental design was adopted.

One hundred and eleven participants (61 female and 50 male) were recruited, in which 56 Chinese college students joined this study for course credits whereas 55 North American college students joined for a token of US$10. The Eastern sample were all Chinese and has resided locally for an average of 19.98 years whereas majority from the Western sample were North American and had stayed locally for an average of 3 months. One student from the Western sample was excluded as he was suspicious about the experimental procedure. Another student from the Eastern sample was excluded because the manipulation was not successful. The final sample included 109 participants (60 female and 49 male; $M_{age} = 20.67$). No gender difference was found in the results reported below. For Studies 1 and 2, the number of participants and descriptive statistics for each dependent variable in each condition are summarized in Table 1.

2.2. Procedures

Upon consent, participants were told that they would participate in a study of visual search ability. This ability was said to be the foundation of perceptual coordination, indicative of human visual sensitivity and also moderately correlated with academic performance and many cognitive tests. Participants were told that performing well in the visual search test did not only show that they were highly observant but also had rapid recognition ability. The alleged purpose of this study was to collect data from college students on their performance in the Visual Search Test.

Participants had to complete the tests in two sections. In the first section, they completed the first test in 5 min (baseline performance) and then completed a page of questionnaire about their perception of the importance of the visual search ability.[1] The experimenter graded the

[1] To validate the participants' perception on the importance of the visual search ability, participants were asked how important they thought the visual search ability was in different aspects of daily life (e.g., map reading, shopping in mall, orientating in the wilderness, driving, searching people, and identifying differences in graphics) on a 6-point Likert scale (from 1 = not important to 6 = very important). Participants' ratings were compared to mid-point of the scale using one-sample t-tests. Both Studies 1 and 2 found that participants believed that this ability was important ($M = 4.6$, $SD = 0.67$ for Study 1; $M = 4.55$, $SD = 0.71$ for Study 2) in different aspects of daily life ($t(108) = 17.07$, $p < 0.001$ for Study 1; $t(92) = 14.33$, $p < 0.001$ for Study 2).