

## **The Effects of Positive Feedback on Performance Perception**

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*Nonverbal communication may have an effect on people's perceptions of themselves and their performance on certain tasks. When people receive some type of positive feedback while performing an assignment, they may overestimate the extent to which the task was successfully completed. During this study, 22 participants were asked to take three short spelling tests, then evaluate their performance on each test. For one of the tests, the researcher provided words of encouragement and nods of approval while scoring the test. There was no feedback given during the scoring of the other two tests. While the subjects did not consistently rate scores higher on the stimulus test only, it was discovered that the perceived scores were elevated regardless of the feedback condition.*

Many people are under the impression that a great deal of communication going on is nonverbal. If this is the case, then many of us are communicating most of the time. However, our awareness of this communication is limited. This study was designed to measure the extent to which positive feedback and body language would affect a participant's perception of his or her performance on a specific task. Research by Vrij, Akehurst, and Morris (1997) has suggested that there is a relationship between hand movements and deception. Liars tend to keep movements to a minimum in order to decrease any suspicions. In attempting to do this, their movements often appear very controlled and rigid. These researchers' findings may have played a part in this study due

to the fact that the researcher used deception to obtain results. There is a possibility that some subjects were able to detect this.

Still more research has indicated that it is a relatively simple matter to distinguish a fake smile from a real smile (Gosselin, Perron, Legault, & Campanella, 2002). In that study, both children and adults were exposed to three different smiles and then asked to say whether the stimulus person was happy or pretending to be happy. While the children did not possess enough knowledge about the difference between enjoyment and nonenjoyment smiles, they were able to distinguish the regions of the face that were different on each smile. The adults, however, were able to make a distinction between enjoyment and nonenjoyment smile. In spite of the children's inability to distinguish between the two types of smiles, it has been found that children may be capable of using these two types of smiles while being unaware of how they are perceived. This type of emotional control has been evidenced in preschool children (Cole, 1986; Josephs, 1994). That is, these children were able to keep smiling even when being presented with a disappointing gift. So the children in that study were able to use the nonenjoyment smile, but it seems that they were not totally cognizant of what they were doing. Again, the findings of Cole and Josephs may have had an impact on the results of this study due to the deception that was used. There is the possibility that subjects were able to detect these slight differences during the experiment.

The researcher hypothesized that the effects of positive body language would affect participants' perception of their performance. That is, those subjects who received positive body language stimulus during their experiment would believe they had performed better than those who received no stimulus, regardless of the actual

performance. The results of this study would be useful in determining the effectiveness of positive feedback in many aspects of communication. If the channels of communication were widened and honed, then all of us would benefit greatly in that we would be able to more clearly and effectively get across to others our thoughts, feelings, and ideas.

In order to test this hypothesis, the researcher designed the study so that the participants were to take three ten-word spelling tests. Participants received feedback for only one of the three tests. After each test was completed, a participants filled out a survey for that particular test to determine their thoughts on their performance.

One prediction for this study was that the lists on which participants received feedback would yield a higher mean perceived score than the score that was actually received. That is, the participants would think they did much better than they actually did when the feedback was provided. Consequently, it was predicted that the mean perceived score on the feedback lists would be significantly higher than the mean perceived score on the non-feedback lists, meaning that the participants believed they had performed worse when no feedback was given.

## Method

### *Participants*

The participants in this study were male and female Lindenwood University students enrolled in lower level behavioral science classes, such as psychology or anthropology. The ages of the participants ranged from 18 to 25. A total of 22 participants were enlisted for this study. The participants were recruited using designated sign-up sheets posted on the Human Subject Pool bulletin board in Young Hall. They received bonus points toward their respective course grades for involvement in the study.

### *Materials*

For the experiment, the researcher used paper for all necessary forms. The informed consent form was used to assure the participants that the results of the study would be kept confidential and used only for educational purposes. The spelling test survey (see Appendix A) was used to assess participants' thoughts about how well they had performed on the test. Questions included a rating scale (one to five) on overall performance, as well as some filler questions inquiring about the skill level of the words and asking participants to note any conditions under which they may have performed better or worse on the test. Pens were provided for participants to fill out all information. For each participant, the researcher used a pen and a data sheet (see Appendix B) containing all three lists of words, as well as spaces in which to record stimulus condition, actual score, perceived score, and participant identification number. Scrap paper was provided for participants to use to record their answers. Finally, the participants were provided with a receipt to redeem for bonus points and a feedback letter. The study was conducted in the Psychology Lab, room 105 in the basement of Young Hall. The room was small, with four white walls, bright lights, two desks and chairs, and a door.

### *Procedure*

Upon arrival to the study, participants sat at a table in order to fill out the experimenter's list of participants and informed consent forms. The researcher then gave them instructions about the three short tests and surveys that would follow. It was stressed once again that the results of the study would be kept confidential and would be utilized for educational purposes only. The order that the lists were given was never

altered; however, the stimulus condition was alternated for each participant. If the first participant received feedback on list one, he received none on lists two and three. The second would receive feedback on list two, but not for lists one or three. Accordingly, participant three would receive feedback on list three, but none on lists one and two, and so forth. After completion of each test, the researcher would take the paper from the participant and pretend to score it. For the stimulus condition, the researcher nodded as she made her way down the list, notated the participant id and list number, then turned around to smile and tell the participant, "Good job," and hand out the survey. For the two non-stimulus conditions, the researcher simply looked at the paper, making no movements or remarks, notated the participant id and list number, then proceeded to the survey. After each test, the participant was given a survey to fill out about that set of words. When all three sets of tests and surveys were completed, the participants were debriefed, given a receipt and feedback letter, and released from the study.

### Results

Three separate dependent t-tests were computed in order to determine the results of this study. The first paired t-test was between the actual score received and perceived score for the feedback condition. In this analysis,  $t(11) = -3.362, p < .05$ , which revealed a significant difference in the participants' perceived scores compared to their actual score.

The second analysis conducted was a paired t-test between the actual score received and the perceived score for the non-feedback condition. For this analysis,  $t(11) = -3.604, p < .05$ , which also showed a significant difference between participants' perceived scores compared to their actual score.

The third paired t-test was conducted between the perceived scores in the feedback condition and the perceived scores in the non-feedback condition. This analysis revealed that there was no significant difference, as  $t(11) = .601, p > .05$ . As revealed by the t-test, participants believed their scores to be much higher than they actually were in the feedback condition. However, the second t-test revealed that the participants also believed their scores to be higher in the non-feedback condition. Finally, the third analysis revealed that the mean perceived scores for both conditions were relatively the same, giving no support for the prediction that the perceived scores in the feedback condition would differ significantly from those in the non-feedback condition. So the only conclusion that can be drawn from the results of this study is that participants judged their performance to be better than it actually was, regardless of the feedback condition.

#### Discussion

Although the results of the study did not provide support for the hypotheses tested, a discovery was made that people tend to be optimistic when judging their own behavior or performance. There are many alternative possibilities as to why participants tended to evaluate themselves on a higher level. Perhaps the participants actually believed they had the correct spelling of the words, and in fact, consistently misspell them. Another explanation could be that the subjects, reassured by the researcher that the answers would not be seen by anyone other than the researcher, did not put forth one hundred percent effort. While it was necessary to relay this information to participants to ensure their comfort during the experiment, it is conceivable that some of them may not have tried as hard as they would have if the test were more formal.

There were a few problems that needed to be addressed in the study. The first problem was that the stimulus was ineffective, as many participants had trouble spelling the words, and therefore had a negative perception. For this reason, the study was modified so that there were two tests for each participant with two new sets of words. The stimulus condition was counterbalanced for each participant to help account for order effects. However, even after the study was adjusted to help gather more significant results, a dilemma arose when one participant realized what was happening during the experiment. Once again, the study underwent some revisions. It was at this time that the third and final design was implemented and used for the remainder of the study.

No other problems emerged until the analysis of the data. It was at this time that the researcher realized that there was no filler group. That is, each list had the potential to be the stimulus list, though one of them should have remained consistently free of stimulus every time. For example, only lists one and three would alternate the stimulus condition, while list two always remained free of stimulus. The data of ten participants also had to be excluded from the computation of the t-tests. Nine of the participants had been tested before the final revision, and one of the participants received a perfect score for all three tests. As the perceived score was then 100 for each test, no valuable data was collected from this participant.

An interesting variation of this study would be to take the same measure from participants, but the stimulus could be writing instead of speaking or body language. For example, after the test, the researcher would pretend to write comments on the completed test for 15 seconds, 35 seconds, or write nothing at all. It would be interesting to see participants' reactions to these supposed "comments."

In sum, the results gathered from this study did not support the hypotheses that were suggested. What was discovered, however, was that participants tended to rate their performance better overall, no matter if the feedback was present or absent.

#### References

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## **Appendix A**

### **Spelling Test Survey**

Answers to these questions should be based on your opinion only. Please keep in mind that the results of this survey will be used only for educational purposes, and there will be no identifying information used.

1. On a scale of 1 to 5, with 1 being the lowest, how well do you think you did on this test?

1      2      3      4      5

2. Do you feel that these words are appropriate for your college skill level?

Yes    Somewhat    Not Really    No

3. If no, do you believe they are above or below your college skill level?

4. On a scale of 1 to 5, with 1 being the lowest, rate your spelling skills.

1      2      3      4      5

5. Do you believe there are any circumstances under which you may have performed better on this test? Please write suggestions below.

6. Do you believe there are any circumstances under which you may have performed worse on this test? Please write suggestions below.

**Appendix B**

**Data Sheet**

List 1	List 2	List 3
Believe Argument Memento Millennium Disappoint Tragedy Occurrence License Rhythm Guarantee	Definitely Conscience Column Occasionally Schedule Discipline Grammar Noticeable Personnel Dialogue	Grateful Accommodate Neighbor Embarrass Knowledge Miniature Success Privilege Receive Foreign
Stimulus: AS PS	AS PS	AS PS

Participant ID: