Cognitive dissonance: effects of perceived choice on attitude change

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The hypothesis that greater perceived choice would induce attitude change as a method of cognitive dissonance reduction was investigated in a between-groups design. Twenty first and second year students at an undergraduate college were randomly assigned to one of two conditions: high-choice and no-choice. Participants in the high-choice condition were predicted to evaluate the possibility of a 10% tuition increase at an undergraduate college more favorably than participants in the no-choice condition upon writing essays in favor of a possible tuition increase. A one-way analysis of variance yielded results supporting the hypothesis that greater perceived choice induces attitude change as a method of dissonance reduction. The results are congruent with previous research on this topic.

At some point during a person’s life, one may be asked or forced to do something that is contrary to one’s beliefs. Often supervisors in workplaces or professors at colleges and universities ask their employees or students to do tasks and activities that go against the employees’ and students’ private opinions. When such incidences occur and a person does complete the tasks required or asked of him or her despite private opinions and attitudes, does this affect the person’s original attitudes toward the tasks? Previous research suggests that under some circumstances, individuals will change their attitudes in order to make their behaviors congruent to their opinions. Leon Festinger (1957) identified this experience of engaging in behaviors contrary to private attitudes as cognitive dissonance.

According to Festinger (1957), people strive toward consistency within themselves and their lives. For example, a person who holds a strong belief in the importance of further education beyond high school is likely to attend college and encourage others to attend college. The problem arises, however, when a person’s attitudes toward a specific behavior are inconsistent with his or her actual behaviors. For instance, a person may have a strong negative attitude toward smoking, yet despite this belief continues to smoke regularly. Festinger (1957) proposed that these inconsistencies among a person’s attitudes and behaviors produce uncomfortable psychological effects. When a person experiences an inconsistency, or dissonance, between his or her beliefs and actions, this person
will attempt to eliminate the unwanted and undesired psychological effects. The person might try to rationalize the behavior by adding beliefs or attitudes that help to justify the behavior. Festinger (1957) identified these rationalizations as consonants. The person might also try to minimize the importance of the conflict between his or her previous attitudes and current behaviors. In the example of the individual who claims to be against smoking yet is an avid smoker might try to minimize the negative health consequences associated with smoking. Another method of dissonance reduction is reducing perceived choice. The person might rationalize that he or she simply did not have a choice in the decision to engage in the specific behavior. Finally, the individual can reduce dissonance by altering his or her attitude or behavior (Festinger, 1957).

Festinger (1957) included a set of circumstances in which cognitive dissonance will lead to a change in a person’s private opinion. Insufficient justification is one circumstance that potentially leads to attitude change. When a person is asked to comply to a behavior that is inconsistent with his or her private opinion and is offered a small, minimal reward for complying with the behavior, greater dissonance is experienced. Furthermore, the person is given a reward that does not appear to be equal to the task he or she was instructed to do (Festinger, 1957; Festinger & Carlsmith, 1959). Under this circumstance, the person is highly likely to alter his or her private opinion to match the behavior.

Another manipulation of dissonance that leads most often to a change in attitude is the perception of choice. A person is more likely to change his or her private opinion toward a specific behavior is the person believes that he or she chose to engage in the behavior rather than being forced to comply (Festinger, 1957; Festinger & Carlsmith, 1959; Elliot & Devine, 1994). The key element is to induce minimal force while still leading the person to believe that he or she ultimately chose the behavior (Harmon-Jones, Brehm, Greenburg, Simon, & Nelson, 1996). The present study focuses on this element of perceived choice. If a person expends a great amount of effort in order to engage in a specific behavior, that person is also likely to alter his or her attitude toward the behavior. For example, a woman who pays a high price in an upscale salon for a new hairstyle is likely to tell others she loves her new look, although she privately believes it to be hideous. Finally, people are likely to change their attitudes toward specific behaviors based upon their prior behavior.

Festinger and James M. Carlsmith (1959) conducted a study in which seventy-one men in the introductory psychology course at Stanford University were asked to rotate 48 pegs on a peg board ¼ of a turn continuously for 30 minutes. At the end of the 30 minutes, the participants were then given a board with spools. The participants were instructed to take each spool off of the board, and once all spools had been removed the participants were told to put each spool back on the board for 30 minutes. These tasks were considered to be monotonous, repetitive, and boring. It was assumed that all of the participants would have developed a somewhat negative opinion toward these tedious and boring tasks. Upon completion of these tasks, participants were then asked to tell another supposed participant who had not completed the tasks that the experiment was both very fun and interesting. This part of the experiment was implemented to induce dissonance. The participants, having done these tedious and boring tasks which were designed to produce a negative attitude toward the experiment, were then asked to tell another person that the experiment was both fun and interesting, a behavior that was inconsistent with the participants’ attitudes. Half the participants were then told they would be given $20 for complying with this behavior. The other half were told they would be given $1 for complying with this request. After the participants were given $20 or $1 and had complied with the experimenter’s requests, the participants were given surveys relating to their levels of enjoyment of the experiment. Remarkably, the participants who had received $1 rated the tasks involved in the experiment more favorably than the participants given $20! This study demonstrated the effects of forced compliance on attitude change through insufficient justification.

A similar study conducted by Cooper and Worchel (1970) found support for insufficient justification as a method of attitude change.
Participants were asked to complete a dull and mundane task. Upon completion participants were asked to tell another “waiting subject” that the boring task was enjoyable and interesting. Half of the participants received a small incentive for performing this behavior while the other half were given a larger incentive. As expected, the participants that received the smaller incentive for performing the behavior changed their attitudes toward the task when they evaluated the task with questionnaires.

Cooper (1971) also examined the role of personal responsibility on cognitive dissonance. In Cooper’s study, participants were instructed that they would be working with partners on problem-solving tasks. Cooper was interested in investigating personal responsibility and the role of foreseen consequences in generating dissonance. Participants either chose or were forced to work with partners who possessed negative traits. Some of the participants knew their partners had these negative traits prior to beginning the problem-solving task while the remaining participants did not know of these negative traits. Cooper hypothesized that participants who chose their partners and knew of the negative traits beforehand would experience dissonance. He also predicted that the participants would actually attempt to reduce the dissonance by liking their partners more as the degree of the negative traits increased. Cooper’s study demonstrates the power of choice as a predictor of dissonance and dissonance reduction through attitude change.

Previous research has also shown that participants are more likely to change their private opinions to match the behaviors when they believe they freely chose to engage in the behaviors. Harmon-Jones, Brehm, Greenburg, Simon, & Nelson (1996) conducted three studies exposing participants to unpleasant stimuli. The participants were randomly assigned to low or high choice conditions to write counterattitudinal statements about the unpleasant stimuli and then completed questionnaires that examined their attitudes toward the unpleasant stimuli (Harmon-Jones, Brehm, Greenburg, Simon, & Nelson, 1996).

Harmon-Jones, Brehm, Greenburg, Simon, & Nelson (1996) predicted that participants in the high choice group would change their attitudes upon engaging in counterattitudinal behaviors in order to reduce dissonance and generate consistency among their attitudes and behaviors. In study one, participants were randomly assigned to high or low choice conditions to write a positive statement about an unpleasant-tasting beverage. In the second study, participants read a boring passage and were randomly assigned to high or low choice conditions to write a positive essay about the passage. The researchers’ results from studies one and two supported their hypotheses; participants randomly assigned to the high choice condition in both studies altered their attitudes to fit the counterattitudinal statements.

Elliot and Devine (1994) conducted two induced-compliance studies that also yielded results supporting the reduction of cognitive dissonance through attitude change. Participants were told that their university was currently debating increasing tuition by 10%. Participants were told that the committee overseeing the possible tuition increase wanted to thoroughly review both sides of the argument before making a final decision. All of the participants in Elliot and Devine’s studies were strongly opposed to a tuition increase. Participants were randomly assigned to low choice and high choice conditions. Participants in the low choice condition were required to produce a strong argument in support of a tuition increase. As predicted, participants in the high choice condition changed their opinions toward a tuition increase. As predicted, participants in the high choice condition changed their opinions toward a tuition increase, supporting the idea that perceived choice is relevant in producing cognitive dissonance and changing private opinions.

Stalder and Baron (1998) conducted similar research involving the manipulation of choice and the issue of possible tuition increase. Participants were randomly assigned to one of two groups: a no-choice group and a high-choice group. Participants in the no-choice group were instructed to write an essay in support of a tuition increase at their university. Participants in the high-choice group were
encouraged to write an essay supporting a tuition increase, but were told that the decision was ultimately their choice. After writing the essays all participants received surveys to complete that reflected their attitudes and opinions toward a tuition increase. The results of the study yielded support for the hypothesis predicting participants in the high-choice condition would change their private attitudes to be consistent with their essays in order to reduced cognitive dissonance. All participants had been surveyed prior to this study in order to determine their opinions on a possible tuition increase.

The present study focuses on generating dissonance among participants resulting in dissonance reduction by participants changing their private opinions. Participants were randomly assigned to one of two groups; the first group was given high choice and the second group was given no choice. Participants were instructed to write an essay supporting an attitude different from their own opinions. Participants in the high choice group were predicted to change their attitudes to be consistent with their behaviors as a method of dissonance reduction. These participants were expected to change their attitudes because they perceived the decision to write the counterattitudinal essays as choices they independently made. Participants in the no choice group were not expected to change their attitudes after performing the behaviors because they were not given a choice.

Method

Participants
Twenty undergraduate students (men and women) attending Westminster College were recruited to participate in this research study. The 20 participants were first or second year students at Westminster College. The participants were 18 or 19 years old; 14 were female and 6 were male. Participants were randomly assigned using a random number table to one of two experimental conditions in a between subjects experimental design. Upon arriving to the laboratory, they were informed that the purpose of the study was to gather information from students on a number of different issues related to Westminster College. They were told their names would not be associated with their responses and that their responses would be kept confidential and only read by Westminster College administration. They were tested individually and received informed consent forms to read and sign. No incentives were offered for participation in this study. Participants were told they were free to withdraw from the study at anytime without penalty.

Materials and Apparatus

All participants received and signed informed consent forms (see Appendix A). Upon reading and signing the informed consent forms, participants received a brief paragraph to read prior to beginning the study (Elliot & Devine, 1998). The paragraph explained to participants that the psychology department was gathering information on issues related to Westminster College in exchange for research facilities and funding (Elliot & Devine, 1998). The paragraph also stated that Westminster College wanted to gather arguments in support of and against the tuition increase from students and review this information before making a final decision (see Appendix B).

After reading the introductory paragraph, the participants randomly assigned to the no-choice condition received prompts explaining they had been randomly chosen to generate arguments in favor of a 10% tuition increase at Westminster College (Stalder & Baron, 1998). These participants were told to compose strong and forceful arguments in support of a possible tuition increase (see Appendix C). Participants in the high-choice condition received similar prompts except these prompts included two important statements (see Appendix C). After completing the essays, all participants received 8-item questionnaires. The first four items assessed the participants' attitudes toward a tuition increase using 10-point scale (see Appendix D). The fifth item on the questionnaires was the standard manipulation check: “How much choice did you have for whether you wrote the essay in favor of or against the 10% increase?” (1 = no choice at all, 10 = a great deal of choice) (Stalder & Baron, 1998). The final three items on the questionnaires were filler questions such as “Did you go to a public or private high school?” (Stalder & Baron, 1998) (see Appendix D).
Upon completion of the study, all participants received debriefing forms explaining the true nature of the study (see Appendix E). Participants were told their essay responses would only be read by the researcher and would not be sent to Westminster College administration. Participants were given the researcher’s email address and were encouraged to contact the researcher with any questions, comments, or concerns regarding the information they provided in the study.

Procedure
The 20 men and women were randomly assigned to one of two treatment conditions. Half of the participants were randomly assigned to the no-choice condition and the other ten participants were assigned to the high-choice condition. Upon arrival to the laboratory, participants received informed consent forms to read and sign. After reading and signing, the informed consent forms were collected from the participants. All participants received the introductory paragraph explaining the current debate over a possible 10% tuition increase within the next year at Westminster College. After reading the introductory paragraph, the participants in the no-choice condition received their assigned prompts, and the participants in the high-choice condition received their assigned prompts. All participants were given 15 minutes to complete their essays. After 15 minutes the experimenter instructed all participants to stop and the essays were collected. The experimenter then distributed the questionnaires to assess participants’ attitudes toward a possible 10% tuition increase. Once participants completed the questionnaires, the experimenter collected the questionnaires. After the questionnaires were collected, participants were given debriefing forms explaining the experimenter’s hypothesis and the true nature of the study. The experimenter also verbally explained the purpose of the study to all participants. Participants were told their essay responses would only be read by the experimenter and would not be given to Westminster College administration. Participants received the experimenter’s email address and were encouraged to contact the experimenter with any comments, questions, or questions regarding the study. Participants were thanked and excused.

Results
The hypothesis that greater perceived choice would induce attitude change as a method of dissonance reduction was tested using a scale of the averages of attitude measures with a one-way analysis of variance. As predicted, the group perceiving high choice \( (M = 4.22, SD = 1.32) \) rated the possibility of a ten percent tuition increase more favorably than the group perceiving no-choice \( (M = 2.50, SD = 1.02) \) \( (F(1, 18) = 10.64; p = .004) \).

Discussion
The hypothesis that greater perceived choice would induce attitude change as a method of dissonance reduction was supported. The manipulation of perceived choice was successful; participants randomly assigned to the high-choice condition believed they freely chose to write the essays in favor of a possible 10% tuition increase, whereas participants randomly assigned to the no-choice condition believed they were required to write essays in favor of a possible tuition increase. Participants in the high-choice condition assessed the possibility of a 10% tuition increase more favorably than participants in the no-choice condition on the questionnaires. The 8-items on the questionnaires were not analyzed separately and were combined to form a scale that measured the participants’ overall attitudes toward a possible tuition increase. As predicted, participants in the high-choice condition assessed the possibility of a 10% tuition increase more favorably than participants in the no-choice condition. The results support the hypothesis that greater perceived choice would induce attitude change as a method of cognitive dissonance.

Previous research on the theory of cognitive dissonance and attitude change as a method of dissonance reduction has yielded similar results and conclusions. Stalder & Baron (1998) found support in their studies concluding that individuals are more likely to change their private attitudes and opinions as a method of dissonance reduction if the individuals believe that they freely chose to engage in
a specific behavior that is inconsistent with their attitudes and opinions. The results of the current study also support Festinger’s (1957) conclusions on the theory of cognitive dissonance. Festinger (1957) proposed in his discussion of his study that if a person is induced to do or say something which is opposite of his or her private opinion, there will be a tendency for him or her to change his or her opinion to be congruent with what he or she has done or said. Festinger (1957) also stated the importance of the amount of pressure used to force an individual to do or say something. Festinger (1957) found that the larger amount of pressure used to force an individual to perform a specific behavior or say a specific statement, the less likely the individual is to change his or her private opinion. Furthermore, individuals must believe they were not forced or required to engage in a specific behavior; individuals must believe they chose to engage in a specific behavior (Festinger, 1957). The results from the current study support Festinger’s theory (Festinger, 1957).

Although the results of the current study support the proposed hypothesis, future research on the topic of cognitive dissonance and attitude change as a method of dissonance reduction might focus on the long-term effects of attitude changes. For instance, does an individual retain his or her new attitude or opinion toward a specific behavior or does he or she revert back to his or her original attitude or opinion? How long do the effects of attitude change last? Future research might want to focus on the long term, in any, effects of the attitude change. Cognitive dissonance is a theory that has many implications in everyday life, from the workplace to politics, and coercing people in to doing tasks they may not want to do.

References


Appendix A

Informed consent form

The purpose of this research is to gather information from students on a number of different issues related to Westminster College. During this study, you will be asked to read a brief paragraph, complete a writing task, and complete a brief questionnaire. The entire study should take no longer than 20 minutes. All the information you provide will be kept confidential; your names will not be associated with your responses. Your responses will be read by the researcher, her advisor, and Westminster College administration. There are no obvious risks involved in study participation. You are free to withdraw from the study at any time without penalty.

I hereby indicate that I am informed of the nature of this research and consent to the use of my results by the researcher, her advisor, and Westminster College administration.

Print name _______________________

Signed _________________________

Date _______________
Appendix B

Introductory paragraph

In exchange for research facilities and funding, the Psychology Department of Westminster College has agreed to conduct a set of surveys evaluating different issues pertaining to the college for Westminster College's administration. One important issue the administration is investigating is the possibility of a 10% tuition increase within the next year. Westminster College has set up a committee on campus to investigate this possibility. After reviewing what they find, the committee will make a recommendation to the administration regarding the tuition increase.
Appendix C

Essay prompts

The no-choice condition: “In this study, you have been randomly assigned to generate arguments in favor of a 10% tuition increase within the next year. Furthermore, you are expected to write a strong and forceful argument in favor of a tuition increase of 10%. Your arguments will be reviewed by the committee for evaluation.”

The high-choice condition: “In this study, we would like to request that you generate arguments in favor of a 10% tuition increase within the next year. The committee has already finished gathering arguments opposing a 10% tuition increase and is now ready to gather arguments in favor of a tuition increase. So while we would like to stress the voluntary nature of your decision regarding which side of the issue to write on, the committee needs strong and forceful arguments in favor of a tuition increase of 10%. Your arguments will be reviewed by the committee for evaluation.”
Appendix D

Questionnaire

Westminster College should raise tuition 10% within the next year.

1 2 3 4 5 6 7 8 9 10

Strongly disagree Strongly agree

How would you describe your overall attitude toward raising tuition?

1 2 3 4 5 6 7 8 9 10

Extremely unfavorable Extremely favorable

To what extent do you think there are advantages to raising tuition?

1 2 3 4 5 6 7 8 9 10

No advantages Many advantages

To what extent do you think a 10% tuition increase is a good general strategy in maintaining the quality of Westminster College education?

1 2 3 4 5 6 7 8 9 10

Not at all A great deal

How much choice did you have for whether you wrote the essay in favor of or against the 10% increase?

1 2 3 4 5 6 7 8 9 10

No choice at all A great deal of choice
Debriefing

The study you have just completed was concerned with examining cognitive dissonance and the effects of perceived choice on attitude change. Cognitive dissonance occurs when a person engages in a behavior that is not consistent with his or her private opinions. Cognitive dissonance is a negative and uncomfortable psychological state. Sometimes when a person experiences cognitive dissonance, he or she will change his or her attitudes and opinions to match the behavior. Attitudes and opinions are highly likely to change if the person believes he or she freely chose to engage in the behavior and was not forced. In this study, you were either required to or asked to voluntarily write an essay in favor of a possible 10% tuition increase at Westminster College. This issue is not being investigated or considered by Westminster College administration. The researcher also assumed that all of you (the participants) would have negative personal attitudes toward a possible 10% tuition increase. Furthermore, writing an essay in favor of a tuition increase was expected to induce cognitive dissonance. The researcher predicted that those of you asked to voluntarily write an essay in favor of the tuition increase would assess the tuition increase more favorably on the questionnaire you received than those of you forced to write an essay in favor of a tuition increase. Your essay responses will only be read by the researcher, Jessica Miklosovic and will not be given to Westminster College administration. Your names will not be associated to your responses. If you have any comments, questions, and/or concerns regarding this study, please contact the researcher, Jessica Miklosovic, via email: miklosic@westminster.edu. Thank you for your participation!