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Ask the Cognitive Scientist

How Praise Can Motivate—or Stifle

*How does the mind work—and especially how does it learn? Teachers*' *instructional decisions are based on a mix of theories learned in teacher education, trial and error, craft knowledge, and gut instinct. Such gut knowledge often serves us well, but is there anything sturdier to rely on?*

*Cognitive science is an interdisciplinary field of researchers from psychology, neuroscience, linguistics, philosophy, computer science, and anthropology who seek to understand the mind. In this regular* American Educator *column, we consider findings from this field that are strong and clear enough to merit classroom application.*

By Daniel T. Willingham

**Question: I keep hearing conflicting things about praise. Some say that too much praise can decrease students**' **motivation, but others say praise boosts self-esteem and, therefore, you can never praise too much. Should I praise my students? How much? For what? Are there times when I should avoid praising students?**

Praise is such a natural part of human interaction in our culture that it would be difficult indeed to stop praise altogether. Fortunately, existing research indicates that praise *can* motivate and guide children—but despite the fact that praise seems so benign, there are circumstances under which praise is not beneficial. A rule of thumb that can summarize this complex research literature is that if you try to use praise for your own ends or even in a conscious attempt to help the student, it is likely to go wrong. If, on the other hand, praise is an honest expression meant to congratulate the student, it will likely be at least neutral or even helpful to the student; even under these circumstances, however, care must be taken in what is praised.

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How often and for what do you praise students? Most teachers that I have observed use praise liberally: They praise students for academic success, of course, but also for desired behaviors like quieting down when asked or putting materials away neatly. On occasion, I've observed students praised for relatively trivial "achievements"—I once saw a fourth-grader being told he did "a great job!" of passing out papers. When I asked the teacher about it later, she laughed and said that she was unaware of having said it.

It would be easy to assume that praise would be at least neutral and possibly helpful to students; it might raise self-esteem or motivation. But articles periodically appear that warn teachers of potentially dire effects of praise; praise is alleged to reduce motivation, to manipulate children, or to make them less able to make decisions (Kohn, 2001; Mangin, 1998). So, does praise help or harm? Most of the research examining praise has focused on how it affects student motivation. In a typical study, the child first performs a task, then receives some praise (or not). Either immediately thereafter or perhaps following a delay, some measure is taken of how interesting the children found the task or how motivated the children are to perform it again. For example, in one study (Koestner, Zuckerman and Koestner, 1989) the experimenters explained to fifth-graders that the illustrator Al Hirschfeld hid his daughter's name, Nina, in his drawings. They were then shown several of his illustrations with the task of finding as many "Ninas" as they could. Next, children were given one of several types of praise about their performance. Then the experimenter said that he had to leave the room for a couple of minutes and the children could either look for "Ninas" in new drawings, or read cartoon books (*Garfield* and *The Far Side*). One measure of task motivation was whether children chose to continue working on the puzzles in the experimenter's absence. After two minutes, a different experimenter asked the students to rate, on a scale of 1-4, how interesting they found the puzzle task, how fun it was, and how well they thought they had performed. These ratings provided another measure of motivation, with the assumption that tasks that children report as interesting are also ones that they would be motivated to perform.

Many studies on praise fit the general framework described above. Some indicate that praise increases motivation, whereas others indicate a decrease (Anderson et al., 1976; Birch et al., 1984; Harackiewicz, 1979; Swann and Pittman, 1977; Weiner, 1992). But the bulk of the studies do not actually contradict each other. Collectively, they show that whether or not praise is beneficial depends on when and how it is used. Praise is a complex phenomenon, but a relatively clear picture has emerged that provides guidelines as to when and why praise will—and will not—be beneficial.

**Praise Should Be Sincere**

When praise positively affects motivation, it appears to do so because it changes the student's self-concept. For example, if someone that the student respects (e.g., a teacher) praises the student for the ability to stick with a task even if it's difficult, the student may well incorporate that attribute into his self image: "I am the type of kid who keeps working even if a project is hard." That self-concept may, in turn, influence the child's behavior. If the praise does not change the child's self-concept, not only will the behavior not improve, it may get worse.

One key to effective praise appears to be sincerity. To motivate students—especially older students who are more discerning and better able to appreciate the differences between what is said and what is meant—teachers need to avoid praise that is not truthful, is designed to control behavior, or has not been earned. Each of these is briefly explained below.

**Dishonest Praise**

Most researchers take it as self-evident that the praise will not have much impact if the student perceives that it is not truthful—the student will simply dismiss it (Henderlong and Lepper, 2002). There has not been extensive research on when students perceive praise to be insincere, but it has been suggested (e.g., O'Leary and O'Leary, 1977) that very global, effusive praise ("You are the smartest boy ever!") carries a higher risk of disbelief than specific praise ("You did very well on that set of problems"). There also may be times that the praise may be demonstrably untrue to the student, such as praising a student for her hard work when she knows quite well that she didn't work hard.

**Controlling Praise**

Praise may also be insincere if the purpose is not to congratulate the student, but rather to control him. As it sounds, "control" in this case means that the praise includes language meant to direct what the student does. Several studies have compared the effect of controlling praise (usually including a direction of something the student should do, such as, "Good job on your journal entry; you should write that legibly every day") to similar praise without the controlling phrase (such as, "Good job on your journal entry; it was very legible"). Results typically show that that praise increases later motivation to engage in the praised task, but controlling praise reverses the effect (Deci, Koestner, and Ryan, 1989).

For example, in one study, Audrey Kast and Kathleen Connor (1988) had third-, fifth-, and eighth-graders complete some word-search puzzles. (Previous work had shown that children in these age groups enjoyed these puzzles.) Three days later, the puzzles were returned with feedback written on them. Some children were given praise feedback: "Good. You did very well on this game. You were right on almost all the puzzles." Other children received praise-with-control feedback: "Good. Keep it up. I would like you to do even better on the next game." A third group received no feedback. All children then completed a brief questionnaire meant to measure how interesting they found the puzzles. The results showed that children in each grade receiving praise-with-control reported that they found the puzzles less interesting than children receiving praise or children receiving no feedback. The praise feedback led to slightly higher scores than no feedback, but in this study the difference was not statistically significant.

Why does the controlling element undercut the praise? Think back to the explanation of why praise works in the first place—it makes the student think, "I'm the kind of kid who enjoys puzzles and does them well." When "keep it up" is added, the student is less likely to make that attribution to himself or herself. The student is more likely to think, "I'm doing these puzzles because the teacher wants me to, not because I enjoy them."

**Unearned Praise**

Praise may also go wrong if the teacher tries too hard to boost the student's motivation or self-esteem. Suppose you have a student who seldom succeeds; he doesn't seem to try hard, he often doesn't complete his work, and he clearly lacks confidence. The student turns in a project and you can see at a glance that, although the project completes the assignment, it is not the best work the student can do. Would you praise the student anyway, since he at least submitted something?

It is easy to understand that a teacher would want to encourage this student, but whether or not praise will backfire in this situation depends on whether or not the student is sophisticated enough to understand the unspoken message behind praise for poor work. Research shows that younger students generally just take praise at face value, but older students (middle school and beyond) are sensitive to deeper meanings (Barker and Graham, 1987; Meyer et al., 1979). To understand the message that praise might carry to a middle- or high-school student, first consider how you typically react to poor performance in others. Imagine that one of your fellow teachers has been asked to write a proposal to a funding group and has done a poor job. If you believe that she failed because she put little effort into the job, you would react negatively, probably feeling that she deserved blame for poor work (and that if she went back and tried harder, the result would be better). If, on the other hand, you believe that this sort of expository writing is difficult for her, you would not blame her; you would believe that she failed because she lacks ability (and that asking her to do better would not elicit better work). Students—especially older students—understand this pattern as well. They understand that people are typically criticized for lack of effort, but not for lack of ability. Consider, then, the silent message that a teacher sends when he praises a student for mediocre work. By not criticizing substandard work, the teacher implicitly says, "I believe that you are not capable of anything better. This work is not all that good, but I know it's the best you can do" (Meyer, 1992; Meyer, Mittag and Engler, 1986). The student would assume that the teacher doesn't think that the problem was one of effort, because if it had been, the teacher would have told the student to try harder, rather than praising him.

Now think about how you respond when you fail. When you fail, your feelings about it are shaped by your attribution of *why* you failed. If you believe that you failed because you didn't work hard, the failure doesn't affect your self-concept much. You don't like the fact that you failed, but you attribute the failure to lack of effort, and you know that effort is under your control; next time, you can work harder. But if you believe that you failed because you lack ability, that is much more discouraging. Your level of ability is not so easily changed, so there is little you can do to succeed if you try again.

Now let's return to the effect on the student of praising mediocre work. In so doing, the teacher essentially says, "This work is fine ... for a person of your ability. It's not that you didn't try hard. You just can't do better." Thus, by praising the student, the teacher offers an interpretation—the more damaging interpretation—of why the work is not very good. It would have been more encouraging to the student to have been told, "It's great that you finished the assignment, but I'm a little disappointed in the quality of this work because I know you can do better." Ironically, the teacher who praises substandard work in an effort to provide encouragement will have just the opposite effect on the student.

Praise Should Emphasize Process, Not Ability

Praise can take many forms. One could praise the product of the student's work ("That's a wonderful story") or some attribute of the process that went into making the product ("I'm proud of how hard you worked on that story") or the student's ability ("You're a really good writer"). There is evidence that any of these types of praise can have positive effects on motivation (Henderlong and Lepper, 2002)—at least in the short run. But Carol Dweck and her colleagues (Dweck, 2002; Kamins and Dweck, 1999; Mueller, and Dweck, 1998) have argued persuasively that praising ability can have more subtle, negative influences later.

To understand why, we must first examine how students think about ability. Dweck's research has examined one ability most often: intelligence. She argues that students may take a fixed or a malleable view of intelligence. Students who take a fixed view believe that intelligence is a basic characteristic about an individual that cannot be changed. Students with the malleable view believe that intelligence can be changed, depending on what a person does. Dweck has found that students with the fixed view are very concerned about looking smart. This concern is natural, given that they believe that intelligence is fixed; once it's been established that you are *not* smart, they think that there is nothing that can be done about it.

Children also hold different beliefs about the meaning of failure, and about the value of effort, depending on whether they think intelligence is fixed or malleable. For the child with the fixed view, failure is very negative. They may view a single test as a measure of their intelligence for the rest of their lives (Stone and Dweck, 1998). Children with the malleable view are less concerned about failure because they do not view performance on any one task as a reflection of how smart they are, and because they believe that if they do fail, there is something they can do about it: Try harder. Thus, children with a malleable view of intelligence believe that effort is useful. Children with a fixed view do not. For example, these children tend to agree with statements like, "It doesn't matter how hard you work—if you're smart, you'll do well, if you're not smart, you won't." These views lead children to an odd conclusion: Effort is a sign of stupidity. According to the fixed view, if you're smart, you don't need to work hard. Thus, working hard is a sign of not being smart. Dweck (2001) eloquently describes the trap these students have created for themselves: It is desperately important to them that they appear smart, but they believe that they must achieve the signs of success without working hard.

What does a child's view of intelligence have to do with praise? Dweck's research indicates that one important source of these views is the type of praise that children get from adults. If adults praise what the children *are* (such as "smart"), they attribute their success to a fixed character that they possess. If adults praise something the children *do* (such as focus on the task), they attribute their success to their efforts, which are under their control.

In one study (Mueller and Dweck, 1998), the researchers had fifth-graders complete some relatively easy problems, whereupon they were given intelligence praise (including the phrase, "You must be smart at these problems") or effort praise, ("You must have worked hard at these problems") or positive feedback about their high score, but no other praise. On a questionnaire administered soon after, the students who heard intelligence praise were more likely to believe the fixed view of intelligence than those who heard the effort praise. At least for the duration of the study, praise from an adult that emphasized ability or effort influenced children's views about intelligence.

Praising ability is harmless in the short run; indeed, many studies show positive effects on motivation immediately following ability praise. But in the long run, praising ability backfires. The problems come when the child encounters difficulty. When faced with difficulty, the child who has been praised for her effort (and, therefore, holds the malleable view of intelligence) will work harder and seek more experiences from which she can learn. The student who has been praised for her ability (and, therefore, holds the fixed view of intelligence) will seek to maintain the "intelligent" label and will try to look good, even at the expense of learning. In fact, even if they are told they will not learn much from them, these children will seek out tasks that are easy (and, therefore, on which they will likely succeed). In contrast, children with a malleable view will select tasks that are tougher, if they are told that they will learn from them (Dweck and Leggett, 1988; Stone and Dweck, 1998).

Although it has not been studied as thoroughly, praise that uses social comparisons—praising the child as being better than her peers—may operate the same way that ability praise does: offering an immediate boost in motivation, but backfiring when the student is faced with difficulty. A teacher might say to the class, "I really like the way Jane has put away her materials and is ready to work," in an effort to hurry those who are not ready, but the message to Jane is that she's praiseworthy not because she got ready quickly, but because she got ready *first*. Praise that tells children they are better than their peers *does* increase motivation (e.g., Boggiano and Ruble, 1979; Shanab, Peterson, Dargahi, and Deroian, 1981), but its effect on motivation when the child later fails is not clear. If the next day the teacher says, "I really like the way Sam is ready to work...," will Jane be pleased that she is also ready quickly, or will she be disappointed because this time she wasn't first? The effects of social comparison praise are not yet fully known, but work in related areas indicates that comparison praise might do more harm than good.

The clear conclusion from this work is that teachers should not encourage the fixed view of intelligence through *ability* praise. But isn't there a potential problem in praising student's *effort*? Older children might already have the fixed view of intelligence fairly well entrenched. I know I did—how well I remember sitting in my sixth-grade classroom before a test, arguing with my friends about who had studied the least. If I had been praised with the words, "You tried really hard," I would have taken that as polite code for, "You're a dim bulb, but nice try."

There are two solutions to the problems presented by both ability and social comparison praise. First, the idea is to praise a *process* that the student has applied. Effort is just one example of such a process. The student might also be praised for using good strategies for a project, showing good concentration, sticking with a project when obstacles arose, thoughtful planning, paying attention to details, and so on.

Second, the teacher can talk to students directly about fixed versus malleable views of intelligence, encouraging the latter. Students may think that people who have achieved great things did so easily, because they have a lot of ability. Teachers know better, and they can share this knowledge with students through the study of biographies. Students are often surprised to learn that musicians or athletes whom they respect are not simply talented, but also work very hard at their craft. Student athletes are usually familiar with this principle from personal experience. They are all familiar with the kid on the team who has a lot of ability, but doesn't work hard. They know that such athletes are seldom the best players, and they are certainly not esteemed by the rest of the team. Student athletes at the college level always understand this analogy, but they are almost always surprised that it applies to academics.

Praise Should Be Immediate and Unexpected

It is self-evident that praise should immediately follow the praiseworthy act. Praise obviously loses much of its informational and motivational impact if the teacher praises a child for having shown good effort two weeks ago. The trickier issue is the predictability with which the student is praised. Praise that comes like clockwork presents a potential problem: The student may start to work with the expectation of being praised.

Research has shown that predictability is an important variable in understanding the effect of rewards on motivation. In one classic study (Lepper, Greene, and Nisbett, 1973), preschool children were either rewarded for drawing with markers (with an attractive "Good Player" certificate) or not rewarded. Of the children who were rewarded, some were told in advance that playing with markers would earn them the reward, whereas others received the reward as a surprise. (Naturally, the three groups of children were studied separately.) One week later, all of the children were given the opportunity to play with markers, among other activities. On average, the children who expected the reward spent less time playing with markers than they had before the experiment started, and less than the non-rewarded children. Crucially, the children who received the reward as a surprise behaved like the non-rewarded children. These results have been replicated in other studies with other tasks and children of other ages (Deci et al., 1999).

The expectation of the reward is so important because it changes the child's attribution of why he plays with the markers. The child who expects no reward rightfully believes, "I'm playing with these markers because it is fun." The child who expects a reward may believe, "I'm playing with these markers because I'm going to get a reward if I do." Later, if no reward is promised, the child sees less reason to play with the markers.

Since praise is essentially a verbal reward, it is important to avoid punctiliously doling out praise every time students engage in a particular behavior. Teachers would like students to work for intrinsic rewards, not to gather praise. Therefore, praise should be an unexpected bonus, not a right. For the student who is already a praise addict, the teacher might engage the student in a positive conversation about the work (such as showing interest in why he made particular choices in its execution), but resist the urge to offer explicit praise. The student will likely continue to bid for praise. If the teacher is trying to curb the student's appetite for praise, it is important not to give in at this point; doing so sets up a new implicit bargain with the student: "Ask me for praise and you won't get it, but if you keep asking, I can be worn down."

The goal is not simply to get the child to stop asking for praise; it is to help the child to think of his work differently—as something that is done for the student's own satisfaction, not to garner praise from the teacher. The teacher might encourage the student to think in those terms by the language she uses to discuss the work; she can model for the student the way that she would like the student to think about the work. The teacher can also show that independence is a worthy value in the classroom. The student who continually approaches the teacher for praise might be told, "You are working so well on your own that I don't think you really need to check in with me. Why don't you continue with your independent work, and let's check in later in the morning."

**Praise in Perspective**

It likely comes as no surprise that praise is neither an automatic expander of self-esteem, nor the ruin of a child's self-efficacy. Praise can take so many forms that its effects are inevitably complex. Still, some useful generalizations can be made. Praise should be sincere, meaning that the child has done something praiseworthy. The content of the praise should express congratulations (rather than express a wish of something else the child should do). The target of the praise should be not an attribute of the child, but rather an attribute of the child's behavior. Parents and teachers are familiar with the admonition "criticize the behavior, not the child." For similar reasons, the same applies to praise—praising the child carries the message that the attribute praised is fixed and immutable. Praising the process the child used encourages the child to consider praiseworthy behaviors as under his or her control.

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