

Pygmalion effect

The **Pygmalion effect**, or **Rosenthal effect**, is the phenomenon whereby higher expectations lead to an increase in performance.^[1] The effect is named after the Greek myth of [Pygmalion](#), a sculptor who fell in love with a statue he had carved, or alternately, after the Rosenthal–Jacobson study (see below).

A corollary of the Pygmalion effect is the [golem effect](#), in which low expectations lead to a decrease in performance;^[1] both effects are forms of [self-fulfilling prophecy](#). By the Pygmalion effect, people internalize their positive labels, and those with positive labels succeed accordingly. The idea behind the Pygmalion effect is that increasing the leader's expectation of the follower's performance will result in better follower performance. Within [sociology](#), the effect is often cited with regard to [education](#) and [social class](#).

Studies of the Pygmalion effect have been difficult to conduct. Results show a positive correlation between leader expectation and follower performance, but it is argued that the studies are done in an unnatural, manipulated setting. Scientists argue that the perceptions a leader has of a follower cause the Pygmalion effect. The leader's expectations are influenced by their perception of the situation or the followers themselves. Perception and expectation may possibly be found in a similar part in the brain.^[2]

Rosenthal–Jacobson study

[Robert Rosenthal](#) and [Lenore Jacobson](#)'s [study](#) showed that, if [teachers](#) were led to expect enhanced performance from children, then the children's performance was enhanced. This study supported the hypothesis that reality can be positively or negatively influenced by the expectations of others, called the [observer-expectancy effect](#). Rosenthal argued that biased expectancies could affect reality and create self-fulfilling prophecies.^[3]

All students in a single California elementary school were given a disguised IQ test at the beginning of the study. These scores were not disclosed to teachers. Teachers were told that some of their students (about 20% of the school chosen at random) could be expected to be "intellectual bloomers" that year, doing better than expected in comparison to their classmates. The bloomers' names were made known to the teachers. At the end of the study, all students were again tested with the same IQ-test used at the beginning of the study. All six grades in both experimental and control groups showed a mean gain in IQ from before the test to after the test. However, First and Second Graders showed statistically significant gains favoring the experimental group of "intellectual bloomers". This led to the conclusion that teacher expectations, particularly for the youngest children, can influence student achievement. Rosenthal believed that even attitude or mood could positively affect the students when the teacher was made aware of the "bloomers". The teacher may pay closer attention to and even treat the child differently in times of difficulty.

Rosenthal predicted that [elementary school](#) teachers may subconsciously behave in ways that facilitate and encourage the students' success. When finished, Rosenthal theorized that future studies could be implemented to find teachers who would encourage their students naturally without changing their teaching methods. The prior research that motivated this study was done in 1911 by psychologists regarding the case of [Clever Hans](#), a horse that gained notoriety because it was supposed to be able to read, spell, and solve math problems by using its hoof to answer. Many skeptics suggested that questioners and observers were unintentionally signaling Clever Hans. For instance, whenever Clever Hans was asked a question the observers' demeanor usually elicited a certain behavior from the subject that in turn confirmed their expectations. For example, Clever Hans would be given a math problem to solve, and the audience would get very tense the closer he

tapped his foot to the right number, thus giving Hans the clue he needed to tap the correct number of times.^[4]

A major limitation of this experiment was its inability to be replicated well. "Most studies using product measures found no expectancy advantage for the experimental group, but most studies using process measures did show teachers to be treating the experimental group more favorably or appropriately than they were treating the control group...because teachers did not adopt the expectations that the experimenters were attempting to induce, and/or because the teachers were aware of the nature of the experiment."^[5]

Students' views of teachers

Teachers are also affected by the children in the classroom. Teachers reflect what is projected into them by their students. An experiment done by Jenkins and Deno (1969) submitted teachers to a classroom of children who had either been told to be attentive, or unattentive, to the teachers' lecture. They found that teachers who were in the attentive condition would rate their teaching skills as higher.^[6] Similar findings by Herrell (1971) stated that when a teacher was preconditioned to classrooms as warm or cold, the teacher would start to gravitate towards their precondition.^[7] To further this concept, Klein (1971) did the same kind of study involving teachers still unaware of any precondition to the classroom but with the class full of confederates who were instructed to act differently during periods over the course of the lecture. "Klein reported that there was little difference between students' behaviors in the natural and the positive conditions."^[8] In a more observational study designed to remove the likes of the [Hawthorne effect](#), Oppenlander (1969) studied the top and bottom 20% of students in the sixth grade from a school that tracks and organizes its students under such criteria.^[8]

Criticism of the Pygmalion study

[Robert L. Thorndike](#), an [educational psychologist](#), wrote that the instrument used to assess the children's IQ scores was seriously flawed.^[9] For example, the average reasoning IQ score for the children in one regular class was in the retarded range, which, given the circumstances, is impossible. In the end, Thorndike wrote the Pygmalion study's findings were worthless. He summarized his evaluation of the instrument this way: "When the clock strikes thirteen, doubt is not only cast on the last stroke but also on all that have come before....When the clock strikes 14, we throw away the clock."^[9] A meta-analysis indicates that the magnitude of the effect of inducing IQ-related expectancies in teachers is reduced by the amount of time teachers have spent getting to know their students prior to expectancy induction.^[10] When teachers have gotten to know their students for more than two weeks prior to expectancy induction, the impact of expectancy induction is virtually zero.

In the workplace

Leader expectations of the employee may alter leader behavior. This behavior that is expressed toward an employee can affect the behaviors of the employee in favor of the leader's expectations.^[11] The more an employee is engaged in learning activities, the higher the expectation is from the leader. In turn, the employee participates in more learning behavior. Leaders will show more leader behaviors such as leader-member exchange (trust, respect, obligation, etc.), setting specific goals, and allowing for more learning opportunities for employees, and giving employees feedback. These factors were brought about by Rosenthal's model of the Pygmalion effect.^[11]

See also

- [*Pygmalion in the Classroom*](#)
- [Placebo effect](#)

- [Sports psychology](#)
- [Stereotype threat](#)

References

- ^{a b} Mitchell, Terence R.; Daniels, Denise (2003). "Motivation". In Walter C. Borman; Daniel R. Ilgen; Richard J. Klimoski. *Handbook of Psychology (volume 12)*. John Wiley & Sons, Inc. p. 229. [ISBN 0-471-38408-9](#).
- [^] Whiteley, P., Sy, T., & Johnson, S. (2012). "Leaders' conceptions of followers: Implications for naturally occurring pygmalion effects". *The Leadership Quarterly*, 23(5), 822–834. doi: 10.1016/j.leaqua.2012.03.006 Referred to as leaders' implicit followership theories (or LIFTs)
- [^] [Rosenthal, Robert](#); [Jacobson, Lenore](#) (1992). *Pygmalion in the classroom : teacher expectation and pupils' intellectual development (Newly expanded ed.)*. Bancyfelin, Carmarthen, Wales: Crown House Pub. [ISBN 978-1904424062](#).
- [^] ["The Project Gutenberg eBook of Clever Hans \(The Horse of Mr. von Osten\), by Oskar Pfungst"](#). Gutenberg.org. Retrieved 2015-10-30.
- [^] Good, Jere E. Brophy, Thomas L. (1974). *Teacher-student relationships: causes and consequences*. London: Holt, Rinehart and Winston. p. 73. [ISBN 0-03-085749-X](#).
- [^] Jenkins, J. R., & Deno, S. L. (1969). *Influence of student behavior on teacher's self-evaluation*. [Journal of Educational Psychology](#), 60, 439-442
- [^] [Galatea in the Classroom: Student Expectations Affect Teacher Behavior](#); Herrell, James M.
- ^{a b} Good, Jere E. Brophy, Thomas L. (1974). *Teacher-student relationships: causes and consequences*. London: Holt, Rinehart and Winston. pp. 276–277. [ISBN 0-03-085749-X](#).

9. ^ *a b* Thorndike, R.L. (1968). Reviewed work: Pygmalion in the classroom by Robert Rosenthal and Lenore Jacobson. *American Educational Research Journal*, 5(4), 708-711.
10. ^ Raudenbush, S. W. (1984). Magnitude of teacher expectancy effects on pupil IQ as a function of the credibility of expectancy induction: A synthesis of findings from 18 experiments. *Journal of Educational Psychology*, 76(1), 85-97. doi:10.1037/0022-0663.76.1.85
11. ^ *a b* Bezuijen, X., van den Berg, P., van Dam, K., & Thierry, H. (2009). "Pygmalion and employee learning: The role of leader behaviors". *Journal of Management*, 35(5), 1248–1267. doi: 10.1177/0149206308329966

Further reading

- Feldman, Robert S.; Prohaska, Thomas (1979). "The student as Pygmalion: Effect of student expectation on the teacher". *Journal of Educational Psychology*. **71** (4): 485–493. doi:10.1037/0022-0663.71.4.485.
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External links

- [Pygmalion effect in banks, at school, and in the army](#)
- [Pygmalion Effect Video](#)