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Personality Influences on Self-Regulated Learning

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Abstract

The goal of this study was to examine the relationships among self-criticism, goal orientation, and self-assessment. These variables were assumed to be meaningful within the context of self-regulation of learning. Participants completed scales to measure self-criticism and goal orientation, and a set of logical reasoning questions which provided measures of self-assessment of performance. Results indicated that different types of self-criticism were associated with self-assessment accuracy and with the endorsement of particular goal orientations. Relevance to self-regulation of learning and future research possibilities are discussed.

Introduction

Self-regulation of learning refers to the ability to actively regulate one's own learning by appraising the learning situation and generating thoughts, actions, and feelings toward the attainment of academic goals (Zimmerman, 2000). Self-regulatory learning requires clear goals, self-observation of performance on goal-related tasks, the ability to assess goal progress by comparing current performance to a goal, the evaluation of one's progress as acceptable or unacceptable, and positive beliefs about one's abilities (Schunk, 1995; Bandura, 1997). The purpose of this study was to examine the relationships among three variables which are relevant to the self-regulation of learning: self-assessment, self-criticism, and goal orientation.

Self-Assessment

Successful learners should be those who most accurately self-assess their own abilities and performance and utilize this information in the regulation of their own learning. However, the assumption that most people make accurate self-assessments may not be warranted. Multiple lines of research indicate that despite our intuition that we can accurately assess our own abilities, our self-assessments often do not correlate very well with actual performance. For example, in a series of studies, Kruger & Dunning (1999) found that participants overestimated their performance in several domains, including appreciation of humor, logical reasoning ability, and knowledge of grammar, with the lowest performers providing the most inaccurate self-assessments. This tendency to overestimate one's ability and performance has been demonstrated across a variety of domains and populations, such as the

ability to detect lies (e.g., DePaulo, Stone, & Lassiter, 1985; Eiaad, 2003), health professionals' self-ratings of abilities and knowledge (e.g., Marteau, Johnston, Wynne, & Evans, 1989; Crosby & Yarber, 2001), and college students' judgments of their accuracy in recalling key concepts from a text passage (Rawson & Dunlosky, 2007).

Ehrlinger & Dunning (2003) sought to understand the sources of people's beliefs about their own performance by examining how self-views affected performance estimates. These self-views are general beliefs about one's skills and abilities in a particular domain. Self-views are not necessarily reflective of past experiences, and may be due to self-serving tendencies and distortions of memory. Using a variety of tasks, Ehrlinger et al. (2003) found a strong relationship between participants' pre-existing self-view of ability in a particular task domain and performance estimates following a task in that domain. Further, the relationship between self-view and performance estimates was independent of participants' actual task performance.

Self-Criticism

Ehrlinger et al.'s (2003) conceptualization of self-view focused one's belief about pre-existing ability in a specific domain. The current research considers self-view more broadly as comprising a constellation of beliefs about the self, including such constructs as self-esteem and self-concept (Swann Jr., Chang-Schneider, & McClarty, 2007). One aspect of self-view which has been demonstrated to relate to goals and self-regulatory strategies is self-criticism. Self-criticism is a personality dimension which entails feelings of guilt and negative self-evaluation regarding the perceived failure to meet high standards. Relevant to the present work, using a prospective study design, Powers, Koestner, & Zuroff (2007) found that level of self-criticism was negatively related to participants' self-ratings of progress toward academic, social, and health domains. The authors further suggested that the tendency of self-critics to ruminate and procrastinate may contribute to breakdowns in self-regulation and thwart goal progress. In addition, Powers, Koestner, Zuroff, Milyavskaya, and Gorin (2011) found a negative impact of self-criticism on goal pursuit. Their work also suggested that a healthy self-oriented perfectionism may have a mediating effect on self-criticism. When they controlled for self-oriented perfectionism, they found an even greater negative relationship between self-criticism and goal progress.

Goal Orientation

As is evident in the literature, goal orientation is an important component of self-regulatory learning (e.g., Wolters, Yu, & Pintrich, 1996). For example, goal orientations have been linked to increases in self-regulation and academic performance (Wolters et al., 1996), and researchers have suggested that goal orientation mediates students' likelihood of seeking help in an academic situation (Ryan, Pintrich, & Midgley, 2001). Goals have typically been classified into either performance goals for which the focus is to demonstrate ability relative to others (such as getting good grades) or learning goals (which emphasize gaining new knowledge or skills). These two broad goal orientations have been associated with different outcomes surrounding learning, grade attainment, and motivation. For example, a learning goal orientation has been positively associated with self-regulation of learning (Pintrich, 2000), deeper processing of material (Graham & Golen, 1991) and greater motivation for learning (Ames, 1992).

The purpose of the current study was to examine the relationships among self-assessment of performance, self-criticism, and goal orientation as they may reasonably be expected to influence self-regulation of learning.

Method

Participants

Fifty-nine undergraduate students (46 women, 13 men) participated in exchange for course credit toward fulfillment of an Introduction to Psychology research participation requirement during Spring 2007. Mean age of participants was 23.49 years ($SD = 6.39$).

Materials

The Levels of Self-Criticism Scale (LOSC; Thompson & Zuroff, 2004) is a 22-item scale to measure self-criticism. Participants respond to each item on a 7-point scale ranging from 1 (not at all characteristic) to 7 (very characteristic). Higher scores on the scale indicate greater levels of self-criticism. The LOSC is comprised of two subscales reflecting two forms of self-criticism. Self-criticism can entail a negative view of the self compared to others and it can entail a negative view of the self as compared to personal, idealized standards. The comparative self-criticism (CSC) subscale measures the degree to which an individual holds a negative view of the self as compared to others, while the internalized self-criticism (ISC) subscale measures the degree to which an individual believes that they fail to measure up to their internal standards. Internal consistencies for the CSC and the ISC scale reported by Thompson et al. (2004) are .84 and .88, respectively, indicating good reliability of these scales.

The Achievement Goals Inventory (AGI) (Grant & Dweck, 2003) is an 18-item instrument used to measure four types of performance and learning goals. Grant et al. (2003) identified the need to clarify the operationalization of performance and learning goals. They created an inventory that distinguishes among four goal orientations. The focus of outcome goals is to do well in courses. The focus of ability goals is to demonstrate one's intellectual ability. Normative goals focus on doing well and demonstrating ability compared to others. The focus of learning goals is on mastery and seeking learning opportunities and challenges. Participants respond to scale items on a 7 point scale from 1 (strongly disagree) to 7 (strongly agree). Internal consistencies for the goal type subscales range from .81 to .92 (Grant et al., 2003).

To measure self-assessments of performance, following Kruger & Dunning (1999), a set of twenty logical reasoning questions was developed by adapting items typically found in law school admissions test preparation guides. Each question presented a brief passage containing an argument, followed by a question requiring the respondent to think about the argument by recognizing the point of the argument or drawing an appropriate conclusion, for example. On the last page of the logical reasoning task, participants were asked to estimate the number of questions they believed they had correctly answered.

Procedure

Participants were tested individually. Following informed consent, participants received a packet containing the LOSC, the AGI, and the logical reasoning test. Order of presentation of the LOSC and AGI was randomized. In addition, half of the participants completed the questionnaires first and then the reasoning test, while the other half completed the reasoning test first, followed by

the questionnaires. A set of demographic questions regarding age, gender, and ethnicity was also included at the end of the packet.

Results

Means, standard deviations, and internal consistencies of the scales are presented in Table 1. All scales had acceptable to high reliability with the exception of the comparative self-criticism subscale of the LOSC. Low reliability of a scale reduces statistical power (Bacon, 2004).

Table 1
Means, standard deviations, and internal consistencies of the LOSC and the AGI subscales

	M	SD	Cronbach's alpha
ISC	40.68	12.46	.86
CSC	35.86	8.53	.59
Outcome	6.25	1.05	.91
Ability	4.96	1.21	.77
Normative	4.30	1.18	.91
Learning	5.44	1.05	.89

Note: ISC, internalized self-criticism subscale of LOSC; CSC, comparative self-criticism subscale of LOSC; Outcome, Outcome goal subscale of AGI; Ability, Ability goal subscale of AGI; Normative, normative goal subscale of AGI; Learning, learning goal subscale of AGI.

To determine how well participants self-assessed, their mean estimated number correct on the logical reasoning was compared with their actual number correct. As a whole, participants' estimates of the number of questions they answered correctly ($M = 13.25$, $SD = 3.65$) was significantly greater than the mean number of questions they actually answered correctly ($M = 9.15$, $SD = 2.85$), $t(58) = -7.51$, $p < .001$. Also of interest was the degree to which participants failed to self-assess accurately. To obtain a measure of the degree to which participants inaccurately estimated their performance, a difference score was calculated for each participant by subtracting the actual number of items correct on the reasoning task from the number of items estimated as correct.

Table 2 shows the correlations among the measures of self-assessment, types of self-criticism, and goal orientations. There was not a relationship between participants' estimated and actual performance, $p > .10$. However, the more questions participants estimated has having gotten correct, the larger the discrepancy between their actual and estimated performance, $r(57) = .45$, $p < .01$. In contrast, the more questions participants actually got correct was related to a smaller discrepancy between actual and estimated performance, $r(57) = -.40$, $p < .01$.

Table 2
Correlations between self-assessment measures, self-criticism, and goals

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Actual	–	.18	-.40**	.21	.21	.04	-.07	.05	.15
2. Estimated		–	.45	-.03	-.01	.06	.13	.10	-.06
3. Difference			–	-.28*	-.23	-.11	-.09	-.04	.02
4. ISC				–	.22	.41**	.24	.14	.04
5. CSC					–	-.16	-.15	-.12	-.35**
6. Outcome						–	.56**	.46**	.52**
7. Ability							–	.64**	.32*
8. Normative								–	.39**
9. Learning									–

Note: Actual, actual number correct on logical reasoning task;; Estimate, estimated number correct on logical reasoning task; Difference, difference between estimated and actual number correct on logical reasoning task; ISC, internalized self-criticism subscale of LOSC; CSC, comparative self-criticism subscale of LOSC; Outcome, Outcome goal subscale of AGI; Ability, Ability goal subscale of AGI; Normative, normative goal subscale of AGI; Learning, learning goal subscale of AGI.

** $p < .01$, * $p < .05$

Higher levels of internalized self-criticism were related to smaller discrepancies between actual and estimated performance $r(57) = -.28, p < .05$. Also, there was a marginally significant relationship indicating a tendency of higher levels of comparative self-criticism to be associated with smaller discrepancies between actual and estimated performance, $r(57) = -.23, p = .08$.

Internalized self-criticism was also positively related to outcomes goals, $r(57) = .41, p < .05$. In addition, participants' level of comparative self-criticism was negatively related to learning goals, $r(57) = -.35, p < .01$.

Discussion

The purpose of the present study was to examine relationships among self-criticism, goals, and self-assessment of task performance, as it was assumed that these variables play a role in the self-regulation of learning. To begin, participants did overestimate their performance, and their estimates were not related to their actual performance. This is consistent with previous work finding that estimates of performance often fail to match actual performance (e.g., DePaulo et al., 1985; Marteau et al., 1989; Kruger et al., 1999; Crosby et al., 2001). That individuals are not always accurate in their self-assessments would seem to be a potentially important influencer on self-regulated learning. Self-regulatory processes involve self-assessment in terms of self-observation of performance, comparison of performance to a goal, and evaluation of goal progress, for example (Schunk, 1995; Bandura, 1997). As such, flawed self-assessment could negatively impact successful engagement in these processes. Future research should investigate

how the accuracy of self-assessments may impact on specific self-regulatory processes, such as goal progress.

None of the types of self-criticism or goal orientations were associated with either estimated or actual performance. However, internalized self-criticism was negatively related to the degree of discrepancy between participants' actual and estimated performance. Individuals with higher levels of internalized self-criticism tended to be more accurate in their self-assessments, as reflected by a smaller gap between their estimated and actual performance. The hallmark of internalized self-criticism is negative evaluation of the self as compared to high personal standards. This focus may provide a great deal of experience in comparing one's performance to a standard, thus enhancing the ability to self-assess. The marginally significant negative relationship between comparative self-criticism and size of the discrepancy between actual and estimated performance also suggests that the concern of self-critical individuals with comparison can lead to increases in accuracy of self-assessment. Further, the findings related to self-criticism are consistent with the idea that self-views are a source of variation in self-assessments of performance (Ehrlinger et al., 2003).

Two interesting findings regarding self-criticism and goal orientation emerged. Internalized self-criticism was positively related to the endorsement of outcome goals. It seems reasonable that individuals who are concerned with meeting ideal standards will be oriented toward a goal which emphasizes performance standards in terms of doing well in courses and getting good grades. This is also consistent with research showing a positive relationship between self-oriented perfectionism and self-reported goal progress (Powers, Milyavskaya, & Koestner, 2012). That is, certain types of self-criticism or perfectionism may have a positive impact on self-assessment and on planning to meet goals.

Additionally, participants who were higher in comparative self-criticism were less likely to endorse learning goals. This finding is particularly interesting because the significance of the relationship emerged despite the decreased power which likely resulted from the low reliability of the comparative self-criticism scale. Comparative self-criticism involves holding a negative view of the self as compared to others. This is consistent with the finding of Damian, Stoeber, Negru, and Băban (2014) that socially oriented perfectionism (a similar concept to comparative self-criticism) predicts a performance goal orientation. The fact that comparative self-criticism is less likely to pursue learning for mastery and development has potentially important implications for self-regulation of learning. As described earlier, Pintrich (2000) found that a learning goal orientation was positively related to self-regulatory learning. Grant et al. (2003) also found that learning goals predicted measures of motivation and performance, including persistence and intrinsic motivation. Future research should more closely examine the connection between comparative self-criticism and goal orientation and how these variables may influence self-regulation of learning.

One limitation of the current study is the use of only one measure of self-assessment of task performance in a particular domain. It could be that relationships between self-criticism, goal orientation, and self-assessments might vary with task domain, familiarity, and context and future research should investigate this. Also, the sample was predominantly female, so how the current findings extend to males is uncertain. In addition, due to the correlational nature of the

study, cause-effect relationships cannot be determined. For example, it may be that comparative self-criticism causes one to be less learning goal-oriented. But perhaps, failure to endorse learning goals causes less intrinsic motivation and poor performance, ultimately leading to a negative self-view when one's performance is compared to others. Future research is necessary to better understand causal links between the variables in this study.

In sum, the present study sought to examine three variables which are potentially relevant to self-regulated learning. The relationships which emerged in the study indicate that self-criticism can influence both self-assessment and goal orientation, both of which are important to self-regulatory processes and ultimately to successful learning.

Endnotes

[1] This article updates earlier publication in *Academic Exchange Quarterly* (Winter 2008, Self-Criticism, Goals, and Self-Assessment, Loranel M. Graham, Ph.D.).

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