

PART II

Competence and motivation

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THE EFFECTS OF PRAISE ON CHILDREN'S INTRINSIC MOTIVATION REVISITED

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Praise out of season, or tactlessly bestowed, can freeze the heart as much as blame.
(Pearl S. Buck, *To My Daughters, with Love*, 1967)

How does praise affect children's intrinsic motivation? The answer is tremendously complex, with evidence that praise can enhance motivation, undermine it, and do everything in between. In order to make sense of this complexity, Henderlong and Lepper (2002) identified a set of conceptual variables that appear to govern the effects of praise. Assuming praise is perceived as sincere, they argued that praise will enhance intrinsic motivation when it "encourages performance attributions to controllable causes, promotes autonomy, enhances competence without an overreliance on social comparisons, and conveys attainable standards and expectations" (p. 774). The goal of this chapter is to revisit these four conceptual variables in light of research from the past two decades and to reconsider their utility as an organizational framework for the literature on praise and motivation.

Performance attributions

One key characteristic of praise is its potential to communicate messages about the causes of success. *Process praise* (e.g., "What a clever approach!") highlights controllable, unstable attributions for performance (e.g., effort, strategy) and tends to produce adaptive motivational beliefs and behaviors, such as enjoyment, persistence, learning goals, and achievement. *Person praise* (e.g., "What a smart child!"), by contrast, highlights uncontrollable, stable attributions (e.g., ability) and leaves children vulnerable to maladaptive motivational beliefs and behaviors in the face of future setbacks, such as challenge avoidance and learned

helplessness. Person praise may lead children to reason that, if success meant they were smart, failure must mean they are dumb. Mueller and Dweck's (1998) seminal research showed that fifth graders praised for intelligence exhibited a cascade of maladaptive beliefs and behaviors, especially when later confronted with failure. Those praised for effort, by contrast, exhibited a far more adaptive response, consistent with the robust body of research on attribution theory.

More recent work has shown that person praise creates motivational vulnerabilities in part because of its generic linguistic form (e.g., "You are good at math"), which implies that performance results from stable traits that are an essential part of one's nature (Cimpian, Arce, Markman, & Dweck, 2007). The use of generics raises the stakes for performance, which may bring about defensive reactions and feelings of helplessness. Process praise, by contrast, is a nongeneric form (e.g., "You did a good job in math"), which applies to particular instances, carries fewer expectations, and encourages persistence.

This evidence joins research over the past two decades showing that person praise is detrimental and/or process praise is beneficial across a broad set of outcomes including enjoyment, challenge-seeking, error vigilance, cheating, and shame following failure (e.g., Brummelman, Thomaes, Overbeek et al., 2014; Haimovitz & Corpus, 2011; Zhao, Heyman, Chen, & Lee, 2017). However, not all forms of process praise are equally beneficial. Effort praise has the potential to be seen as a consolation prize or signal of low ability, especially among adolescents (Amemiya & Wang, 2018), and it appears to be effective primarily among students who believe effort and ability to be positively, rather than inversely, related (Lam, Yim, & Ng, 2008). The most effective praise, therefore, is that which focuses on other process-oriented factors, such as strategy use.

Another significant development in the literature is the extension to more naturalistic, non-laboratory contexts. This work has shown that parents do embed attributional content into praise, with 42% of mothers in one study doing so as they reminisced about their child's past successes (Goodvin & Rolfson, 2014). Moreover, these attributions have long-term consequences. Process praise given at home during the toddler years, for example, predicted adaptive motivational frameworks and strong academic achievement in fourth grade (Gunderson et al., 2018), and person praise for children's daily schoolwork predicted challenge avoidance and fixed mind-sets six months later (Pomerantz & Kempner, 2013).

Taking a more contextualized view of praise raises fascinating questions for future research. First, how do the multiple and perhaps conflicting attributional messages children receive through praise impact motivation? Zentall and Morris (2010) found that the *ratio* of process to person praise kindergarteners received for a laboratory task was linearly related to adaptive motivational outcomes, with even a small proportion (25%) of person praise negatively impacting their persistence. How might such combinations of praise, delivered by known adults, impact intrinsic motivation in the real world?

Second, praise may impact not only children themselves but also others who inhabit the same social context. For example, how does praise from teachers

affect parents' beliefs about their children? In a study examining parental reactions to teachers' comments on hypothetical report cards, parents' beliefs about their children were less strongly affected by person versus process praise than children's beliefs about themselves tend to be (Good & Corpus, 2017). Future research should address this topic more thoroughly given that parental beliefs are key predictors of their children's motivation.

Perceived autonomy

In addition to shaping children's beliefs about the causes of their success, praise also impacts their views about their reasons for engagement. As posited by self-determination theory, perceiving autonomy over one's own choices is crucial for facilitating and maintaining intrinsic motivation (Ryan & Deci, 2000). Praise can support autonomy by encouraging a focus on self-determined reasons for engaging in a task rather than reasons driven by others (e.g., "Wow—it looks like you really enjoyed that project!"). Such autonomy-supportive praise has been shown to predict enjoyment, engagement, and performance in an academic context (Reeve & Jang, 2006) and both persistence and positive affect in an athletic context (Mouratidis, Lens, & Vansteenkiste, 2010).

While autonomy supportive praise tends to enhance intrinsic motivation, controlling praise tends to undermine it (e.g., "If you keep that up, you'll be a math superstar!"). Interviews with elementary school students revealed frustration with overly directive feedback that took away from their sense of agency (Hargreaves, 2013). These same students, however, reported a desire for praise that pointed to specific strategies likely to be useful in the future. Thus, the most effective praise would appear to include specific information delivered in a noncontrolling manner, perhaps best achieved within the context of a positive teacher-student relationship (Bear, Slaughter, Mantz, & Farley-Ripple, 2017).

Another sense in which praise may be controlling comes from an emerging body of research on praise addiction. Repeated exposure to praise has the potential to create a psychological dependency including a "tolerance" of the effects of praise followed by "withdrawal" and, eventually, "cravings" for more (Baumeister & Vohs, 2001). In order to satisfy a praise addiction, students may come to engage in behaviors for the sole purpose of eliciting praise regardless of whether or not those behaviors have intrinsic value. This process may help to explain why college students value affirmations of self-esteem more than other appealing rewards, such as sex, food, and money (Bushman, Moeller, & Crocker, 2011). Praise may also serve to control behavior by introducing contingencies of self-worth, which similarly dampens intrinsic motivation (Brummelman, Thomaes, Castro, Overbeek, & Bushman, 2014).

While praise can function like a controlling reward, it is important to note that praise and tangible rewards are distinct and are associated with different motivational consequences. Unlike tangible rewards, praise does not have a detrimental effect on intrinsic motivation for prosocial behavior among young

children (Ulber, Hamann, & Tomasello, 2016). Indeed, children's initial stages of learning a new skill may be a time during which praise is perceived as particularly supportive rather than controlling. For instance, younger infants, but not older infants, helped more often when given encouragement and praise for helping (Dahl et al., 2017). It will be important for future research to determine how praise given to older children may serve to scaffold learning across time in schooling contexts.

Competence beliefs

Praise can also influence children's beliefs about whether they are capable of succeeding in the future. When praise conveys positive information about competence, self-efficacy and intrinsic motivation are enhanced. This is sometimes communicated through social comparison (e.g., "That's the best score in the class!"), which at least temporarily enhances achievement emotions such as performance satisfaction (Gaines, Duvall, Webster, & Smith, 2005). Subsequent work has shown, however, that social-comparison praise is detrimental to children's intrinsic motivation in the long term because it teaches them to judge their own success primarily in relation to others. By contrast, praise emphasizing individual mastery (e.g., "You've really learned how to solve these problems!") builds a more resilient sense of competence that does not depend on outperforming one's peers (Corpus, Ogle, & Love-Geiger, 2006).

The effects of social-comparison information also depend on the relevance of the performance dimension being evaluated and the extent to which one feels similar to or psychologically close with the target of the comparison (Dijkstra, Kuyper, van der Werf, Buunk, & van der Zee, 2008). These moderators may be particularly consequential for older children, who tend to use social-comparison information in a more nuanced way. For instance, 9- to 10-year-olds, but not 5- to 6-year-olds, reported lower self-evaluations when they were outperformed by a peer with less expertise in a given task domain (Lapan & Boseovski, 2017). While younger children do not appear to use social comparisons to form their self-evaluations, they may use such information to suit their age-specific needs (e.g., to figure out if they are doing a novel task correctly; Dijkstra et al., 2008). Indeed, even preschool-age children are capable of engaging in social comparisons in familiar contexts (Cimpian, 2017). Future research must examine the effects of competence-related feedback, including social-comparison praise, across a variety of age groups.

In a broader sense of context, evidence from college students in the United States and China suggests that praise, and particularly social-comparison information, might be a more impactful source of efficacy for students from collectivist cultures (Lin, Fong, & Wang, 2017). This is interesting to consider in light of the practice of high-stakes testing across cultures, which likely renders normative comparisons more salient and has the potential to perpetuate the view that competence is a fixed entity that can only be assessed by comparing oneself to others

(Cimpian, 2017). How culture may moderate the effects of such practices as well as children's interpretation of feedback more broadly is an important question for future research.

Standards and expectations

A final conceptual variable relates to the standards and expectations embedded in praise. There is growing evidence that praise enhances intrinsic motivation when it provides specific information about what it means to do well and communicates reasonable expectations for performance. This information is essential so that children may appropriately direct their efforts and regulate future task engagement. Indeed, the absence of information about standards and expectations is one reason that a bias to deliver globally positive feedback to minority students may rob them of the tools needed for success (Harber et al., 2012).

Standards can be communicated through specific, descriptive praise. In a field experiment conducted during elementary school math lessons, for example, specific praise led to more on-task behavior and higher self-concept than general praise (Chalk & Bizo, 2004). This is consistent with the practical parenting literature, which advocates for nonevaluative *describing praise* (e.g., "Look at that! You combined colors to create different shades of brown."; Nordling, 2016).

Accuracy in praise also appears to be important. When children believed their parents' praise to either over- or understate their performance, depression and lower achievement followed (Lee, Kim, Kesebir, & Han, 2017). Parental overaspiration also tends to undermine learning (Murayama, Pekrun, Suzuki, Marsh, & Lichtenfeld, 2016), which invites the question of whether overaspirations communicated via praise may similarly undermine intrinsic motivation. A fascinating new line of research suggests that this may well be the case for children with low self-esteem: when given *inflated* praise (e.g., "That's an incredibly beautiful drawing"), they tend to avoid challenge and develop contingent self-worth, presumably because of the impossibly high standard implied by such praise (Brummelman, Thomaes, Castro et al., 2014). Perhaps ironically, children with low self-esteem also seem to *elicit* inflated praise from adults, thus creating a downward spiral. This highlights not only the need for transactional models when considering the effects of praise but also the issue of whether standards and expectations communicated by praise are appropriately matched to the child's self-perceptions (Brummelman, Crocker, & Bushman, 2016).

In fact, there is ample evidence that characteristics of the child influence how praise impacts motivation. For example, maternal praise given to adolescents with major depressive disorder elicited an atypical brain response compared to that of their nondepressed peers, presumably because of a mismatch between the praise and adolescents' self-perceptions (Silk et al., 2017). Even among adults, praise led to negative emotions when there was a mismatch between the learner's experience of the task and the standards and expectations implied by the praise

(Fong, et al., 2018). Taken together, these findings nicely echo a claim made by Henderlong and Lepper (2002, p. 775):

...praise is not a simple one-way transmission from the evaluator to the recipient but rather a complex social communication in which the role of the recipient is just as critical as the role of the evaluator. That is, the effects of praise vary depending not only on the content of the praise but also on the context in which it is delivered, the array of potential meanings it may convey, and the characteristics and interpretations of the recipient.

Conclusion

As indicated above, the conceptual variables identified by Henderlong and Lepper (2002) continue to provide a useful framework for organizing the literature on praise and motivation. Research over the past two decades indicates that praise enhances motivation and perseverance when it (a) implies that success is the result of controllable, malleable forces (e.g., strategy, effort); (b) minimizes perceptions of external control and promotes autonomy; (c) builds a resilient sense of competence; and (d) provides specific, accurate information about the quality of performance.

Moreover, a number of the most pressing issues for future research raised by Henderlong and Lepper (2002) are now actively being addressed: a wider range of outcome variables and domains tested, a move to more naturalistic contexts, and a recognition of child-driven effects and transactional processes. There has also been a growing focus on understanding moderators and mediators, such as children's self-concepts, their relationship with the evaluator, and the broader cultural context. We hope this important work continues.

At the same time, there are unexplored areas that must be part of the research agenda for the coming decades, such as the development of preventive interventions to help children interpret praise in a more productive manner. We would also advocate for more contextualized approaches, perhaps making use of microdevelopmental methods for assessing the effects of praise as they play out over time. In any case, we eagerly await the next two decades of research to illuminate further how this complex social communication impacts children's motivational processes.

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