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## In Praise of Better Praise

By [Maria Konnikova](#)

In 1911, the psychologist Edward Thorndike [proposed](#) a fundamental law of animal behavior called the Law of Effect. Reward a behavior, and it would be more likely to take place again; punish the behavior, and it would be less likely to recur. Thorndike's subject of choice was the cat, and his reward of choice, food. He would put a hungry cat in what he called a puzzle box—a small, cage-like contraption that could be opened by the press of a lever or a bar—and place a dish of food outside the box. If the cat learned how to use the box's opening mechanism, it would be rewarded with a tasty morsel. The positive reward led to faster learning, until the cat became a master puzzle-box operator. Most behaviors, Thorndike eventually concluded, could be shaped with positive feedback.

What is true for cats, Thorndike argued, also applies to humans. But while food does sometimes enter the picture—there's nothing quite so motivating as a growling stomach when you have work to do—the rewards for a human tend to be more subtle, often taking an altogether intangible form: praise. Teachers commonly believe that praising students, especially for their innate intelligence, improves their confidence and leads to better learning. That notion has crept into other areas as well. One of the most popular formats for workplace-performance reviews is the so-called feedback sandwich: if you want to offer a colleague or a subordinate some criticism, it's more effective to sandwich it between two pieces of praise.



Some recent psychological studies suggest otherwise. Far from leading to improved learning, praise—especially the inflated kind that seems so prevalent in the “everyone is a winner” age—may actually backfire. In research to be published [soon](#) in the journal *Psychological Science*, Eddie Brummelman, a doctoral student in psychology at Utrecht University, in the Netherlands, and his colleagues investigated how children’s achievement is affected by inflated praise (“Incredibly beautiful!” in lieu of “Beautiful!” or “Excellent!” instead of “Good!”).

They asked parents to give their child a set of twelve math problems, each of which had to be completed within thirty seconds. As the child worked and the parent looked on, marking in an answer key whether the problem was solved correctly, the researchers taped the interaction. Independent coders then watched the footage and counted both the number of times the parent praised the child during the exercise and whether the praise was inflated. Brummelman first discovered that adults were significantly more likely to offer ardent praise to the children they thought needed it most—those with the lowest self-esteem. The more they praised a child, the adults believed, the better she would feel about herself, the harder she would work, and the better she would perform.

The reality, however, contrasted with the researchers’ expectations. Children who were praised emphatically did do better—but only if they had high opinions of themselves to begin with. Those with low self-esteem, on the other hand, became far less likely to take on new challenges in the future. In a separate study, Brummelman and his colleagues asked a group of children to copy van Gogh’s “[Wild Roses](#).” They were told that their pictures would be judged by a professional painter (who, in reality, didn’t exist). When each child finished her drawing, she was told to wait while the painter had a look. A few minutes later, she received a handwritten note: her drawing was either “incredibly beautiful” or simply “beautiful.”

After reading the note, the child was again given a chance to draw. This time, however, she could choose the picture she would copy from several options—some relatively simple and others more complex. The experimenter explained that the difficult pictures would likely lead to mistakes, but that “you’ll definitely learn a lot, too,” and that the easy pictures would be much more straightforward, but “you won’t learn much.” The low-self-esteem kids who had received inflated praise chose to stick to the easier tasks—and thus lowered their over-all rates of learning and acquiring new drawing skills. All it took was one adverb—“incredibly”—and well-meant reinforcement backfired where it was most needed.

The rationale of the children with low self-esteem seemed reasonable enough: if there’s a chance you’ll fail—or perform worse—why try? As Thorndike pointed out, after you’ve been rewarded once, you want to be rewarded again. So you shy away from any future behavior that could undermine your expected positive feedback, turning away from difficult challenges because you are more likely to be praised if you stick to something that you know you can accomplish.

It’s not just inflated praise that can backfire; so can praise that links a child’s success to some personal trait: “Wow, you’re great,” for instance, instead of, “Wow, you did a great job.” Brummelman found in [earlier research](#) that, after a child received personal praise, she felt ashamed after failing at a subsequent task, but if she had been praised for the activity itself, or got no praise at all, there was no shame. Attributing successes to children’s positive personal

traits, the researchers speculated, likewise made the children attribute failures to their personal shortcomings; if they couldn't do it, they must somehow be to blame.

Carol Dweck, a social psychologist at Stanford University, studies how small changes to a person's mind-set, or the way she sees herself, can translate to large changes in performance, motivation, and intelligence. "If praise is not handled properly," she has said, "it can become a negative force, a kind of drug that, rather than strengthening students, makes them passive and dependent on the opinion of others."

When Dweck and Claudia Mueller [evaluated](#) the effects of various types of praise on fifth graders' academic performance, they found that children who had been praised for their intelligence—as opposed to their effort and problem-solving strategies—not only performed worse on subsequent problems but became less persistent in the face of failure, chose easier tasks, and enjoyed their work less. What's more, they became more likely to misrepresent their scores to others: thirty-eight per cent of the children who had been praised for their intelligence inflated the number of problems they'd solved correctly, compared with just thirteen per cent of those who were praised for effort. They cared so much about how their performance reflected on them that they resorted to lying.

These students also became less likely to ask for help: instead of seeking assistance from their classmates on problem-solving strategies when they were struggling, they became more likely to inquire instead about their peers' test scores, against which they could then evaluate their own performance. Perhaps most perniciously, the praise changed the way they thought about intelligence itself. Children who had been praised for being smart became far more likely to view intellect as a fixed entity—determined at birth and stable throughout life—whereas those praised for effort became more likely to see it as a result of hard work that could improve and grow over time.

That final difference may be the most telling of all. Dweck has [found](#) that people with a fixed mind-set—that is, those who believe that our intellect and abilities are determined by the luck of the draw at birth, and that nothing we do will change that—tend to perform worse over time. They are less motivated in their studies, have a harder time learning from mistakes, and perform less well in high school, college, and beyond. Those who see intelligence as malleable, on the other hand, can end up not only performing better and learning more from their failures but even raising their I.Q. scores by being more [motivated](#).

The research by Brummelman and Dweck shows that the effects of praise take root at an early age. And when you give feedback to an adult colleague the same patterns may well apply: an overly positive framework risks invalidating any concrete feedback you might have. Despite its prevalence, the "feedback sandwich" seems to have [little effect](#) on performance and, one suspects, it may actually cause more harm than good.

But, anyway, fantastic job on finishing this piece. You are such a good reader.

*Illustration by Bendik Kaltenborn.*