Social-Comparison Praise Undermines Intrinsic Motivation When Children Later Doubt Their Ability
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Abstract
How does praise for normative excellence versus task mastery affect 4th- and 5th-grade children’s intrinsic motivation? The two studies reported here show that mastery praise enhances motivation, and that social-comparison praise undermines motivation when ambiguity about children’s performance is later introduced.

Introduction

• Performing at the top of one’s class may be highly motivating, but what are the consequences of highlighting children’s normative superiority through praise?

• The achievement goals literature indicates that mastery goals are often more adaptive than goals focusing on normative excellence, especially in the elementary-school classroom (e.g., Deci, 1971; Koestner et al., 1990).

• Existing studies are limited because (1) dependent measures have been collected when children have no reason to question their performance, and (2) social-comparison and mastery praise have not been directly compared.

Hypothesis: We expected that, relative to mastery praise, social-comparison praise would dampen intrinsic motivation and increase vulnerabilities in the face of subsequent ambiguous feedback.

STUDY 1

Method

Participants: 86 4th- and 5th-grade children (51 girls, 35 boys).

Procedure: Children worked on a set of novel puzzles and were given a high score (>80%) and praise (see below). Those in the Neutral Feedback Condition were not given any additional feedback.

Social-Comparison Condition: “That’s among the best work I’ve seen from someone your age!” “Most kids don’t do as well as that!”

Mastery Condition: “You’ve really learned how to solve these!” “You’ve really become an expert at these!”

Next, children worked on a drawing task but did not receive any feedback, in order to create ambiguity about their performance.

Children completed a 9-item self-report scale of intrinsic motivation, assessing their curiosity, challenge-seeking, and mastery goals (Lepper, Corpus, & Iyengar, in press).

Finally, as a behavioral measure of intrinsic motivation, children selected either a long or short version of a task similar to the initial praised task.

Results

Children reported the highest levels of intrinsic motivation in the mastery praise condition, followed by those in the neutral feedback and social-comparison praise conditions, $F(2, 80) = 4.03, p < .05$. (Fig. 1)

STUDY 2

Would social-comparison praise still have a detrimental effect if children were given unambiguous feedback that their performance continued to be outstanding?

Method

Participants: 78 4th- and 5th-grade children (35 girls, 43 boys).

Procedure: Same as Study 1, with two exceptions. Children were told that they earned a “really good score” on the drawing task and were given the opportunity to look through a folder of other scored drawings that confirmed their strong performance.

Results

Social-comparison praise no longer had a detrimental effect on intrinsic motivation, relative to mastery praise and neutral feedback, on either self-reported or behavioral measures of motivation (Figs. 1 & 2).

Children were more likely to select the long versus short task in the mastery praise condition (63%) compared to the social-comparison praise (30%) or neutral feedback (29%) conditions, $\chi^2 (2, N = 86) = 8.92, p < .05$. (Fig. 2)

Conclusions

• Mastery praise led to greater intrinsic motivation than social-comparison praise only when uncertainty about performance was subsequently introduced.

• Praising children for normative superiority may send the message that personal competence is measured by outperforming peers, rather than skill development. This message is harmful when children are in situations that lead them to doubt their ability.

References


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Theoretical Framework

In an academic context, what is more thrilling than to learn that you have earned the top score in the class, that you are smarter than others, or that you were the first to solve a tough problem? To some, there is no higher praise than normative superiority. Of course, there are other ways to express approval, and even to convey competence. Rather than praising students for excellence relative to others, one might focus on more mastery-oriented achievements, such as their acquisition of skills, developing expertise, or conceptual understanding. Different dimensions of praise – such as these – have been the subject of a growing body of research revealing that subtle variations in the framing of praise can lead to similar, complementary, or even opposing consequences for intrinsic motivation (see Henderlong & Lepper, 2002, for a review). The motivational effectiveness of social-comparison versus mastery praise, however, has not yet been empirically tested.

Although not necessarily in the domain of praise, the distinction between normative excellence and individual task mastery has been the focus of several empirical investigations directed at understanding students’ goals in the classroom. In general, researchers have contrasted “performance goals” that involve a focus on demonstrating competence or avoiding demonstrations of incompetence, with “mastery goals” that involve a focus on enhancing competence and acquiring skills (Ames, 1992; Dweck, 1986; Nicholls, 1984). Mastery goals in the elementary-school classroom have been associated with a host of positive achievement outcomes such as persistence in the face of failure, positive affect, self-efficacy, effective learning strategies, and intrinsic motivation (see Ames, 1992; Dweck, 1999; Dweck & Leggett, 1988; Pintrich, 2000). Performance goals, on the other hand, have typically been associated with more negative outcomes such as learned helplessness, negative affect, superficial learning strategies, challenge avoidance, and self-handicapping (Ames, 1992; Dweck, 1999; Elliott & Dweck, 1988; Midgley & Urdan, 2001; Pintrich, 2000).

In recent years, a multiple goals perspective has emerged that casts doubt on a uniformly negative view of performance goals (see Elliot & McGregor, 2001; Harackiewicz, Barron, & Elliot, 1998; Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002). Notwithstanding this debate, investigators continue to agree on the largely adaptive value of mastery goals in the elementary-school classroom. Thus, to the extent that goals highlighting individual task mastery are adaptive, and that goals highlighting interpersonal comparisons have the potential to be maladaptive, mastery-focused praise may facilitate intrinsic motivation to a greater degree than social-comparison praise. Indeed, social-comparison praise may have the potential – much like performance-avoidance goals – to undermine intrinsic motivation.

The extant praise literature is not nearly as clear as the goals literature might suggest. Not surprisingly, motivationally enhancing effects of mastery-focused praise have been found in
studies that have used a no-praise control group as the comparison condition (e.g., Anderson et al., 1976; Danner & Lonky, 1981). Social-comparison praise, however, also has been shown to have motivationally enhancing effects relative to no praise (e.g., Blanck et al., 1984; Deci, 1971; Koestner et al., 1990). A key methodological problem in these studies is that the dependent measures were all collected immediately following the praise induction when participants only had reason to feel good about their performance.

The present research is the first to provide a direct comparison of the relative benefits of social-comparison versus mastery praise, while also examining motivational outcomes after children were led to feel uncertain about their performance on a subsequent task. Our expectation was that, if children learned to gauge personal success by comparing themselves to others rather than by focusing on the acquisition of skills, they would not be well-equipped to deal with a situation in which their normative standing was ambiguous. Specifically, we hypothesized that, under these circumstances, children given social-comparison praise would show less intrinsic motivation than children given mastery praise or no praise.

**Study 1**

**Method**
86 4th- and 5th-grade children (51 girls) worked on a set of novel puzzles followed by a high score (> 80%) and either (1) no additional feedback, (2) social-comparison praise (e.g., “most kids don’t do as well as that!”), or (3) mastery praise (e.g., “you’ve really become an expert at these!”). Next, children worked on a drawing task but did not receive any feedback, in order to create ambiguity about their performance. Children were then asked to complete a 9-item self-report scale of intrinsic motivation, assessing their curiosity, challenge-seeking, and mastery goals (Lepper, Corpus, & Iyengar, in press). Finally, as a behavioral measure of intrinsic motivation, children selected either a long or short version of a task similar to the initial one for which they had been praised.

**Results**
As predicted, children reported the highest levels of intrinsic motivation in the mastery praise condition, followed by the neutral feedback and social-comparison praise conditions (see Table 1). Moreover, children were more likely to select the long versus short task in the mastery praise condition compared to the social-comparison praise or neutral feedback conditions (see Table 2).

**Study 2**
Mastery praise enhanced intrinsic motivation relative to social-comparison praise when subsequent ambiguity about performance was created, but what if children were given unambiguous feedback that their performance continued to be outstanding?

**Method**
78 4th- and 5th grade children (35 girls) participated in a parallel version of Study 1 with two exceptions: children were (1) told that they earned a “really good score” on the drawing task and (2) given the opportunity to look through a folder of other scored drawings that was designed to reveal their strong performance.
Results
As predicted, social-comparison praise no longer had a detrimental effect on intrinsic motivation, relative to mastery praise and neutral feedback, on either self-report or behavioral measures (see Tables 1 and 2). Analyses combining data from Studies 1 and 2 confirmed that children doubted their performance on the drawing task more in Study 1 than in Study 2, $t(162) = 5.97, p < .001$. Moreover, there were significant interactions of Feedback Condition and Study for both the self-reported and behavioral measures of intrinsic motivation (see Tables 1 and 2).

Conclusion
Intrinsic motivation was enhanced by mastery praise and dampened by social-comparison praise only when uncertainty about performance was subsequently introduced. Social-comparison praise may teach children that personal competence is measured by outperforming peers, rather than developing skills. This message can be harmful when children are in situations that lead them to doubt their ability. Motivation and resilience may be maximized, therefore, by avoiding social-comparison praise in favor of praise that emphasizes skill acquisition and development.

Table 1

Self-Reported Intrinsic Motivation by Feedback Condition for Studies 1 and 2

<table>
<thead>
<tr>
<th>Feedback Condition</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social-Comparison Praise</td>
<td>3.48$^a$ (.10)</td>
<td>3.84$^c$ (.09)</td>
</tr>
<tr>
<td>Mastery Praise</td>
<td>3.89$^b$ (.10)</td>
<td>3.85$^c$ (.09)</td>
</tr>
<tr>
<td>Neutral Feedback</td>
<td>3.70$^{ab}$ (.11)</td>
<td>3.84$^c$ (.09)</td>
</tr>
</tbody>
</table>

Within-Study Main Effect of Feedback Condition, [Based on 3 (Feedback Condition) x 2 (Sex) ANOVA]

$F(2, 80) = 4.03, p < .05$, $\eta^2 = .09$

$F(2, 71) = .20, ns$

Note. Ratings were made on a 5-point scale with higher numbers indicating greater intrinsic motivation. Means with different subscripts indicate significant differences based on a tukey pairwise comparison done within each study. Across the two studies, there was a significant 3 (Feedback Condition) x 2 (Study) interaction: $F(2, 151) = 3.03, p = .05, \eta^2 = .04$. 
Table 2

*Behavioral Intrinsic Motivation by Feedback Condition for Studies 1 and 2*

<table>
<thead>
<tr>
<th>Feedback Condition</th>
<th>Study 1 % Choosing Long Task</th>
<th>Study 2 % Choosing Long Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social-Comparison Praise</td>
<td>30</td>
<td>62</td>
</tr>
<tr>
<td>Mastery Praise</td>
<td>61</td>
<td>60</td>
</tr>
<tr>
<td>Neutral Feedback</td>
<td>29</td>
<td>69</td>
</tr>
</tbody>
</table>

Within-Study Test

\[\chi^2(2, N = 86) = 8.92, \quad p < .05\]

\[\chi^2(2, N = 77) = .54, ns\]

*Note.* Choosing a long versus short task to work on in the future was assumed to indicate greater intrinsic motivation. To compare data across the two studies, a logistic regression was conducted. The *Feedback Condition* by *Study* interaction was marginally significant, Wald \(\chi^2\) (\(df = 2, N = 162\)) = 5.29, \(p = .07\).

References


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