

Person Versus Process Praise and Criticism: Implications for Contingent Self-Worth and Coping

Melissa L. Kamins and Carol S. Dweck
Columbia University

Conventional wisdom suggests that praising a child as a whole or praising his or her traits is beneficial. Two studies tested the hypothesis that both criticism and praise that conveyed person or trait judgments could send a message of contingent worth and undermine subsequent coping. In Study 1, 67 children (ages 5–6 years) role-played tasks involving a setback and received 1 of 3 forms of criticism after each task: person, outcome, or process criticism. In Study 2, 64 children role-played successful tasks and received either person, outcome, or process praise. In both studies, self-assessments, affect, and persistence were measured on a subsequent task involving a setback. Results indicated that children displayed significantly more “helpless” responses (including self-blame) on all dependent measures after person criticism or praise than after process criticism or praise. Thus person feedback, even when positive, can create vulnerability and a sense of contingent self-worth.

Researchers have documented adaptive and maladaptive patterns of coping in children and have long been interested in how feedback from adults influences these coping styles. In particular, much interest has centered on the effects of praise and criticism (Butler, 1987, 1988; Koestner, Zuckerman, & Koestner, 1987, 1989; Meyer, 1992; Schunk, 1983, 1984, 1992, 1994, 1996; Weiner, 1972, 1985). Within these two broad categories of feedback, one can distinguish between feedback that is aimed at evaluating the child's traits or the child as a whole and feedback that is directed at the child's strategies or effort. Our research focuses on how these types of feedback, whether praise or criticism, influence children's coping with later setbacks.

We hypothesized that *person*- or trait-related feedback, because it involves a global assessment based on a specific behavior or performance, would teach children to measure themselves by their performance and would thus foster more helpless reactions to setbacks. Such feedback includes praise or criticism that comments on children's abilities, goodness, or worthiness after their performance of a task or that expresses the adult's global evaluation of the child on the basis of the child's performance (e.g., disappointment or pride in the child as a whole). In contrast, we hypothesized that feedback that focused children on examining their strategies or effort (*process* feedback) would foster more mastery-oriented responses to setbacks.

The predictions for criticism are straightforward. Much past research has shown that attributing failure to lack of ability is a defining feature of a helpless response (which includes lowered expectations, negative affect, lowered persistence, and decreased performance) and that attributing failure to one's effort or strategy is a defining feature of a mastery-oriented response (which in-

cludes high expectations, positive affect, persistence, and stable or improved performance; Diener & Dweck, 1978; Dweck, 1975). Thus, feedback that focuses the child on negative self-evaluations or negative trait evaluations should foster more helpless reactions to setbacks, whereas process-focused feedback should promote more mastery-oriented responses.

The predictions for the effects of praise, although similar, are more counterintuitive. A strong belief in our culture is that praising children's abilities (Schunk, 1994), or goodness and worth in general (Briggs, 1970; Joseph, 1994; Youngs, 1991), after good performance or behavior is a good way to bolster self-esteem or self-efficacy and promote learning (Koestner et al., 1987, 1989). There is some fine research to support this belief (Schunk, 1994, 1996), as well as research that indicates that positive ability feedback can lead to greater intrinsic motivation (Deci & Ryan, 1987; Koestner et al., 1987, 1989). However, although such praise can be an effective way to boost a child's sense of efficacy during a successful event, what has been less well researched is how individuals who have been praised in these ways cope with subsequent setbacks. We propose that person praise, because it focuses children on measuring themselves from their performance outcomes, may backfire by leading to vulnerability when performance is poor.

Helpless and Mastery-Oriented Patterns

Researchers have identified two distinct patterns of reactions to failure: a *helpless* pattern and a more hardy *mastery-oriented* pattern (Diener & Dweck, 1978, 1980; Dweck, 1991; Dweck & Leggett, 1988; Elliott & Dweck, 1988; see also Ames & Archer, 1981; Boggiano et al., 1992; Elliot & Church, 1997; Nicholls, 1984; Weiner, 1985). Before failure, children who display these different patterns look very similar. However, when children encounter difficulty, the two groups exhibit very different reactions. The hallmark of the helpless pattern, as suggested, is the tendency to measure one's traits or oneself from negative performance outcomes. That is, children who display a helpless response quickly view their failure as a measure of their ability and con-

Melissa L. Kamins and Carol S. Dweck, Department of Psychology, Columbia University.

Correspondence concerning this article should be addressed to Carol S. Dweck, Department of Psychology, Columbia University, 1190 Amsterdam Avenue, New York, New York 10027. Electronic mail may be sent to dweck@psych.columbia.edu.

clude they are not smart. Along with this, they display plunging expectations and negative affect and show impaired strategies and performance.

In contrast, the hallmark of the mastery-oriented pattern is a tendency to focus on the process (effort or strategy) when faced with difficulty. In addition, children displaying the mastery-oriented response maintain their expectations, positive affect, and positive self-assessments and continue to exhibit constructive behavior when a setback occurs.

Although these distinct patterns were first identified in older children, they have been recently identified in young children as well. Researchers had long believed that younger children would not be vulnerable to helpless responses because, it was thought, they had not yet formed the self-conceptions and cognitive abilities necessary to blame their abilities for failure (Dweck & Elliott, 1983; Nicholls, 1978; Rholes, Blackwell, Jordan, & Walters, 1980). However, recent studies have demonstrated that in situations that young children find meaningful, a sizable proportion of them are indeed vulnerable to self-blame and helplessness (Cain & Dweck, 1989; Heyman, Dweck, & Cain, 1992; Smiley & Dweck, 1994; see also Boggiano, Barrett, & Kellam, 1993; Burhans & Dweck, 1995). In fact, they exhibit the full range of cognitive, affective, and behavioral reactions associated with the helpless pattern.

However, whereas older helpless children are chiefly concerned with their ability or intelligence in the face of failure, young helpless children (4–6-year-olds) appear to be more concerned with their general goodness or badness. Specifically, these younger helpless children have a significantly greater tendency than their mastery-oriented counterparts to role-play punishment for errors (Hebert & Dweck, as cited in Dweck, 1991; Heyman et al., 1992) and to rate themselves as not good and not nice (as well as not smart) after failure (Heyman et al., 1992). Thus, young helpless children can indeed display the hallmarks of the helpless pattern in that they measure themselves from a negative performance outcome and fall into maladaptive responses.

Past Research on Criticism

Several researchers have examined benefits of effort and strategy (process-related) criticism compared with ability (person- or trait-related) criticism for college-age students, although less research has been done with younger populations (Anderson & Jennings, 1980; Clifford, 1986a, 1986b; Meyer & Engler, 1986; Weiner, 1985). For example, Anderson and Jennings (1980) showed that undergraduate students who were led to attribute poor performance to ineffective strategies expected more improvement and more future success than students who were led to attribute poor performance to ability. In a similar vein, Clifford (1986a, 1986b) found that effort and strategy attributions for poor performance led to more positive affect than ability attributions for undergraduates.

What runs through these studies is the finding that students who are directed toward judging their ability or who feel that their ability level has been negatively evaluated are more likely to show lower expectations of future success and more negative affect—in other words, aspects of a helpless response pattern—than students who receive criticism for their effort or their strategies. In contrast, students who are led to focus on their strategy or effort tend to

view future success as more likely.¹ What we suggest is that a critical factor here is the focus on measuring ability and not the just the *valence* of the feedback (i.e., the fact that the feedback is negative). Feedback that focuses students on measuring their ability also can be given in the form of praise for success.

Past Research on Praise

There is evidence for benefits of both ability (Koestner et al., 1987, 1989; Schunk, 1983, 1984, 1996) and effort praise (Butler, 1987) and mixed evidence concerning which is better (which best promotes motivation and performance; Baumeister, Hutton, & Cairns, 1990; Koestner et al., 1987, 1989; Danner & Lonky, 1981; Brophy, 1981).² For example, Schunk (1994, 1996) most often, but not always, found ability praise to be somewhat better than effort praise in promoting self-efficacy and performance during skill acquisition. In contrast, Butler (1987, 1988) found that children receiving process praise showed higher levels of interest and challenge seeking and improved performance on the task than children receiving other forms of praise, such as an evaluation of their performance.

However, most past research has tended to examine the effects of praise while the individual is succeeding. An important question yet to be addressed is how these students will fare when faced with setbacks after praise feedback experiences that have focused on evaluating their traits versus their effort or process. We make no specific prediction about the effects of praise during success; both person–trait praise and effort–strategy praise may have their benefits in this situation. However, we make a clear prediction about the relative effects of person and process praise when setbacks are later encountered.

Contingent Worth

Burhans and Dweck (1995) proposed that contingent self-worth may be a key factor in young children's helplessness. *Contingent self-worth* refers to whether children feel their worth is contingent on their behavior or performance. Burhans and Dweck suggested that helplessness can result from a sense of contingent self-worth, such that when children feel they have failed, they think they are bad or unworthy, and this affects their responses to setbacks. What we propose is that by administering person- or trait-oriented feedback (praise or criticism), adults may be teaching children that their competence, goodness, or worth is determined by their performance.

It is interesting to note that the notion of contingent positive regard from adults fostering maladaptive patterns in children is the cornerstone of several major traditional theories of personality development (e.g., Horney, 1945; Rogers, 1961). This notion is also beginning to occupy a prominent place in theories of depression (Dykman, 1998; Kuiper & Olinger, 1986).

¹ See also Andrews and Debus (1978) and Dweck (1975) for studies of the benefits of attribution retraining, in which helpless children are taught to make effort rather than ability attributions for their failures.

² There are also ways in which praise given in a controlling manner can be undermining (Ryan, Mims, & Koestner, 1983), which we do not consider here.

The Present Research

In the first of the present studies, kindergarten children individually role-played four scenarios (using a doll to represent themselves) in which a child worked on a task, made an error in the process, and then received one type of critical feedback from the teacher (role-played by the experimenter): either person, outcome, or process feedback. Heyman et al. (1992) showed that children's role-played responses to setbacks provided a good index of their helpless and mastery-oriented responses. The major purpose of the present studies was to determine whether manipulating the feedback children received from adults could in fact lead to differences in children's helpless or mastery-oriented responses to subsequent setbacks.

We based our choice of criticism feedback conditions on several things. First, the literature on effort- versus trait-related feedback reviewed above suggested a comparison of process-focused criticism versus person-focused criticism. Second, we based our choice on findings from previous studies that examined children role-playing parental responses to poor performance (Hebert & Dweck, as cited in Dweck, 1991; Heyman et al., 1992). In these studies, it was found that helpless children generated scenarios in which they received more punishment and negative trait judgments from parents, whereas mastery-oriented children role-played more process-focused responses from parents, including more strategy suggestions and encouragement of effort. Thus, we thought it important to test whether these particular patterns of feedback might, in fact, *create* helpless and mastery-oriented responses in our study.

In addition to the two types of criticism that were central to our hypothesis (person criticism and process criticism), we also included criticism that focused on the outcome. Common wisdom has claimed, and researchers have asserted, that directing criticism at the outcome or behavior of the child is better than directing criticism at the child herself or himself (Benson, Galbraith, & Espeland, 1995; Briggs, 1970; Brophy, 1981). Outcome criticism thus provided an interesting comparison with the more global person criticism, as well as with the specific strategy criticism.

Measures of children's performance evaluation, affect, self-assessments, and persistence after a setback were taken on a subsequent test scenario that followed the same format but on which all children received standardized informational feedback. The question was whether children would react differentially to the test scenario as a function of the feedback they had previously received.

In the second study, kindergarten children first role-played four success scenarios in which the child worked on a task successfully and received praise feedback from the teacher. Each child was randomly assigned to an experimental group that determined which type of praise feedback he or she received throughout the praise trials: person praise, outcome praise, or process praise. The praise-feedback groups were designed to be closely related to the criticism groups in the previous study. After the four success scenarios, two "mistake" scenarios were administered, followed by measures of children's performance rating, affect, self-assessments, and persistence.

We were also interested in the beliefs that the different types of feedback might foster. For older children, beliefs about intelligence have been shown to be associated with helpless and mastery-oriented patterns of behavior (Dweck & Leggett, 1988).

Specifically, the belief that intelligence is a fixed trait has been shown to predict vulnerability to a helpless response, in that students who hold this theory have a greater tendency to see failure as measuring their fixed intelligence. In contrast, students who believe their intelligence is a malleable quality are more likely to show a mastery-oriented response.

Past studies with younger children have shown that analogous beliefs are related to helpless and mastery-oriented responses. For younger children, helplessness is related to the belief that badness is a stable characteristic and that badness can be inferred from failure (Heyman et al., 1992). Thus, another purpose of our studies was to determine whether the different forms of feedback would produce not only helpless and mastery-oriented response patterns but also the beliefs found to be associated with them.

Study 1 was intended to be a preliminary test of the hypothesis that person feedback would foster helpless responses compared with process feedback. It was considered preliminary because person feedback after failure is inevitably more negative than process feedback. Therefore, if the hypothesis was supported, it would be difficult to determine whether person criticism produced greater helplessness simply because it was experienced as harsher. Nonetheless, it was considered important to determine whether this paradigm was an effective one for inducing helpless and mastery-oriented responses. Because person-trait praise is not harsher or more negative than process-related praise, Study 2 provided a more stringent test of the hypothesis that person- or trait-related feedback would produce more helpless responses to setbacks.

Study 1

Method

Participants

Sixty-seven kindergarten children (33 girls and 34 boys, mean age = 5 years 7 months) from two public schools in a Northeastern city participated in Study 1. Parental consent forms were obtained for all participants.

Experimenters

Four research assistants, who received extensive training, conducted individual interviews with participants. The experimenters were unaware of the hypotheses of the study.

Procedure

Each participant role-played four scenarios, with dolls and props, in which he or she worked on a task, made an error in the process, and then received feedback from the teacher. This procedure was adapted from the one developed by Heyman et al. (1992) to provide an index of young children's helpless and mastery-oriented responses in response to setbacks. Pretend stories were used so that no judgments or criticism was given directly to the children, but the scenarios were vivid, and all children felt, at some level, as though they were performing the task and receiving the feedback.

Children chose dolls to represent themselves and were given a period of time to practice role-playing with the dolls. The experimenter then narrated four different scenarios for the child to act out using the dolls. The scenarios all followed the same basic theme: The child worked hard on something, either creating a product or completing a task, but made an error in the process.

The tasks in the scenarios were chosen from activities that children this age normally perform in their classrooms and were typical of those on which they are often evaluated. Moreover, at this age, even tasks that might not seem achievement related to an older person could be experienced by young children as measures of their competence, goodness, or worth (see Heyman, Dweck, & Cain, 1992).

The Block Story (sample story)

One day you played with the blocks and built a great big tower. When playtime is over, the teacher, Mrs. Billington, says, "Will you stack up the blocks for me?" and you say "OK, teacher." And so you start to put the blocks over where they are supposed to go, and you begin stacking them up. You really want to do a good job, but when you look down at what you did, you think to yourself, "Uh-oh, the blocks are all crooked and in a messy pile," but you worked hard to put them all away, and you say to the teacher, "Mrs. Billington, I put the blocks away." The teacher looks at the job you did and says, "The blocks are all crooked and in one big mess."

The other scenarios each showed a child working on a task requested by the teacher: cleaning up after snack time, putting away paints after making a picture, and washing hands after finger-painting. After each scenario, the teacher doll delivered one of four types of critical feedback (later condensed into three feedback groups for analysis, as explained below). Children were randomly assigned to an experimental group that determined which type of feedback was received on the four scenarios.

Feedback Conditions

Person criticism. In this condition the feedback conveyed an evaluation of the child based on his or her performance. Because it would not be appropriate to tell participants they were bad (even in a pretend situation), the teacher doll delivered general disapproval, which, although closely related, was far less harsh. In this condition, then, the teacher, at the end of each of the first four pretend scenarios, told children, "I'm very disappointed in you" after they made the mistake.

Outcome criticism. In this feedback condition the act itself, not the child, was the focus of the feedback. Two versions of outcome criticism were given to different groups. In one group, children were told, "That's not what I call doing it the right way" or "That's not the right way to do it." In another group, a modified form of this type of feedback was used, which included an explanation of the mistake: "That's not the right way to do it, because the blocks are not straightened up and are still messy." These forms of criticism yielded the same results and were combined in the final analyses.

Process criticism. In this condition, the focus of the feedback was on the strategy used. After each of the first four scenarios, the mistake was pointed out ("The blocks are all crooked and in one big mess"), and children were then told "Maybe you could think of another way to do it" in a tone that left no doubt that the strategy had been criticized.

Thus, each form of criticism conveyed a negative evaluation of the feature it focused on, a negative evaluation of either the person, the outcome, or the process.

No-feedback test scenario. After the fourth scenario ended, the test scenario (based on one by Heyman et al., 1992) was presented. It followed the same pattern as the previous scenarios, but this time, after the teacher pointed out the mistake, no feedback was delivered.

The Lego House Story (test scenario)

One day you are playing with Legos. The teacher, Mrs. Billington, comes over and says, "Will you make me a beautiful house with those Legos?" You say, "OK, Mrs. Billington." So you work really hard and try to build a good house for the teacher. You put the Legos together to make four walls and then you add a roof. You really want to make the teacher a nice house, but you look down at the house you built, and

you think to yourself, "Uh-oh, I forgot to put any windows on the house," but you want to give it to Mrs. Billington, so you say, "Teacher, I made a house for you!" The teacher looks at the house you built and says, "That house has no windows."

The test scenario ended here, and the dependent measures were administered immediately.

Dependent Measures

Overview. Our dependent measures were modeled on those developed to assess young children's helpless versus mastery-oriented reactions to criticism in previous research by Heyman et al. (1992): children's product ratings, self-assessments, reported mood, persistence, and general beliefs about badness. Heyman et al. assessed preexisting patterns of coping after failure, whereas the present study examined the manner in which the different kinds of feedback influenced children's patterns of coping.

Product rating. Children were asked to rate their product made in the test scenario on a scale ranging from 0 to 5 (the scale used drawings of smiling or sad faces of differing sizes; 0 was the worst rating, and 5 was the best).

Self-assessments. Children were asked four questions designed to assess the extent to which they considered their performance on the test task to reflect negatively on their traits and abilities (e.g., "Think about what happened in the Lego House Story. Did everything that happened in the story make you feel like you were a good girl or not a good girl?"). They were asked whether they felt they were good or not good at making the product, as well as whether they felt like a good or not good girl or boy, a nice or not nice girl or boy, or a smart or not smart girl or boy.

Affect. Children were requested to rate their feelings at the end of the test scenario. They were asked, "How did what happened in the Lego House Story make you feel?" and then chose pictures of happy faces or sad faces. Other emotions were piloted, but no children picked them. The scale ranged from a very large happy face (5 points) to a very large sad face (0 points).

Persistence. Two measures of persistence were used. First, to determine whether children were interested in pursuing the activity to a successful conclusion, we asked them, "Would you like to do the Lego house again or something else instead?" Second, we had the children hold up the dolls and then we asked them, "What happens now?" giving them the opportunity to construct an ending (a solution) to the test scenario. This was designed to examine whether they would persist by generating constructive strategies for resolving the setback. Children's open-ended responses to these items were categorized as persistent (1 point) or nonpersistent (0 points) by raters unaware of each child's feedback-group assignment. For these questions, the criterion for persistence was that the answer contain some mention of a constructive solution or the desire to attempt to try again. Responses that did not indicate an intention to try to correct the mistake were categorized as nonpersistent.

General beliefs about badness. Several questions from Heyman et al. (1992) were designed to investigate the general beliefs related to helplessness in past research. To judge whether children considered badness (negative behaviors) to be stable, we told the children the following:

Imagine a new student is in your class [girls were asked about a girl and boys about a boy]. She [he] steals your crayons, scribbles on your paper and spills your juice. Then she [he] calls you names. Do you think she [he] will always act this way?

In addition, to examine whether children made global assessments of badness on the basis of mistakes, we gave participants a short scenario that depicted a child experiencing an academic failure. Specifically, they were asked the following:

Imagine a new student is in your class. You look over at the school-work he [she] did and see that he [she] got lots wrong and has a big frown on her [his] paper. Does this mean he [she] is bad?

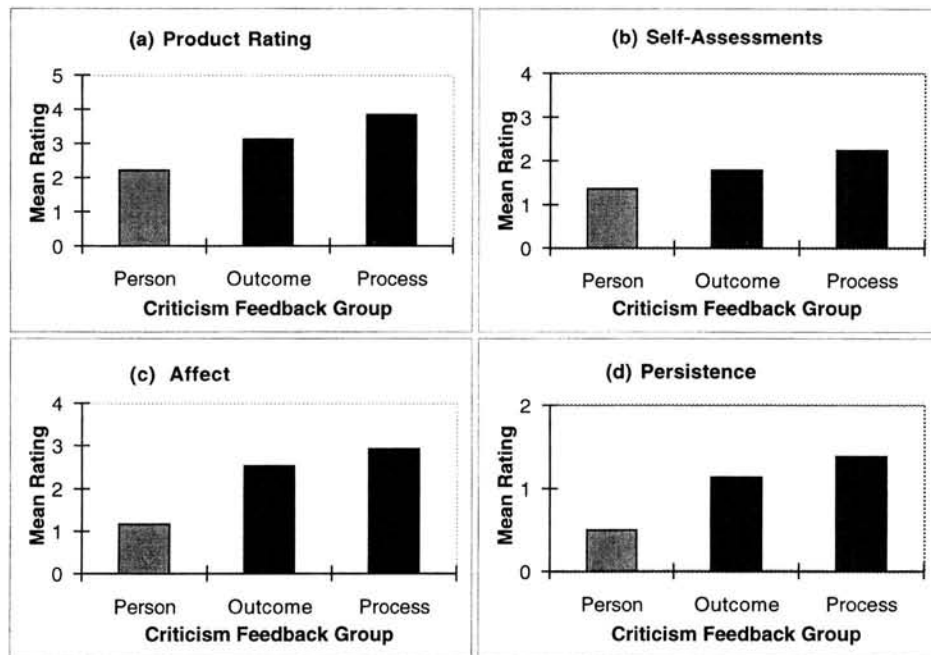


Figure 1. Mean ratings for the three criticism-feedback groups on (a) product rating, (b) self-assessments, (c) affect, and (d) persistence.

Debriefing

Every attempt was made to ensure that participants were not upset by the procedure. All critical feedback was presented in the context of purely pretend scenarios to minimize the possibility that children would feel directly criticized. In addition, after the dependent measures were collected, all the scenarios were repeated with positive responses and process-focused comments. All children were brought through the scenarios to a successful resolution and left feeling they had done a good job helping to make the stories better.

Results

Overview

We conducted a multivariate analysis of variance (MANOVA), which examined the effects of the five dependent variables. The overall MANOVA was highly significant, $F(10, 116) = 4.22, p < .001$. Univariate F tests yielded significant values for each dependent variable: product rating, self-assessment, affect, persistence, and general beliefs about badness. In addition, we conducted planned comparisons of the person-feedback and the process-feedback groups and post hoc comparisons contrasting the outcome-criticism group and the other two groups when the omnibus test yielded a significant effect.

As predicted, planned comparisons showed the person-feedback group to be significantly different from the process-feedback group on the measures of product rating, affect, self-assessments, persistence, and general beliefs about badness. No significant differences were found in children's responses on any dependent measure as a function of age, gender, classroom, or experimenter.

Outcome-Criticism Group

The two forms of outcome criticism ("That's not what I call doing it the right way" and "That's not the right way to do it,

because the blocks are not straightened up and are still messy") were found to yield similar results on product rating, $t(23) = -0.57, ns$, self-assessment, $t(23) = -1.79, ns$, affect, $t(23) = 1.95, ns$, persistence, $t(23) = 0.19, ns$, and general beliefs, $t(23) = -0.45, ns$, and were thus combined in the final analyses. Moreover, the comparison with the other feedback conditions yielded similar results whether these two groups were considered together or separately.

Dependent Measures

Dependent-variable correlations. A correlation matrix of the dependent variables revealed that there was a significant but modest correlation between children's responding on the product rating and the self-assessments ($r = .14, p < .01$). There was also a significant correlation between product rating and persistence ($r = .28, p < .05$). No other dependent variables were significantly correlated.³

Product rating. On this measure, children were asked to rate the product they made in the test scenario on a scale from 0 to 5 (all children had received informational feedback about their mistake). The univariate F test revealed a significant difference among the groups in their mean ratings of their product, $F(2, 63) = 4.31, p < .05$. Figure 1a presents the means for the product rating of the three groups. Planned comparison of the product ratings of the person-criticism and process-criticism groups revealed that participants who received person criticism on previous scenarios gave significantly lower ratings of their product on the test scenario

³ Although the correlations between variables in Study 1 were not high, MANOVAs were used here to keep the analytic strategy consistent across both studies (there were substantially higher correlations in Study 2).

($M = 2.22$, $SD = 1.9$) than did the process-feedback group ($M = 3.83$, $SD = 1.4$), $t(40) = -3.08$, $p < .01$.

The product rating of the outcome group fell in between those of the other two groups ($M = 3.12$, $SD = 1.8$), but post hoc t tests showed it to be not significantly different from that of either the person group or the process group: $t(41) = -1.53$, ns , and $t(47) = -1.50$, ns , respectively. It is important to note that on this same scenario, when no feedback was given, Heyman et al. (1992) found almost universally high product ratings despite the presence of a mistake. The present finding thus suggests that receiving person criticism on the previous scenarios made children more likely to view their mistake as a failure.

Self-assessments. Next we examined whether children had actually learned to measure themselves from a mistake after receiving the person criticism. Children's responses to four questions were used to form a self-assessment index ranging from 0 to 4 (children received 1 point each time they chose the positive form, i.e., saying they were "good," "nice," "smart," or "good at making the product"). These four items were combined into one index for two reasons: (a) A correlation matrix yielded highly significant correlation coefficients for each possible item comparison (good-nice, $r = .67$, $p < .001$; good-smart, $r = .62$, $p < .001$; good-product, $r = .49$, $p < .001$; nice-smart, $r = .47$, $p < .001$; nice-product, $r = .42$, $p < .001$; smart-product, $r = .31$, $p = .011$), and (b) the internal reliability of the index was high ($\alpha = .79$).

The MANOVA univariate F test revealed a significant effect for self-assessment, $F(2, 63) = 4.24$, $p < .05$. Figure 1b presents the group means for children's self-assessments. The planned t test revealed that the person-feedback group displayed significantly lower self-assessments ($M = 1.36$, $SD = 1.1$) than children in the process-feedback group ($M = 2.23$, $SD = 1.0$), $t(40) = -3.09$, $p < .01$. Thus, not only did the children view their performance less positively after person criticism but this experience also influenced how they viewed themselves. Children who received person criticism were more likely than children receiving process criticism to indicate that they felt they were not good at the skill in the test scenario and, further, to say they felt they were not smart, not nice, and not good (suggesting a sense of contingent self-worth on the part of the children in the person-criticism group). The self-assessments of the children who were given outcome feedback fell between those of the two other groups ($M = 1.78$, $SD = 1.0$) but were not significantly different from those of either the person group or the process group: $t(41) = -1.25$, ns , and $t(47) = -1.80$, ns , respectively.

Affect. On this measure, children were asked to rate how they felt after the test scenario on a scale from 0 (*very sad*) to 5 (*very happy*). The MANOVA univariate F test was significant, $F(2, 63) = 6.45$, $p < .01$. The planned comparison showed that children in the person group reported significantly more negative affect ($M = 1.17$, $SD = 1.4$) than those in the process group ($M = 2.92$, $SD = 1.7$), $t(40) = -3.62$, $p < .001$. According to follow-up t tests, children in the outcome-criticism group reported affect in the face of their mistake that was similar to that of the process group and reported significantly less negative affect than did the person-criticism group ($M = 2.52$, $SD = 1.7$), $t(41) = -2.79$, $p < .01$. Figure 1c shows the groups means.

Persistence. In previous studies, lack of persistence has been associated with the helpless pattern, in striking contrast to the

effective persistence shown by more mastery-oriented children (Hebert & Dweck, as cited in Dweck, 1991; Heyman et al., 1992). On the two persistence items in this study, children were given 1 point for each persistent response and 0 points for a nonpersistent response, for a possible total of 2 points. The MANOVA indicated that there were significant group differences in children's persistence in this study as well, $F(2, 63) = 6.95$, $p < .01$. Figure 1d shows the groups means for persistence. A planned t test revealed that the person-criticism group exhibited significantly lower persistence ($M = 0.50$, $SD = 0.71$) than the process-criticism group ($M = 1.38$, $SD = 0.79$), $t(40) = -3.77$, $p < .001$. Post hoc t tests revealed that the outcome-criticism group mean for persistence ($M = 1.13$, $SD = 0.77$) was significantly higher than that of the person-criticism group, $t(40) = -2.64$, $p < .05$, and was not significantly different from that of the process-criticism group, $t(46) = -1.11$, ns .

The group differences in children's persistence point out clearly that it is not just reports of internal processes (the self-assessments and affect) that are influenced by the type of feedback received but the children's subsequent action plans as well. Specifically, many of the solutions generated by the person-feedback group were characterized by criticism and punishment from others and implied that the setback was unchangeable: for example, "She should cry and go to bed," "The teacher got mad and went home," "My sister saw and got real upset that there were no windows," and "He should get a time out."

In contrast, those children who had previously received process feedback more often generated constructive solutions that portrayed a call for more effort or new strategies: for example, "I can do it again better if I take my time," "I'll take it apart and put it together again with windows," "I'd make another building with windows," and "I would say it's not finished yet, then I could cut out squares from paper and paste them onto the house." Because these children were randomly assigned to condition, we can assume they had equivalent repertoires of constructive solutions. Yet children who received person criticism seemed hampered in their ability to access constructive solutions compared with their peers.

General beliefs about badness. Here, we asked whether the feedback group to which children were assigned would influence their beliefs about traits. On the one hand, a particular belief could be learned across years of growing up and be firmly entrenched. However, a belief system could be activated (at least temporarily) by a powerful situation that sent a clear message. Our findings show that feedback experiences can indeed serve to influence children's general conceptions of whether badness is a stable quality and whether badness can be inferred from performance setbacks. On this measure, the MANOVA revealed significant group differences in children's beliefs, $F(2, 63) = 3.19$, $p < .05$. Figure 2a presents the group means for endorsement of general beliefs about badness. A planned comparison showed the person-feedback group to be significantly more likely to endorse the general beliefs previously found to be associated with a helpless pattern (i.e., that badness is stable and that mistakes are indicative of badness; $M = 1.28$, $SD = 0.83$) than was the process-criticism group ($M = 0.71$, $SD = 0.86$), $t(40) = -2.16$, $p < .05$. Post hoc t tests showed that the person-criticism group was also significantly more likely to endorse these beliefs when compared with the outcome-criticism group ($M = 0.80$, $SD = 0.70$), which fell in between the person-related and process-related groups $t(41) =$

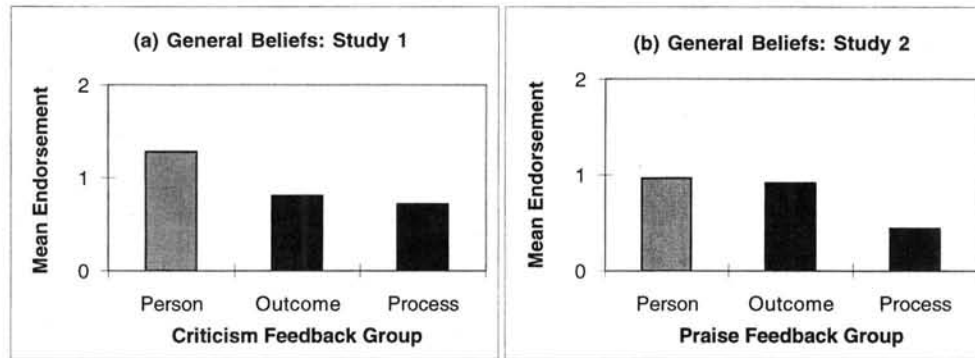


Figure 2. Mean endorsement of the beliefs that badness is stable and can be easily inferred for (a) the three criticism-feedback groups in Study 1 and (b) the three praise-feedback groups in Study 2.

$-2.04, p < .05$. No significant difference was found between the outcome group and the process group, $t(47) = -0.41, ns$.

In summary, the person-criticism group differed from the process-criticism group on every dependent measure. The children in the outcome-criticism group showed some of the mastery-oriented responses shown by the process-criticism group. Compared with the person-criticism group, children in the outcome-criticism group showed significantly more positive affect, higher levels of persistence, and lower endorsement of general beliefs about badness associated with helpless responses. However, there were no significant differences between the outcome-criticism group and the person-criticism group on measures of product rating and self-assessment. This suggests that directing criticism to the outcome or behavior, unlike process criticism, is not consistently better than person-oriented criticism at promoting adaptive coping.

Discussion

The results of this study indicate that a set of feedback experiences can influence the pattern of responses to subsequent setbacks. Specifically, different forms of criticism feedback were shown to foster distinct patterns of cognitions, affect, and behaviors. The findings, first, show that feedback can influence children's conceptions of their own attributes (their assessment of how smart and how good they are) in the face of performance setbacks, with children in the person-criticism group rating themselves lower than children in the process-criticism group. As we suggested, the person criticism may be seen as conveying a sense of contingent self-worth: You are a competent, good, or worthy child when you succeed but not when you fail.

Second, children's mood was significantly affected by the particular feedback received; children in the person-criticism group reported a more negative mood than children in the process-criticism group. In addition, there were differences in children's persistence and the strategies they generated in addressing and resolving the setback, with children in the person-criticism group exhibiting less persistence (including fewer constructive solutions) compared with children in the process-criticism group. Finally, the children's general beliefs about badness were affected by the feedback group to which they were assigned. Children in the person-feedback group were more likely to view single episodes of

poor performance or bad behavior by others as reflecting an underlying and enduring quality.

As noted earlier, however, person criticism is inherently more negative than process criticism, and so these results must be interpreted in light of this. This is not the case for praise, and in the next study, we took care to show that the different forms of praise feedback had virtually identical impact on children's pre-setback product ratings, self-assessments, and affect.

Moreover, we took care in the next study to include additional forms of person feedback and process feedback. That is, in addition to the praise conditions that were directly analogous to the criticism conditions in Study 1, we included (in separate groups) two new forms of person praise ("You're a good girl or boy" and "You're really good at this") and one new form of process praise ("You must have tried really hard"). This was done to provide a wider sampling of these types of praise and thus to provide a more general test of our hypothesis. This would also ensure that the results were not a function of some unique characteristic of one form of the feedback. It would show that the results did not depend, for example, on an expression of the adult's feelings of pride in the person-feedback condition or on any encouragement that might be conveyed in the process-feedback condition.

Study 2

Method

Participants

Sixty-four kindergarten children (32 boys and 32 girls, mean age = 5 years 6 months) from a public school in a Northeastern city participated in Study 2. We obtained parental consent forms for all participants.

Experimenters

Four trained research assistants unaware of the hypotheses of the study conducted individual sessions with the participants.

Procedure

The procedure for this study was designed to follow Study 1 as closely as possible. In this study, each participant role-played four success scenarios in which the child worked on a task for the teacher and then received

one of six types of praise feedback from the teacher (later grouped into three categories for analysis). Each child was randomly assigned to an experimental group that determined which type of praise feedback was received. The scenarios were success forms of the scenarios used in Study 1 and described children putting away blocks, washing their hands after finger painting, cleaning up after snack, and working on a puzzle and completing each task successfully. Below is a sample scenario.

The Puzzle Story

One day it was play time and your teacher, Mrs. Billington, said, "[child's name], would you make a puzzle for me?" And you said, "OK teacher, I'll make the puzzle for you." So you sat down at the puzzle table and started to put the pieces together. First you found the corners, and then you started to put the side pieces together. After that you fit the center pieces all in. You wanted to show the teacher the puzzle you made, and so you said "Teacher, I made the puzzle for you," and you looked back at the puzzle you made and thought to yourself "Yep, I put all the pieces of the puzzle together." When the teacher, Mrs. Billington, came over and saw the puzzle you made she said, "That puzzle has all the pieces put together."

The participant then received praise feedback. As in Study 1, children were randomly assigned to an experimental group that determined which type of feedback was received on the first four scenarios. The three categories of praise feedback given were designed to correspond to the three categories of criticism in Study 1: (a) *person praise* (Group 1 [$n = 12$], "I'm very proud of you"; Group 2 [$n = 12$], "You're a good girl"; Group 3 [$n = 9$], "You're really good at this"), (b) *outcome praise* (Group 4 [$n = 12$], "That's the right way to do it"), and (c) *process praise* (Group 5 [$n = 9$], "You must have tried really hard"; Group 6 [$n = 10$], "You found a good way to do it, can you think of other ways that may also work?"; see Butler, 1987, 1988).

We combined Feedback Groups 1, 2, and 3 into the person-praise condition and Groups 5 and 6 into the process-praise condition because (a) they had been designed to represent different versions of person and process praise, (b) there were no significant differences in the means for Groups 1, 2, and 3 or in the means for Groups 5 and 6 on the dependent measures, and (c) the predictions for differences across feedback types (i.e., person vs. process praise) were borne out whether the person (or process) groups were considered singly or were combined. Thus, if we looked only at the groups that were directly analogous to those in Study 1, the results would support and complement the results from Study 1. However, the predicted results were also obtained for the new forms of person praise and process praise.

In Study 1, we considered it too harsh to include all forms of person criticism and only gave the most general form (the adult's disappointment in the child). Here, however, we felt it would be informative to test each form separately (adult's pride, praise for child's competence, and praise for child's goodness) to see if they would each produce the same result.

Because the purpose of the study was to test the effects of praise on coping with subsequent setbacks, we wanted to ensure that the participants did not differ during the success-praise scenarios. Thus, after the third success story (of four), the same measures of perceived performance, affect, and self-assessments described in Study 1 were collected. After the fourth success story, children were given two mistake scenarios (writing numbers in a series and drawing a figure) that ended with a statement from the teacher doll of the child's mistake but that did not include any other feedback. We gave two mistake scenarios because pilot testing indicated that one mistake was often viewed as a fluke, whereas two mistakes were taken seriously by the participants. Measures of product rating, self-assessment, affect, persistence, and general beliefs were then taken on the same test scenario from Study 1 ("The Lego House Story"), using the same dependent measures described in Study 1.

One measure of persistence used in Study 1 was modified for use in Study 2 because some children when asked "Would you like to do the Lego

house again, or something else instead?" gave responses unrelated to persistence (e.g., "It is recess now, so I want to play outside"). In the modified version, we showed children drawings depicting a subset of the tasks that had been described in the previous scenarios (one success and two mistake scenarios). Children were then asked two questions about these scenarios: (a) "If you had a chance to do one of these again at the end if we have more time, and you had a choice between working on the puzzle, the drawing, or the Lego house, which one would you choose to do?" and (b) "If you had a chance to do one of these tomorrow and you could choose between working on the puzzle, the drawing or the Lego house, which would you want to work on tomorrow?" Choice of either mistake scenario was coded as persistent (1 point), whereas choice of the task they had already completed successfully was coded as nonpersistent (0 points), for a possible total of 2 points.

In the next two persistence questions, we asked children to think back to working on each of the two mistake tasks and then to tell us what they would do at the end of the scenario ("What would you do now?"). Children's responses were coded as persistent or nonpersistent, as in Study 1, with possible scores for the two questions combined ranging from 0 to 2. In this study, then, two indexes of persistence were constructed, one representing the two forced-choice task-choice questions and one representing the two open-ended story-completion responses.

Results and Discussion

Overview

The results of this study clearly supported our hypotheses. As in Study 1, we conducted a MANOVA that examined the effects of the five dependent variables. The MANOVA was significant, $F(10, 106) = 5.70, p < .001$. We then performed univariate F tests for each dependent variable, which revealed significant differences on each dependent measure. In addition, we performed planned comparisons between the person-praise group and the process-praise group on measures of product rating, affect, self-assessments, persistence, and general beliefs. Also as in Study 1, post hoc tests between the outcome group and the other two groups were performed when the omnibus tests yielded significant F s. There were no significant differences found in children's responding on any of the dependent measures for age, gender, classroom, or experimenter.

Premeasures

We tested whether there were differences among the groups in their product rating, self-assessments, and affect before setbacks occurred. After three success scenarios, the person-, outcome-, and process-feedback groups showed no differences in their product ratings (M s = 4.79, 5.00, and 4.84, respectively), $F(2, 61) = 1.20, ns$, self-assessment ratings (M s = 3.90, 3.92, and 3.95, respectively), $F(2, 61) = 0.12, ns$, or affect ratings (M s = 4.82, 4.83, and 3.95, respectively), $F(2, 61) = 0.21, ns$. These premeasures indicated that subsequent differences in children's responses to setbacks were not likely to be a function of differences in self-evaluation or affect during success. Moreover, the equivalence of the impact of the different types of praise suggested that they did not differ in their degree of positivity. The fact that all three forms of praise led to positive self-assessments and affect may suggest why past research has found benefits accruing to each type of praise.

Dependent Measures

Correlations between dependent variables. A correlation matrix revealed that the product rating was highly correlated with two other dependent variables, self-assessment ($r = .57, p < .01$), and affect ($r = .72, p < .01$). In addition there was a high correlation between affect and self-assessment ($r = .68, p < .01$). All other correlation coefficients were nonsignificant.

Product rating. As in Study 1, children were asked to rate the product they made in the test scenario on a scale from 0 (*not very good*) to 5 (*very good*). A univariate F test indicated a significant difference among the feedback groups for children's rating of their product, $F(2, 61) = 6.81, p < .01$. Figure 3a presents the group means for product ratings. A planned comparison revealed that participants who received person praise on the previous scenarios rated their product significantly lower on the test scenario ($M = 1.97, SD = 1.55$) than did the process-feedback group ($M = 3.26, SD = 1.04$), $t(49) = -3.10, p < .01$. This supports the prediction that praise-feedback experiences affect not only children's perception of the product they made but also their perception of themselves. Post hoc t tests revealed that the person-praise group also gave significantly lower self-assessments than the outcome-praise group ($M = 3.00, SD = 1.24$), $t(42) = -2.10, p < .05$. There was no difference between the outcome group and the process group, $t(29) = -0.61, ns$.

Affect. Group differences in children's reported affect after a setback were revealed by the univariate F test, $F(2, 61) = 6.19, p < .01$, as shown in Figure 3c. Planned comparison of children's affect in the person- and process-praise groups revealed that the person-praise group reported significantly more negative affect ($M = 2.00, SD = 1.46$) than did the process-praise group ($M = 3.47, SD = 1.73$), $t(50) = -3.61, p < .001$. Post hoc t tests comparing the outcome-praise group and the other two feedback groups revealed no significant differences, with the children in the outcome-praise group reporting affect ($M = 2.92, SD = 1.35$) that fell between the process-praise group and the person-praise group means: $t(29) = -1.00, ns$, and $t(43) = -1.78, ns$, respectively.

Persistence. The univariate F test revealed significant group differences on the task-choice measure of children's persistence,

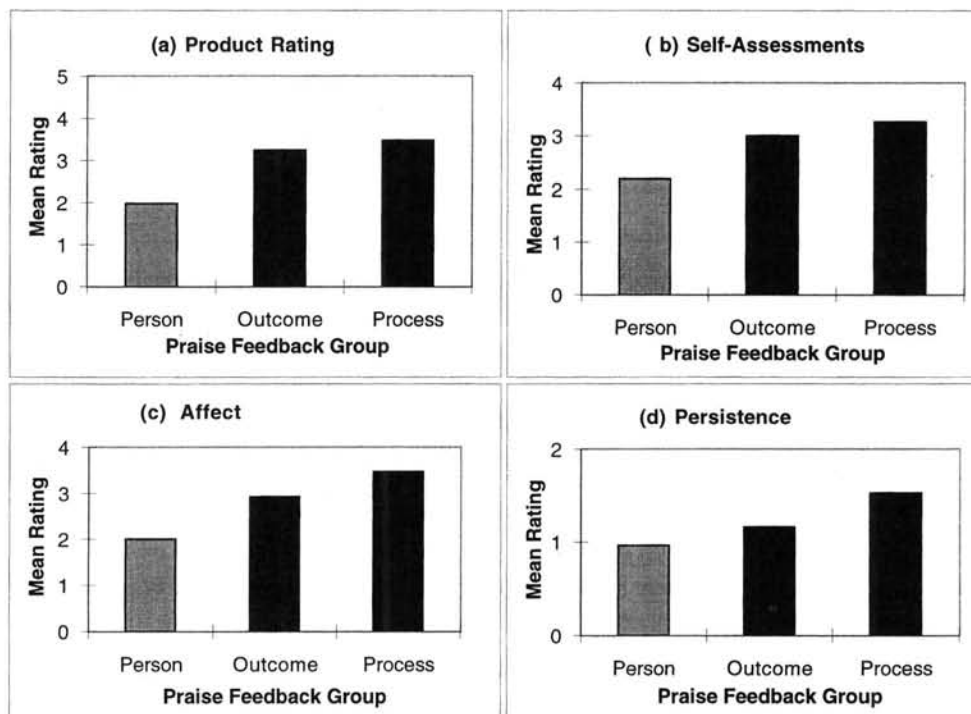


Figure 3. Mean ratings for the three praise-feedback groups on (a) product rating, (b) self-assessments, (c) affect, and (d) persistence.

$F(2, 61) = 6.89, p < .01$. Figure 3d presents the mean persistence score (out of a possible 2) for each group. The planned comparison revealed that the person-praise group demonstrated significantly lower persistence ($M = 0.97, SD = 0.64$) than did the process-praise group ($M = 1.53, SD = 0.61$), $t(50) = -3.08, p < .01$. No significant differences were found between the outcome group ($M = 1.16, SD = 0.84$) and either the person group, $t(43) = -0.84, ns$, or the process group, $t(29) = -1.38, ns$.

Although the open-ended measure of children's persistence did not yield a significant effect in the overall F test, the planned comparison showed that children in the process-praise group exhibited significantly greater persistence in producing a constructive solution to the error ($M = 0.79$) than did the person-praise group ($M = 0.48$), $t(50) = -2.22, p < .05$.

These findings indicate that the praise feedback affected not only children's ratings of themselves, their feelings, and their products but also their action plans after a setback. When asked to finish the story, children in the person-praise group said things like "I'd be punished," "I'd feel sad," "I didn't do it right," and "It was broken." Children in the process-praise group were more likely to imagine a positive solution such as "I would have to make the windows somehow," "I'd take it apart and put in the windows," "I would say I was sorry, and I'll do it and put the windows in this time," and "I put windows in and took it home and put it on the wall."

General beliefs about badness. We examined children's beliefs to determine whether feedback could foster differences in children's views of the stability of traits and of whether mistakes indicate badness. As in Study 1, the univariate F test showed significant differences in group endorsement of beliefs associated with mastery-oriented versus helpless patterns, $F(2, 61) = 3.96, p < .05$ (see Figure 2b). A planned t test revealed that the process-praise group was significantly more likely than the person-praise group to endorse general beliefs linked to mastery orientation ($M = 0.44, SD = 0.54$), whereas the person-praise group was more likely to endorse beliefs linked to helplessness ($M = 0.97, SD = 0.69$), $t(48) = 2.66, p < .01$. In post hoc comparisons of the outcome group with the other groups, the outcome-praise group was found to endorse beliefs associated with helplessness ($M = 0.91, SD = 0.62$) that were similar to those endorsed by the person-praise group, $t(41) = 0.26, ns$, and significantly different from the beliefs endorsed by the process-praise group, $t(27) = 2.06, p < .05$.

General Discussion

The results of these studies provided consistent support for our hypotheses. In the more stringent test provided by Study 2, using praise as the form of evaluation, children who received feedback conveying an evaluation of themselves, their traits, or their abilities were significantly more likely than children who received effort or strategy praise to display the full complement of helpless reactions (cognitions, affect, and behavior) when they later met with setbacks. Although this was also suggested by the results of Study 1, in Study 2, we were able to show that the different types of feedback were equivalently positive in their impact before the setback trials.

Across the two studies, children receiving person feedback gave lowered ratings of their product and self, indicating by the latter

that after an error they believed themselves to be less good, less nice, and less smart than the children in the process-feedback groups. Thus, children whose self or traits were evaluated on the basis of their earlier performance then evaluated themselves and their traits on the basis of their later performance.

Children in the person-feedback groups were also less likely to show persistence or offer a constructive remedy to the setback encountered in the final scenario. This is striking, because in this role-play procedure, all that was required to achieve a successful resolution was a statement from children that they would fix the mistake. This finding underlines the degree of impairment that can be induced by the person-oriented feedback with its implication of contingent self-worth.

The results, in addition, showed that children in the person groups, compared with children in the process groups, more strongly endorsed the general beliefs that badness can be diagnosed from one failure and that badness is stable over time (previously associated with helplessness; Heyman et al., 1992). These children showed that they had learned to evaluate the underlying goodness or badness of themselves and of others on the basis of a small sample of behavior. This finding is illuminating because it shows how a set of feedback experiences can lead to endorsement of beliefs about badness important to judgments of worth (see Burhans & Dweck, 1995; Heyman et al., 1992). Taken together, our findings suggest that person-directed feedback can indeed foster a sense of contingent self-worth and create a helpless pattern of responses to setbacks.

The results obtained for the outcome-feedback group show that some of the negative effects of giving global person feedback can be avoided by focusing on the behavior or outcome instead of on the children themselves. However, because the positive effects of outcome feedback did not occur on the same measures in Study 1 and Study 2, there are no clear conclusions that can be drawn about the precise benefits of outcome feedback.

The findings presented in Study 2 have been supported by a series of concurrent studies (Mueller & Dweck, 1998). In these studies, fifth graders, after a success, were given one form of person praise (intelligence praise) or one form of process praise (effort praise). Although the two groups looked equivalent after success, those given the intelligence praise were significantly more likely to show helpless reactions (less persistence, lower intrinsic motivation, and impaired performance) after a subsequent failure than those given effort praise (or than a control group who received no attribution for their performance). In addition, although they had received praise for their intellectual ability, this group was significantly more likely to attribute their failure to lack of ability. These results provide corroboratory evidence for our hypothesis that praising a child's traits can have negative effects when subsequent setbacks are encountered.

Alternative Explanations

An alternative interpretation of the findings might be that the feedback given produced differences in the child's mood, which then led to differences in responding to later setbacks. This mechanism might provide an explanation of the results of Study 1, where the somewhat harsher criticism may have led to more negative mood. However, for Study 2, the results do not support

this explanation. Measures of mood in Study 2 after the praise feedback were equivalently positive for all groups.

Did children simply believe that the adult had evaluated them negatively, or did they learn to measure their own traits and abilities from their performance? The results suggest that children in fact did learn to measure their traits and abilities. In both studies presented here, group differences obtained on children's self-assessments revealed that they indeed measured their traits and abilities differently. In addition to the differences obtained for self-assessments, children in the person-feedback group endorsed different general beliefs about badness. That is, they were more likely to endorse the belief that badness can be determined from a single failure and that badness is stable over time. These children thus indicated not only that they had learned that adults measured them from performance but also that they were now more likely themselves to view performances of others as indicative of badness and to view badness as stable across time.

Were children in Study 2 simply concerned with losing the experimenter's initial good opinion of their abilities, or were they now measuring themselves according to their performance? Another line of evidence that the adverse effects of ability praise were not due just to believing that the experimenter who had evaluated them positively was now evaluating them negatively comes from the recent findings of Mueller and Dweck (1998). In one of these studies, fifth graders were given ability or process praise after initial success from one experimenter and then were administered the failure task by a second experimenter who had no knowledge of their previous performance. The pattern of results obtained was identical to that obtained when the same experimenter had administered both sets of tasks and supports the view that the children themselves were learning to measure their own smartness rather than simply being concerned with losing the positive evaluation of the praising experimenter.

Implications for Dweck and Leggett's Model of Motivation

These findings lend support to the model of motivation proposed by Dweck and Leggett (1988; see also Burhans & Dweck, 1995; Dweck, 1991; Dweck, Chiu, & Hong, 1995; Erdley, Cain, Loomis, Dumas-Hines, & Dweck, 1997). In this model, those who believe in fixed traits (e.g., fixed intelligence or personality) become overly focused on measuring these traits from their performance and are vulnerable to helpless reactions to failure. In contrast, those who believe in malleable traits remain focused on process in the face of failure and maintain a mastery-oriented response. The present work shows how these whole frameworks can be evoked by feedback that focuses children on their internal traits versus their processes as causes of their performance.

How might person versus process praise do this? Person praise may convey to the child that their internal traits, such as intelligence, (a) are the things that matter and (b) can be judged from outward performance. It seems also to convey that these traits are deep-seated. This message, as we have shown, may be delivered when children perform well but may then be applied by the children when they later do poorly. Process praise, instead, keeps the focus on effort and strategies, which can be readily modified when things do not go well, thus keeping expectations high and

affect more positive (Weiner, 1972, 1985; see also Diener & Dweck, 1978; Dweck, 1975).

Implications for Contingent Self-Worth

Our findings also support the suggestions made by Burhans and Dweck (1995) that a sense of contingent self-worth may underlie helpless reactions in young children. (Burhans & Dweck, 1995, discuss how a sense of contingent self-worth may be linked to a belief in fixed traits, an overconcern with one's traits, and the belief that these traits can be measured from one's performance or behavior.) The present research shows how person-oriented criticism or praise may establish a sense of contingent self-worth by conveying to children that they are good only when they succeed and bad when they fail. A sense of contingent self-worth can also accompany helpless reactions in older individuals. For example, Zhao and Dweck (1997) have shown that college students who exhibit helpless responses to setback often show global self-derogation. Moreover, a sense of contingent self-worth is beginning to be implicated in depressive reactions in adults (Dykman, 1998). The present research may help us begin to understand the kinds of feedback that establish a sense of contingent self-worth and thus foster a vulnerability to maladaptive coping.

We have recently obtained more direct support for the role of contingent self-worth in children's differing reactions to setbacks (Kamins & Dweck, 1997; Kamins, Mueller, & Dweck, 1996). In this new research, we assessed existing individual differences in children's sense of contingent self-worth and used these differences to predict helpless responses. We found that children who endorsed the view that their worth was contingent on their behavior or performance, in a subsequent session showed more negative self-judgments, greater drops in affect, more negative ratings of their performance, and less persistence after setbacks than children who did not endorse the view of contingent worth. In addition, children who showed greater endorsement of contingent self-worth were more likely to choose "performance-goal" tasks, which would make them look smart, over "learning-goal" tasks, from which they could learn new skills. We have further research in progress on the role of contingent self-worth in motivation and coping.

Conclusion

There is a long literature on the hidden cost of rewards and on how rewarding a child can undermine intrinsic motivation (Deci, 1971; Deci & Ryan, 1987; Harackiewicz, 1979; Harackiewicz & Manderlink, 1984; Hoffman, 1975, 1977; Lepper & Greene, 1978). However, there is only a small literature on the hidden costs of praise and, particularly, heartfelt ability, goodness, or person praise after a success.⁴ The results of the present studies raise concerns about what forms of praise adults should give to children, just as the research on rewards raised concerns.

Praise for ability may have seemed to many to be the best route to encouraging children's self-esteem, learning, and achievement motivation (Briggs, 1970; Joseph, 1994; Phillips, 1984; Youngs,

⁴ Here we are not referring to praise with a subtle or hidden critical message (Meyer & Engler, 1986).

1991). In fact, Mueller and Dweck (1996) found that 85% of parents of young children endorsed the statement that "it is necessary to praise children's ability when they perform well on a task to make them feel that they are smart." Although it might seem that giving process or effort praise is just a consolation prize, we propose that it is just as possible to express appreciation of what a child has accomplished by focusing on the effort put in or the method used to accomplish a task as by labeling or evaluating the child as a whole. Indeed, praise for the effort, the strategizing, the work, and the persistence children put in to their accomplishments may allow for fuller recognition of their achievements and at the same time is not accompanied by the pitfalls that were found for ability praise.

Conventional wisdom has warned against globally criticizing the child instead of focusing on specific behaviors (Benson et al., 1995). Our results support this and suggest even further that critiquing the process leads to a consistently more mastery-oriented pattern than criticizing the person. But as for praise, our findings have gone against the conventional wisdom that portrays praising the child as a whole or praising his or her ability as a good method for boosting self-confidence and encouraging mastery-oriented qualities. The findings presented here suggest that person praise in fact can hinder the very strivings it was intended to encourage.

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