

Carol Dweck on Praising for Effort, Not Intelligence

(Originally titled “The Perils and Promises of Praise”)

In this *Educational Leadership* article, Stanford psychology professor Carol Dweck continues her lucid explanation of the erroneous beliefs that many Americans hold about intelligence and the ways we need to change them. “Many believe that (1) praising students’ intelligence builds their confidence and motivation to learn, and (2) students’ inherent intelligence is the major cause of their achievement in school. Our research has shown that the first belief is false and the second can be harmful – even for the most competent students.”

Dweck says that the impact of praise is closely linked to how students view intellectual ability, and they tend to hold one of two beliefs:

• *Intelligence is a fixed trait* – “Students with this fixed mind-set become excessively concerned with how smart they are,” says Dweck, “seeking tasks that will prove their intelligence and avoiding ones that might not. The desire to learn takes a back seat.” Students who think this way tend to:

- Care a lot about whether people think they are smart or not smart;
- Avoid learning challenges where they might make mistakes;
- Try to hide mistakes rather than trying to correct them;
- Believe that if they have the ability, they shouldn’t have to try hard;
- Believe that needing to apply a lot of effort means they’re dumb;
- Not deal well with frustration and setbacks, sometimes giving up or cheating.

• *Intelligence can be improved* – “When students believe they can develop their intelligence, they focus on doing just that,” writes Dweck. “Not worrying about how smart they will appear, they take on challenges and stick to them... They don’t necessarily believe that anyone can become an Einstein or a Mozart, but they do understand that even Einstein and Mozart had to put in years of effort to become who they were.” Students with the growth belief system tend to:

- Care about and invest themselves in learning;
- Believe that effort is a positive thing, causing their intelligence to grow;
- Try hard in the face of frustration and failure;
- Look for new learning strategies.

“More and more research in psychology and neuroscience supports the growth mind-set,” says Dweck. “We are discovering that the brain has more plasticity over time than we ever imagined; that fundamental aspects of intelligence can be enhanced through learning; and that dedication and persistence in the face of obstacles are key ingredients in outstanding achievement.”

It turns out that the way adults praise children's successes and failures has a direct impact on the mind-set children develop. Dweck and her colleagues have conducted a series of fascinating experiments in recent years and found the following:

- *Praising for intelligence* – Many educators and parents believe that commending children for being smart will increase their self-confidence and help them enjoy learning. Not true! “Praising students’ intelligence gives them a short burst of pride,” says Dweck, “followed by a long string of negative consequences.” This kind of praise pushes the child into the innate-intelligence mind-set, which makes them more fearful of messing up, less willing to work hard to learn new skills, less adventurous with difficult challenges, more prone to cheat or give up, and less confident in their ability to be successful. “Praising students for their intelligence, then, hands them not motivation and resilience but a fixed mind-set with all its vulnerability,” concludes Dweck.

- *Praising for effort* – By contrast, commending students for the *processes* they use – engagement, perseverance, strategies, improvement – fosters motivation, increased effort, willingness to take on new challenges, greater self-confidence, and a higher level of success. “Process praise keeps students focused, not on something called ability that they may or may not have and that magically creates success or failure, but on processes they can all engage in to learn,” writes Dweck.

Here's what this kind of adult praise sounds like: “You really studied for your English test, and your improvement shows it. You read the material over several times, outlined it, and tested yourself on it. That really worked!” and “It was a long, hard assignment, but you stuck to it and got it done. You stayed at your desk, kept up your concentration, and kept working. That's great!”

What about a student who works hard and does poorly? Dweck suggests saying, “I liked the effort you put in. Let's work together some more and figure out what you don't understand.” How about a student who gets an A without trying very hard? Dweck suggests saying, “All right, that was too easy for you. Let's do something more challenging that you can learn from.”

To test this theory, Dweck and her colleagues worked with a group of New York City seventh graders whose math grades had been plummeting in the opening months of school. The researchers gave two groups of students, the intervention group and the control group, a series of workshops on study skills, time management, and memory strategies. In addition, the students in the intervention group were presented with information about how intelligence develops. “They learned that the brain is like a muscle,” says Dweck, “the more they exercise it, the stronger it becomes. They learned that every time they try hard and learn something new, their brain forms new connections that, over time, make them smarter. They learned that intellectual development is not the

natural unfolding of intelligence, but rather the formation of new connections brought about through effort and learning.”

The students who heard this information were riveted, says Dweck. “The idea that their intellectual growth was largely in their hands fascinated them.” Even the most disruptive students calmed down and listened. “You mean I don’t have to be dumb?” asked a particularly unruly boy. Teachers noticed a marked improvement in the motivation and effort of the intervention group, despite having been kept in the dark about what the intervention was. In the past, the boy who thought he was dumb had rarely turned in homework and put in minimal effort beforehand; now he worked for hours to finish an assignment early, got feedback from his teacher, revised it, and earned a B+. Overall, the intervention students turned around their math achievement and made dramatic gains. The achievement of the control-group students, despite the workshops on study skills, continued to decline.

Dweck and her colleagues extended the study to 20 New York City schools and got similar results. One student said she could actually “picture the neurons growing bigger as they make more connections.” Another student said, “If you do not give up and you keep studying, you can find your way through.”

“Adolescents often see school as a place where they perform for teachers who then judge them,” concludes Dweck. “The growth mind-set changes that perspective and makes school a place where students vigorously engage in learning for their own benefit. Our research shows that educators cannot hand students confidence on a silver platter by praising their intelligence. Instead, we can help them gain the tools they need to maintain their confidence in learning by keeping them focused on the *process* of achievement.”

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