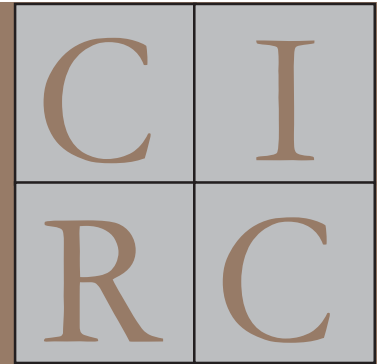


Will It Make You Try Harder If I Tell You You're Smart? Effects of Praise On Children's Intrinsic Motivation



Source: Henderlong, J. & Lepper, M. R. (2002). The effects of praise on children's intrinsic motivation: A review and synthesis. *Psychological Bulletin*, 128, 774-795.

Goals:

Teach the meaning and importance of the method of proof by disproof.

Teach the meaning and importance of creating working definitions for terms.

Teach the meaning and importance of random selection in experimental design.

Basic Idea:

This lesson discusses the effects of praise on children's motivation—when and why it works, or does not work, to make children try harder.

Gain Attention/Interest:

Why do people like compliments? Do you know anyone who prefers not to be complimented? Why does she or he feel this way?

Solicit responses and discuss. Some people may enjoy receiving compliments because it makes them feel good about themselves and makes them happy that others notice positive things about them. Others may not like receiving compliments because they find them embarrassing or don't like to be singled out from the group.

If nearly everyone likes compliments, then the more the better, right? Or wrong? Can compliments ever be bad? In this lesson we will discuss the effects of praise on motivation.

Think & Write #1

Have students give an example either of their favorite type of praise to receive or of the favorite compliment they received in the past. Have them relate this example to how/if the praise/compliment influenced their motivation to perform the targeted behavior. Also ask what they think would happen if they received this compliment more frequently.

Optional Activity

Ask for a few volunteers to share a compliment that influenced their motivation. Compare the situations for similarities and differences.



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Ask: What is Science?

It may seem obvious that compliments are good, but are they always? When they are good, how good are they—what exactly is their effect on children, and why? Should we shower kids with constant compliments? Scientists answer these questions in a specific way. Simply going home and asking their own kids, or sitting around and talking about it among themselves, is NOT what scientists do. Scientists actively seek to show that what they suspect may, in fact, be wrong. Sometimes they cannot show that an idea is wrong, and they wind up accepting that the idea is right. Scientists conduct experiments that help them eliminate all possible incorrect answers. Through these experiments, they eventually reveal the correct answer. This process is called **proof by disproof**.

1

Ask: What is Science?

Let's say you want to find seashells. Your friend tells you that the only seashell she has ever seen was at the beach, so that must be the only place you can find them. Is that a valid conclusion? No—you have to check. So, let's say you go to all the beaches in the world and you find seashells on all of them. Is that good enough to justify your friend's conclusion? Can you now say, "the only place you can find seashells is on a beach"? No—you have to double-check. You might find seashells in a museum, or on the ocean floor, or as a decoration in a hotel. If you hypothesized that seashells are only found on beaches, you would have to check TWO things.

1. Beaches have seashells.
2. Seashells can't be found anywhere else.

Now, let's do another example to make sure this is clear. Someone tells you that gray hair is caused by old age. What would you have to check?

1. Some elderly people have gray hair.
2. Young people never have gray hair.
3. Everyone with gray hair is old.

You have to find examples of your answer, as well as show that other explanations are false. You not only have to find support for your answer, but you must disprove other potential answers as well. This is the way scientists think.

Define the Problem: See Many Sides

When measuring an amount of exercise, one person might consider “exercising a lot” to be every day, while another could think of it as a couple times a week. A professional athlete might think of it as more than once a day. When using the term “a lot” you have to be sure everyone is on the same page and thinking the same way. The same is true regarding the meaning of the term “praise.”

This is important because different people define things in different ways. For example, what you consider “a lot” of praise may be quite different from what someone else considers “a lot” of praise.

Clearly defining your terms allows other people to

WORKING DEFINITION

The purpose of a working definition is to let other people know what you mean when you refer to a particular term. Working definitions may vary depending on who is using them.

know exactly what you are discussing. This is called a working definition. It’s called a **working definition** because it’s the particular definition that you are choosing to use.

2

Define the Problem:

See Many Sides.

Think & Write #2

Hypothesis formation

What exactly is a compliment/praise? Have students create their own working definition. A typical definition of praise includes:

- a positive evaluation of another’s ability, performance, or traits.
- the belief by the person giving the praise that the praise is valid.

We discussed earlier some positive aspects of praise; can anyone give any examples of when praise might be a bad thing? This is how we try to see the various sides of the issue. **Solicit responses.**

One possible example could be an overbearing parent praising her/his child and creating performance expectations that are too high and cannot be met. Another example of praise being bad is complimenting a person with an eating disorder on how she/he has lost weight. The intention may be good, but supporting an unhealthy behavior is not.

Distinguish Fact From Opinion:

Learn What Constitutes Scientific Evidence

Is praise bad? Is it good for some people, but bad for others? If we wanted to know, what could we do to find out? What is a fact about praise, and what is just an opinion? What is good evidence about how praise works, what is bad evidence that should not convince us, and how do we know the difference? What do the following cases tell us about the answers to these questions?

3

Fact Versus Opinion: What Constitutes Evidence?

- A friend telling us a story about a bad experience with praise.
- Someone who needs to get compliments all the time.
- Reading a story in the newspaper about someone going to jail after growing up in a bad environment and being criticized by his parents constantly.

All of the above are excellent examples illustrating certain effects of praise for certain people. However, they are not scientific evidence because there was no attempt to disprove any of them, for example, by ruling out other likely

possibilities. For instance, perhaps the rate of going to jail was the same among individuals who were praised a lot and those who were criticized a lot—if both groups grew up in very poor homes. If this was found to be the case, then the absence of praise could not be the cause of going to jail. To determine if this possibility is true, of course, would require that it be given a fair test, what we have been calling proof by disproof.

In scientific research, evidence can be gathered in many ways. For example, one study investigating praise and motivation had a group of young kids color a picture. The kids naturally considered coloring fun. Researchers told some of the kids in advance that they would receive a reward for coloring. Other children either received no reward, or received a reward but did not expect it.

Afterward, researchers found that the kids who expected the reward were LESS likely to want to color compared to the other children. The kids who expected a reward associated coloring with working for a reward (e.g., gaining the approval of their parents) instead of associating coloring with fun.

These results are considered evidence because they were found by **randomly selecting** the kids who received the praise and because they were based on a group of children who all participated in the same situation. The people from the earlier examples (a friend needing constant praise, a person going to jail, and so on) were individuals who were not randomly selected and whose behavior could have been influenced by a variety of other factors that we are not aware of.

Example: Scientific Evidence and Random Selection

Using anecdotes as evidence would be like using Shaquille O'Neal as an example to decide that most people are about 7 feet tall. We know that most people are not 7 feet tall, but this is the kind of incorrect conclusion that could be drawn when we don't use scientific evidence. To find the average height of all adults living in a particular city, a scientist would randomly choose a group of names from a list of all adults living in that city, and measure their heights. This is called random selection. It would give a more accurate measure of the true average height of adults in that city.

Weigh Evidence and Make Decisions

So let's return to our question: Is praise good or bad? Does it help or hurt children's motivation? Let's first define a couple of different types of motivation: intrinsic and extrinsic.

Scientists look at children's internal or intrinsic motivation, which means their inner push or desire to accomplish things. They also look at children's external or extrinsic motivation, which means the type of push that comes not from inside oneself but rather from outside—say, from someone else, from a promise of a reward (like a candy bar), or a prize. In general, intrinsic or internal motivation is better. People who do things because they want to intrinsically tend to do a better job for a longer time than people who do things because of an extrinsic or outside push. Intrinsic motivation is more powerful. Now back to praise and motivation...

Scientists have found that praise can be both good AND bad, depending on how it is interpreted by the child receiving it.

4

Weigh
Evidence
and
Make
Decisions.

In order for praise to increase internal motivation, it must have (and be seen as having) the following attributes:

Sincerity: Is the praise honest? Why would this matter? What would change if the praise was insincere or dishonest?

Performance Attribution: It is important for the cause of success to be perceived as a result of achievement and not effort. For example, praise is being told you did well rather than being told you “tried hard” or gave a “good effort.”

Autonomy: Praise should not be the reason for performing an action, rather, it should be an unexpected addition. The actual performance of an action should be separate from the praise. Sarah should not play softball to get praise from her father, she should play softball because she wants to.

Competence: Am I actually good at that or was I just lucky? Praise is not a comment that points out success as a result of luck: “Wow, congratulations, how lucky, you did it!” Rather, praise refers to beliefs about actual ability to complete a task.

Standards and Expectations: Praise needs to be specific and convey reasonable expectations, not unobtainable goals.

So, in order for something to be considered praise and to increase a person’s internal motivation, it must meet all five of these criteria. If it doesn’t meet all these criteria, scientists have found that it may not increase intrinsic motivation.

Think & Write #3

How about now?

Have students write about their thoughts now that they have learned what scientists have learned about praise and motivation. Do they feel the same as they did during Think & Write 1?

Activity

Go around the room asking students how learning about the science of praise has influenced their opinion on the favorite compliments discussed earlier, and how it will influence their complimenting behavior in the future.

5

Move From Science To Society.

Move From Science to Society

Nearly everyone gives and receives compliments frequently. Just because you intend something to be a compliment does not mean it will be taken as one. For praise to increase motivation it must be perceived in a particular way. Not everyone will interpret praise in the same way. Knowing how to give better and more effective compliments can help us all. In particular, knowing how to give compliments that will be interpreted positively by the recipient will build and strengthen the internal motivation of that person. Knowing this fact can help teachers, coaches, employers, and anyone else trying to increase the motivation of another person. How this knowledge helps people in different careers changes depending on what they use it for. **Here is some information on a few different careers that use the science related to praise. Educational requirements are also included.**

Teacher. Teachers use praise as a reward for students and to create a positive learning environment. They attend four-year colleges and get teaching certificates. Frequently, teachers return to school to earn graduate degrees.

Social Psychologist. Social psychologists study social behavior and relationships of human beings. They attend four-year colleges and then go on to graduate school.

Research Assistant. Research assistants work in laboratories, colleges, and universities. They collect information from books and from questionnaires they give to people. Research assistants attend four-year colleges and often spend some time in graduate school afterwards.

Coach. Coaches frequently use praise as a means of motivating their players to work harder and perform better. Coaches are often teachers who attend four-year colleges and earn teaching certificates. In addition to formal education, coaches typically spend a great deal of time in activities related to the sport (watching, playing, assistant coaching) before coaching.

Parent. Parents use praise to encourage their children to accomplish important things, such as cleaning their rooms.

Revisit, Review, Reflect, and Re-evaluate

As we have discussed, scientists doing research on how children respond to compliments have found that children tend to react in a certain way to certain types of compliments. As more scientists work on this question, we might find out new things. For example, we might find out that boys respond differently to compliments than girls, or that younger children respond differently than older children, or that people from one culture respond differently to compliments than people from another culture. Many of these interesting questions still need to be answered. This is why scientists revisit questions, review and reflect on their answers, and re-evaluate what they have discovered in the past. Knowledge about science is always changing, increasing, and being updated—this is what science is about.

6 Revisit, Review, Reflect, and Re-evaluate.

Think & Write #4

What's next?

Based on what they know now, have students hypothesize about which further scientific studies might be done so that scientists can better understand how praise and motivation are related. Note: some students will feel compelled simply to repeat the ideas listed above. Urge them to think further or make predictions.

Discussion Questions

1. This lesson focused on how praise influences motivation. How might a scientist study how criticism influences motivation?
2. How might using working definitions help people other than scientists?

Homework Questions

1. Find other situations in which a working definition can be used.
2. In what other situations is random selection used? Why?

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Quiz Questions

Version A

1. Scientists try to: (circle all answers that are true)
 - a. gather as much information as possible, even if it seems unrelated.
 - b. gather a different kind of information than nonscientists. Scientists want evidence not opinions.
 - c. gain support for their hypotheses by trying to show that they are wrong.
 - d. give the same weight to opinions and to evidence.
2. What is the method used by scientists to get an accurate representation of a population?
 - a. random guessing
 - b. random sampling
 - c. proof by disproof
 - d. working definition

Quiz Questions

Version B

1. Scientists try to: (circle all answers that are true)
 - a. gather as much support for their hypotheses as possible; nonscientists don't need as much support.
 - b. gather a different kind of support than nonscientists. Scientists seek evidence, not opinions.
 - c. gain support for their hypotheses by trying to show that they are wrong.
 - d. give the same weight to opinions and to evidence.
2. Give an example of a problem that might occur if you don't use random sampling.

Quiz Questions

Version C

Read each statement about scientists. State whether you agree or disagree with it, and explain why.

1. Scientists try to gather as much support for their hypotheses as possible; nonscientists don't need as much support.

2. Scientists try to gather a different kind of support than nonscientists; they want evidence not opinions.

3. Scientists try to gain support for their hypotheses by trying to show that they are wrong.

4. Why is random selection important?
