

The Pygmalion Effect: Proving Them Right

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The Pygmalion Effect is a powerful secret weapon. Without even realizing it, we can nudge others towards success. In this article, discover how expectations can influence performance for better or worse.

How Expectations Influence Performance

Many people believe that their pets or children are of unusual intelligence or can understand everything they say. Some people have stories of abnormal feats. In the late 19th century, one man claimed that about his horse and appeared to have evidence. William Von Osten was a teacher and horse trainer. He believed that animals could learn to read or count. Von Osten's initial attempts with dogs and a bear were unsuccessful, but when he began working with an unusual horse, he changed our understanding of psychology. Known as Clever Hans, the animal could answer questions, with 90% accuracy, by tapping his hoof. He could add, subtract, multiply, divide, and tell the time and the date.

Clever Hans could also read and understand questions written or asked in German. Crowds flocked to see the horse, and the scientific community soon grew interested. Researchers

studied the horse, looking for signs of trickery. Yet they found none. The horse could answer questions asked by anyone, even if Von Osten was absent. This indicated that no signaling was at play. For a while, the world believed the horse was truly clever.

Then psychologist Oskar Pfungst turned his attention to Clever Hans. Assisted by a team of researchers, he uncovered two anomalies. When blinkered or behind a screen, the horse could not answer questions. Likewise, he could respond only if the questioner knew the answer. From these observations, Pfungst deduced that Clever Hans was not making any mental calculations. Nor did he understand numbers or language in the human sense. Although Von Osten had intended no trickery, the act was false.

Instead, Clever Hans had learned to detect subtle, yet consistent nonverbal cues. When someone asked a question, Clever Hans responded to their body language with a degree of accuracy many poker players would envy. For example, when someone asked Clever Hans to make a calculation, he would begin tapping his hoof. Once he reached the correct answer, the questioner would show involuntary signs. Pfungst found that many people tilted their head at this point. Clever Hans would recognize this behavior and stop. When blinkered or when the questioner did not know the answer, the horse didn't have a clue. When he couldn't see the cues, he had no answer.

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Von Osten died in 1909 and Clever Hans disappeared from record. But his legacy lives on in a particular branch of psychology.

The case of Clever Hans is of less interest than the research it went on to provoke. Psychologists working in the decades following began to study how the expectations of others affect us. If someone expected Clever Hans to answer a question and ensured that he knew it, could the same thing occur elsewhere?

Could we be, at times, responding to subtle cues? Decades of research have provided consistent, robust evidence that the answer is yes. It comes down to the concepts of the self-fulfilling prophecy and the Pygmalion effect.

The Pygmalion effect is a psychological phenomenon wherein high expectations lead to improved performance in a given area. Its name comes from the story of Pygmalion, a mythical Greek sculptor. Pygmalion carved a statue of a woman and then became enamored with it. Unable to love a human, Pygmalion appealed to Aphrodite, the goddess of love. She took pity and brought the statue to life. The couple married and went on to have a daughter, Paphos.

False Beliefs Come True Over Time

In the same way Pygmalion's fixation on the statue brought it to life, our focus on a belief or assumption can do the same. The flipside is the Golem effect, wherein low expectations lead to decreased performance. Both effects come under the category of self-fulfilling prophecies. Whether the expectation comes from us or others, the effect manifests in the same way.

The Pygmalion effect has profound ramifications in schools and organizations and with regard to social class and stereotypes. By some estimations, it is the result of our brains' poorly distinguishing between perception and expectation. Although many people purport to want to prove their critics wrong, we often merely end up proving our supporters right.

Understanding the Pygmalion effect is a powerful way to positively affect those around us, from our children and friends to employees and leaders. If we don't take into account the ramifications of our expectations, we may miss out on the dramatic benefits of holding high standards.

The concept of a self-fulfilling prophecy is attributed to sociologist Robert K. Merton. In 1948, Merton published the first paper on the topic. In it, he described the phenomenon as a false belief that becomes true over time. Once this occurs, it creates a feedback loop. We assume we were always correct because it seems so in hindsight. Merton described a self-fulfilling prophecy as self-hypnosis through our own propaganda.

As with many psychological concepts, people had a vague awareness of its existence long before research confirmed anything. Renowned orator and theologian Jacques Benigne Bossuet declared in the 17th century that "The greatest weakness of all weaknesses is to fear too much to appear weak."

Even Sigmund Freud was aware of self-fulfilling prophecies. In *A Childhood Memory of Goethe*, Freud wrote: "If a man has been his mother's undisputed darling he retains throughout life the triumphant feeling, the confidence in success, which not seldom brings actual success with it."

The IQ of Students

Research by Robert Rosenthal and Lenore Jacobson examined the influence of teachers' expectations on students' performance. Their subsequent paper is one of the most cited and discussed psychological studies ever conducted.

Rosenthal and Jacobson began by testing the IQ of elementary school students. Teachers were told that the IQ test showed around one-fifth of their students to be unusually intelligent. For ethical reasons, they did not label an alternate group as unintelligent and instead used unlabeled classmates as the control group. It will doubtless come as no surprise that the "gifted" students were chosen at random. They should not have had a significant statistical advantage over their peers. As the study period ended, all students had their IQs retested. Both groups showed an improvement. Yet those who were described as intelligent experienced much greater gains in their IQ points. Rosenthal and Jacobson attributed this result to the Pygmalion effect.

Teachers paid more attention to “gifted” students, offering more support and encouragement than they would otherwise. Picked at random, those children ended up excelling. Sadly, no follow-up studies were ever conducted, so we do not know the long-term impact on the children involved.

Prior to studying the effect on children, Rosenthal performed preliminary research on animals. Students were given rats from two groups, one described as “maze dull” and the other as “maze bright.” Researchers claimed that the former group could not learn to properly negotiate a maze, but the latter could with ease. As you might expect, the groups of rats were the same. Like the gifted and nongifted children, they were chosen at random. Yet by the time the study finished, the “maze-bright” rats appeared to have learned faster. The students considered them tamer and more pleasant to work with than the “maze-dull” rats.

In general, authority figures have the power to influence how the people subordinate to them behave by holding high expectations. Whether consciously or not, leaders facilitate changes in behavior, such as by giving people more responsibility or setting stretch goals. Like the subtle cues that allowed Clever Hans to make calculations, these small changes in treatment can promote learning and growth. If a leader thinks an employee is competent, they will treat them as such. The employee then gets more opportunities to develop their competence, and their performance improves in a positive feedback loop. This works both ways. When we expect an authority figure to be competent or successful, we tend to be attentive and supportive. In the process, we bolster their performance, too. Students who act interested in lectures create interesting lecturers.

In *Pygmalion in Management*, J. Sterling Livingston writes,

Some managers always treat their subordinates in a way that leads to superior performance. But most ... unintentionally treat their subordinates in a way that leads to lower performance than they are capable of achieving. The way managers treat their subordinates is subtly influenced by what they expect of them. If manager's expectations are high, productivity is likely to be excellent. If their expectations are low, productivity is likely to be poor. It is as though there were a law that caused subordinates' performance to rise or fall to meet managers' expectations.

The Pygmalion effect shows us that our reality is negotiable and can be manipulated by others — on purpose or by accident. What we achieve, how we think, how we act, and how we perceive our capabilities can be influenced by the expectations of those around us. Those expectations may be the result of biased or irrational thinking, but they have the power to affect us and change what happens. While cognitive biases distort only what we perceive, self-fulfilling prophecies alter what happens.

Of course, the Pygmalion effect works only when we are physically capable of achieving what is expected of us. After Rosenthal and Jacobson published their initial research, many people were entranced by the implication that we are all capable of more than we think. Although that can be

true, we have no indication that any of us can do anything if someone believes we can. Instead, the Pygmalion effect seems to involve us leveraging our full capabilities and avoiding the obstacles created by low expectations.

Clever Hans truly was an intelligent horse, but he was smart because he could read almost imperceptible nonverbal cues, not because he could do math. So, he did have unusual capabilities, as shown by the fact that few other animals have done what he did.

We can't do anything just because someone expects us to. Overly high expectations can also be stressful. When someone sets the bar too high, we can get discouraged and not even bother trying. Stretch goals and high expectations are beneficial, up to the point of diminishing returns. Research by McClelland and Atkinson indicates that the Pygmalion effect drops off if we see our chance of success as being less than 50%. If an endeavor seems either certain or completely uncertain, the Pygmalion effect does not hold. When we are stretched but confident, high expectations can help us achieve more.

Check Your Assumptions

In *Self-Fulfilling Prophecy: A Practical Guide to Its Use in Education*, Robert T. Tauber describes an exercise in which people are asked to list their assumptions about people with certain descriptions. These included a cheerleader, "a minority woman with four kids at the market using food stamps," and a "person standing outside smoking on a cold February day." An anonymous survey of undergraduate students revealed mostly negative assumptions. Tauber asks the reader to consider how being exposed to these types of assumptions might affect someone's day-to-day life.

The expectations people have of us affect us in countless subtle ways each day. Although we rarely notice it (unless we are on the receiving end of overt racism, sexism, and other forms of bias), those expectations dictate the opportunities we are offered, how we are spoken to, and the praise and criticism we receive. Individually, these knocks and nudges have minimal impact. In the long run, they might dictate whether we succeed or fail or fall somewhere on the spectrum in between.

The important point to note about the Pygmalion effect is that it creates a literal change in what occurs. There is nothing mystical about the effect. When we expect someone to perform well in any capacity, we treat them in a different way. Teachers tend to show more positive body language towards students they expect to be gifted. They may teach them more challenging material, offer more chances to ask questions, and provide personalized feedback. As Carl Sagan declared, "The visions we offer our children shape the future. It matters what those visions are. Often they become self-fulfilling prophecies. Dreams are maps."

A perfect illustration is the case of James Sweeney and George Johnson, as described in *Pygmalion in Management*. Sweeney was a teacher at Tulane University, where Johnson worked as a porter. Aware of the Pygmalion effect, Sweeney had a hunch that he could teach anyone to

be a competent computer operator. He began his experiment, offering Johnson lessons each afternoon. Other university staff were dubious, especially as Johnson appeared to have a low IQ. But the Pygmalion effect won out and the former janitor eventually became responsible for training new computer operators.

The Pygmalion effect is a powerful secret weapon. Who wouldn't want to help their children get smarter, help employees and leaders be more competent, and generally push others to do well? That's possible if we raise our standards and see others in the best possible light. It is not necessary to actively attempt to intervene. Without even realizing it, we can nudge others towards success. If that sounds too good to be true, remember that the effect holds up for everything from rats to CEOs.

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