

The Milgram experiment: Its impact and interpretation

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Abstract

Milgrams' experiment which investigated obedience to authority is one of the most well-known psychological studies of all time. The study is widely considered ethically controversial, and found its results striking and disturbing. This raises the question as to which part of the study contributed the most to the way it was interpreted by the scientific community. Milgrams' study had a harmful effect on his participants and is considered to have included unethical aspects. The experiment showed that 65% of the experimental subjects obeyed authority until the end of the experiment and carried out orders that they believed involved extreme harm to others. After the experiment, ethical guidelines developed which require valid informed consent and a proper consideration of the possible harm which might be inflicted upon experimental subjects. There is an ongoing debate regarding the extent to which ethical guidelines might hinder relevant research. The Milgram experiment probably initially attracted the attention it did because of its results. It was only after the results were widely reported that, the methods of the experiment were considered and the study became known as ethically controversial.

Keywords: *Stanley Milgram, the Milgram experiment, obedience to authority, controversial, ethics in research, impact, interpretation, psychology*

Introduction

Many papers have been written about Stanley Milgrams famous experiment on obedience to authority. Milgrams experiment is one of the most famous psychological studies of all time, and has been replicated many times and subjected to criticism on a number of different grounds (Russel & Gregory, 2010). The interpretation of the results is still open to debate. Many different explanations exist and there is no consensus about the connection between Milgrams experiment and the behavior of Nazis in World War II even today (Gibson, 2011). But his methods and particularly the ethical aspect of his methods are probably even more criticized than his interpretation of the results. (Baumrind, 1964). Some have contended that his experiment is unethical, but his results continued to be cited in the social sciences even today, some 50 years later. So how should we characterize his study? Was it unethical? Did it yield important results? This paper will examine how the social sciences interpreted the Milgram experiment.

To answer the question, this article will provide a review of the experiment. First, the experimental methodology, its results and the varying interpretations of the experiment (including Milgrams own) will be discussed. Afterwards, the ethical standards imposed in social science research (in part in reaction to the experiment) will be examined. Finally, the influences of ethics on the future of social sciences will be discussed.

The Milgram experiment: Its content and purposes

World War II was one of the most shocking events in the history of the modern world. The war ended the lives of tens of millions of people, devastated the lives of tens of millions of others and had a lasting impact on society. Citizens were shocked by the fact that their neighbors, who often seemed like ordinary people who did their jobs and loved their wives

and family, could become transformed into mass murderers. After the war, the world was faced with the fact that seemingly ordinary people obeyed their superiors and executed their brutal commands. It might not be a surprise that one of the most influential persons in the history of social psychology was Adolf Hitler (Catwright, D. 1979). Social scientists, and in particular social psychologists became interested in the nature of obedience to authority and in the cruel actions which this led to.

One of them was Stanley Milgram (Milgram, 1963), and he conducted research on the nature of obeying to authority. He measured the willingness of study participants to obey an authority figure who instructed them to perform acts which conflicted with their personal conscience. His experiment was striking, because its result seemed to show that ordinary citizens in the United States were, to a great extent, capable of carrying out cruel orders in obedience to authority (Blass, 2009).

Milgram conducted a great deal of research on obedience to authority (Blass, 2009). Since a considerable amount of research that has been conducted on this subject concerns one particular experiment that he conducted in 1963, the present paper will be limited to a review of this experiment titled *Behavioral study of Obedience* (Milgram, 1963). Milgram's primary motivation for devising the experiment was to try to find an explanation for the behavior of the Nazis during the Holocaust. There was a common assumption that Germans tended to obey orders more conscientiously than Americans, and many believed it was something in the German national character that explained this difference (Russel & Gregory, 2010). To test this hypothesis Milgram conducted a study in 1963 concerning the nature of obeying. He used ordinary American citizens as participants. In the experiment, participants were asked to play the role of "teachers" who were to instruct "learners" regarding a memory task. Each time the learner gave the wrong answer the teacher had to administer a shock to the learner. These shocks were represented in volts of electricity on a continuum from mild to lethal.

Methodology and responses of experimental confederates

In the Milgram experiment, each experimental subject came into a laboratory and was asked to wait. Another participant was waiting there as well. The person already waiting was not an actual participant but a confederate of the experimenters. Both were told by the experimenter that the project they have volunteered to take part in had been designed to investigate the effects of punishment on learning. Then they were told that one person would be the teacher and the other the learner. It was be insinuated that the two individuals will be randomly assigned to these two experimental conditions, but the experimental subject was always assigned the role of teacher and the confederate that of learner.

The participant was placed behind what appeared to be a machine labeled a "shock generator," which consisted of 30 switches aligned in 15-volt increments from 15 to 450 volts. These switches were labeled in groups. The labels ranged from "slight shock" up to "very strong shock" followed by: "danger: severe shock." The last two switches from 435 and 450 volts were labeled "XXX" (implying prohibited levels of shock). The participant was required to increase the level of shock administered following each incorrect answer (Russel & Gregory, 2010). The experimenter urged the participant to continue shocking the learner. He used the following four prompts to instruct the participants to go on: "Please continue" or "Please go on", "The experiment requires that you continue"; "It is absolutely essential that you continue" and "You have no other choice you must go on" (Gibson, 2011, p. 2). The experiment was stopped after the participant administered 3 successive 450-volt shocks (Russel & Gregory, 2010). After the experiment the participants were debriefed about the actual purpose of the experiment and its results (Cave & Holm, 2003).

The methods have been criticized on a number of different grounds. First a valid informed consent was not obtained. The participants did not know what to expect and were

not told that they could leave the experiment at any time. They did not know they were able to say no to authority. The participants also were not made aware of their rights before the experiment started. The issue of the informed consent was important because the participants volunteered in a study in which they might have chosen not participate in, had they known what it was really about (McArthur, 2008). It has to be mentioned that the ethical standards were not nearly as strict in 1963 as they are today. In the case of informed consent, Milgram did not completely act unethically according to the ethical criteria of his time, for it was only after his study that, there was a shift of the paradigm of informed consent (Williams, 2008).

Second, this study used deception in a controversial way. Deception is generally accepted nowadays, provided that negative consequences for the participants are ruled out. This because it is known that otherwise there will be reactive responses from participants and this will distort the results (Herrera, 2001). It was the Milgram experiment itself that led to intense debate about the use of deception. There is an ongoing debate about the proper limits of deception. When is deception legal and when does it exceed the limits? In this case it is difficult to say if the harm, which was inflicted on participants, was due to the use of deception. The question is whether the participants primarily objected to being deceived, or if they were distressed because they discovered the cruelty they were capable of (Herrera, 2001).

The self-image of the participants was definitely affected by the knowledge that they were capable of obeying authority. In addition to the participants feeling responsible for their own actions, they also had to face the fact that they had been fooled. This affected their self-esteem in several ways. This self-esteem change caused a lot of harm after the experiment. Not only did their self-image and self-esteem change, but also their trust in others changed. There appeared to be long-term damage on both these dimensions (Baumrind, 1980). Milgram stated that he had questioned his participants and that 84% said they were glad to have participated in the study (Cave & Holm, 2003). It is possible that the subjects Milgram used to obtain this result were not to be trusted. For example, they may have simply been unaware that they had suffered (Herrera, 2001).

Moreover, there is no doubt that many participants experienced distress during the experiment. The procedure created anxiety and tension. Participants were sweating, stuttering and trembling. Milgram (1963, p. 377) reported the emotional disturbance suffered by one of his subjects: "I observed a mature and initially poised businessman enter the laboratory smiling and confident. Within 20 minutes he was reduced to a twitching, stuttering wreck, who was rapidly approaching a point of nervous collapse." Milgram reported this in a detached and objective manner (Baumrind, 1980). This clearly seemed to reflect his willingness to let the participants feel emotional distress (Cave & Holm, 2003).

The question is if Milgram was justified in exposing his participants to such distress. And is it justified in general for researchers to engage in actions that might distress or harm research subjects? The distress that subjects would suffer in this experiment was foreseeable. He had done pilot studies and knew that participants would likely experience high levels of distress (Cave & Holm, 2003). Milgram responded to this criticism about the supposed harm he inflicted on his participants. He stated that the harm was only temporary, and that the subjects consented to or accepted the harm subsequently. He also stated that the harm was outweighed by benefits obtained by the subjects' participation and by the importance of knowledge generated. But distress is still harm and Milgram's justification might not have been good enough (Cave & Holm, 2003). The answer to the question of how much harm is justified relies on the knowledge gained as a result of the experiment. (In other words, the extent to which the knowledge about a certain phenomenon is important and significant for society) (Kaufman, 1967).

Altogether the methods of Milgram received a lot of criticism. There is criticism about the lack of informed consent, but the guidelines in Milgram's time were different than they are today. Besides that, the harm inflicted to the patients during and after the experiment is a major point of discussion. It also flared the debate of deception and the debate of the justification of harm inflicted to participants. The conclusion about the justification of inflicted harm is probably that there has to be a proper consideration of the harm and of the scientific importance of the given experiment.

The results and their use

In Milgram's study 65% of participants obeyed the experimenter until the end; they administered all the "shocks" ordered including three at what they believed to be a level of 450 volt. Generalized to the population, this would mean that almost two thirds of persons are capable of obeying authority to the extent of inflicting deadly pain on others.

These results were noteworthy. No one, not even Milgram himself, expected such a high rate of obedience and this finding had disturbing implications for not only the participants but for human beings in general. It appeared to suggest that evil is inside every human being (Russel & Gregory, 2010).

Milgram interpreted the results as follows: the participants entered an agentic state during the experiment. This agentic state was a state wherein the participant allowed his actions to be determined by another person and stopped thinking for himself. The agent was, in this case, the experimenter (Gibson, 2011). Participants' own descriptions of their involvement seemed to support this explanation. This interpretation of Milgram is controversial. The agentic state would seem to apply that, the participant blamed the experimenter completely for his actions and did not feel guilty himself. This was not true, as participants did feel guilty during and after completing the experiment (Russel & Gregory, 2010).

Blass contended (2009) that there are three lessons to be learned from the experiment. First, the experiment made clear how strong the tendency to obey was. There was consensus about the existence of this tendency but it was not known that it was so strong. Milgram's experiment also made clear that the tendency to obey can make people act in ways that are contrary to their moral principles. It does not take evil persons to carry out those kind of brutal actions. Second, the experiment showed the internal changes which are mediating mechanisms that made destructive obedience possible. It resulted in people's willingness to follow a leader's cruel orders, which they normally would not have done on their own. These internal changes reflect the acceptance of the legitimacy of authority, the acceptance of authority's right to prescribe one's behavior and therefore feel the obligation to submit to that authority. Third, the experiment demonstrated that human behavior is often more the product of the external circumstances than one's supposed character and values.

The influence of this experiment continues to be felt, some 50 years after it was conducted and 30 years following Milgram's untimely death. This influence is seen in its inevitable mention in all general psychology textbooks. It also is referenced in discussions of a wide range of topics and in popular culture (Blass, 1999). There are novels and plays based on the experiment. There is even an episode of the Simpsons based on it. In social psychology as well as in other fields the Milgram experiment is a phenomenon (Herrera, 2001).

Actions of the scientific community

Because of current ethical standards applied to scientific research with human subjects, an experiment like Milgram's is no longer possible (Herrera, 2001). The ethical concerns mentioned earlier are among the reason for this. One expression of these ethical concerns is the Declaration of Helsinki (Williams, 2008).

The Declaration of Helsinki was developed by the World Medical Association as a guide for medical researchers to protect the well being of human subjects. It was presented at the WMA General Assembly in 1964 for the first time. Unlike its predecessor, the Nuremberg Code, the Declaration of Helsinki requires that the participants in research studies provide their informed consent (Williams, 2008).

The Declaration of Helsinki consists of basic principles, principles for clinical and non-clinical therapeutic research, and standards of professional care. These principles are in part a reaction to the unethical characteristics of the Milgram experiment. The principles state that there has to be informed consent and that the importance of the knowledge one hopes to gain from the experiment has to be in proportion to the risks for the participant (Williams, 2008).

Since the end of World War II, the emphasis of most ethical guidelines has been on promoting the welfare of individual participants. There is a conflict between public and individual health in the ethics of research on humans. The wellbeing of individual subjects is nowadays considered more important than the advancement of science and promotion of public health (Williams, 2008).

Ethics in science

The emphasis on the maintenance of the wellbeing of individuals compared to the public raises questions in science. Ethical guidelines, which help protect individual wellbeing, could in this way hinder research. This might not be beneficial for science and research. There is no question that it is important to maintain individuals' wellbeing. But because of the resulting ethical guidelines, there is a lot of hidden information that science is not able to figure out. The main question in this regard is whether discovering this information is worth the possible risks.

McArthur stated in his article that good ethics mean better science. Unethical methods can provide distorted results. Good ethics can ensure that the important variables are controlled. In addition, ethical safeguards are required to help protect the integrity of the results (McArthur, 2008).

McArthur does have a point, for it is true that unethical investigations can distort research. But is it true that unethical behavior can be studied in an ethical way? The outcome of one's results might show unethical behavior. A study conducted to reveal unethical behavior, such as Milgram's experiment, might lead participants to realize that they are capable of unethical behavior. The participants will probably be harmed by this conclusion, and the study might be considered unethical. This is probably the reason why particular studies concerning behavior like racism and aggression are not conducted in the experimentally controlled manner, employed by Milgram. Studies with implicit test are frequently used nowadays. (Greenwald, McGhee & Schwartz, 1998).

Research conducted to investigate unethical behavior will always be difficult. The most important task of the researchers is probably to provide for the well being of the participants and assure that informed consent has been obtained. Doing this will maintain the scientific integrity of an investigation. Ethics will probably always be a controversial point of research because ethics are based on morals and morals might not be the same across cultures, nations and even across individuals within a particular culture or nation. Yet, it does seem important to ensure that certain issues regarding the wellbeing of human experimental subjects are always taken into consideration, and therefore, basic ethical principles provided by associations like the World Health Association are meaningful.

Conclusion

The aim of this article was to investigate how social scientists reacted to the Milgram experiment. The methods of that experiment were criticized on many grounds, including a lack of informed consent, controversial use of deception and inflicting harm on participants during and after the study as a result of the procedure employed. It has to be noted that the standards at the time Milgram conducted his experiment, were very different from current standards. Taking this into account, the experiment still harmed patients and this causes for concern even at that time. Besides that, the results revealed a noteworthy rate of obedience. There is still no consensus about the interpretation of the results. But the results and several interpretations are frequently referenced in the scientific literature.

This article discussed the unethical aspects of Milgram's methods and the impact and use of the results obtained. Both the methods and the results led to many responses from society at large. After a comprehensive discussion of the experiment and taking into account the lessons Blass mentioned (Blass, 2009), it is clear that both sides contributed to the impact of the experiment. Both characterizations of the experiment influenced each other. Because of the unethical methods employed, it was difficult to accept the results. And because of the disturbing results, people were more critical about the methods.

But it is probably the case that the Milgram experiment gained such notoriety because of his disturbing results in the first place. This was the characteristic which made the Milgram experiment famous. It was only after the Milgram experiment gained notoriety because of the results, that people became interested in the methods. It is likely that many experiments involving unethical methods had been conducted prior to Milgram's experiment on obedience to authority, but that they simply went unnoticed because their results and conclusions were no of particular importance.

Those conducting scientific research with human subjects now have ethical guidelines, in place that prevent further unethical or controversial research. These guidelines are expressed in The Declaration of Helsinki, as well as in other documents. This declaration premises to protect the wellbeing of individuals who participate in research studies, and to obtain their informed consent.

In current ethical standards employed in the social sciences, the wellbeing of the individual is considered more important than the wellbeing of the public at large. This preference is in itself "ethically controversial" because it may prevent important research from being carried out. Ethics and their use will always be a contentious issue because they are subjects to varying opinions.

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