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Deception in Research: How College Students View Deception

This study asked college students to evaluate the use of deceptive techniques in psychological research. Ninety-two undergraduates evaluated via a three-point Likert Scale four classic deceptive studies in psychology. Students were asked to rate each study as to how deceptive and harmful it was, how valuable it was, and the cost-benefit to science of the study. Respondents generally believed these studies worth doing; however, around 20 percent felt the cost to the subjects was too high.

This study dealt with how students feel about the use of deceptive techniques in psychological research. Deceptive techniques in research are generally defined as actions that cause the subject to believe something that is not true. Deception has become a common technique in social psychology research (Sieber, Iannuzzo, & Rodriguez 1995). Deception used in research has several critics, ranging from philosophers to psychologists. These critics are often worried about victimizing the subjects, especially through the psychological harm that can accompany deception. They are also worried that the continued use of deception in research will taint the public’s view of psychology (Adair, Dusenko, & Lindsay 1985; Baumrind 1985; Kelman 1967). Supporters of deceptive techniques argue that deception is often the only way real information can be obtained and that removing deception entirely from research would hinder any attempts at discovering the truth (Diensbier 1993; Milgram 1964).

According to Sieber et al. (1995), there are eight main types of deceptive techniques: (a) subjects may be given false information about the primary purpose of the study; (b) subjects may be told false information about devices used in the experiment; (c) an experimenter may use confederates to confuse the actual role of some individual; (d) subjects may be given false feedback about themselves; (e) the subjects might receive false feedback about another person; (f) the subjects may be told they are not subjects in research; (g) the subjects may be kept oblivious that a study was in progress at the time of manipulation or kept unaware that they were being measured; (h) the subjects may be told two related subjects are not related.

Sieber et al. (1995) have also said that when researchers fail to inform subjects completely about a research project, most ethical objections include: (a) invasion of privacy, (b) not informing, (c) no self-determination, (d) no debriefing, (e) researcher lying, (f) researcher concealing pertinent information. These forms of deception deny people any self-determination in the research project. Then researchers consider the nature of research, they mention areas that effect how harmful the study can be: (a) perception of the behavior, (b) privacy of the behavior, (c) induction of the behavior, and (d) the degree of confidentiality afforded to the subjects.

When reviewing whether subject consent has changed since 1969, Sieber et al. (1995) found that many publications containing deceptive research were unclear about what was said to the subjects in the consent process or during their participation. They found that debriefing was mentioned more frequently in the reports and that the percent of studies including deception techniques had dropped
sharply since 1969. They also report that while the number of confederates has dropped sharply in these years, the number of bogus devices has increased substantially.

Stricker, Messick and Jackson (1969) found that subjects who had previously been in a deceptive study and were placed in a similar study were often quite suspicious of what the true meaning of the experiment was. This applied even if the study in question did not use deception. Orne (1962) also warned that subjects frequently realize the extent to which researchers are using deception and thereby become suspicious.

Baumrind (1985) is especially critical of deceptive studies using students. She says that this encourages students to lie in the interest of science and career advancement. In addition, she finds student subjects in deception studies tend to view psychology as less trustworthy. She also notes that the costs of deception research in society are exhausting the number of naïve subjects, jeopardizing community support for scientific research, and undermining the commitment to truth of the researchers themselves.

In Milgram’s (1964) response to critics of his experiment on obedience and authority figures, he pointed out that 83.7 percent of the subjects were glad to be involved in the experiment. Some subjects also noted that they learned a great deal about human nature from the experiment. Although several critics have suggested nothing was really learned, Milgram disagreed. He stated that several of his colleagues believed that the subjects would not continue to shock the learners.

Wrightsman (1972) argued that in research in social psychology it is crucial that research subjects be unaware of the hypothesis of experiments if the results of the study are to be valid. Because of the need for experimental realism, the experiment needs to seem as convincing as possible and have the maximum possible impact on the subject. If these steps are not followed, the research results could possibly be invalid. He also says that most experimenters feel that if a subject is debriefed, the subject will not feel unfairly treated. He warns, though, that if deceptive techniques were used, they need to be justified to get the desired information.

A study by Soliday and Stanton (1995) found that overall mildly deceptive research that contained negative feedback with appropriate debriefing does not negatively affect subject’s perceptions of psychologists, even those who received negative feedback during the experiment. These results, though, only apply to mild deceptions that are related to the purpose of the study and the delivery of mildly negative descriptive feedback concerning a straightforward cognitive task.

Researchers, in determining whether a particular study justifies deception often look at what is called cost-benefit analysis. The cost refers to any potential risks to the participants, and benefits refers to the possible scientific and social value of the research (Fisher & Fryberg, 1994). Some important factors to consider in the cost-benefit analysis are the (a) scientific value of the study, (b) the possibility and efficacy of alternative procedures, (c) the possibility of inducing harm to the subjects, (d) whether possible harm can be removed through dehoaxing, and (e) how compatible the deception is with subjects’ moral values (Fisher & Fryberg 1994).

A study by Fisher & Fryberg (1994) attempted to determine how students viewed deceptive research in terms of it’s (a) scientific value and validity, (b) methodological alternatives to deception, (c) psychological harm done to subjects, (d) the efficiency of debriefing, and (e) the cost-benefit of the study. They asked students to look over three current studies in the Journal of Personality and Social Psychology, and found that the majority of students viewed the studies as both scientifically valuable and valid. Most students also said that there were no obvious methodological alternatives to deception. The students mentioned that if they were forewarned, it would lead them to feel uncomfortable about being deceived and feel concerned about being controlled. The subjects pointed out that dehoaxing, which is communicating to the subjects that the past experiment was deceptive may actually intensify the stress of the experiment (Holmes, 1976). Most also believed that subjects should not reveal their embarrassment to the experimenter during dehoaxing, although several thought they would let the experimenter know if they were angry at being deceived. Overall, most students felt that the benefits outweighed the costs and that experiments should be conducted, even though
there would be some discomfort on the part of the subjects (Fisher & Fryberg 1994).

It is clear from the evidence cited above that views about deception in research are hardly universal. Critics such as Baumrind (1985), argue that deception is unnecessary and can lead to permanent harm in the subjects; while pro-deception researchers argue that deception is necessary to get valid information from the subjects, and that it does not do any permanent harm. The present study attempted to test how college students feel about deceptive research. Since students are the most common subject for research, it seems logical to ask them how they feel about using deceptive techniques, and how they feel it would affect them and other students.

Thus, the present study attempts to determine how students similar to those frequently selected as subjects for experiments feel about deceptive practices in research. In particular, the study attempted to gauge whether they feel subjects in deceptive research are harmed by it, whether alternatives to deception could have been used, whether subjects would be willing to tell the experimenter any negative feelings about the experiment, and overall whether they feel deceptive experiments are justified for scientific research.

METHOD

Subjects

Subjects were 92 college students (40 males and 52 females). The average age of the students was 19.29 years old. Majors of students included communications (7%), biology (11%), English (7%), computer science (3%), education (20%), accounting (3%), business (16%), psychology (5%), nursing (9%), chemistry (1%), marketing (1%), physics (1%), sociology (3%), history (1%), religion (1%), theater (1%) and other or undecided (9%) in majors. The students came from five introductory Social Psychology classes. These students were used because they are from various academic disciplines and the fact that they were familiar with the studies used in the survey.

Apparatus

The survey described four classic social psychology studies that included deception in them. The studies used were Milgram's (1963) study of conformity and authority, Asch's (1956) study of conformity using confederates who influenced subjects to choose an incorrect line to match another line, Sherif's (1935) study on conformity using the autokentic effect of a light in a dark room, and Rosenthal and Jacobson's (1968) study where the "I.Q. scores" of students were revered and given to teachers to see how they would treat children. These studies were used because they are all fairly well-known and included in most Social Psychology textbooks. The survey contained a brief description of each study and the purpose of each study. The recording format for each study is found in Appendix A.

Procedure

Subjects sat at an empty desk and were told that this was a study concerned with how they feel about the use of deception in research and its effects on the subjects. Subjects were given the survey sheet. The administrator told the subjects to fill in their gender, class, major and age. The administrator informed subjects to review the instructions on the survey and make sure they understood them. The subjects filled out the questions on each survey after they had read the description of each experiment. After the subjects were finished with the response sheet, they were thanked and their surveys were gathered. To control for sequence effects, one-fourth of the surveys were listed in the order of study 1, study 2, study 3, and study 4; one-fourth of the surveys were listed in the order of study 2, study 3, study 4 and study 1; another one-fourth were listed in the order of study 3, study 4, study 1 and study 2; and the last one-fourth of the surveys were listed in the order of study 4, study 1, study 2, and study 3. When scored, any score between a 1 and 2 or 2 and 3 was counted as a 2. (See Appendix A

RESULTS

Data were scores on each of the questions for the four studies. Table 1 reports the mean and standard deviation for each question. The data were analyzed by 6, 1x4 ANOVA's. The results for each question are addressed below.

Was Deception Used?

Results showed that 90 percent of the students felt that the experiments were deceptive, using a score of 2 or 3 to indicate that
it was deceptive. As shown in Table 1, there was a difference across studies in how students rated the use of deceptive techniques (F(3,364)=16.24 p<.01). Based on a Scheffe test, significant differences were found between: Milgram’s (1963) study and Asch’s (1956) and Sherif’s (1935), Asch’s (1956) and Sherif and Rosenthal and Jacobson’s (1968) study, and Sherif’s (1935) and Rosenthal’s study. The Milgram and Rosenthal and Jacobson’s (1968) studies were viewed as the most deceptive of the studies. As shown later, these studies are the same studies that students felt could have different experimental procedures.

Were the Studies Scientifically Valuable?

Students generally believed that the studies were scientifically valuable. There were no significant differences among the student scores (F(3,364)=1.78 p>.05).

How Much Discomfort Did the Subjects Feel?

Student’s believed that some studies, in particular Milgram’s (1963), created significant discomfort (F(3,364)=22.06 p<.01). Based on a Scheffe test, significant differences were found between: Milgram’s (1963) study and the other three studies.

Could Different Experimental Methods Have Been Used?

There were statistically significant differences across studies whether different experimental methods could be used (F(3,364)=7.64 p<.01). Based on a Scheffe test, significant differences were found between: Milgram’s (1963) study and Asch (156) and Sherif’s (1935) study, Asch’s (1956) study and Rosenthal and Jacobson’s (1968) study, and Sherif’s (1935) study and Rosenthal and Jacobson’s (1968) study. Rosenthal and Jacobson’s (1968) study and the Milgram experiments scored the highest on the question indicating that the students felt different techniques could have been used. As mentioned earlier, these are also the same studies that had the highest ratings for deception.

Would Subjects Explain Negative Feelings to the Researcher?

Again, ratings differed across studies as to whether students felt that subjects would inform the researcher of negative feelings about the experiment (F(3,364)=8.53 p<.01). Based on the Scheffe test, significant differences were found between: Milgram’s (1963) study and Asch (1956) and Sherif’s (1935) study and Sherif’s (1935) study and Rosenthal and Jacobson’s (1968) study. Generally, the more deception that was used in an experiment, the more students believed they would inform the experimenter of their negative feelings.

Costs to Benefits?

Student’s ratings differed across the studies as to their feelings that the benefits of science outweighed the cost to the subjects (F(3,364)=10.87 p<.01). Based on a Scheffe test, significant differences were found between: Milgram’s (1963) study and Asch (1956) and Sherif’s (1935) study, Asch’s (1956) study and Rosenthal and Jacobson’s (1968) study, and Sherif’s (1935) study and Rosenthal and Jacobson’s study. The Rosenthal and Jacobson study scored the highest on this question, making this the only experiment where a slight majority of students felt the costs to the subject outweighed the benefits to science.

DISCUSSION

In summary, the results of the study indicate first that students believed that these studies used deceptive techniques and that for studies involving high levels of deception, different experimental methods could have been used. Students also believed that subjects would tell researchers if they had negative feelings toward the experiment, especially if those are highly deceptive.

In general, a majority of the students believed that the benefits to science were greater than the costs to the subjects in the studies. There were, however, a significant minority that held the opposite view, especially for Rosenthal and Jacobson’s (1968) study. This result is similar to Fisher and Fryberg’s (1994) findings, except that there was a larger percentage of students in the present study believing that the cost to the subjects outweighed the benefits to science.

In addition, several students believed that most of the deceptive studies could have been organized differently to avoid some of the harm to subjects. This suggests that experimenters should look carefully for alternatives to deception before performing a deceptive study, especially for those that involve a considerable amount of deception. Students also felt that subjects would tell researchers about negative feelings about the experiment, especially for the most deceptive
studies, which is different from Fisher and Fryberg's (1994) study. Similar to their study, however, it does seem that the more objectionable studies are more likely to cause subjects to express negative feelings, probably due to anger, as Fisher & Fryberg (1994) hypothesized.

While a majority of students believed that these studies were justifiable in their techniques, a significant minority held the opposite view. This lends credence to critics such as Baumrind (1985), who worry about some people being harmed by deceptive techniques. While this is true, a majority believed that for those studies that are most deceptive, subjects would inform the researcher during debriefing. This finding supports views that accurate debriefing is necessary if a researcher plans to use deception.

Because of all the ethical problems associated with deception, Wendler (1996) believes a new approach needs to be made towards deceptive research. While he believes that deception is still necessary in research, he also believes something must be done to protect the subjects. He proposes that subjects be informed before the experiment about the use of deception in the experiment. He defends his position by first saying that informing subjects that deception will be occurring allows for subject consent. It also restores subject autonomy by permitting subjects to control whether or not they are deceived. He points out that this policy makes the risks associated with participating in a deceptive study explicit. It also eliminates the possibility that the use of some deceptive studies will undermine the subject’s trust in non-deceptive studies, and it removes the possibility that the use of deception will undermine public trust in science. Finally, the measure removes most of the harm that running a deceptive study places on the investigators.

Because of the concern over the subject’s well-being, several changes are being made in ethical principles propagated by the American Psychological Association (APA). The APA stated in their policies that before research can be conducted with few exceptions, psychologists must state the nature of the research (APA, 1992 Standard 6.10). Similarly, APA's ethical principles regarding deception states that psychologists do not conduct deceptive research unless they have determined that deceptive techniques are justified and alternatives to deception are not feasible (APA, 1992 Standard 6.15a).

The internal validity of the present study was strengthened due to group testing, no mortality and no practice effects. Order effects were controlled. In reference to external validity, results cannot be directly related to the general public since all of the subjects were undergraduates who were not selected randomly. However, since the purpose of the study was to determine how college students, the most common subjects for psychological research, feel about deceptive research, this is probably not a serious problem.

Further studies in this area should ask students what kinds of deceptive techniques they find most harmful and how methods can be used to avoid these techniques, while still acquiring valid data. In addition, studies could test whether deceptive and non-deceptive techniques produce similar results in an experiment to confirm how important deception is in experimentation. Finally, studies could determine if there are common characteristics of people who are more likely to be offended or hurt by deceptive techniques so that if deceptive techniques are used, fewer people will be harmed.

REFERENCES


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