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# Is the Perceived Humor of a Video Clip Affected by a Smile?

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In the past there have been many conflicting results from research done on the relationship between smiling and its effect on emotional responses. This experiment tested the theory that if a participant's mouth is manipulated into the form of a smile it would change his or her perception of a humorous video clip. Participants consisted of 20 undergraduates who were divided into two conditions; one group viewed a video clip with a manipulated smile on their face, and the other group, the control, were prevented from smiling. An independent samples t-test found significant results for the effect of a smile on the humor of the video clip.

People display their emotions by facial expressions throughout the day. We can pass strangers on the street and know that they are happy if they are strolling along with a smile on their face, or we notice when someone is depressed because of the lines near their mouth or the noticeable frown that they are wearing. However, we rarely think about the opposite effect of facial expressions. Would you put a smile on your face if it would enable you to change the way you were feeling, and experience a lift in mood?

Studies have been conducted in the past to determine whether or not there is a relationship between the human smile and emotional responses. Kleinke (1982) used this theory during an interview process. She grouped participants into four different conditions. Participants in the smile-reinforced group were reinforced for smiling during the interview with a "biofeedback" light. Participants in the control group received noncontingent biofeedback. Participants in the smile-instructed group were given non-contingent biofeedback and instructed to smile whenever a signal light was illuminated. Participants in the simulation group were asked to simulate affective responses after hearing the same instructions given to participants in the smile-instructed group. The smile-reinforced group smiled significantly more than the other groups and reported significantly more positive feelings on a rating form. Her results were interpreted as supporting the facial feedback theory of emotions (Kleinke, 1982). This theory states that the outward expressions of smiling or frowning affect if we are happy or angry.

Another study by Soussignan (2002) manipulated facial expressions by having participants hold a pen a certain way in their mouth. One group was asked to hold a pen in their mouth by gripping it with their teeth and not allowing their lips to touch it, thus forming a smile. The second group of participants was asked to hold the pen between their lips to prevent a smile. Participants then viewed a cartoon and were afterwards asked to rate how funny the cartoon was. The pen-holding procedure had an impact on individuals' affective reactions to the cartoons, but did not affect their evaluations of the cartoons themselves (Soussignan, 2002). Similar to this study Cupchik (1974) found that smiling did have an affect on funniness ratings; however, this did not apply to males. He also found that making participants aware of their smiling and laughing reduced the influence of smiling and laughing and caused participants to lower their funniness ratings. Ekman (1990) studied facial expression and self-report of subjective emotional experience while participants watched both pleasant and unpleasant films. Duchenne smiling, in which the muscle that orbits the eye is active in addition to the muscle that pulls the lip corners up, was compared with other smiling. This study found the Duchenne smile occurred more often while watching pleasant films than unpleasant films and was related to subjective reports of positive emotions.

Another researcher, Laird (1974) conducted two experiments that consisted of 77 undergraduates. He manipulated participants' facial expressions without their knowledge while they viewed cartoons. Laird attached surface electrodes to individuals between their eyebrows, at the corners of their mouths, and on their jaws. Then a set of the electrodes was touched and participants were asked to contract their muscles at these points,

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which induced them to smile or frown. The participants who viewed the cartoons while smiling rated the cartoons more humorous than the participants who were frowning. He also found that when participants' faces were in the shape of a smile they reported being happier, while participants who were frowning reported feeling angrier. Laird concluded that an individual's expressive behavior mediates the quality of his/her emotional experience (Laird, 1974).

The present study examined the relationship between facial expressions and humor as well as emotions. In this study the facial expressions of one group were manipulated into a smile, whereas the control group's facial expressions were prevented from smiling. The smile resembled a Duchenne smile because the corners of the mouth were turned up and was an exaggerated smile. It was hypothesized that the participants whose facial expressions were manipulated into the form of a prolonged smile would rate a video clip as funnier than the participants who were in the control group.

# Method

## *Participants*

Participants were a convenience sample of 20 undergraduates from a public northeastern university (5 males, 15 females). The participants ranged in age from 18 to 30 years old, and the average age was 20. The participants were recruited by flyers and sign up sheets, and some students were given class credit by their psychology professors for participating.

## *Materials*

The materials that were used during this experiment included a new pen for every participant that was provided by the experimenter. Also, a television with a DVD player that participants were seated in front of to watch a selected 10 minute episode clip from the movie "The Wedding Crashers." An informed consent was handed out before beginning the study as well as a survey that was to be filled out after participants had viewed the clip.

## *Procedure*

As participants entered the room they were handed a survey that either had a number one on the top of the page or a number two. Then, the participants were asked to find a seat in which they could see the TV and fill out an informed consent. After the consent forms were collected, new pens were distributed to the participants. Participants who were given surveys with the number one on top, the smile group, were asked to hold the pen in their mouth by gripping it with their teeth and not allowing their lips to touch it while they watched a ten minute video clip. Everything was the same for the group that had the two on the top of their papers, the non-smile group, except this group was asked to hold the pen in their mouth by gripping it with their lips. The clip that all participants watched was a scene from "Wedding Crashers" that others who did not participate in this study previously viewed and agreed that it was humorous. After the video was over the participant was asked to fill out a survey on what he/she had just watched. The survey consisted of filler questions as well as questions that were used to determine the dependent variable. This question asked the participants to rate how funny they believed the clip was on a scale of 1-5, 1 being not funny to 5 being the funniest. The independent variable in this study was the form that participant's mouths were manipulated into while watching the clip, and the dependent variable was how they rated the video clip in terms of humor. Also, a question on the survey had participants indicate their mood while viewing the clip.

# Results

The experimental group whose mouths were manipulated into smiles rated the video clip as significantly funnier ($M = 4.5$, $SD = .527$) than the participants who were in the non-smile, or control group ($M = 3.2$, $SD = .919$), $t\,(18) = 3.88$, $p < .05$. There was no significant difference in mood between the group whose mouths were manipulated into smiles and the group who were prevented from smiling, $t\,(18) = 1.15$, $p > .05$.

# Discussion

After analyzing the data we found a significant difference in humor ratings between the group whose face was manipulated into the form of a smile and the non-smile group. This study found similar results to research that was done in the past by Laird (1974), when he attached electrodes to subject's faces in order to manipulate a frown or a smile. The participant's who were smiling while viewing a cartoon rated the cartoon as funnier than the participants who were frowning (Laird, 1974). However, in contrast with Soussignan's (2002) research, the pen holding did affect the participants' ratings of the comedic clip. The present study also supported the results of the Kleinke (1982) study that found a significant relationship between a group who was reinforced to smile and self-report of positive feelings.

In future studies it would also be more useful if there were a larger number of participants studied since during this study there was a limit to the amount of participants allowed. In conclusion, we have learned that if we put a smile on our faces while viewing a humorous video clip, we should perceive it as funnier than if we were not smiling. This theory should continue to be studied to see if a smile can affect the way we view other situations that we may face in our lives, as well as lighten people's mood.

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# Appendix

## *Survey:*

Gender: _____

Age :_____

Major: _____

Please circle one answer for every question.

1. On a scale of 1-5 how funny would you rate the video clip that you have just viewed? ( 1 being not funny to 5 being the funniest)

1 2 3 4 5

2. Would you recommend a friend to watch this video clip?

Yes No

3. How many times have you seen the movie Wedding Crashers?

Never
Once
A few times
Several Times

4. If you had to rate how happy you feel at this time on a scale of 1-5 what would it be? (1 being unhappy to 5 being the happiest).

1 2 3 4 5

Thank you again for your time!