

viewing skyscrapers. Surrounded as they are by other buildings, skyscrapers are very hard to see in their entirety. Pedestrians circulate in the urban canyons, scarcely aware of anything above the street level. Only the tourists crane their necks upward. Indeed, modern city architecture has never faced up to one of its most obvious problems: Most skyscrapers only look like coherent structures in the architect's drawings. People rarely have the space or vista needed to encompass a view of the building, particularly when, in a city such as New York, it is set in a narrow street.

If the skyscrapers lord it over the city, and give their occupants the satisfaction of broad vistas, they are in the long run self-defeating. For there is always a danger of obstruction by new and competing buildings. Instead of a cherished view extending to the horizon, the dismayed executive may see only another businessman looking back. "Of course," the thought may occur to him, "it is always possible to build higher." Thus, the competitiveness of the business world finds a new battleground in the placement and height of its citadels.

### FURTHER READING

- DONALD J. CONWAY. (Ed.) *Human Response to Tall Buildings*. Stroudsburg, Pa.: Dowden, Hutchinson & Ross, 1977.
- PAUL GOLDBERGER. *The Skyscraper*. New York: Alfred A. Knopf, 1982.
- JEAN GOTTMANN. "Why the Skyscraper?" in *Taming Megapolis* (Edited by H. Wentworth Eldredge). New York: Doubleday, 1967.

## PART 2



# The Individual and Authority

### INTRODUCTION

An experimental paradigm is a plan for exploration. It does not guarantee what will be found, nor what the ultimate cost of the undertaking will be, but it creates a point of entry into an uncharted domain. Since World War II, three important human conflicts have been explored through the experimental paradigms of social psychology. Each exposes the individual to a dilemma, and allows the individual to resolve it in a way consistent with or in opposition to moral values. The first is the dilemma of truth versus conformity examined in Asch's experiment on group pressure. The second is the conflict between altruism and self-interest systematically examined in the work of Latané and Darley. And the third is the conflict between authority and conscience dealt with in my experiment on obedience.

Each paradigm poses a problem for the individual: Should I tell the truth or go along with the group? Should I involve myself in other people's troubles or remain aloof? Should I hurt an innocent person or disobey authority? These problems were not invented by social psychologists. They are inevitable dilemmas of the human condition. Every person must confront them simply by being a member of society.

The experiments share an important technical feature. The dependent measure in each case is a morally significant act. Thus the experiments acquire a *prima*

*facie* interest, because they show what variables increase or decrease the performance of acts which are not only concrete and measurable, but speak to significant human values. Yet in the final analysis, the contribution of social psychology is an intellectual rather than a moral contribution. It shows that the course of action in each situation cannot be explained by a simple moral judgment, but resides in an analysis of the situational components of each dilemma.

The origins of the obedience study as a laboratory paradigm are described in detail later in this chapter (p. 127). But the laboratory paradigm merely gave scientific expression to a more general concern about authority, a concern forced upon members of my generation, in particular upon Jews such as myself, by the atrocities of World War II. Susan Sontag, the social critic, described her reaction upon first seeing photographs of the death camps:

... One's first encounter with the photographic inventory of ultimate horror is a kind of revelation, perhaps the only revelation people are granted now, a negative epiphany. For me, it was photographs of Bergen-Belsen and Dachau which I came across by chance in a bookstore in Santa Monica in July, 1945. Nothing I have seen—in photographs or in real life—ever cut me as sharply, deeply, instantaneously. Ever since then, it has seemed plausible to me to think of my life as being divided into two parts: before I saw those photographs (I was twelve) and after. My life was changed by them, though not until several years later did I understand what they were about.

The impact of the holocaust on my own psyche energized my interest in obedience and shaped the particular form in which it was examined.

"Some Conditions of Obedience and Disobedience to Authority" presents a survey of the obedience experiments, and prior to publication of my book<sup>1</sup> was the most comprehensive description of the research. The article first appeared in *Human Relations* in 1956, then was reprinted in *The American Journal of Psychiatry*, followed by a critique of Martin Orne and Charles Holland. They applied a "demand characteristic" analysis to the obedience studies. Shortly afterward, I was invited to give a colloquium at the University of Pennsylvania. I suggested that this be in the form of a debate between myself and Professor Orne. Dr. Orne graciously consented, and we were perhaps both astonished to see an auditorium filled with several hundred spectators eager for gladiatorial combat. It was a good debate, conducted on a high level, and ultimately productive of deeper understanding. "Interpreting Obedience: Error and Evidence," which appeared in 1972, summarizes my views on this matter.

A stinging and unexpected challenge to the obedience experiment appeared in the form of an ethical criticism by Dr. Diana Baumrind. "Ethical Issues in the Study of Obedience" constitutes my reply to Dr. Baumrind; it spells out my views on the ethical aspects of the investigation. There is one point, however, that should have received greater

emphasis. The central moral justification for allowing my experiment is that it was judged acceptable by those who took part in it. Criticism of the experiment that does not take account of the tolerant reaction of the participants has always seemed to me hollow. This applies particularly to criticism centering on the use of technical illusion (or "deception," as the critics prefer to say) that fails to relate this detail to the central fact that subjects find the device acceptable. The participant, rather than the external critic, must be the ultimate source of judgment in these matters.

Acts of obedience and disobedience may be examined in the laboratory, but their most crucial expression occurs in the real world. The experiments were begun in 1960. Five years later the nation was deeply involved in an unpopular war in southeast Asia, and thousands of young men fled to Canada to avoid the draft, while others declared themselves war resisters and went to prison. During the Vietnam War, psychiatrist Willard Gaylin interviewed a number of these resisters, and I was asked to review his book, *War Resisters in Prison, for The Nation* (p. 191).

Social psychology is a cumulative discipline. Investigators with greater or lesser creativity build on the contributions of those who precede them. In a recent interview,<sup>2</sup> Dr. Richard Evans asked about the experimental antecedents of the obedience studies, then moved on to a discussion of the ethical and social implications of these investigations. The following is a portion of that interview, the conversational syntax and tone of which I have made no attempt to formalize.

EVANS: . . . One of your experiments has received wide attention. It was a kind of outgrowth of the group pressure study, testing just exactly what people will do under pressure from an experimenter, a scientist in a kind of laboratory setting. How did you happen to begin thinking in terms of this type of experiment? Maybe you would describe it briefly for us.

MILGRAM: Very often, when there's an idea, there are several points of origin to it. It doesn't necessarily develop in linear fashion from what one has been working on previously. I was working for Asch in Princeton, New Jersey, in 1959-1960. I was thinking about his group pressure experiment. One of the criticisms that had been made of his experiments is that they lack a surface significance, because, after all, an experiment with people making judgments of lines has a manifestly trivial content. So the question I asked myself is: How can this be made a more humanly significant experiment?

It seemed to me that if, instead of having a group exerting pressure on the judgments about lines, the group could somehow induce something more significant from the person, then that might be a step in giving a greater face significance to the behavior induced by the group. Could a group, I asked myself, induce a person to act with severity against another person? . . . I envisioned a situation very much like Asch's experiment in which there would be a number of confederates and one naive subject,

and instead of confronting the lines on a card, each one of them would have a shock generator. In other words, I transformed Asch's experiment into one in which the group would administer increasingly higher levels of shock to a person, and the question would be to what degree an individual would follow along with the group. That's not yet the obedience experiment, but it's a mental step in that direction.

Then I wondered how one would actually set it up. What would constitute the experimental control in this situation? In Asch's experiment, there is a control—the proportion of correct judgments the person makes in the absence of group pressure. So I said to myself, "Well, I guess I would have to study a person in this situation in the absence of any group pressure. But then, how would one get the person to increase the shocks? I mean, what would be the force that would get him to increase the shocks?" And then the thought occurred, "Well, I guess the experimenter would have to tell him to give higher and higher shocks. Just how far will a person go when an experimenter instructs him to give increasingly severe shocks?" Immediately I knew that that was the problem I would investigate. It was a very excited moment for me, because I realized that although it was a very simple question, it was one that would admit itself to measurement, precise investigation. One could immediately see the variables to be studied, with the dependent measure being how far a person would go in administering shocks.

EVANS: Well, let's be a little bit more specific. We could talk about authority in the form of the experimenter, or we could talk about group pressure, acquiescence to the group. There's a very interesting distinction here.

MILGRAM: There are both features in common and features that are different. What we have in common is, in both instances, the abdication of individual judgment in the face of some external social pressure. But there are also factors that are quite different. I would like to call what happens to Asch's subjects "conformity," and I would like to call what happens in my experiment "obedience." In conformity, as illustrated by Asch's experiment, there is no explicit requirement on the part of the group members that a person go along with them. Indeed, the presence of an explicit requirement might even eliminate the person's yielding. The individual members of Asch's group give their judgments; there's a felt pressure to comply with them, but there's no explicit demand to do so. In the obedience situation, the experimenter explicitly prescribes certain behavior. That's one difference.

A second very important difference is that in conformity, as illustrated in Asch's experiment, you're dealing basically with a process of which the end product is the homogenization of behavior. The pressure is not that you be better than me, or worse than me, but that you be the same as me. Obedience arises out of differentiation of social structure. You don't start from the assumption that we are the same; one person starts with a higher status. You don't repeat his action; you execute his order.

homogenization  
 ↓  
 less pressure  
 ↓  
 conformity (Asch)  
 ↓  
 obedience (Milgram)  
 ↓  
 explicit pressure  
 ↓  
 differentiation of social structure  
 ↓  
 division of labor



FIGURE II.3  
 Early sketch of the simulated shock generator used in the obedience studies.  
 (Princeton, Spring 1960.)

And it doesn't lead to homogenization of behavior, but rather to some kind of division of labor.

There's another distinction that's quite important psychologically. After subjects have been in Asch's experiment and they are questioned by the experimenter, they almost invariably deny that they gave in to the group. Even if errors in judgment are pointed out, they will tend to ascribe them to their own deficiencies. But in the obedience experiment, the result is the opposite. The subjects disclaim any responsibility for their action. So I think there are factors in common, certainly. We're dealing in both cases with what I would call the abdication of individual initiative in the face of

some external social pressure. But there are also these distinguishing aspects to it.

And in a broader philosophic way they're quite different also. . . . Conformity is a natural source of social control in democracy, because it leads to this homogenization. But obedience in its extreme forms is the natural expression of fascistic systems, because it starts with the assumption of differences in the rights of people. It's no accident that in Nazi Germany, the virtues of obedience were extolled, and at the same time an inherent part of the philosophy was the idea of inferior and superior groups; I mean, the two go together.

EVANS: As an example, let me just take a current piece of research that we are involved in dealing with a very fascinating phenomenon in our culture—smoking. Now we have some pretty good evidence, and this is one of the things we're going to be looking at, that perhaps smoking begins as a reaction to peer pressure. On the other hand, we have the very interesting fact that authority stresses that this type of behavior is going to lead to cardiovascular disease, cancer, etc., etc. Here you have at once peer and authority pressure. In terms of this distinction you made, how could you resolve this type of situation?

MILGRAM: I'll try. First, the word "authority" is used in many different ways. When we talk about a medical authority, we're talking about someone with expertise. That's not quite the same as the kind of authority I was studying, which is someone perceived to have the right to control one's behavior. When a teenager hears an authority on television saying he shouldn't smoke, he doesn't accept the fact that that person has the right to control behavior. Secondly, you still have these conflicts between peer pressure and authority pressure. In one of the experiments I carried out, it was shown that when peers in my experimental situation rebelled against the experimenter, they tremendously undercut his power. I think the same thing is operating here; you have pressures from an authority, but you have pressures from peers which sometimes neutralize this. It's only when you have, as you have in my experiment, an authority who in the basic experiment operates in a free field without countervailing pressures other than the victim's protests that you get the purest response to authority. In real life, of course, you're confronted with a great many countervailing pressures that cancel each other out.

EVANS: One of the things, of course, that you're acutely aware of is that partly because of Congressional pressure, partly because of some—what would we say—some second looks at our consciences in the behavioral sciences, we are beginning to get increasingly concerned now about the whole matter of what rights we have with respect to our subjects. When you were doing that earlier obedience to authority study, it's very clear that you were operating completely within the ethical framework of psychologists in those days. You debriefed the subjects, and there was really no harm done to the victims, and so on. However, in the present

utilization of subjects, we are very hung up on the phrase, "informed consent," and this raises a very tough problem for the investigator. For example, do you think you could have done that experiment if you followed the present ethical standards of "informed consent"? Let's say that you were about to engage in an experiment where the subjects were going to be exposed to a certain amount of stress. One type of stress might be the fact that you're going to be ordering somebody to get shocked.

MILGRAM: Well first of all, before you do the experiment, you don't know there will be stress.

EVANS: All right, that's a good point.

MILGRAM: The subject must make a decision, but we don't know if it's going to be accompanied by stress. Many of the most interesting things we find out in experimentation you don't learn until you carry it out. So to talk about "informed consent" presumes that you know the fundamental consequences of your experiment, and that just isn't the case for my investigations. That's one aspect of the problem; it's not the entire problem, however. There is the fact that misinformation is used in these experiments, that illusions are used. For example, in my obedience experiment, the victim does not actually get the shocks; although the subject is told he is getting the shocks. Furthermore, it's an experiment on obedience, in which the subject is the focus of the experiment rather than the other person, but a cover story attempts to deflect attention from that. Now could the experiment be run if we told people beforehand that this was going to be the case? Not in its particulars. It is possible that one could develop a system whereby people are told generally that they're asked to be in a psychology experiment, and that in psychology experiments illusions are sometimes used. Sometimes stress arises. Perhaps a subject pool of such persons who are not necessarily used immediately could be created. They would then be invited to an experiment, having been given the general instruction that these things may but don't necessarily happen in psychological experimentation. That would be one way of handling the problem. . . .

EVANS: Of course one of the points made about informed consent is that after all we're dealing, often, with a purely phenomenological situation. How can you give informed consent in advance as a human subject in an experiment when the total mass of feelings and experiences and sensitivities, even pain, cannot really be verbalized?

MILGRAM: Well, I think to some extent that's true, added to the fact that one is very often ignorant of what will happen before an experiment. Reactions to such situations can be diverse. Ninety percent of the subjects can react in a perfectly calm way; others can become agitated. But then we must know whether psychology is excluding stress and agitation from its domain of study. Do we really want to say that any of these aversive emotions are to be excluded from psychological inquiry? I think that's a question that's yet to be resolved, but my personal vote is "no." At the

same time I don't want to be put in the position of saying that I'm for any kind of experimentation.

EVANS: Were you surprised by the reaction to your obedience experiment?

MILGRAM: I must say that I was totally astonished by the criticism that my experiment engendered. I thought what I was doing was posing a very legitimate question. How far would people proceed if they were asked to give increasingly severe shocks to another person? I thought that the decision rested with the subject. Perhaps that was too naive an assumption from which to start an investigation.

It is true that technical illusions were used in the experiment. I would not call them deceptions, because that already implies some base motivation. After all, the major illusion used was that the person did not receive shocks. One might have imitated the investigators who have done studies in traumatic avoidance conditioning where human beings are, in fact, shocked to near-tetanic levels. I chose not to. I thought that the illusion was used for a benign purpose.

I'm convinced that much of the criticism, whether people know it or not, stems from the results of the experiment. If everyone had broken off at slight shock or moderate shock, this would be a very reassuring finding and who would protest? Indeed, I would say that there's a tendency these days to make inferences about the experimenter's pernicious tendency. Personally, and even professionally, I would have been very pleased if people had broken off at mild shock.

EVANS: Were you surprised that they went so far?

MILGRAM: I was, but if they had not been so obedient, it would not have prevented my research program. I would simply have studied the variables leading to an increase or diminution in the amount of obedience. And in fact, one could say that the results that I got threw a wrench into the program in that many variables were washed out because too many people obeyed. One didn't have that distribution of responses—that bell-shaped distribution—that would have been most convenient for studying the effects of specific variables.

EVANS: There have been statements made by people about both the work of Zimbardo and yourself which I think it's only fair to hear you react to. Some people have suggested, some journalists particularly, that both you and Dr. Zimbardo got involved in experiments that were exciting, interesting, unique, and that because of the uproar about the ethics, you have begun to rationalize, by trying to extrapolate from your findings something relating to a bigger picture. For example, in the case of Zimbardo, he has now become a strong advocate for prison reform, arguing that this little experiment will teach mankind how horrible prisons are. In your case, you have, more or less, extrapolated the whole question of the dangers of authoritarian rule in American culture. In your

book, *Obedience to Authority*, you go into this. Now, Dr. Zimbardo is not here to speak for himself, but what about your reaction to this?

MILGRAM: The very first article that I wrote on obedience ["Behavioral Study of Obedience"], before anyone had really reacted to the experiments, discussed the societal problem. So it's not true that trying to find the larger application of the issue is motivated by ethical criticism. Beyond that, what disturbs me somewhat is the absence of any assumption of good will and good faith. I believe that a certain amount of good will is necessary on the part of society for the conduct of any enterprise. Criticisms of that sort seem to me to start from some assumption of bad faith on the part of the investigators, which I don't believe, in my case or the Zimbardo case, has anything to do with the truth.

EVANS: Were there any criticisms of this particular effort that have troubled you that perhaps we haven't mentioned?

MILGRAM: Well, I think the question of the limits of experimentation is a real one. I believe that there are many experiments that should not be carried out. I don't oppose criticism, because I think there's a societal function served by it. The investigator wants to study things. Society, in the form of certain critics, will establish limits. I think the net outcome will be a kind of equilibrium between scientific values and other values, but I don't believe that most investigators, certainly myself, are limited to scientific values. There are thousands of experiments that could be very useful from the standpoint of increasing knowledge that one would never carry out, because in one's own estimation, they would violate moral principles. It doesn't mean that one doesn't think of them. For example, an experiment in which neonates are deposited onto a deserted island, and one watches their development over three generations, assuming they survive, would be stupendously informative, but grossly immoral.

EVANS: Well now, moving to another area of your work that is extremely intriguing, we have the research dealing with the experience of living in cities. While in your earlier experiment you were studying obedience to authority and the resulting cruelty, at the same time, beginning to become noticeable, were cases like the famous Kitty Genovese case, where we had another kind of, shall we say, horrendous reaction to a fellow man. But in this case, rather than the administering of shock under experimental conditions, the apathy was what was cruel. The work of Darley and Latané (1970), and a great deal of subsequent work, has gone very carefully into trying to understand something about the nature of this so-called bystander apathy, also asking: Is there any real altruism in man? The findings of this line of research suggest that there's some cause for optimism. It seems to me that in your analysis of living in the cities (Milgram, 1970), in a very broad and fascinating way, you extend some of these interpretations, and so it might be kind of interesting to hear what led you in this particular direction.



MILGRAM: May I, before doing that, try to draw some connections between the bystander work and the work on authority?

EVANS: Oh yes, certainly.

MILGRAM: To some extent, a lot of bystander work shows that when society becomes complicated, there are specialized organizations set up, such as the police, which have authority in particular domains, and then people abdicate responsibility to them. After all, in the Genovese case, people thought it was not their responsibility; it was the responsibility of those in authority—that is, the police—to do something about this matter. The particular tragedy in the Genovese case was that no one even notified the police. There's another thing that comes out in some of the other Latané and Darley studies—I'm thinking particularly of the smoke experiment. They've shown that a group of people is less likely to respond to an emergency than a single individual. That really shows how ineffectively people function in the absence of authority. When there's no group structure, when there's no predesignated leadership, it can lead to enormous inefficiency. You see, none of these issues is really one-sided. Under certain circumstances, authority is very useful. It wouldn't exist in human society, I assure you, if it did not serve important adaptive functions.

## NOTES

1. S. Milgram, *Obedience to Authority: An Experimental View* (New York: Harper & Row, 1974).
2. R. Evans (ed.), *The Making of Social Psychology*. (New York: Gardner, 1980). Reprinted by permission of the editor.

## REFERENCES

- ASCH, S., 1958. "Effects of group pressure upon modification and distortion of judgments." In *Readings in Social Psychology*, 3rd ed., eds. E. E. Maccoby, T. M. Newcomb, and E. L. Hartley. New York: Holt.
- KORTE, C., and MILGRAM, S., 1970. "Acquaintance networks between racial groups: application of the small world method." *J. Pers. Soc. Psychol.* 15:(2) 101-8.
- LATANÉ, B., and DARLEY, J., 1970. *The Unresponsive Bystander: Why Doesn't He Help?* New York: Appleton.
- LYNCH, K., 1960. *The Image of the City*. Cambridge, Mass.: M.I.T. Press and Harvard University Press.
- MILGRAM, S., 1963. "Behavioral study of obedience." *J. Abnorm. Soc. Psychol.* 67:371-78.
- , 1965. "Some conditions to obedience and disobedience to authority." *Hum. Rel.* 18:(1) 57-76.
- , 1967. "The small world problem." *Psychol. Today* 1:(1) 60-67.
- , 1970a. "The experience of living in cities." *Science* 167:146-168.

- , 1970b. "The experience of living in cities: a psychological analysis." In *Psychology and the Problems of Society*, eds. F. F. Korten, S. W. Cook, and J. I. Lacey. Washington, D.C.: American Psychological Association.
- , 1972. "Interpreting obedience." In *The Social Psychology of Psychological Research*, ed. A. Miller. New York: Free Press.
- , 1974a. *Obedience to Authority*. New York: Harper & Row.
- , 1974b. "The city and the self." Time-Life Films: Time-Life Building, Rockefeller Center, New York, N.Y. 10020.
- TRIVERS, J., and MILGRAM, S., 1969. "An experimental study of the small world problem." *Sociometry* 32:(4) 425-43.
- ZIMBARDO, P., ET AL., 1973. "The mind is a formidable jailer: a Pirandellian prison." *The New York Times*, p. 38, April 8, 1973.

# Some Conditions of Obedience and Disobedience to Authority<sup>1</sup>



The situation in which one agent commands another to hurt a third turns up time and again as a significant theme in human relations. It is powerfully expressed in the story of Abraham, who is commanded by God to kill his son. It is no accident that Kierkegaard, seeking to orient his thought to the central themes of human experience, chose Abraham's conflict as the springboard to his philosophy.

War too moves forward on the triad of an authority which commands a person to destroy the enemy, and perhaps all organized hostility may be viewed as a theme and variation on the three elements of authority, executant, and victim.<sup>2</sup> We describe an experimental program, recently concluded at Yale University, in which a particular expression of this conflict is studied by experimental means.

In its most general form the problem may be defined thus: if X tells Y to hurt Z, under what conditions will Y carry out the command of X and under what conditions will he refuse. In the more limited form possible in laboratory research, the question becomes: If an experimenter tells a subject to hurt another person, under what conditions will the subject go along with this instruction, and under what conditions will he refuse to obey. The laboratory problem is not so much a

This paper was first published in *Human Relations*, Vol. 18, No. 1 (1965), pp. 57-75. The research was supported by grants from the National Science Foundation and from a small grant from the Higgins Fund of Yale University. Reprinted by permission of Alexandra Milgram.

dilution of the general statement as one concrete expression of the many particular forms this question may assume.

One aim of the research was to study behavior in a strong situation of deep consequence to the participants, for the psychological forces operative in powerful and lifelike forms of the conflict may not be brought into play under diluted conditions.

This approach meant, first, that we had a special obligation to protect the welfare and dignity of the persons who took part in the study; subjects were, of necessity, placed in a difficult predicament, and steps had to be taken to ensure their wellbeing before they were discharged from the laboratory. Toward this end, a careful post-experimental treatment was devised and has been carried through for subjects in all conditions.<sup>3</sup>

## TERMINOLOGY

If Y follows the command of X we shall say that he has obeyed X; if he fails to carry out the command of X, we shall say that he has disobeyed X. The terms to *obey* and to *disobey*, as used here, refer to the subject's overt action only, and carry no implication for the motive or experiential states accompanying the action.<sup>4</sup>

To be sure, the everyday use of the word *obedience* is not entirely free from complexities. It refers to action within widely varying situations, and connotes diverse motives within those situations: a child's obedience differs from a soldier's obedience, or the love, honor, and *obey* of the marriage vow. However, a consistent behavioral relationship is indicated in most uses of the term: in the act of obeying, a person does what another person tells him to do. Y obeys X if he carries out the prescription for action which X has addressed to him; the term suggests, moreover, that some form of dominance-subordination, or hierarchical element, is part of the situation in which the transaction between X and Y occurs.

A subject who complies with the entire series of experimental commands will be termed an *obedient* subject; one who at any point in the command series defies the experimenter will be called a *disobedient* or *defiant* subject. As used in this report the terms refer only to the subject's performance in the experiment, and do not necessarily imply a general personality disposition to submit to or reject authority.

## SUBJECT POPULATION

The subjects used in all experimental conditions were male adults, residing in the greater New Haven and Bridgeport areas, aged 20 to 50 years, and engaged in a wide variety of occupations. Each experimental condition described in this report employed 40 fresh subjects and was

carefully balanced for age and occupational types.) The occupational composition for each experiment was: workers, skilled and unskilled: 40 percent; white collar, sales, business: 40 percent; professionals: 20 percent. The occupations were intersected with three age categories (subjects in 20's, 30's, and 40's, assigned to each condition in the proportions of 20, 40, and 40 percent, respectively).

## THE GENERAL LABORATORY PROCEDURE<sup>5</sup>

The focus of the study concerns the amount of electric shock a subject is willing to administer to another person when ordered by an experimenter to give the "victim" increasingly more severe punishment. The act of administering shock is set in the context of a learning experiment, ostensibly designed to study the effect of punishment on memory. Aside from the experimenter, one naïve subject and one accomplice perform in each session. On arrival each subject is paid \$4.50. After a general talk by the experimenter, telling how little scientists know about the effect of punishment on memory, subjects are informed that one member of the pair will serve as teacher and one as learner. A rigged drawing is held so that the naïve subject is always the teacher, and the accomplice becomes the learner. The learner is taken to an adjacent room and strapped into an "electric chair."

The naïve subject is told that it is his task to teach the learner a list of paired associates, to test him on the list, and to administer punishment whenever the learner errs in the test. Punishment takes the form of electric shock, delivered to the learner by means of a shock generator controlled by the naïve subject. The teacher is instructed to increase the intensity of electric shock one step on the generator on each error. The learner, according to plan, provides many wrong answers, so that before long the naïve subject must give him the strongest shock on the generator. Increases in shock level are met by increasingly insistent demands from the learner that the experiment be stopped because of the growing discomfort to him. However, in clear terms the experimenter orders the teacher to continue with the procedure in disregard of the learner's protests. *Thus, the naïve subject must resolve a conflict between two mutually incompatible demands from the social field. He may continue to follow the orders of the experimenter and shock the learner with increasing severity, or he may refuse to follow the orders of the experimenter and heed the learner's pleas. The experimenter's authority operates not in a free field, but against ever-mounting countervailing pressure from the person being punished.*

A few technical points need to be considered before the findings of the

switches set in a horizontal line.) The naïve subject is given a sample shock of 45 volts to convince him of the authenticity of the instrument. The generator bears verbal designations that range from "Slight Shock" to "Danger: Severe Shock."

The responses of the victim are standardized on tape, and each protest is coordinated to a particular voltage level on the shock generator. Starting with 75 volts the learner begins to grunt and moan. At 150 volts he demands to be let out of the experiment. At 180 volts he cries out that he can no longer stand the pain. At 300 volts he refuses to provide any more answers to the memory test, insisting that he is no longer a participant in the experiment and must be freed. In response to this last tactic, the experimenter instructs the naïve subject to treat the absence of an answer as equivalent to a wrong answer, and to follow the usual shock procedure. The experimenter reinforces his demand with the statement: "You have no other choice, you must go on!" (This imperative is used whenever the naïve subject tries to break off the experiment.) If the subject refuses to give the next higher level of shock, the experiment is considered at an end. A quantitative value is assigned to the subject's performance based on the maximum-intensity shock he administered before breaking off. Thus any subject's score may range from zero (for a subject unwilling to administer the first shock level) to 30 (for a subject who proceeds to the highest voltage level on the board). For any particular subject and for any particular experimental condition, the degree to which participants have followed the experimenter's orders may be specified with a numerical value, corresponding to the metric on the shock generator.

This laboratory situation gives us a framework in which to study the subject's reactions to the principal conflict of the experiment. Again, this conflict is between the experimenter's demands that he continue to administer the electric shock, and the learner's demands, which become increasingly more insistent, that the experiment be stopped. The crux of the study is to vary systematically the factors believed to alter the degree of obedience to the experimental commands, to learn under what conditions submission to authority is most probable and under what conditions defiance is brought to the fore.

## PILOT STUDIES

Pilot studies for the present research were completed in the winter of 1960; they differed from the regular experiments in a few details: for one, the victim was placed behind a silvered glass, with the light balance on the glass such that the victim could be dimly perceived by the subject



carefully balanced for age and occupational types.) The occupational composition for each experiment was: workers, skilled and unskilled: 40 percent; white collar, sales, business: 40 percent; professionals: 20 percent. The occupations were intersected with three age categories (subjects in 20's, 30's, and 40's, assigned to each condition in the proportions of 20, 40, and 40 percent, respectively).

## THE GENERAL LABORATORY PROCEDURE<sup>5</sup>

The focus of the study concerns the amount of electric shock a subject is willing to administer to another person when ordered by an experimenter to give the "victim" increasingly more severe punishment. The act of administering shock is set in the context of a learning experiment, ostensibly designed to study the effect of punishment on memory. Aside from the experimenter, one naïve subject and one accomplice perform in each session. On arrival each subject is paid \$4.50. After a general talk by the experimenter, telling how little scientists know about the effect of punishment on memory, subjects are informed that one member of the pair will serve as teacher and one as learner. A rigged drawing is held so that the naïve subject is always the teacher, and the accomplice becomes the learner. The learner is taken to an adjacent room and strapped into an "electric chair."

The naïve subject is told that it is his task to teach the learner a list of paired associates, to test him on the list, and to administer punishment whenever the learner errs in the test. Punishment takes the form of electric shock, delivered to the learner by means of a shock generator controlled by the naïve subject. The teacher is instructed to increase the intensity of electric shock one step on the generator on each error. The learner, according to plan, provides many wrong answers, so that before long the naïve subject must give him the strongest shock on the generator. Increases in shock level are met by increasingly insistent demands from the learner that the experiment be stopped because of the growing discomfort to him. However, in clear terms the experimenter orders the teacher to continue with the procedure in disregard of the learner's protests. *Thus, the naïve subject must resolve a conflict between two mutually incompatible demands from the social field. He may continue to follow the orders of the experimenter and shock the learner with increasing severity, or he may refuse to follow the orders of the experimenter and heed the learner's pleas. The experimenter's authority operates not in a free field, but against ever-mounting countervailing pressure from the person being punished.*

A few technical points need to be considered before the findings of the study are described. For the purpose of delivering shock, a simulated shock generator is used, with 30 clearly marked voltage levels that range from 15 to 450 volts. (Each level is activated by one of 30 individual lever

switches set in a horizontal line.) The naïve subject is given a sample shock of 45 volts to convince him of the authenticity of the instrument. The generator bears verbal designations that range from "Slight Shock" to "Danger: Severe Shock."

The responses of the victim are standardized on tape, and each protest is coordinated to a particular voltage level on the shock generator. Starting with 75 volts the learner begins to grunt and moan. At 150 volts he demands to be let out of the experiment. At 180 volts he cries out that he can no longer stand the pain. At 300 volts he refuses to provide any more answers to the memory test, insisting that he is no longer a participant in the experiment and must be freed. In response to this last tactic, the experimenter instructs the naïve subject to treat the absence of an answer as equivalent to a wrong answer, and to follow the usual shock procedure. The experimenter reinforces his demand with the statement: "You have no other choice, you must go on!" (This imperative is used whenever the naïve subject tries to break off the experiment.) If the subject refuses to give the next higher level of shock, the experiment is considered at an end. A quantitative value is assigned to the subject's performance based on the maximum-intensity shock he administered before breaking off. Thus any subject's score may range from zero (for a subject unwilling to administer the first shock level) to 30 (for a subject who proceeds to the highest voltage level on the board). For any particular subject and for any particular experimental condition, the degree to which participants have followed the experimenter's orders may be specified with a numerical value, corresponding to the metric on the shock generator.

This laboratory situation gives us a framework in which to study the subject's reactions to the principal conflict of the experiment. Again, this conflict is between the experimenter's demands that he continue to administer the electric shock, and the learner's demands, which become increasingly more insistent, that the experiment be stopped. The crux of the study is to vary systematically the factors believed to alter the degree of obedience to the experimental commands, to learn under what conditions submission to authority is most probable and under what conditions defiance is brought to the fore.

## PILOT STUDIES

Pilot studies for the present research were completed in the winter of 1960; they differed from the regular experiments in a few details: for one, the victim was placed behind a silvered glass, with the light balance on the glass such that the victim could be dimly perceived by the subject (Milgram, 1961).

Though essentially qualitative in treatment, these studies pointed to several significant features of the experimental situation. At first no vocal

feedback was used from the victim. It was thought that the verbal and voltage designations on the control panel would create sufficient pressure to curtail the subject's obedience. However, this was not the case. In the absence of protests from the learner, virtually all subjects, once commanded, went blithely to the end of the board, seemingly indifferent to the verbal designations ("Extreme Shock" and "Danger: Severe Shock"). This deprived us of an adequate basis for scaling obedient tendencies. A force had to be introduced that would strengthen the subject's resistance to the experimenter's commands, and reveal individual differences in terms of a distribution of break-off points.

This force took the form of protests from the victim. Initially, mild protests were used, but proved inadequate. Subsequently, more vehement protests were inserted into the experimental procedure. To our consternation, even the strongest protests from the victim did not prevent all subjects from administering the harshest punishment ordered by the experimenter; but the protests did lower the mean maximum shock somewhat and created some spread in the subject's performance; therefore, the victim's cries were standardized on tape and incorporated into the regular experimental procedure.

*The situation did more than highlight the technical difficulties of finding a workable experimental procedure: It indicated that subjects would obey authority to a greater extent than we had supposed.* It also pointed to the importance of feedback from the victim in controlling the subject's behavior.

One further aspect of the pilot study was that subjects frequently averted their eyes from the person they were shocking, often turning their heads in an awkward and conspicuous manner. One subject explained: "I didn't want to see the consequences of what I had done." Observers wrote:

... subjects showed a reluctance to look at the victim, whom they could see through the glass in front of them. When this fact was brought to their attention they indicated that it caused them discomfort to see the victim in agony. We note, however, that although the subject refuses to look at the victim, he continues to administer shocks.

This suggested that the salience of the victim may have, in some degree, regulated the subject's performance. If, in obeying the experimenter, the subject found it necessary to avoid scrutiny of the victim, would the converse be true? If the victim were rendered increasingly more salient to the subject, would obedience diminish? The first set of regular experiments was designed to answer this question.

## IMMEDIACY OF THE VICTIM

This series consisted of four experimental conditions. In each condition the victim was brought "psychologically" closer to the subject giving him shocks.

In the first condition (*Remote Feedback*) the victim was placed in another room and could not be heard or seen by the subject, except that, at 300 volts, he pounded on the wall in protest. After 315 volts he no longer answered or was heard from.

The second condition (*Voice Feedback*) was identical to the first except that voice protests were introduced. As in the first condition the victim was placed in an adjacent room, but his complaints could be heard clearly through a door left slightly ajar and through the walls of the laboratory.<sup>6</sup>

The third experimental condition (*Proximity*) was similar to the second, except that the victim was now placed in the same room as the subject, and 1½ feet from him. Thus he was visible as well as audible, and voice cues were provided.

The fourth, and final, condition of this series (*Touch-Proximity*) was identical to the third, with this exception: The victim received a shock only when his hand rested on a shockplate. At the 150-volt level the victim again demanded to be let free and, in this condition, refused to place his hand on the shockplate. The experimenter ordered the naive subject to force the victim's hand onto the plate. Thus obedience in this condition required that the subject have physical contact with the victim in order to give him punishment beyond the 150-volt level.

Forty adult subjects were studied in each condition. The data revealed that obedience was significantly reduced as the victim was rendered more immediate to the subject. The mean maximum shock for the conditions is shown in Fig. 10.1.

Expressed in terms of the proportion of obedient to defiant subjects, the findings are that 34 percent of the subjects defied the experimenter in the Remote condition, 37.5 percent in Voice Feedback, 60 percent in Proximity, and 70 percent in Touch-Proximity.

How are we to account for this effect? A first conjecture might be that as the victim was brought closer the subject became more aware of the intensity of his suffering and regulated his behavior accordingly. This makes sense, but our evidence does not support the interpretation. There are no consistent differences in the attributed level of pain across the four conditions (i.e. the amount of pain experienced by the victim as estimated by the subject and expressed on a 14-point scale). But it is easy to speculate about alternative mechanisms:

*Empathic cues.* In the Remote and to a lesser extent the Voice Feedback conditions, the victim's suffering possesses an abstract,

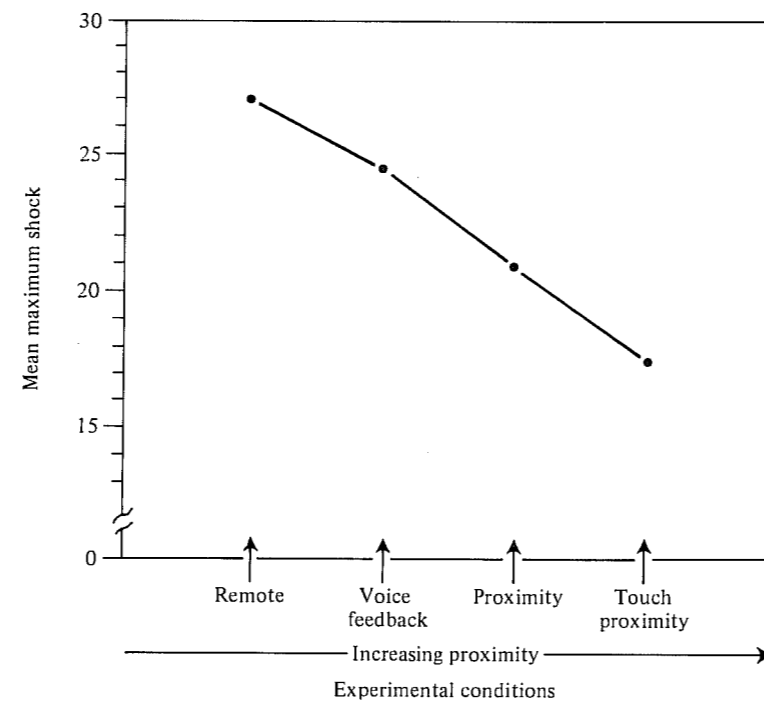


FIGURE 10.1  
Mean maxima in proximity series.

remote quality for the subject. He is aware, but only in a conceptual sense, that his actions cause pain to another person; the fact is apprehended, but not felt. The phenomenon is common enough. The bombardier can reasonably suppose that his weapons will inflict suffering and death, yet this knowledge is divested of affect and does not move him to a felt, emotional response to the suffering resulting from his actions. Similar observations have been made in wartime. It is possible that the visual cues associated with the victim's suffering trigger empathic responses in the subject and provide him with a more complete grasp of the victim's experience. Or it is possible that the empathic responses are themselves unpleasant, possessing drive properties which cause the subject to terminate the arousal situation. Diminishing obedience, then, would be explained by the enrichment of empathic cues in the successive experimental conditions.

*Denial and narrowing of the cognitive field.* The Remote condition allows a narrowing of the cognitive field so that the victim is put out of mind. The subject no longer considers the act of depressing a

lever relevant to moral judgment, for it is no longer associated with the victim's suffering. When the victim is close it is more difficult to exclude him phenomenologically. He necessarily intrudes on the subject's awareness since he is continuously visible. In the Remote condition his existence and reactions are made known only after the shock has been administered. The auditory feedback is sporadic and discontinuous. In the Proximity conditions his inclusion in the immediate visual field renders him a continuously salient element for the subject. The mechanism of denial can no longer be brought into play. One subject in the Remote condition said: "It's funny how you really begin to forget that there's a guy out there, even though you can hear him. For a long time I just concentrated on pressing the switches and reading the words."

*Reciprocal fields.* If in the Proximity condition the subject is in an improved position to observe the victim, the reverse is also true. The actions of the subject now come under proximal scrutiny by the victim. Possibly, it is easier to harm a person when he is unable to observe our actions than when he can see what we are doing. His surveillance of the action directed against him may give rise to shame, or guilt, which may then serve to curtail the action. Many expressions of language refer to the discomfort or inhibitions that arise in face-to-face confrontation. It is often said that it is easier to criticize a man "behind his back" than to "attack him to his face." If we are in the process of lying to a person it is reputedly difficult to "stare him in the eye." We "turn away from others in shame" or in "embarrassment" and this action serves to reduce our discomfort. The manifest function of allowing the victim of a firing squad to be blindfolded is to make the occasion less stressful for him, but it may also serve a latent function of reducing the stress of the executioner. In short, in the Proximity conditions, the subject may sense that he has become more salient in the victim's field of awareness. Possibly he becomes more self-conscious, embarrassed, and inhibited in his punishment of the victim.

*Phenomenal unity of act.* In the Remote condition it is more difficult for the subject to gain a sense of relatedness between his own actions and the consequences of these actions for the victim. There is a physical and spatial separation of the act and its consequences. The subject depresses a lever in one room, and protests and cries are heard from another. The two events are in correlation, yet they lack a compelling phenomenological unity. The structure of a meaningful act—*I am hurting a man*—breaks down because of the spatial arrangements, in a manner somewhat analogous to the disappearance of phi phenomena when the blinking lights are spaced too far apart. The unity is more fully achieved in the Proximity condition

as the victim is brought closer to the action that causes him pain. It is rendered complete in Touch-Proximity.

*Incipient group formation.* Placing the victim in another room not only takes him further from the subject, but the subject and the experimenter are drawn relatively closer. There is incipient group formation between the experimenter and the subject, from which the victim is excluded. The wall between the victim and the others deprives him of an intimacy which the experimenter and subject feel. In the Remote condition, the victim is truly an outsider, who stands alone, physically and psychologically.

When the victim is placed close to the subject, it becomes easier to form an alliance with him against the experimenter. Subjects no longer have to face the experimenter alone. They have an ally who is close at hand and eager to collaborate in a revolt against the experimenter. Thus, the changing set of spatial relations leads to a potentially shifting set of alliances over the several experimental conditions.

*Acquired behavior dispositions.* It is commonly observed that laboratory mice will rarely fight with their litter mates. Scott (1958) explains this in terms of passive inhibition. He writes: "By doing nothing under . . . circumstances [the animal] learns to do nothing, and this may be spoken of as passive inhibition . . . this principle has great importance in teaching an individual to be peaceful, for it means that he can learn not to fight simply by not fighting." Similarly, we may learn not to harm others simply by not harming them in everyday life. Yet this learning occurs in a context of proximal relations with others, and may not be generalized to that situation in which the person is physically removed from us. Or possibly, in the past, aggressive actions against others who were physically close resulted in retaliatory punishment which extinguished the original form of response. In contrast, aggression against others at a distance may have only sporadically led to retaliation. Thus the organism learns that it is safer to be aggressive toward others at a distance, and precarious to be so when the parties are within arm's reach. Through a pattern of rewards and punishments, he acquires a disposition to avoid aggression at close quarters, a disposition which does not extend to harming others at a distance. And this may account for experimental findings in the remote and proximal experiments.

Proximity as a variable in psychological research has received far less attention than it deserves. If men were sessile it would be easy to understand this neglect. But we move about; our spatial relations shift from one situation to the next, and the fact that we are near or remote may

have a powerful effect on the psychological processes that mediate our behavior toward others. In the present situation, as the victim is brought closer to the subject ordered to give him shocks, increasing numbers of subjects break off the experiment, refusing to obey. The concrete, visible, and proximal presence of the victim acts in an important way to counteract the experimenter's power to generate disobedience.<sup>7</sup>

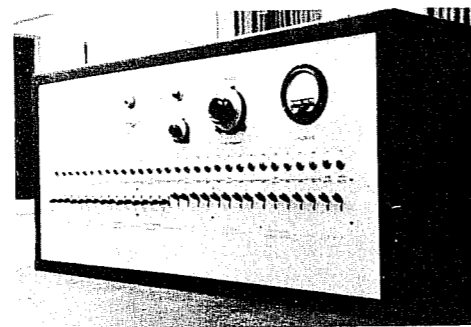
## CLOSENESS OF AUTHORITY

If the spatial relationship of the subject and victim is relevant to the degree of obedience, would not the relationship of subject to experimenter also play a part?

There are reasons to feel that, on arrival, the subject is oriented primarily to the experimenter rather than to the victim. He has come to the laboratory to fit into the structure that the experimenter—not the victim—would provide. He has come less to understand his behavior than to reveal that behavior to a competent scientist, and he is willing to display himself as the scientist's purposes require. Most subjects seem quite concerned about the appearance they are making before the experimenter, and one could argue that this preoccupation in a relatively new and strange setting makes the subject somewhat insensitive to the triadic nature of the social situation. In other words, the subject is so concerned about the show he is putting on for the experimenter that influences from other parts of the social field do not receive as much weight as they ordinarily would. This overdetermined orientation to the experimenter would account for the relative insensitivity of the subject to the victim, and would also lead us to believe that alterations in the relationship between subject and experimenter would have important consequences for obedience.

In a series of experiments we varied the physical closeness and degree of surveillance of the experimenter. In one condition the experimenter sat just a few feet away from the subject. In a second condition, after giving initial instructions, the experimenter left the laboratory and gave his orders by telephone. In still a third condition the experimenter was never seen, providing instructions by means of a tape recording activated when the subjects entered the laboratory.

Obedience dropped sharply as the experimenter was physically removed from the laboratory. The number of obedient subjects in the first condition (Experimenter Present) was almost three times as great as in the second, where the experimenter gave his orders by telephone. Twenty-six subjects were fully obedient in the first condition, and only nine in the second (Chi square obedient vs. defiant in the two conditions,  $df = 14.7$ ;  $p < 0.001$ ). Subjects seemed able to take a far stronger stand against the experimenter when they did not have to encounter him face to face, and the experimenter's power over the subject was severely curtailed.<sup>8</sup>



(a) Shock generator used in the experiments. Fifteen of the 30 switches have already been depressed.



(b) The learner is strapped into a chair and electrodes are attached to his wrist. Electrode paste is applied by the experimenter. The learner provides answers by depressing switches that light up numbers on an answer box.



(c) The subject receives a sample shock from the generator.



(d) The subject breaks off the experiment. On the right, an event recorder wired into the generator automatically records the switches used by the subject. (From the film *Obedience*, distributed by the Penn State Audio-Visual Services.)

FIGURE 10.2 Photographs of the obedience experiments.

Moreover, when the experimenter was absent, subjects displayed an interesting form of behavior that had not occurred under his surveillance. Though continuing with the experiment, several subjects administered lower shocks than were required and never informed the experimenter of their deviation from the correct procedure. (Unknown to the subjects, shock levels were automatically recorded by an Esterline-Angus event recorder wired directly into the shock generator; the instrument provided us with an objective record of the subjects' performance.) Indeed, in telephone conversations some subjects specifically assured the experimenter that they were raising the shock level according to instruction, whereas in fact they were repeatedly using the lowest shock on the board. This form of behavior is particularly interesting: although these subjects acted in a way that clearly undermined the avowed purposes of the experiment, they found it easier to handle the conflict in this manner than to precipitate an open break with authority.

Other conditions were completed in which the experimenter was absent during the first segment of the experiment, but reappeared at the point that the subject definitely refused to give higher shocks when commanded by telephone. Although he had exhausted his power via telephone, the experimenter could frequently force further obedience when he reappeared in the laboratory.

Experiments in this series show that the *physical presence* of an authority is an important force contributing to the subject's obedience or defiance. Taken together with the first experimental series on the proximity of the victim, it would appear that something akin to fields of force, diminishing in effectiveness with increasing psychological distance from their source, have a controlling effect on the subject's performance. As the victim is brought closer, the subject finds it harder to administer shocks to him. When the victim's position is held constant relative to the subject, and the authority is made more remote, the subject finds it easier to break off the experiment. This effect is substantial in both cases, but manipulation of the experimenter's position yielded the more powerful results. Obedience to destructive commands is highly dependent on the proximal relations between authority and subject.

physical presence of authority

## TENSIONS

The description of final scores does not fully convey the character of the subjects' performance, and it would be useful to interrupt our reporting of quantitative relationships to remark on the subjects' general reaction to the situation.

One might suppose that a subject would simply break off or continue as his conscience and temperament dictated. Yet this is very far from what happened. These were powerful reactions of tension and emotional strain



in a substantial proportion of the participants. Persons were observed to sweat, tremble, stutter, bite their lips, and groan as they found themselves increasingly implicated in the experimental conflict. Some sense of the subjects' mood can be found in a transcript of their remarks at break-off point. Here are the remarks of two defiant subjects:

Is he banging? . . . Is he hurt out there? Well, I don't want to be responsible for anything that happens to him. No, I can't go on with it. I don't know whether he's all right or not. I mean he may have a heart condition or something; I wouldn't feel right doing it. He's banging for help. He's evidently in trouble or he wouldn't bang. . . I don't see any sense to this—to knocking him out or something. I just can't see it.

[Subject refuses to administer shocks]

[Subject 0108]

The man is banging. He wants to get out. . . I'm sorry. If the man wants to get out I'd just as soon stop. . . I don't want to administer any more [extremely excited]. . . I will gladly refund the check, but I will not harm this man. . . I'm sorry, I will not give him any more if he obviously wants to get out. There is no money in the world that will make me hurt another individual.

[Subject 010X]

And here is a transcript from an obedient subject. He began the experiment calmly, but became increasingly tense as the experiment proceeded. After administering the 150-volt shock, he began to address the experimenter in agitated tones:

150 volts delivered. You want me to keep going?

165 volts delivered. That guy is hollering in there. There's a lot of them here. He's liable to have heart condition. You want me to go?

180 volts delivered. He can't stand it! I'm not going to kill that man in there! You hear him hollering? He's hollering. He can't stand it. What if something happens to him? . . . I'm not going to get that man sick in there. He's hollering in there. You know what I mean? I mean I refuse to take responsibility. He's getting hurt in there. He's in there hollering. Too many left here. Geez, if he gets them wrong. There's too many of them left. I mean who is going to take responsibility if anything happens to that gentleman?

[The experimenter accepts responsibility.] All right.

195 volts delivered. You see he's hollering. Hear that. Gee, I don't know.

[The experimenter says: 'The experiment requires that you go on.']—I know it does, sir, but I mean—hugh—he don't know what he's in for. He's up to 195 volts.

210 volts delivered.

225 volts delivered.

240 volts delivered. Aw, no. You mean I've got to keep going up with the scale?

No sir. I'm not going to kill that man! I'm not going to give him 450 volts!

[The experimenter says: 'The experiment requires that you go on.']—I know it does, but that man is hollering there, sir . . .

Despite his numerous, agitated objections, which were constant accompaniments to his actions, the subject unfailingly obeyed the experimenter, proceeding to the highest shock level on the generator. He displayed a

curious dissociation between word and action. Although at the verbal level he had resolved not to go on, his actions were fully in accord with the experimenter's commands. This subject did not want to shock the victim, and he found it an extremely disagreeable task, but he was unable to invent a response that would free him from E's authority. Many subjects cannot find the specific verbal formula that would enable them to reject the role assigned to them by the experimenter! Perhaps our culture does not provide adequate models for disobedience.

One puzzling sign of tension was the regular occurrence of nervous laughing fits. In the first four conditions 71 of the 160 subjects showed definite signs of nervous laughter and smiling. The laughter seemed entirely out of place, even bizarre. Full-blown, uncontrollable seizures were observed for 15 of these subjects. On one occasion we observed a seizure so violently convulsive that it was necessary to call a halt to the experiment. In the post-experimental interviews subjects took pains to point out that they were not sadistic types and that the laughter did not mean they enjoyed shocking the victim.

In the interview following the experiment subjects were asked to indicate on a 14-point scale just how nervous or tense they felt at the point of maximum tension (Fig. 10.3). The scale ranged from "not at all tense and nervous" to "extremely tense and nervous." Self-reports of this sort are of limited precision and at best provide only a rough indication of the subject's emotional response. Still, taking the reports for what they are worth, it can be seen that the distribution of responses spans the entire range of the scale, with the majority of subjects concentrated at the center and upper extreme. A further breakdown showed that obedient subjects reported themselves as having been slightly more tense and nervous than the defiant subjects at the point of maximum tension.

How is the occurrence of tension to be interpreted? First, it points to the presence of conflict. If a tendency to comply with authority were the only psychological force operating in the situation, all subjects would have continued to the end and there would have been no tension. Tension, it is assumed, results from the simultaneous presence of two or more incompatible response tendencies (Miller, 1944). If sympathetic concern for the victim were the exclusive force, all subjects would have calmly defied the experimenter. Instead, there were both obedient and defiant outcomes, frequently accompanied by extreme tension. A conflict develops between the deeply ingrained disposition not to harm others and the equally compelling tendency to obey others who are in authority. The subject is quickly drawn into a dilemma of a deeply dynamic character, and the presence of high tension points to the considerable strength of each of the antagonistic vectors.

Moreover, tension defines the strength of the aversive state from which the subject is unable to escape through disobedience. When a person is uncomfortable, tense, or stressed, he tries to take some action

verbal formula

obedient subjects were more nervous

tension  
2 or more incompatible forces

dynamic dilemma

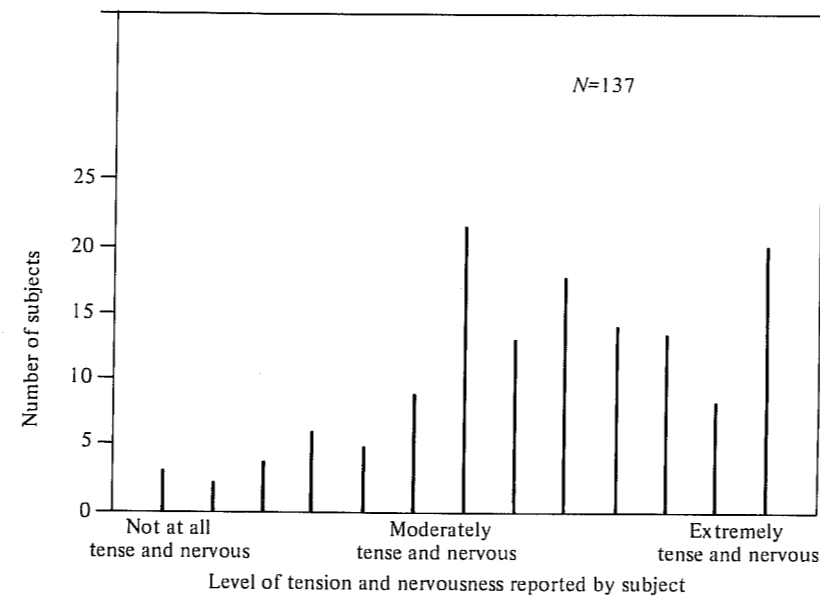


FIGURE 10.3  
Level of tension and nervousness: the self-reports on "tension and nervousness" for 137 subjects in the Proximity experiments. Subjects were given a scale with 14 values ranging from "not at all tense and nervous" to "extremely tense and nervous." They were instructed: "Thinking back to that point in the experiment when you felt the most tense and nervous, indicate just how you felt by placing an X at the appropriate point on the scale." The results are shown in terms of midpoint values.

that will allow him to terminate this unpleasant state. Thus tension may serve as a drive that leads to escape behavior. But in the present situation, even where tension is extreme, many subjects are unable to perform the response that will bring about relief. Therefore there must be a competing drive, tendency, or inhibition that precludes activation of the disobedient response. The strength of this inhibiting factor must be of greater magnitude than the stress experienced, or else the terminating act would occur. Every evidence of extreme tension is at the same time an indication of the strength of the forces that keep the subject in the situation.

Finally, tension may be taken as evidence of the reality of the situations for the subjects. Normal subjects do not tremble and sweat unless they are implicated in a deep and genuinely felt predicament.

## BACKGROUND AUTHORITY

In psychophysics, animal learning, and other branches of psychology, the fact that measures are obtained at one institution rather than another is irrelevant to the interpretation of the findings, so long as the technical facilities for measurement are adequate and the operations are carried out with competence.

But it cannot be assumed that this holds true for the present study. The effectiveness of the experimenter's commands may depend in an important way on the larger institutional context in which they are issued. The experiments described thus far were conducted at Yale University, an organization which most subjects regarded with respect and sometimes awe. In post-experimental interviews several participants remarked that the locale and sponsorship of the study gave them confidence in the integrity, competence, and benign purposes of the personnel; many indicated that they would not have shocked the learner if the experiments had been done elsewhere.

This issue of background authority seemed to us important for an interpretation of the results that had been obtained thus far; moreover it is highly relevant to any comprehensive theory of human obedience. Consider, for example, how closely our compliance with the imperatives of others is tied to particular institutions and locales in our day-to-day activities. On request, we expose our throats to a man with a razor blade in the barber shop, but would not do so in a shoe store; in the latter setting we willingly follow the clerk's request to stand in our stockinged feet, but resist the command in a bank. In the laboratory of a great university, subjects may comply with a set of commands that would be resisted if given elsewhere. One must always question the relationship of obedience to a person's sense of the context in which he is operating.

To explore the problem we moved our apparatus to an office building in industrial Bridgeport and replicated experimental conditions, without any visible tie to the university.

Bridgeport subjects were invited to the experiment through a mail circular similar to the one used in the Yale study, with appropriate changes in letterhead, etc. As in the earlier study, subjects were paid \$4.50 for coming to the laboratory. The same age and occupational distributions used at Yale and the identical personnel were employed.

The purpose in relocating in Bridgeport was to assure a complete dissociation from Yale, and in this regard we were fully successful. On the surface, the study appeared to be conducted by Research Associates of Bridgeport, an organization of unknown character (the title had been concocted exclusively for use in this study).

The experiments were conducted in a three-room office suite in a somewhat run-down commercial building located in the downtown shopping area. The laboratory was sparsely furnished, though clean, and

Yale University

CONTEXT  
Obedience

Bridgeport

marginally respectable in appearance. When subjects inquired about professional affiliations, they were informed only that we were a private firm conducting research for industry.

Some subjects displayed skepticism concerning the motives of the Bridgeport experimenter. One gentleman gave us a written account of the thoughts he experienced at the control board:

... Should I quit this damn test? Maybe he passed out? What dopes we were not to check up on this deal. How do we know that these guys are legit? No furniture, bare walls, no telephone. We could of called the Police up or the Better Business Bureau. I learned a lesson tonight. How do I know that Mr. Williams [the experimenter] is telling the truth ... I wish I knew how many volts a person could take before lapsing into unconsciousness ...

[Subject 2414]

Another subject stated:

I questioned on my arrival my own judgment [about coming]. I had doubts as to the legitimacy of the operation and the consequences of participation. I felt it was a heartless way to conduct memory or learning processes on human beings and certainly dangerous without the presence of a medical doctor.

[Subject 2440V]

There was no noticeable reduction in tension for the Bridgeport subjects. And the subjects' estimation of the amount of pain felt by the victim was slightly, though not significantly, higher than in the Yale study.

A failure to obtain complete obedience in Bridgeport would indicate that the extreme compliance found in New Haven subjects was tied closely to the background authority of Yale University; if a large proportion of the subjects remained fully obedient, very different conclusions would be called for.

As it turned out, the level of obedience in Bridgeport, although somewhat reduced, was not significantly lower than that obtained at Yale.

A large proportion of the Bridgeport subjects were fully obedient to the experimenter's commands (48 percent of the Bridgeport subjects delivered the maximum shock versus 65 percent in the corresponding condition at Yale).

How are these findings to be interpreted? It is possible that if commands of a potentially harmful or destructive sort are to be perceived as legitimate they must occur within some sort of institutional structure. But it is clear from the study that it need not be a particularly reputable or distinguished institution. The Bridgeport experiments were conducted by an unimpressive firm lacking any credentials; the laboratory was set up in a respectable office building with title listed in the building directory. Beyond that, there was no evidence of benevolence or competence. It is possible that the category of institution, judged according to its professed function, rather than its qualitative position within that category, wins our

48% max (other) vs Yale  
65% max (Yale) shock  
institutional structure

compliance. Persons deposit money in elegant, but also in seedy-looking banks, without giving much thought to the differences in security they offer. Similarly, our subjects may consider one laboratory to be as competent as another, so long as it is a scientific laboratory.

It would be valuable to study the subjects' performance in other contexts which go even further than the Bridgeport study in denying institutional support to the experimenter. It is possible that, beyond a certain point, obedience disappears completely. But that point had not been reached in the Bridgeport office: almost half the subjects obeyed the experimenter fully.

### FURTHER EXPERIMENTS

We may mention briefly some additional experiments undertaken in the Yale series. A considerable amount of obedience and defiance in everyday life occurs in connection with groups. And we had reason to feel in light of the many group studies already done in psychology that group forces would have a profound effect on reactions to authority. A series of experiments was run to examine these effects. In all cases only one naïve subject was studied per hour, but he performed in the midst of actors who, unknown to him, were employed by the experimenter. In one experiment (Groups for Disobedience) two actors broke off in the middle of the experiment. When this happened 90 percent of the subjects followed suit and defied the experimenter. In another condition the actors followed the orders obediently; this strengthened the experimenter's power only slightly. In still a third experiment the job of pushing the switch to shock the learner was given to one of the actors, while the naïve subject performed a subsidiary act. We wanted to see how the teacher would respond if he were involved in the situation but did not actually give the shocks. In this situation only three subjects out of forty broke off. In a final group experiment the subjects themselves determined the shock level they were going to use. Two actors suggested higher and higher shock levels; some subjects insisted, despite group pressure, that the shock level be kept low; others followed along with the group.

Further experiments were completed using women as subjects, as well as a set dealing with the effects of dual, unsanctioned, and conflicting authority. A final experiment concerned the personal relationship between victim and subject. These will have to be described elsewhere, lest the present report be extended to monographic length.

It goes without saying that future research can proceed in many different directions. What kinds of response from the victim are most effective in causing disobedience in the subject? Perhaps passive resistance is more effective than vehement protest. What conditions of entry into an authority system lead to greater or lesser obedience? What is the

GROUPS FOR DISOBEDIENCE

2 broke off 90% followed

WOMEN

conflicting authority

passive resistance

effect of anonymity and masking on the subject's behavior? What conditions lead to the subject's perception of responsibility for his own actions? Each of these could be a major research topic in itself, and can readily be incorporated into the general experimental procedure described here.

### LEVELS OF OBEDIENCE AND DEFIANCE

One general finding that merits attention is the high level of obedience manifested in the experimental situation. Subjects often expressed deep disapproval of shocking a man in the face of his objections, and others denounced it as senseless and stupid. Yet many subjects complied even while they protested. The proportion of obedient subjects greatly exceeded the expectations of the experimenter and his colleagues. At the outset, we had conjectured that subjects would not, in general, go above the level of "Strong Shock." In practice, many subjects were willing to administer the most extreme shocks available when commanded by the experimenter. For some subjects the experiment provided an occasion for aggressive release. And for others it demonstrated the extent to which obedient dispositions are deeply ingrained and engaged, irrespective of their consequences for others. Yet this is not the whole story. Somehow, the subject becomes implicated in a situation from which he cannot disengage himself.

The departure of the experimental results from intelligent expectation, to some extent, has been formalized. The procedure was to describe the experimental situation in concrete detail to a group of competent persons, and to ask them to predict the performance of 100 hypothetical subjects. For purposes of indicating the distribution of break-off points, judges were provided with a diagram of the shock generator and recorded their predictions before being informed of the actual results. Judges typically underestimated the amount of obedience demonstrated by subjects.

In Fig. 10.4, we compare the predictions of forty psychiatrists at a leading medical school with the actual performance of subjects in the experiment. The psychiatrists predicted that most subjects would not go beyond the tenth shock level (150 volts; at this point the victim makes his first explicit demand to be freed). They further predicted that by the twentieth shock level (300 volts; the victim refuses to answer) 3.73 percent of the subjects would still be obedient; and that only a little over one-tenth of one percent of the subjects would administer the highest shock on the board. But, as the graph indicates, the obtained behavior was very different. Sixty-two percent of the subjects obeyed the experimenter's commands fully. Between expectation and occurrence there is a whopping discrepancy.

Why did the psychiatrists underestimate the level of obedience?

subject  
COMPLIED  
even when  
protested.

62% - 100%  
vs  
estimated 3%

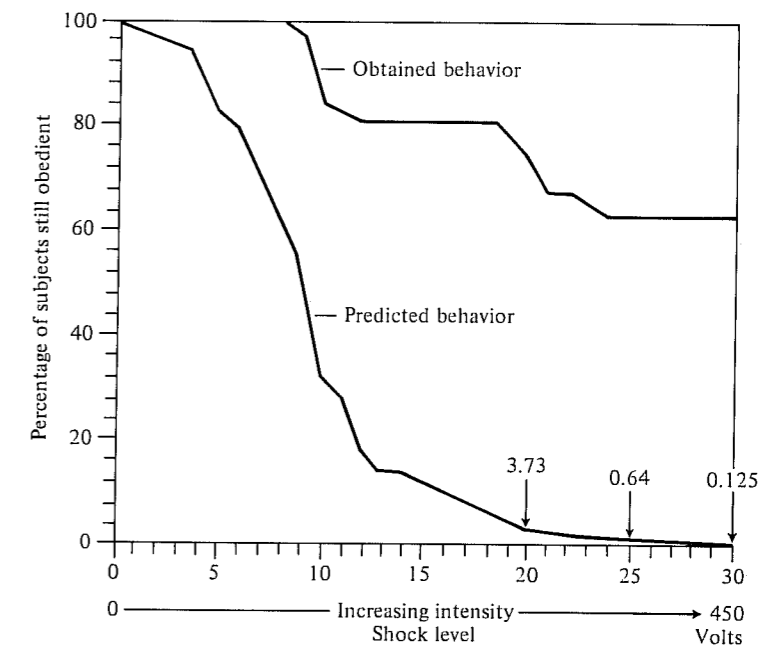


FIGURE 10.4 Predicted and obtained behavior in voice feedback.

Possibly, because their predictions were based on an inadequate conception of the determinants of human action, a conception that focuses on motives *in vacuo*. This orientation may be entirely adequate for the repair of bruised impulses as revealed on the psychiatrist's couch, but as soon as our interest turns to action in larger settings, attention must be paid to the situations in which motives are expressed. A situation exerts an important press on the individual. It exercises constraints and may provide push. In certain circumstances it is not so much the kind of person a man is, as the kind of situation in which he is placed, that determines his actions.

Many people, not knowing much about the experiment, claim that subjects who go to the end of the board are sadistic. Nothing could be more foolish than an overall characterization of these persons. It is like saying that a person thrown into a swift-flowing stream is necessarily a fast swimmer, or that he has great stamina because he moves so rapidly relative to the bank. The context of action must always be considered. The individual, upon entering the laboratory, becomes integrated into a situation that carries its own momentum. The subject's problem then is how to become disengaged from a situation which is moving in an altogether ugly direction.

push/constrain  
↑  
situation  
↓  
pressures on individual  
↓  
determines action  
  
context of action

The fact that disengagement is so difficult testifies to the potency of the forces that keep the subject at the control board. Are these forces to be conceptualized as individual motives and expressed in the language of personality dynamics, or are they to be seen as the effects of social structure and pressures arising from the situation field?

A full understanding of the subject's action will, I feel, require that both perspectives be adopted. The person brings to the laboratory enduring dispositions toward authority and aggression, and at the same time he becomes enmeshed in a social structure that is no less an objective fact of the case. From the standpoint of personality theory one may ask: What mechanisms of personality enable a person to transfer responsibility to authority? What are the motives underlying obedient and disobedient performance? Does orientation to authority lead to a short-circuiting of the shame-guilt system? What cognitive and emotional defenses are brought into play in the case of obedient and defiant subjects?

The present experiments are not, however, directed toward an exploration of the motives engaged when the subject obeys the experimenter's commands. Instead, they examine the situational variables responsible for the elicitation of obedience. Elsewhere, we have attempted to spell out some of the structural properties of the experimental situation that account for high obedience, and this analysis need not be repeated here (Milgram, 1963). The experimental variations themselves represent our attempt to probe that structure, by systematically changing it and noting the consequences for behavior. It is clear that some situations produce greater compliance with the experimenter's commands than others. However, this does not necessarily imply an increase or decrease in the strength of any single definable motive. Situations producing the greatest obedience could do so by triggering the most powerful, yet perhaps the most idiosyncratic, of motives in each subject confronted by the setting. Or they may simply recruit a greater number and variety of motives in their service. But whatever the motives involved—and it is far from certain that they can ever be known—action may be studied as a direct function of the situation in which it occurs. This has been the approach of the present study, where we sought to plot behavioral regularities against manipulated properties of the social field. Ultimately, social psychology would like to have a compelling theory of situations which will, first, present a language in terms of which situations can be defined; proceed to a typology of situations; and then point to the manner in which definable properties of situations are transformed into psychological forces in the individual.<sup>9</sup>

resulted  
SOCIAL  
structure?

dispositions  
to authority

personality?  
transfer  
responsibility  
to authority?

defenses  
control

Vertical text on the left margin, possibly a page number or index reference.

### POSTSCRIPT

Almost a thousand adults were individually studied in the obedience research, and there were many specific conclusions regarding the variables that control obedience and disobedience to authority. Some of these have been discussed briefly in the preceding sections, and more detailed reports will be released subsequently.

There are now some other generalizations I should like to make, which do not derive in any strictly logical fashion from the experiments as carried out, but which, I feel, ought to be made. They are formulations of an intuitive sort that have been forced on me by observation of many subjects responding to the pressures of authority. The assertions represent a painful alteration in my own thinking; and since they were acquired only under the repeated impact of direct observation, I have no illusion that they will be generally accepted by persons who have not had the same experience.

With numbing regularity good people were seen to knuckle under the demands of authority and perform actions that were callous and severe. Men who are in everyday life responsible and decent were seduced by the trappings of authority, by the control of their perceptions, and by the uncritical acceptance of the experimenter's definition of the situation, into performing harsh acts.

What is the limit of such obedience? At many points we attempted to establish a boundary. Cries from the victim were inserted; not good enough. The victim claimed heart trouble; subjects still shocked him on command. The victim pleaded that he be let free, and his answers no longer registered on the signal box; subjects continued to shock him. At the outset we had not conceived that such drastic procedures would be needed to generate disobedience, and each step was added only as the ineffectiveness of the earlier techniques became clear. The final effort to establish a limit was the Touch-Proximity condition. But the very first subject in this condition subdued the victim on command, and proceeded to the highest shock level. A quarter of the subjects in this condition performed similarly.

The results, as seen and felt in the laboratory, are to this author disturbing. They raise the possibility that human nature or, more specifically, the kind of character produced in American democratic society cannot be counted on to insulate its citizens from brutality and inhumane treatment at the direction of malevolent authority. A substantial proportion of people do what they are told to do, irrespective of the content of the act and without limitations of conscience, so long as they perceive that the command comes from a legitimate authority. If in this study an anonymous experimenter could successfully command adults to subdue a fifty-year-old man and force on him painful electric shocks against his protests, one can only wonder what government, with its vastly greater authority

establish  
boundary

Touch-  
Proximity  
condition  
established  
limit.

obey  
legitimate  
authority  
sans  
conscience



and prestige, can command of its subjects. There is, of course, the extremely important question of whether malevolent political institutions could or would arise in American society. The present research contributes nothing to this issue.

In an article titled "The Dangers of Obedience," Harold J. Laski wrote:

... civilization means, above all, an unwillingness to inflict unnecessary pain. Within the ambit of that definition, those of us who heedlessly accept the commands of authority cannot yet claim to be civilized men.

... Our business, if we desire to live a life, not utterly devoid of meaning and significance, is to accept nothing which contradicts our basic experience merely because it comes to us from tradition or convention or authority. It may well be that we shall be wrong; but our self-expression is thwarted at the root unless the certainties we are asked to accept coincide with the certainties we experience. That is why the condition of freedom in any state is always a widespread and consistent skepticism of the canons upon which power insists.

## NOTES

1. This research was supported by two grants from the National Science Foundation: NSF G-17916 and NSF G-24152. Exploratory studies carried out in 1960 were financed by a grant from the Higgins Funds of Yale University. I am grateful to John T. Williams, James J. McDonough, and Emil Elges for the important part they played in the project. Thanks are due also to Alan Elms, James Miller, Taketo Murata, and Stephen Stier for their aid as graduate assistants. My wife, Sasha, performed many valuable services. Finally, I owe a profound debt to the many persons in New Haven and Bridgeport who served as subjects.

2. Consider, for example, J. P. Scott's analysis of war in his monograph on aggression:

... while the actions of key individuals in a war may be explained in terms of direct stimulation to aggression, vast numbers of other people are involved simply by being part of an organized society.

... For example, at the beginning of World War I an Austrian archduke was assassinated in Sarajevo. A few days later soldiers from all over Europe were marching toward each other, not because they were stimulated by the archduke's misfortune, but because they had been trained to obey orders. (Slightly rearranged from Scott (1958), *Aggression*, p. 103.)

3. It consisted of an extended discussion with the experimenter and, of equal importance, a friendly reconciliation with the victim. It is made clear that the victim did *not* receive painful electric shocks. After the completion of the experimental series, subjects were sent a detailed report of the results and full purposes of the experimental program. A formal assessment of this procedure points to its overall effectiveness. Of the subjects, 83.7 percent indicated that they were glad to have taken part in the study; 15.1 percent reported neutral

feelings; and 1.3 percent stated that they were sorry to have participated. A large number of subjects spontaneously requested that they be used in further experimentation. Four-fifths of the subjects felt that more experiments of this sort should be carried out, and 74 percent indicated that they had learned something of personal importance as a result of being in the study. Furthermore, a university psychiatrist, experienced in outpatient treatment, interviewed a sample of experimental subjects with the aim of uncovering possible injurious effects resulting from participation. No such effects were in evidence. Indeed, subjects typically felt that their participation was instructive and enriching. A more detailed discussion of this question can be found in Milgram (1964).

4. *To obey* and *to disobey* are not the only terms one could use in describing the critical action of Y. One could say that Y is cooperating with X, or displays conformity with regard to X's commands. However, *cooperation* suggests that X agrees with Y's ends, and understands the relationship between his own behavior and the attainment of those ends. (But the experimental procedure, and, in particular, the experimenter's command that the subject shock the victim even in the absence of a response from the victim, preclude such understanding.) Moreover, cooperation implies status parity for the co-acting agents, and neglects the asymmetrical, dominance-subordination element prominent in the laboratory relationship between experimenter and subject. *Conformity* has been used in other important contexts in social psychology, and most frequently refers to imitating the judgments or actions of others when no explicit requirement for imitation has been made. Furthermore, in the present study there are two sources of social pressure; pressure from the experimenter issuing the commands, and pressure from the victim to stop the punishment. It is the pitting of a common man (the victim) against an authority (the experimenter) that is the distinctive feature of the conflict. At a point in the experiment the victim demands that he be let free. The experimenter insists that the subject continue to administer shocks. Which act of the subject can be interpreted as conformity? The subject may conform to the wishes of his peer or to the wishes of the experimenter, and conformity in one direction means the absence of conformity in the other. Thus the word has no useful reference in this setting, for the dual and conflicting social pressures cancel out its meaning.

In the final analysis, the linguistic symbol representing the subject's action must take its meaning from the concrete context in which the action occurs; and there is probably no word in everyday language that covers the experimental situation exactly, without omissions or irrelevant connotations. It is partly for convenience, therefore, that the terms *obey* and *disobey* are used to describe the subject's actions. At the same time, our use of the words is highly congruent with dictionary meaning.

5. A more detailed account of the laboratory procedure can be found in Milgram (1963). A similar and independently evolved experimental procedure, employing a shock generator, victim, and learning task, was reported by Buss (1961). Buss used the technique for studying aggression, not obedience, and did not make use of the fundamental measure employed in the present study: break-off points.
6. It is difficult to convey on the printed page the full tenor of the victim's responses, for we have no adequate notation for vocal intensity, timing, and

general qualities of delivery. Yet these features are crucial to producing the effect of an increasingly severe reaction to mounting voltage levels. (They can be communicated fully only by sending interested parties the recorded tapes.) In general terms, however, the victim indicates no discomfort until the 75-volt shock is administered, at which time there is a light grunt in response to the punishment. Similar reactions follow the 90- and 105-volt shocks, and at 120 volts the victim shouts to the experimenter that the shocks are becoming painful. Painful groans are heard on administration of the 135-volt shock, and at 150 volts the victim cries out, "Experimenter, get me out of here! I won't be in the experiment any more! I refuse to go on!" Cries of this type continue with generally rising intensity, so that at 180 volts the victim cries out, "I can't stand the pain," and by 270 volts his response to the shock is definitely an agonized scream. Throughout, he insists that he be let out of the experiment. At 300 volts the victim shouts in desperation that he will no longer provide answers to the memory test; and at 315 volts, after a violent scream, he reaffirms with vehemence that he is no longer a participant. From this point on, he provides no answers, but shrieks in agony whenever a shock is administered; this continues through 450 volts. Of course, many subjects will have broken off before this point.

A revised and stronger set of protests was used in all experiments outside the Proximity series. Naturally, new baseline measures were established for all comparisons using the new set of protests.

There is overwhelming evidence that the great majority of subjects, both obedient and defiant, accepted the victims' reactions as genuine. The evidence takes the form of: (a) tension created in the subjects (see discussion of tension); (b) scores on "estimated-pain" scales filled out by subjects immediately after the experiment; (c) subjects' accounts of their feelings in post-experimental interviews; and (d) quantifiable responses to questionnaires distributed to subjects several months after their participation in the experiments. This matter will be treated fully in a forthcoming monograph.

(The procedure in all experimental conditions was to have the naïve subject announce the voltage level before administering each shock, so that— independently of the victim's responses—he was continually reminded of delivering punishment of ever-increasing severity.)

7. Admittedly, the terms *proximity*, *immediacy*, *closeness*, and *salience-of-the-victim* are used in a loose sense, and the experiments themselves represent a very coarse treatment of the variable. Further experiments are needed to refine the notion and tease out such diverse factors as spatial distance, *visibility*, *audibility*, barrier interposition, etc.

The Proximity and Touch-Proximity experiments were the only conditions where we were unable to use taped feedback from the victim. Instead, the victim was trained to respond in these conditions as he had in Experiment 2 (which employed taped feedback). Some improvement is possible here, for it should be technically feasible to do a Proximity series using taped feedback.

8. The third condition also led to significantly lower obedience than this first situation, in which the experimenter was present, but it contains technical difficulties that require extensive discussion.
9. My thanks to Professor Howard Leventhal of Yale for strengthening the writing in this paragraph.

## REFERENCES

- BUSS, ARNOLD H., 1961. *The Psychology of Aggression*. New York and London: John Wiley.
- KIERKEGAARD, S., 1843. *Fear and Trembling*. English edition. Princeton: Princeton University Press, 1941.
- LASKI, HAROLD J., 1929. "The dangers of obedience." *Harper's Monthly Magazine* 159, June, 1-10.
- MILGRAM, S., 1961. "Dynamics of obedience: experiments in social psychology." Mimeographed report, *National Science Foundation*, January 25.
- , 1963. "Behavioral study of obedience." *J. Abnorm. Soc. Psychol.* 67, 371-378.
- , 1964. "Issues in the study of obedience: a reply to Baumrind." *Amer. Psychol.* 19, 848-852.
- MILLER, N. E., 1944. "Experimental studies of conflict." In J. McV. Hunt (ed.), *Personality and the Behavior Disorders*. New York: Ronald Press.
- SCOTT, J. P. 1958. *Aggression*. Chicago: University of Chicago Press.

## 11

# Interpreting Obedience: Error and Evidence<sup>1</sup>



*Thus far we have been singularly unsuccessful in finding an experimental task which would be discontinued, or indeed refused by subjects in an experimental situation . . .*

(M. Orne, 1962)

In the October 1968 issue of the *International Journal of Psychiatry*, Orne and Holland sought to reinterpret the findings of my experimental studies of obedience and disobedience to authority. In this paper, I shall discuss their comments and, beyond this, address myself to some of the related questions that have formed part of Orne's thinking, and which have found their way into his critique.<sup>2</sup>

To begin, I note that Orne does not question the behavioral outcomes obtained in the obedience experiments, but focuses on the psychological meaning behind them. This point of agreement on behavior is important. First, it gives us a common empirical starting point for our discussion. Second, it places a burden on the critic. Let us leave open for the moment whether the subject's state of mind is characterized by the suspiciousness and disbelief that Orne postulates, assuming only that the subject complies outwardly with the experimenter. The critic must still ask *why* subjects respond with a show of outward compliance. The forces in a

This paper was first published in *The Social Psychology of Psychological Research*, Arthur G. Miller (ed.), New York: The Free Press, 1972, pp. 139-154. Reprinted by permission of Alexandra Milgram.

situation that constrain a person to adhere to required external forms cannot be dismissed as inconsequential. Nor in my view is such compliance most profitably seen as a methodological wrinkle but rather as a social fact of interest in its own right. An orientation in terms of demand characteristics, then, is questionable on two counts: (1) it treats compliance merely as if it were an impediment to research, thereby deflecting attention from the substantive issues underlying such compliance; and (2) it is presented as an explanation while it functions mainly as a depreciatory label.

There is a further implication in the locus of Orne's criticism. It is certainly legitimate to accept the behavioral facts and carry out arguments in regard to the psychological attitudes that lie behind them. However, a warning is in order: namely, this shift in no way diminishes the need for evidence in support of argumentation. I am afraid Orne has assumed that once he has moved the argument off the level of behavioral evidence, he is free to proceed on the basis of speculation and anecdote. In this he is quite wrong. Systematic evidence is of decisive importance and must be brought to bear on the argument.

OKNE II

What characterizes Orne's piece is gross overstatement of a point that has an element of validity, is corrected for with relative ease by control procedures, and ought to be seen in its proper place. Orne's first major argument is that subjects do not accept the experimental situation at face value. To make matters perfectly clear, let us state explicitly what subjects may fail to believe: (1) they may not believe the experiment is about memory and learning; (2) they may not believe the learner is getting painful shocks; (3) they may not believe the learner is the focus of experiment. Only the second of these points is critical, for as long as the subject believes he is transmitting painful shocks to the learner on command of the experimenter, the essential manipulatory intent of the experiment is achieved. The fact is that most subjects do believe that the shocks are painful, some subjects are unsure about it, and a few subjects do not believe it. This has been assessed at points during the experiment, immediately after the experiment, and in questionnaire and interview studies a year after the experiment. Orne asserts that no evidence has been presented on this question. This is false. The first published report states:

With few exceptions subjects were convinced of the reality of the experimental situation, that they were administering shocks to another person, and the most potent shocks were extremely painful. In the post-experimental interview subjects were asked: "How painful to the learner were the last few shocks that you administered to him?" Subjects were instructed to indicate

studies of his own. He took elaborate interviewing steps. Among other things, he established the interviewer as a person independent of the experiment, who demands a detailed account of the subject's experience and probes the issue of belief even to the point of asking, "You really mean you didn't catch on to the experiment?" On the basis of highly stringent criteria of full acceptance, Rosenhan reports that (according to the determination of independent judges), 68.9 percent of the subjects thoroughly accepted the authenticity of the experiment. Examining the performance of these subjects, he reports that 85 percent were fully obedient. (Rosenhan, it must be pointed out, employed a subject population that was younger than that used in the original experiments, and this, I believe, accounts for the higher level of obedience.<sup>3</sup>)

When my experimental findings are subjected to a comparable type of analysis, they are not altered in any substantial manner. For example, in condition (02), Voice Feedback, of those subjects who indicated acceptance of the deception (categories 1 and 2), 58 percent were obedient; of those who indicated category 1, 60 percent were obedient. Over all experimental conditions this manner of controlling the data slightly reduced the proportion of obedient-to-defiant subjects. The changes leave the relations among conditions intact and are inconsequential for interpreting the meaning or import of the findings.

In sum, the majority of subjects accept the experimental situation as genuine; a few do not. Within each experimental condition it was my estimate that two to four subjects did not think they were administering painful shocks to the victim, but I adopted a general rule that no subject be removed from the data, because selective removal of subjects on somewhat imprecise criteria is the quickest way to inadvertently shape hypotheses. Even now I am not willing to dismiss those subjects, because it is not clear that their rejection of the technical illusion was a cause of their obedience or a consequence of it. Does it not occur to Orne that cognitive processes may serve to rationalize behavior that the subject has felt compelled to carry out? It is simple indeed for a subject to explain his behavior by stating he did not believe the victim received shocks, and some subjects come to this position as a post facto explanation of their actions. The explanation has no cost to them and goes a long way toward preserving their positive self-conception. It has the additional benefit of demonstrating how astute and clever they were to penetrate a carefully laid cover story.

More important, however, is to be able to see the role of denial in the total process of obedience and disobedience, for denial is not a *deus ex machina* that descends on the laboratory and sweeps away all else. It is rather one specific cognitive adjustment of several that occur in the experiment, and needs to be properly placed in terms of its functioning in the performance of some subjects.

role of denial  
↑  
obedient  
post-facto explanation  
↓  
positive self-conception

III

ORNE- subjects see through experimental illusions

Leaving the evidential basis of this discussion, let us now consider the arguments Orne offers to support his idea that subjects see through the experimental illusions. Orne says, first, that the subjects of psychological experiments tend to "view their task as a problem-solving situation which requires them to determine the 'real' situation and respond appropriately." I do not share the belief that people by and large are suspicious, distrustful, and given to outguessing scientific authorities; nor do I think that among postal clerks, high-school teachers, salesmen, engineers, and laborers—our typical subjects—a great deal is known about psychological experiments. It is true, as Orne says, that within university circles a certain "scuttlebutt" develops about such endeavors, but it is very much a matter of local campus culture and, as Orne must surely know, not relevant to this study, which relied on a general not a campus population (1963, 1965b). Some of our subjects were highly intelligent, others of very limited intellectual ability. Very few of them approached the experiment with implicit distrust of the experimenter. Rather than trying to outwit him, subjects occasionally wanted to engage him in personal problems and probably held the idea of a psychiatric interview in their image of psychology. What kind of world does Orne postulate? It is a world populated with mutually suspicious persons, each with concealed motives and working at cross purposes. I do not believe this corresponds to reality, not even the reality of a psychological experiment. I am struck by the fact that Orne not only approaches the question of experimentation from an acutely suspicious point of view, but assumes experimental subjects possess a similar outlook. He supposes that they, too, are searching for concealed motives and hidden meanings, while, in fact, this is true for only a small fraction of subjects of characteristically paranoid outlook.

Diversity of subjects: occupational age.

PARANOID ORNE

Orne contends that there are incongruities in the experimental process that give away the deception. He says that a subject would find it implausible that he be required to administer shocks to an individual to test a presumed relation between punishment and learning when the experimenter could as easily give the shocks himself. Yet Orne could determine, by reading that portion of the instructions reprinted in the initial report of the experiment (1963), that a role was assigned to the subject and a reason for his administering the shocks was given. Each subject was told:

a role

We don't know how much punishment is best for learning, and we don't know how much difference it makes as to who is giving the punishment, whether an adult learns best from a younger or an older person than himself, or many things of that sort. So in this study we are bringing together a number of adults of different occupations and ages. And we're asking some of them to be teachers and some of them to be learners. We want to find out just

teachers & learners

role of punishment

what effect different people have on each other as teachers and learners, and also what effect punishment will have on learning in this situation.

Another source of doubt, according to Orne, is "The incongruity between the relatively trivial experiment and the imperturbability of the E on the one hand . . . and the extremity of the victim's suffering. . . ." One could argue with equal conviction that people usually do not assess the relative importance of scientific studies and that the cool, competent stance of the experimenter is the typical posture of authority in modern times, so that casting him in this role contributes to the plausibility of the situation. But the argument can only be resolved by assessment of the subject's acceptance of the situation.<sup>4</sup>

demand characteristic

A major problem with the demand characteristic approach is that it is always *post facto*. Orne is quite incapable of knowing what the results of a scientific experiment will be. He only knows how to argue after the results are in. Moreover, he forgets that from the standpoint of a "demand characteristic" analysis, virtually all of the cues in the obedience experiment communicate the necessity to break off the experiment, yet many subjects are unable to do so.

commitment reinforced.

Finally, at times Orne describes the experiment backwards, implying that the subject is told right off to administer dangerous shocks to a screaming person. Far from it, there is an important developmental aspect to the experiment which comes to constrain and control the subject's behavior. The early stages of the experiment are quite proper, even uneventful; it is only gradually as the shock levels intensify that conflict arises. The earlier parts of the experiment, in which any reasonable person would participate, only gradually ease the subject into a conflict; when conflict arises the subject has already routinized his behavior, committed himself to the procedure and, in consequence, is locked into the situation. The shifting, step by step, and piecemeal escalation of shocks plays an important part in exacting obedience, and, moreover, sets the experiment apart from other studies, such as the nitric acid study, which lack this temporal component.

#### IV

Since Orne makes frequent reference to the experiments he has carried out, some comments ought to be made about them. Many of them are not experiments at all, but only incidents involving one or two individuals. Orne rarely carries his incidents out in sufficient numbers to view the full range of responses to them. Yet they represent, relatively speaking, strong points in Orne's style of inquiry, for often he dispenses with evidence altogether and turns with an air of authority to anecdotes. The anecdotal

method does not have much standing in science and has never, to my knowledge, settled anything. Nonetheless, we may critically examine some of Orne's stories, if only to expose the flawed logic with which they are applied to present issues.

Orne tells us that about eighty years ago a hypnotized woman was induced to perform many seemingly antisocial acts, such as stabbing a victim, but could not be induced to undress before an assemblage of males. Orne concludes that the woman did not believe she was inflicting stab wounds. First, this is a gratuitous assumption. Neither Orne nor I have the slightest idea of what went through this woman's mind, and there is no evidence now to help us decide.

But there is a more significant point. Orne asserts that an act such as undressing possesses an irreducible meaning that "transcends the context" [Orne, 1968, p. 228] and therefore cannot be elicited by a hypnotist. One imagines the hypnotist standing Svengali-like over the poor girl, intoning, "You are in my power: Undress! Undress!" All very fine, but it is hard to see what this has to do with the exercise of authority through ordinary channels of social structure, which is the subject matter of the experiments on obedience.

A military officer does not need to rely on animal magnetism or Svengali-like poses to exact compliance from his subordinates. The parties are embedded in a socially defined hierarchical structure, and this fact dominates their behavior. Social structure is not a mysterious thing. From the standpoint of the participating subject it is the conviction that another person, by virtue of his status, has the right to prescribe behavior for him.

Let us return to undressing the girl, but now shift from the irrelevant issue of hypnotism to the pertinent question of social structure. It is well known that under a proper set of role relationships, e.g., when visiting a gynecologist, a woman not only undresses but allows her body to be thoroughly inspected. So we are left to conclude that not even hypnotism can bring about what is readily and routinely accomplished by legitimized societal roles. And that is precisely what we have investigated: our subjects are not hypnotized, but they are defined into social roles that place them in a position of subordination *via-à-vis* the experimenter.

social roles  
participate

Let us note a further point. The woman taking part in her medical checkup does not deny that she is undressing before a male stranger but she defines the meaning of the act in a manner that permits it. In the experiment the subject does not deny he is shocking the victim, but he defines the meaning of his act in terms of the constructive purposes outlined by the experimenter. This is not an alternative to complying with authority, but is the typical cognitive concomitant of such compliance.<sup>5</sup>

constructive purposes

Orne asserts that direct inferences about obedience in real life cannot be drawn from an experimental context. His documentation consists of a speculative anecdote that is offered as a parallel to the obedience experi-



ment, but which on analysis proves to be misleading and without pertinence.

Orne states:

Anyone who believes direct inference about obedience in real life can be drawn from an experimental context should ask his secretary to type a letter and, after making certain there are no errors, ask her to tear it up and retype it. With rare exceptions, two or three such trials should be sufficient to ensure that the E will require a new secretary.

It is hard to see that this anecdote has anything to do with my obedience experiment or real life. In the experiment, the act of shocking the victim is coordinated to a set of rational purposes concerning advancement of knowledge about the effects of punishment on learning. Nor does the anecdote have much to do with obedience in other settings. Not even in the army are individuals ordered to perform a destructive act for its own sake. The burning of a village containing innocent civilians is carried out with the explanation that it is to impress the populace, or to frighten the inhabitants into cooperating, or to enforce a system of military justice. Were the secretary in Orne's anecdote provided a set of rational purposes for the destructive act, Orne's story would end differently.

The criminal-act experiments on which Orne rests much of his argument also bear little resemblance to the obedience experiment or to life outside the laboratory. In these experiments, the subject is simply told to stab or throw nitric acid at a human target. Orne contends that the subject knows that no one really will be harmed and therefore obeys. It is the same in the obedience experiment, Orne says. But it is not the same. An important feature of the nitric acid experiment is that a meaningless act is arbitrarily demanded of the subject. In the obedience experiments, the act of shocking the victim is tightly embedded in a set of socially constructive purposes, namely, the furtherance of knowledge in regard to memory and learning processes. Obedience occurs not as an end in itself but as an instrumental element in a situation that the subject construes as significant and meaningful. Further, in contrast to the nitric acid study, in the obedience experiment the experimenter explicitly denies the possibility of harm. He states, "Although the shocks can be extremely painful, they cause no permanent tissue damage." (The subject also watches, after the electrode is attached to the victim's wrist, the application of a paste "to avoid blisters and burns.") The indications of harm come from other sources, and the subject must weigh information from his own senses against his trust in and dependence on the experimenter. Most of Orne's analysis ignores this critical aspect of the experiment and is simply not relevant to it.<sup>6</sup>

In summary, the several points on which the obedience experiment differs from the models provided by Orne are: First, we are not dealing

stab  
nitric acid  
→ meaningless act.  
shock -  
socially constructive purposes.

ORNE'S MODELS

with the personal power of the experimenter as in the case of hypnosis but, quite explicitly, with the consequence of social structure for action. A clearly defined hierarchical relationship exists between subject and authority. Second, the purposes which authority defines are not senseless and stupid (as in the nitric acid study) but are readily accepted by the subject as worthwhile. Third, the experiment has an important temporal aspect to it. It begins with the mutual consent of all parties and only gradually leads into conflict.

- NO personal power  
- Not senseless  
- Not immediately conflict

consequence of social structure for action

V

The issue of ecological validity comes down to two very different though equally important points that are not kept clearly distinct in Orne's thinking. The first question is: Within the context of a psychological experiment, will a subject accept that he is administering painful shocks to another person against his will? The question must be resolved by resorting to evidence and not simply rhetoric. The second question, which is analytically quite separate, is: Does the behavior established in the laboratory have any generality beyond the circumstances in which it was observed, or is the experimental situation so special that nothing that was observed can contribute to a general view of the functions of obedience in wider social life?

Orne observes that behavior is legitimized in the subject-experimenter relationship. He sees this only as getting in the way of establishing general truths, while in actuality, it is precisely an understanding of behavior within legitimized social relationships that the investigation seeks to attain. What Orne can construe only as an impediment is in fact a strategic research opportunity.

Orne wishes to show the uniqueness of the psychological experiment as a context for eliciting behavior, but his manner of supporting the view is specious. Thus he informs us that "it was essential for the subject to be in an actual subject-experimenter relationship in order to have him carry out these actions; despite repeated attempts not one of our colleagues could be induced to attempt any one of these acts." This merely says that the presence of legitimized, hierarchical role relations is needed for exacting compliance. And this is correct. But the further implication that only the subject-experimenter relationship possesses this quality is not merely gratuitous, but blind to the reality of social life, which is replete with hierarchical structures, and which in significant measure is composed of them. Orne's colleagues did not comply for the same reason, that, during a parade, when the marshal shouts "left face" the military band turns left but the onlooking pedestrians do not. One group consists of subordinates in a hierarchical structure and the other does not. We can in a despairing moment conclude that this establishes the uniqueness of a

ORNE:  
only experiment elicit this behaviour - (not so in reality)

parade as a social situation, or we can see through to the deeper principle that only persons defined into a hierarchical structure will respond to it. It is precisely those situations in which a person is defined into a hierarchical structure that constitutes the subject matter of the obedience experiment.

Perhaps the main source of confusion in Orne's thinking is his failure to keep clearly in mind the distinction between social occasions that are hierarchically organized and those that are not. To move from a discussion of one into the other, without taking account of the critical change, can only lead to muddled thought.

The occasion we term a psychological experiment shares its essential structural properties with other situations composed of subordinate-superordinate roles. In all such circumstances the person responds not so much to the content of what is required but on the basis of his relationship to the person who requires it. Indeed, I am tempted to assert this principle in more drastic form: where legitimate authority is the source of action, relationship overwhelms content. That is what is meant by the importance of social structure and that is what is demonstrated in the present experiment.

when legitimate authority prevails

VI

subjects do not accept the illusion (WRONG)

The obedience experiment makes use of a technical illusion, namely that the learner was receiving shocks, when in fact he was an actor. Orne asserts that, according to his analysis, cues in the experiment would not allow the subject to accept this illusion. In fact, observation and data show that Orne's conjecture is wrong, that most subjects do accept the illusion.

There are, to be sure, many alternative methods for accruing evidence, and if the use of a technical illusion is the stumbling block to confidence in the results, then the investigator who wishes to study obedience can do two things. First, he can study the performance of only those subjects who fully accept the illusion. We have already discussed how the data of Milgram and Rosenhan, controlled in this manner, continue to yield levels of obedience comparable to those reported in the original articles. A second approach is to study situations in which no illusion is required because the naïve subject himself serves as the victim. Even when subjects cannot possibly deny the genuineness of what they are doing, because it is happening to them, they comply in extraordinary degree. Thus Turner and Solomon (1962) and Shor (1962) have reported that subjects willingly accept near traumatizing shocks when serving in their experiments. Kudirka (1965) presents an experiment of unusual interest in which subjects were instructed to perform a highly noxious, although not dangerous, task, namely, eating bitter crackers (they were

soaked in strong quinine solution). The crackers were extremely distasteful and gave rise to facial distortions, grunts, groans, and in some subjects feelings of nausea. Since in this experiment the subject is himself the victim, none of Orne's criticism relating to deception is applicable. The question is whether compliance with the experimenter will occur in any significant degree. The first finding was that the requirement of obedience was so powerful that the experiment could not be done with the experimenter present: virtually all subjects obeyed. Kudirka, therefore, consciously weakened the experimenter's authority by removing him from the laboratory. Even under these circumstances 14 of the 19 subjects continued to the end of the experiment, each one ingesting, frequently with considerable disgust, 36 quinine soaked crackers.

Orne himself (1962b) has used the example of subjects carrying out extremely boring, stupid, and meaningless tasks (such as performing endless serial additions, then tearing up answer sheets) to show the power of the experimenter to induce action in his subjects. He says that although these actions may appear stupid, subjects perform them because they occur within a psychological experiment. When Orne moves on to the obedience experiment, however, he shifts his argument. The power of the experimenter, which Orne so carefully demonstrated, suddenly evaporates. Whereas his subjects genuinely did carry out actions prescribed by the experimenter, Orne would have us believe that my subjects did not. This is, at best, twisted logic, and Orne really cannot have it both ways. On the one hand he asserts an extreme degree of control over the subject, and on the other hand he denies this control exists in the present experiment. It is far more logical to see the obedience experiment as climaxing a consistent line of research demonstrating the power of authority, a line that can be traced to Frank (1944), through Orne (1962b), and into the present research.

His argument is further weakened by his failure to come to grips with the Bridgeport variation of the experiment in which the university setting was eliminated. For years Orne has pointed to the benignity of the university and hospital setting and the manner in which these specific contexts invalidate experimental studies of antisocial behavior. Insofar as Orne's general position is concerned, the implication of the Bridgeport experiment would seem to be that the university context may be less important than thought in the elicitation of antisocial behavior and that whatever elementary social structure is required for its elicitation can function independently of established, benevolent organizations.

authority independent of established org. ORNE

At the conclusion of his critical evaluation, Orne calls for "experiments that are not recognized as such by the subjects" to elucidate the true nature of man. I call his attention, then, to a study in which a group of nurses, on duty in hospital wards, were the unknowing subjects (Hofling, et al., 1966). The nurses were given over the telephone an irregular order to administer medication. The voice of the caller, purporting to be a known

physician, was unfamiliar to the nurse; the medicine was not on the ward stocklist and thus unauthorized; the dose requested was double the maximum dose shown on the pill box; and the procedure of ordering medication by telephone was in violation of hospital policy. Yet of the 22 nurses tested in this fashion, 21 gave the medication as ordered. In reply to a questionnaire, a majority of a control group of nurses said that they would not have given the medication. The parallel results found in Hofling's results in a naturalistic setting and those found in my laboratory study are striking and lend support to the ecological validity of my laboratory findings.

Ecological validity refers to mapping the range of conditions under which a phenomenon will appear. If Orne is saying there are more experiments to be done, and the present experiments do not give all the answers, I entirely agree with him. But the ultimate effect of Orne's work seems to be the denial of scientific knowledge.

Orne does a disservice of his high methodological ideas when he pursues his doctrines so zealously that, in order to make them fit, he misstates the manner in which the obedience study was conducted (p. 143), or continues to insist on his presuppositions in the face of contrary evidence (p. 139). For we must then ask whether this theory is a useful scientific analysis or shades into an autistic construction in which the themes of conspiracy, distrust, contaminants, and concealed motives play a commanding part. Without question, one may legitimately ask whether the subjects believed the victim received painful shocks, but the answer resides in evidence, not the infallibility of Orne's presuppositions.

Orne's arguments, built largely on anecdotes, are slippery and shift to meet the needs of a limited intellectual orientation. Their aim seems to be to deny the reality of a phenomenon, whether it be hypnosis (1959, 1965), sensory deprivation (1964), general experimentation (1962b), or obedience (1968). Orne's doctrine begins with a population of subjects who are actively suspicious and distrustful, except when trust is the ingredient that will render the experiment invalid; then they are trustful (Orne, 1968, p. 291). Demand characteristics come next: The experimenter is not really studying what he wants to study, for the subject has thwarted the possibility of objective inquiry by giving him only what he wants to hear. Evidence for this view is nonexistent, and indeed, Sigall, Aronson, and Van Hoose (1970) have recently reported a study showing it does not hold up.

In any case, Orne realizes that the argument of the "cooperating subject" cannot invalidate the obedience experiment, since the experimenter makes quite explicit to the subject what he "wants," and the degree to which the subject gives him what he "wants" constitutes the actual experimental measure. Accordingly, Orne again shifts his argument, arguing that outward behavior is not what it seems to be, and there are hidden meanings beneath the surface. One might note that Orne's

Hofling  
 ↓  
 nurses  
 ↓  
 double dose order  
 done 21/22  
 control questionnaire

ORNE  
 ↓  
 deny reality  
 of phenomenon

interest in the hidden meaning is pursued in disregard of the manifest meaning of the behavior and, indeed, is employed to discount what is most apparent.

Orne does not hesitate to use the obedience experiment to discredit hypnotic phenomena (1965); having done this he next turns to discredit the obedience experiment, introducing irrelevant arguments and mis-statements of fact along the way. He next asserts the unqualified uniqueness of psychological experiments, so that nothing found within them has relevance to anything else. The overall pattern of this work does not point to the possibilities for studying phenomena, but only to the possibility for discrediting them. Orne does not see a possible link between the compliance found in his studies and the compliance observed in the obedience experiments, for his aim in reporting his findings of compliance is to show how impossible the experimental situation was for determining scientific truth. Finally, there is no substance in things, only methodological wrinkles. This seems to me the history of the school of social psychology which Orne has assiduously cultivated. I do not believe that, in its present one-sided form, it constitutes a contribution to our understanding of human behavior. While specific details of this viewpoint are sometimes plausible, the rigid presuppositions animating such ideology invariably deform the total picture until it no longer corresponds with reality.

Certain methodological correctives derived from this point of view can, I believe, be of value. Increased experimental sophistication in the form of careful interviewing and avoidance of obvious pitfalls (e.g., employing psychology majors as subjects) can enhance the quality of experimentation. But these steps are only helpful when detached from the tunnel vision of conspiratorial thought and applied with a sense of balance to the problem at hand.

VII

Despite the rhetorical vigor of the Orne and Holland piece, it contains a good deal of error and much that is irrelevant. Let us summarize its major deficiencies:

1. Orne's case rests on the supposition that subjects do not believe they are administering painful shocks to the learner. He builds this case not by looking at evidence, but by anecdote and by weaving a speculative analysis not based on fact. In doing so he disregards information obtained by direct observations, interviewing, quantitative scales, and questionnaire studies, all of

which indicate that most subjects accept the experiment at face value.

2. If we are uneasy about the degree to which the authenticity of the experiment was experienced by a fraction of the subjects, we may take the step of considering only those subjects for whom we are certain the manipulatory intent was most fully achieved. For the critical question is not whether some subjects disbelieved, but whether, among these who did fully believe, performance was such that the major conclusions are altered. The data of several investigators show that the phenomenon of obedience holds up for subjects who fully accepted the experiment at face value.
3. Orne mechanically applies a critique of the experiments based on his criticism of hypnotic phenomena. This is the wrong model. Obedience to authority explicitly treats of the consequences of social structure for behavior. The experimental situation is constructed of hierarchically defined role relations. All of Orne's illustrations showing the power of social structure do not, as he believes, invalidate the findings, but only serve to show how general is the phenomenon.
4. If deception is the key issue, then all that the investigator interested in obedience needs to do is to study behavior in which the subject himself is the victim, in which case Orne's criticism of plausibility cannot apply. Studies of this sort have been reported. All the evidence, including that obtained by Orne, points to the extreme compliance of subjects in obeying the experimenter and carrying out acts that are stupid, tedious, noxious, and painful. Orne himself writes he could not find any task which subjects would refuse to do. That was an insight he ought to have taken seriously and pursued to its logical conclusion.
5. Orne asserts that the university context invalidates studies of antisocial behavior, but fails to come to grips with a replication of the experiment run with no visible university affiliation.
6. The trouble with "demand characteristics" is that those who rely on the concept are incapable of predicting the results of an experiment and only know how to apply the label after the facts are in. Then, any number of "demand characteristic" analyses can be formulated. Indeed, the strongest case can be made for the view that all of the cues in the study tell the subject of the necessity to break off. Yet many of them are unable to break with authority.
7. The basic logical contradiction in Orne's argument is that at one moment he argues for the extreme compliance of subjects to experimental commands, and at the next he argues against the reality of such compliance. A set of shifting arguments is em-

ployed in the service of nihilistic outlook. With far greater logic, one can set the obedience experiment in a context of research that shows, with increasing clarity and force, the profound consequences of submission to authority, a line of research to which Orne's early work (1962b) has contributed in an important way.

## NOTES

1. The author wishes to thank Barbara Kline, Mary Englander, and Lynne Steinberg for assistance in preparing this paper.
2. For brevity of reference I shall employ Orne's name exclusively in dealing with the above paper. This is not in any way meant to diminish the contribution of Dr. Holland to the paper, but rather is used to be concise and to focus my criticism on a well-known body of methodological philosophy which has appeared under Orne's name.
3. Holland's thesis (1969), though it contains many serious flaws of procedure which are fatal to the successful replication of the experiment, nonetheless offers supporting data on the issue. By Holland's own calculation, only a quarter of the subjects were successfully subjected to the manipulatory intent of the experiment. He would be perfectly correct, then, in looking at these subjects and determining the proportion of obedient subjects. It turns out that 70 percent of his "good" subjects are obedient, a figure that slightly exceeds my own figures, but is nonetheless of the same order of magnitude. Unfortunately, Holland carried out the study in 1967, and employed as his subjects students in an introductory psychology class. The author should have steered as far clear from psychology undergraduates as possible, for they would constitute the worst possible subjects for an experiment in which prior knowledge of the experiment is a fatal contaminant.
4. Recently, Ring, Wallston, and Corey (1970) carried out an obedience experiment in which the experimenter's behavior was made more animated and responsive, and this does not lead to any decrement in obedience. Instead of electric shock, the authors substituted excruciatingly painful noise fed to the subject's ear. Ninety-one percent of the subjects were maximally obedient.
5. Orne may properly pose the question: Can one devise an *experiment* in which women will undress? Of course it is possible to devise such an experiment. Naturally, the act of undressing would have to be coordinated to a set of rational purposes that the subject could accept. Indeed, an experiment has already been carried out by Masters and Johnson (1966) at Washington University in which, in the course of studies of sexual response, women—some prostitutes but others ordinary girls—not only undressed before the investigators but masturbated and engaged in coitus as well. Can we expect Orne to write an article arguing that the women did not really think they were engaging in coitus because of the imperturbable quality of the investigators?
6. Incidentally, Orne believes that if un hypnotized subjects throw nitric acid at individuals it is because they believe they will not really harm the other individual. My guess is that there is more to it than this, that in some degree they do not feel accountable for what they are doing.

## REFERENCES

- BAUMRIND, D., "Some thoughts on ethics of research: After reading Milgram's 'Behavioral study of obedience.'" *American Psychologist* 1964, 19: 421-423.
- FRANK, J. D., "Experimental studies of personal pressure and resistance." *Journal of General Psychology*, 1944, 30: 23-64.
- HOFLING, C. K., BROTZMAN, E., DALRYMPLE, S., GRAVES, N., AND PIERCE, C. M., "An experimental study in nurse-physician relationships." *The Journal of Nervous and Mental Disease*, 1966, 143 (2): 171-180.
- HOLLAND, C. H. "Sources of variance in the experimental investigation of behavioral obedience." Unpublished doctoral dissertation, University of Connecticut, 1967.
- KUDIRKA, N. K., "Defiance of authority under peer influence." Unpublished doctoral dissertation, Yale University, 1965.
- MASTERS, W. H., AND JOHNSON, V. E., *Human Sexual Response*. Boston: Little, Brown and Co., 1966.
- MILGRAM, S., "Behavioral study of obedience." *Journal of Abnormal and Social Psychology*, 1963, 67: 371-378.
- , *Obedience* (a filmed experiment). Distributed by the New York University Film Library, Copyright 1965 (a).
- , "Some conditions of obedience and disobedience to authority." *Human Relations*, 1965, 18: 57-75 (b).
- ORNE, M. T., "The nature of hypnosis: Artifact and essence." *Journal of Abnormal and Social Psychology*, 1959, 58: 277-299.
- , "Antisocial behavior and hypnosis: Problems of control and validation in empirical studies." In G. H. Estabrooks (ed.), *Hypnosis: Current problems*. New York: Harper and Row, 1962 (a).
- , "On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications." *American Psychologist*, 1962, 17 (11): 776-783 (b).
- ORNE, M. T., AND EVANS, F. J., "Social control in the psychological experiment: Antisocial behavior and hypnosis." *Journal of Personality and Social Psychology*, 1965, 1, 189-200.
- ORNE, M. T., AND HOLLAND, C. C., "On the ecological validity of laboratory deceptions." *International Journal of Psychiatry*, 1968, 6 (4): 282-293.
- ORNE, M. T., AND MILGRAM, S., "Obedience or demand characteristics." A debate held at the University of Pennsylvania on February 19, 1969.
- ORNE, M. T., AND SCHEIBE, K. E., "The contribution of nondeprivation factors in the production of sensory deprivation effects." *Journal of Abnormal and Social Psychology*, 1964, 68 (1): 3-12.
- ORNE, M. T., SHEEHAN, P. W., AND EVANS, F. J., "Occurrence of post-hypnotic behavior outside the experimental setting." *Journal of Personality and Social Psychology*, 1968, 9 (2, Pt. 1): 189-196.
- RING, K., WALLSTON, K. AND COREY, M., "Mode of debriefing as a factor affecting subjective reaction to a Milgram-type obedience experiment—an ethical inquiry." *Representative Research in Social Psychology*, 1970, 1 (1): 67-88.

- ROSENHAN, D., "Some origins of concern for others." In P. Mussen, J. Langer, and M. Covington (eds.), *Trends and Issues in Developmental Psychology*. New York: Holt, Rinehart & Winston, 1969.
- , "Obedience and rebellion: Observations on the Milgram three-party paradigm." In preparation.
- SHOR, R. E., "Physiological effects of painful stimulation during hypnotic analgesia under conditions designed to minimize anxiety." *International Journal of Clinical and Experimental Hypnosis*, 1962, 10: 183-202.
- SIGALL, H., ARONSON, E., AND VAN HOOSE, T., "The cooperative subject: Myth or reality?" *Journal of Experimental Social Psychology*, 1970, 6: 1-10.
- TURNER, L. H., AND SOLOMON, R. L., "Human traumatic avoidance learning: Theory and experiments on the operant-respondent distinction and failures to learn." *Psychological Monographs*, 1962, 76 (40, whole no. 559).



# Subject Reaction: The Neglected Factor in the Ethics of Experimentation



Social psychology is concerned with the way in which individual behavior, thoughts, and action are affected by the presence of other people. Although experimentation is not the only way of garnering knowledge in the discipline, it is a major tool of inquiry. As experiments in social psychology typically involve human subjects, they necessarily raise ethical issues, some of which I will discuss here.

## INFORMED CONSENT

Many regard informed consent as the cornerstone of ethical practice in experimentation with human subjects. Yet social psychology has until now been unable to assimilate this principle into its routine experimental procedures. Typically, subjects are brought into an experiment without being informed of its true purpose. Indeed, sometimes subjects are misinformed. Is such a procedure ever justifiable?

Herbert Kelman<sup>1</sup> has distinguished two quite different explanations for not informing the potential subject of the nature of the experiment in which he is to

This article first appeared in *The Hastings Center Report*, October 1977, pp. 19-23. © The Hastings Center, 1977. Reprinted by permission.

take part. One might term the first the motivational explanation; that is, if one told the subject what the experiment was to be like, he might refuse to participate in it. Misinforming people to gain their participation appears a serious violation of the individual's rights, and cannot routinely constitute an ethical basis for subject recruitment.

The second, more typical, reason for not informing a subject is that many experiments in social psychology cannot be carried out if the subject knows about the experiment beforehand.

Consider in this connection Solomon Asch's classic study<sup>2</sup> of group pressure and conformity. The subject is told that he is to take part in a study on the perception of lines. He is asked to make a judgment as to which of three lines is equivalent in length to a standard line, but he does so in the presence of other individuals who, unknown to him, are working for the experimenter and give wrong answers. The experimenter's purpose is to see whether the subject will go along with the erroneous group information or resist the group and give the correct answer.

Clearly the subject is misinformed in several respects. He is told that he is to take part in an experiment on perception rather than group pressure. He is not informed that the others present are working for the experimenter, but is led to believe that they have the same relationship to the experimenter as he. It is apparent that if a subject were informed of the true purpose before participating in the study, he could not experience the psychological conflict that is at the crux of Asch's study. The subject is not denied the information because the experimenter fears he would not participate in the study, but for strictly epistemological reasons; that is, for somewhat the same reason the author of a murder mystery does not reveal to the reader who the culprit is: to do so would undermine the psychological effects of the reading experience.

A majority of the experiments carried out in social psychology use some degree of misinformation. Such practices have been denounced as "deception" by critics, and the term "deception experiment" has come to be used routinely, particularly in the context of discussions concerning the ethics of such procedures. But in such a context, the term "deception" somewhat biases the issue. It is preferable to use morally neutral terms such as "masking," "staging," or "technical illusions" in describing such techniques, because it is not possible to make an objective ethical judgment on a practice unless it is described in terms that are not themselves condemnatory.

Is the use of technical illusions ever justified in experiments? The simplest response, and the one that is most socially and ethically comfortable, is to assert unequivocally that they are not. We all know that honesty and a fully informed relationship with the subject is highly desirable and should be implemented whenever possible. The problem is that many also believe strongly in the value of inquiry in social psychology, of its potential to enlighten us about human social behavior, and ultimately to

refuse to participate

ineffective carrying out of the experiment

decide for

misinformation is often used.

justified?

enlighten us on social behaviour

benefit us in important ways. Admittedly, this is a faith, but one which impels us to carefully examine whether the illusions and misinformation required by experiments have any claim to legitimacy. We know that illusions are accepted in other domains without affronting our moral sensibilities. To use a simple-minded example, on radio programs, sound-effects of prancing horses are typically created by a sound-effects man who uses split coconut shells; rainfall is created by sand falling on metal sheets, and so forth. A certain number of listeners know about this, some do not; but we do not accuse such programs of deceiving their listeners. Rather we accept the fact that these are technical illusions used in support of a dramatic effort.

Most experiments in social psychology, at least the good ones, also have a dramatic component. Indeed, in the best experiments the subjects are brought into a dramaturgical situation in which the script is only partially written: it is the subject's actions that complete the script, providing the information sought by the investigator. Is the use of technical illusions to be permitted in radio programs, but not scientific inquiry?

There are many instances in everyday life in which misinformation is tolerated or regarded as legitimate. We do not cringe at the idea of giving children misinformation about Santa Claus, because we feel it is a benign illusion, and common sense tells us it is not harmful. Furthermore, the practice is legitimized by tradition. We may give someone misinformation that takes him to a surprise party. The absolutists may say that this is an immoral act, that in doing so one has lied to another person. But it is more important to focus on the person who is the recipient of this information. Does he find it a demeaning experience, or a delightful treat?

One thing is clear: masking and technical illusions ought never to be used unless they are indispensable to the conduct of an inquiry. Honesty and openness are the only desirable basis of transaction with people generally. This still leaves open the question of whether such devices are permissible when they cannot be avoided in a scientific inquiry.

There is another side to this issue. In the exercise of virtually every profession there may be some exemption from general moral practice which permits the profession to function. For example, although a citizen who has witnessed a murder has a moral obligation to come forth with this information, lawyers have a right—indeed an obligation—of “privileged communication.” A lawyer may know that his client has committed a murder, and is obligated not to tell the authorities. In other words, a generally accepted moral obligation is suspended and transformed in the case of legal practice, because in the long run we consider this exemption beneficial to society.

Similarly, it is generally impermissible to examine the genitals of strange women. But it is a technical requirement for the practice of obstetrics and gynecology. Once again, for technical reasons, we suspend

RADIO  
PROGRAMS

Santa  
Claus

## The Obedience Experiments

In order to take a close look at the act of obeying, I set up a simple experiment at Yale University. Eventually, the experiment was to involve more than a thousand participants and would be repeated at several universities, but at the beginning, the conception was simple. A person comes to a psychological laboratory and is told to carry out a series of acts that come increasingly into conflict with conscience. The main question is how far the participant will comply with the experimenter's instructions before refusing to carry out the actions required of him.

But the reader needs to know a little more detail about the experiment. Two people come to a psychology laboratory to take part in a study of memory and learning. One of them is designated as a “teacher” and the other a “learner.” The experimenter explains that the study is concerned with the effects of punishment on learning. The learner is conducted into a room, seated in a chair, his arms strapped to prevent excessive movement, and an electrode attached to his wrist. He is told that he is to learn a list of word pairs; whenever he makes an error, he will receive electric shocks of increasing intensity.

The real focus of the experiment is the teacher. After watching the learner being strapped into place, he is taken into the main experimental room and seated before an impressive shock generator. Its main feature is a horizontal line of thirty switches, ranging from 15 volts to 450 volts, in 15-volt increments. There are also verbal designations which range from SLIGHT SHOCK TO DANGER—SEVERE SHOCK. The teacher is told that he is to administer the learning test to the man in the other room. When the learner responds correctly, the teacher moves on to the next item; when the other man gives an incorrect answer, the teacher is to give him an

electric shock. He is to start at the lowest shock level (15 volts) and to increase the level each time the man makes an error, going through 30 volts, 45 volts, and so on.

The “teacher” is a genuinely naïve subject who has come to the laboratory to participate in an experiment. The “learner,” or victim, is an actor who actually receives no shock at all. The point of the experiment is to see how far a person will proceed in a concrete and measurable situation in which he is ordered to inflict increasing pain on a protesting victim. At what point will the subject refuse to obey the experimenter?

Conflict arises when the man receiving the shock begins to indicate that he is experiencing discomfort. At 75 volts, the “learner” grunts. At 120 volts he complains verbally; at 150 he demands to be released from the experiment. His protests continue as the shocks escalate, growing increasingly vehement and emotional. At 285 volts his response can only be described as an agonized scream.

Observers of the experiment agree that its gripping quality is somewhat obscured in print. For the subject, the situation is not a game; conflict is intense and obvious. On the one hand, the manifest suffering of the learner presses him to quit. On the other, the experimenter, a legitimate authority to whom the subject feels some commitment, enjoins him to continue. Each time the subject hesitates to administer shock, the experimenter orders him to continue. To extricate himself from the situation, the subject must make a clear break with authority. The aim of this investigation was to find when and how people would defy authority in the face of a clear moral imperative.

From *Obedience to Authority: An Experimental View*  
by Stanley Milgram  
(New York: Harper & Row, 1974), pp. 3-4.

*suspect a general moral rule in the exercise of a profession*

a general moral rule in the exercise of a profession, because we believe the profession is beneficial to society.

The question arises: is there any comparable exemption due the social scientist because of technical requirements in the kind of work he does, which in the long run, we believe will benefit society? It is true that most often the individual participant in an experiment is not the beneficiary. Rather it is society as a whole that benefits, or at least, that is the supposition of scientific inquiry.

Still another side to the use of staging by social psychologists is frequently overlooked. The illusions employed in most experiments are usually short-term. They are sustained only insofar as they are required for the purpose of the experiment. Typically, the subject is informed of the experiment's true character immediately after he has participated in it. If for thirty minutes the experimenter holds back on the truth, at the conclusion he reaffirms his confidence in the subject by extending his trust to him by a full revelation of the purpose and procedures of the experiment. It is odd how rarely critics of social psychology experiments mention this characteristic feature of the experimental hour.

From a formal ethical standpoint, the question of misinformation in social psychology experiments is important, because dissimulation subverts the possibility of informed consent. Indeed, the emphasis on "deception" has virtually preempted discussion of ethics among social psychologists. Some feel it is a misplaced emphasis. Support is given to this view by a recent study by Elinor Mannucci.<sup>3</sup> She questioned 192 laymen concerning their reaction to ethical aspects of psychology experiments, and found that they regard deception as a relatively minor issue. They were far more concerned with the quality of the experience they would undergo as subjects. For example, despite the "deceptive" elements in the Asch experiment the great majority of respondents in Mannucci's study were enthusiastic about it, and expressed admiration for its elegance and significance. Of course, the layman's view need not be the final word, but it cannot be disregarded, and my general argument is that far more attention needs to be given to the experiences and views of those who actually serve as subjects in experiments.

*beneficial  
social  
experiment  
beneficial*

Wiley  
Mannucci & Lehmann  
1973

*192 laymen  
concerned  
rather with  
quality of  
experience*

### NEGATIVE EFFECTS

Is an experiment that produces some sort of negative, aversive, or stressful effect in the subject ever justified? In this matter, two parameters seem critical: first, the intensity of the negative experience, and second, its duration. Clearly, the discussion that follows refers to effects that do not permanently damage a subject, and which most typically do not exceed in intensity experiences which the subject might encounter in ordinary life.

One thing is clear. If we assert categorically that negative emotions

*Negative  
effect  
-intensity  
-duration*

can never ethically be created in the laboratory, then it follows that highly significant domains of human experience are excluded from experimental study. For example, we would never be able to study stress by experimental means; nor could we implicate human subjects in experiments involving conflict. In other words, only experiments that aroused neutral or positive emotions would be considered ethical topics for experimental investigation. Clearly, such a stricture would lead to a very lopsided psychology, one that caricatured rather than accurately reflected human experience.

Moreover, historically, among the most deeply informative experiments in social psychology are those that examine how subjects resolve conflicts, for example: Asch's study of group pressure studies the conflict between truth and conformity; Bibb Latané and John Darley's bystander studies<sup>4</sup> create a conflict as to whether the subject should implicate himself in other people's troubles or not get involved; my studies of obedience<sup>5</sup> create a conflict between conscience and authority. If the experience of conflict is categorically to be excluded from social psychology, then we are automatically denying the possibility of studying such core human issues by experimental means. I believe that this would be an irreparable loss to any science of human behavior.

My own studies of obedience were criticized because they created conflict and stress in some of the subjects. Let me make a few comments about this. First, in this experiment I was interested in seeing to what degree a person would comply with an experimental authority who gave orders to act with increasing harshness against a third person. I wanted to see when the subject would refuse to go on with the experiment. The results of the experiment showed first that it is more difficult for many people to defy the experimenter's authority than was generally supposed. The second finding is that the experiment often places a person in considerable conflict. In the course of the experiment subjects sometimes fidget, sweat, and break out in nervous fits of laughter. I have dealt with some of the ethical issues of this experiment at length elsewhere,<sup>6</sup> but let me make a few additional remarks here.

*we need  
to accurately  
reflect human  
experience  
through exp  
how we  
resolve  
conflicts  
loss to  
science  
not study  
conflict  
didn't  
-disobey  
-conflict*

### SUBJECT REACTION: A NEGLECTED FACTOR

To my mind, the central moral justification for allowing my experiment is that it was judged acceptable by those who took part in it. Criticism of the experiment that does not take account of the tolerant reaction of the participants has always seemed to me hollow. I collected a considerable amount of data on this issue, which shows that the great majority of subjects accept this experiment, and call for further experiments of this sort. The table on p. 186 shows the overall reaction of participants to this study, as indicated in responses to a questionnaire. On the whole, these

data have been ignored by critics, or even turned against the experimenter, as when critics claim that "this is simply cognitive dissonance. The more subjects hated the experiment, the more likely they are to say they enjoyed it." It becomes a "damned-if-they-like-it and damned-if-they-don't" situation. Critics of the experiment fail to come to grips with what the subject himself says. Yet, I believe that the subject's viewpoint is of extreme importance, perhaps even paramount. Below I shall present some approaches to ethical problems that derive from this view.

Some critics assert that an experiment such as mine may inflict a negative insight on the subject. He or she may have diminished self-esteem because he has learned he is more submissive to authority than he might have believed. First, I readily agree that the investigator's responsibility is to make the laboratory session as constructive an experience as possible, and to explain the experiment to the subject in a way that allows his performance to be integrated in an insightful way. But I am not at all certain that we should hide truths from subjects, even negative truths. Moreover, this would set experimentation completely apart from other life experiences. Life itself often teaches us things that are less than pleasant, as when we fail an examination or do not succeed in a job interview. And in my judgment, participation in the obedience experiment had less effect on a participant's self-esteem than the negative emotions engendered by a routine school examination. This does not mean that the stress of taking an examination is good, any more than the negative effects of the obedience experiments are good. It does mean that these issues have to be placed in perspective.

EXCERPT FROM QUESTIONNAIRE USED IN A FOLLOW-UP STUDY OF THE OBEDIENCE RESEARCH

Now that I have read the report, and all things considered . . .

	Defiant	Obedient	All
1. I am very glad to have been in the experiment	40.0%	47.8%	43.5%
2. I am glad to have been in the experiment	43.8%	35.7%	40.2%
3. I am neither sorry nor glad to have been in the experiment	15.3%	14.8%	15.1%
4. I am sorry to have been in the experiment	0.8%	0.7%	0.8%
5. I am very sorry to have been in the experiment	0.0%	1.0%	0.5%

I believe that it is extremely important to make a distinction between biomedical interventions and those that are of a purely psychological character, particularly the type of experiment I have been discussing. Intervention at the biological level *prima facie* places a subject "at risk." The ingestion of a minute dose of a chemical or the infliction of a tiny surgical incision has the potential to traumatize a subject. In contrast, in all of the social psychology experiments that have been carried out, there is no demonstrated case of resulting trauma. And there is no evidence whatsoever that when an individual makes a choice in a laboratory situation—even the difficult choices posed by the conformity or obedience experiments—any trauma, injury, or diminution of well-being results. I once asked a government official, who favored highly restrictive measures on psychology experiments, how many cases of actual trauma or injury he had in his files that would call for such measures. He indicated that not a single such case was known to him. If this is true, then much of the discussion about the need to impose government restrictions on the conduct of psychology experiments is unrealistic.

Of course, one difficulty in dealing with negative effects is the impossibility of proving their nonexistence. This is particularly true of behavioral or psychological effects. It seems that no matter what procedures one follows—interviewing, questionnaires, or the like—there is always the possibility of unforeseen negative effects, even if these procedures do not uncover them. Therefore, in an absolute sense, one can never establish the absence of negative effects. While this is logically correct, we cannot use this as a basis for asserting that such effects necessarily follow from psychological experimentation. All we can do is rely on our best judgment and assessment procedures in trying to establish the facts, and to formulate our policies accordingly.

unforeseen negative effects - always a possibility

IS ROLE PLAYING A SOLUTION?

Given these problems and the particular requirements of experiments in social psychology, is there any way to resolve these issues so that the subject will be protected, while allowing experimentation to continue? A number of psychologists have suggested that role playing be substituted for any experiment that requires misinformation. Instead of bringing the subject into a situation whose true purpose and nature were kept from him, the subject would be fully informed that he was about to enter a staged situation, but he would be told to act *as if* it were real. For example, in the obedience experiment subjects would be told: "pretend you are the subject performing an experiment and you are giving shocks to another person." The subject would enter the situation knowing the "victim" was not receiving shocks, and he would go through his paces.

back as if

I do not doubt that role playing has a certain utility. Indeed, every



good experimenter employs such role playing when he is first setting up his laboratory situation. He and his assistants often go through a dry run to see how the procedure flows. Thus, such simulation is not new, but now it is being asked to serve as the end point, rather than the starting point of an experimental investigation. However, there is a major scientific problem. Even after one has had a subject role play his way through an experimental procedure, we still must wonder whether the observed behavior is the same as that which a genuine subject would produce. So we must still perform the crucial experiment to determine whether role-played behavior corresponds to nonrole-played behavior.

role-played  
non-role-played  
standards

↓  
not free  
of ethical  
problems  
ethics

↓  
Zimbardo

Nor is role playing free of ethical problems. A most striking simulation in social psychology was carried out by Philip [Zimbardo] at Stanford University.<sup>7</sup> Volunteers were asked to take part in a mock prison situation. They were to simulate either the role of prisoner or guard with the roles chosen by lot. They were picked up at their homes by local police cars, and delivered to Zimbardo's mock prison. Even in the role-playing version of prison, the situation became rather ugly and unpleasant, and mock guards acted cruelly toward the mock prisoners. The investigator called off the simulation after six days, instead of the two weeks for which it had been planned. Moreover, the simulation came under very heavy ethical criticism. The ethical problems that simulation was designed to solve did not all disappear. The more closely role-playing behavior corresponds to real behavior, the more it generates real emotions, including aversive states, hostile behavior, and so on. The less real emotions are present, the less adequate the simulations. From the standpoint of the aversive emotions aroused in a successful simulation, ethical problems still exist.

Kelman aptly summarized the state of simulation research when he stated that simulation is not so useless a tool of investigation as its critics first asserted, nor as free of ethical problems as its proponents believed.<sup>8</sup>

**PRESUMPTIVE CONSENT**

experimental procedure  
large no. of people accept

internal control  
cannot always be obtained

Recall that the major technical problem for social psychology research is that if subjects have prior knowledge of the purposes and details of an experiment they are often, by this fact, disqualified from participating in it. Informed consent thus remains an ideal that cannot always be attained. As an alternative, some psychologists have attempted to develop the doctrine of *presumptive consent*. The procedure is to solicit the view of a large number of people on the acceptability of an experimental procedure. These respondents would not themselves serve in the experiment, having

Assuming the experiment is deemed acceptable, new subjects would be recruited for actual participation. Of course, this is, ethically, a far weaker doctrine than that which relies on informed consent of the participant. Even if a hundred people indicate that they would be willing to take part in an experiment, the person actually chosen for participation might find it objectionable. Still, the doctrine of the "presumed consent of a reasonable person" seems to me better than no consent at all. That is, when for epistemological purposes the nature of a study cannot be revealed beforehand, one would try to determine in advance whether a reasonable person would consent to being a subject in the study and use that as a warrant either for carrying out the investigation or as a basis for modifying it.

determine consent in advance  
reasonable person  
(?)  
or  
prior general consent (do not know specific procedure)  
↓  
excluded from study  
fully included

Perhaps a more promising solution is to obtain *prior general consent* from subjects in advance of their actual participation. This is a form of consent that would be based on subjects' knowing the general types of procedures used in psychological investigations, but without their knowing what specific manipulations would be employed in the particular experiment in which they would take part. The first step would be to create a pool of volunteers to serve in psychology experiments. Before volunteering to join the pool people would be told explicitly that sometimes subjects are misinformed about the purposes of an experiment, and that sometimes emotional stresses arise in the course of an experiment. They would be given a chance to exclude themselves from any study using deception or involving stress if they so wished. Only persons who had indicated a willingness to participate in experiments involving deception or stress would, in the course of the year, be recruited for experiments that involved these elements. Such a procedure might reconcile the technical need for misinformation with the ethical problem of informing subjects.

Finally, since I emphasize the experience of the person subjected to procedures as the ultimate basis for judging whether an experiment should continue or not, I wonder whether participants in such experiments might not routinely be given monitoring cards which they would fill out and submit to an independent monitoring source while an experiment is in progress. An appropriate monitoring source might be a special committee of the professional organization, or the human subjects' committee of the institution where the experiment is carried out. Such a procedure would have the advantage of allowing the subject to express reactions about an experiment in which he has just participated, and by his comments the subject himself would help determine whether the experiment is allowable or not. In the long run, I believe it is the subject's reaction and his experience that needs to be given its due weight in any discussion of ethics, and this mechanism will help achieve this aim.



## REFERENCES

1. Herbert Kelman, "Remarks made at the American Psychological Association," New Orleans, 1974.
2. Solomon E. Asch, *Social Psychology* (New York: Prentice Hall, 1952).
3. Elinor Mannucci, *Potential Subjects View Psychology Experiments: An Ethical Inquiry*. Unpublished Doctoral Dissertation. The City University of New York, 1977.
4. Bibb Latané and John Darley, *The Unresponsive Bystander: Why Doesn't He Help?* (New York: Appleton, 1970).
5. Stanley Milgram, *Obedience to Authority: An Experimental View* (New York: Harper and Row, 1974).
6. Stanley Milgram, "Issues in the Study of Obedience: A Reply to Baumrind," *American Psychologist* 19 (1964), 848-52.
7. Philip Zimbardo, "The Mind Is a Formidable Jailer: A Pirandellian Prison," *The New York Times Magazine* (April 8, 1973), p. 38.
8. Kelman, "Remarks."

## 13

*Disobedience in the Sixties*

Americans who are unwilling to kill for their country are thrown into jail. And our generation learns, as every generation has, that society rewards and punishes its members not in the degree to which each fulfills the dictates of individual conscience but in the degree to which the actions are perceived by authority to serve the needs of the larger social system. It has always been so. Jesus was a good man by any standard of individual morality but a threat to the structure of Roman authority. Every epoch produces its share of highly moral individuals whose very purity pushes them into conflict with the state. The task of democracy is to strive to reconcile the disparity between individual conscience and societal needs.

Resisting induction into the military is a crime only in the purely technical sense that federal statutes provide penalties for it. But the resisters are the very opposite of criminals. First, they act out of moral ideals, not in opposition to them. Second, while the criminal's actions are geared to personal profit, the resister willingly suffers loss to uphold a moral ideal. Third, while the criminal seeks to evade the law, the resister offers himself to it. Nor is the resister a revolutionary: for he accepts the legitimacy of authority without being willing to serve it in specifically immoral ways. Finally, he is not truly alienated: one who has no deep involvement with his country can depart from it without the pains of incarceration.

Willard Gaylin, a psychiatrist, sets out to examine the motives and thoughts of a group of men in prison for war resistance. He moves to a consideration of the flaws of the prison system, and ineluctably is forced to extend his concern to the idea of incarceration itself as a civilized human practice. "The more I thought of it,

## 12

# Subject Reaction: The Neglected Factor in the Ethics of Experimentation



Social psychology is concerned with the way in which individual behavior, thoughts, and action are affected by the presence of other people. Although experimentation is not the only way of garnering knowledge in the discipline, it is a major tool of inquiry. As experiments in social psychology typically involve human subjects, they necessarily raise ethical issues, some of which I will discuss here.

## INFORMED CONSENT

Many regard informed consent as the cornerstone of ethical practice in experimentation with human subjects. Yet social psychology has until now been unable to assimilate this principle into its routine experimental procedures. Typically, subjects are brought into an experiment without being informed of its true purpose. Indeed, sometimes subjects are misinformed. Is such a procedure ever justifiable?

Herbert Kelman<sup>1</sup> has distinguished two quite different explanations for not informing the potential subject of the nature of the experiment in which he is to

take part. One might term the first the motivational explanation; that is, if one told the subject what the experiment was to be like, he might refuse to participate in it. Misinforming people to gain their participation appears a serious violation of the individual's rights, and cannot routinely constitute an ethical basis for subject recruitment.

The second, more typical, reason for not informing a subject is that many experiments in social psychology cannot be carried out if the subject knows about the experiment beforehand.

Consider in this connection Solomon Asch's classic study<sup>2</sup> of group pressure and conformity. The subject is told that he is to take part in a study on the perception of lines. He is asked to make a judgment as to which of three lines is equivalent in length to a standard line, but he does so in the presence of other individuals who, unknown to him, are working for the experimenter and give wrong answers. The experimenter's purpose is to see whether the subject will go along with the erroneous group information or resist the group and give the correct answer.

Clearly the subject is misinformed in several respects. He is told that he is to take part in an experiment on perception rather than group pressure. He is not informed that the others present are working for the experimenter, but is led to believe that they have the same relationship to the experimenter as he. It is apparent that if a subject were informed of the true purpose before participating in the study, he could not experience the psychological conflict that is at the crux of Asch's study. The subject is not denied the information because the experimenter fears he would not participate in the study, but for strictly epistemological reasons; that is, for somewhat the same reason the author of a murder mystery does not reveal to the reader who the culprit is: to do so would undermine the psychological effects of the reading experience.

A majority of the experiments carried out in social psychology use some degree of misinformation. Such practices have been denounced as "deception" by critics, and the term "deception experiment" has come to be used routinely, particularly in the context of discussions concerning the ethics of such procedures. But in such a context, the term "deception" somewhat biases the issue. It is preferable to use morally neutral terms such as "masking," "staging," or "technical illusions" in describing such techniques, because it is not possible to make an objective ethical judgment on a practice unless it is described in terms that are not themselves condemnatory.

Is the use of technical illusions ever justified in experiments? The simplest response, and the one that is most socially and ethically comfortable, is to assert unequivocally that they are not. We all know that honesty and a fully informed relationship with the subject is highly desirable and

refuse to participate

Directly carrying out of the experiment

deceit for

Misinformation is often used.

justified?

enlighten us on social behaviour