group changed helping behavior (Garcia et al., 2002). In this study, participants were asked to imagine that they were either part of a group of people or with only one other person. Then, all participants were asked to donate to a charity. The participants who imagined themselves in the presence of others donated significantly less money, and felt less personal accountability, than did those who imagined being with one other person. These findings imply that our brains immediately "leap" at the chance to assume less individual responsibility when we are part of a group.

CONCLUSION

The results of this body of research may seem rather pessimistic about our inclination to help others in need, but you should recognize that these studies deal with extremely specific situations in which people fail to help. Frequent examples may be found every day of people helping other people, of altruistic behaviors, and heroic acts. Darley and Latané's research is important, however, not only to explain a perplexing human behavior but also to help change it. Perhaps, as more people become aware of the bystander effect, they will make the extra effort to intervene in an emergency, even if others are present. In fact, research has demonstrated that those who have learned about the bystander effect (as you now have) are more likely to help in emergencies (Beaman et al., 1978). The bottom line is this: Never assume that others have intervened or will intervene in an emergency. *Always act as if you are the only bystander there.*

Beaman, A., Barnes, P., Klentz, B., & Mcquirk, B. (1978). Increasing helping rates through information dissemination: Teaching pays. *Personality and Social Psychology Bulletin, 4,* 406–411.

Garcia, S., Weaver, K., Darley, J., & Moskowitz, G. (2002). Crowded minds: The implicit bystander effect. *Journal of Personality and Social Psychology, 83,* 843–853.

Karakashian, L., Walter, M., Christopher, A., & Lucas, T. (2006). Fear of negative evaluation affects helping behavior: The bystander effect revisited. *North American Journal of Psychology 8*(1), 13–32.

Latané, B., & Darley, J. M. (1968). Group inhibition of bystander intervention in emergencies. *Journal of Personality and Social Psychology, 10,* 215–221.

Latané, B., & Darley, J. M. (1970). *The unresponsive bystander: Why doesn't he help?* New York: Appleton Century Crofts.

Reading 40: OBEY AT ANY COST?

Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology, 67,* 371–378.

If someone in a position of authority over you ordered you to deliver an electrical shock of 350 volts to another person, simply because the other person answered a multiple-choice question incorrectly, would you obey? Neither would I. If you met someone who was willing to do such a thing, you would probably think of him or her as cruel and sadistic. This study by Stanley Milgram of Yale University set out to examine the idea of obedience to authority and produced some disturbing findings.

Milgram's research on obedience joins Zimbardo's prison study (see Reading 37) as one of the most famous in all psychology's history. It is included in every general psychology text and every social psychology text. If you talk to students of psychology, more of them are familiar with these studies than any others. Out of this study came a book by Milgram (1974) on the psychology of obedience, as well as a film about the research itself that is widely shown in college and university classes. Not only is this experiment referred to in discussions of obedience, but it has also influenced the entire debate about ethics of involving human participants in psychological research.

Milgram's idea for this project grew out of his desire to investigate scientifically how people could be capable of carrying out great harm to others simply because they were *ordered* to do so. Milgram was referring specifically to the hideous atrocities committed during World War II and also, more generally, to the inhumanity that has been and is perpetrated by people following the orders of others. Milgram believed that in some situations, the human tendency to obey is so deeply ingrained and powerful that it cancels out a person's ability to behave morally, ethically, or even sympathetically.

When behavioral scientists decide to study some complex aspect of human behavior, their first step is to find a way to gain control over the behavioral situation so that they can approach it scientifically. This can often be the greatest challenge to a researcher, because many events in the real world are difficult to re-create in a laboratory setting. Milgram's problem was how to create a controlled situation in which one person would order another person to injure a third person physically, without anyone actually getting hurt. Now there's a researcher's challenge!

THEORETICAL PROPOSITIONS

Milgram's primary theoretical basis for this study was that humans have a tendency to obey other people who are in a position of authority over them even if, in obeying, they violate their personal codes of moral and ethical behavior. He believed that, for example, many individuals who would never intentionally cause someone physical harm would inflict pain on a victim if ordered to do so by a person whom they perceived to be a powerful authority figure.

METHOD

The most ingenious portion of this study was the technique Milgram developed to test the power of obedience in the laboratory. Milgram designed a rather scary-looking shock generator: an electronic device with 30 toggle switches labeled with voltage levels starting at 30 volts and increasing by 15-volt intervals up to 450 volts (see Figure 40-1). These switches were labeled in groups such as *slight shock, moderate shock,* and *danger: severe shock.* The idea was that a participant could be ordered to administer electric shocks at increasing levels to another person. Before you conclude that Milgram was truly sadistic himself, this was a very realistic-looking simulated shock generator, but no one ever actually received any painful shocks.

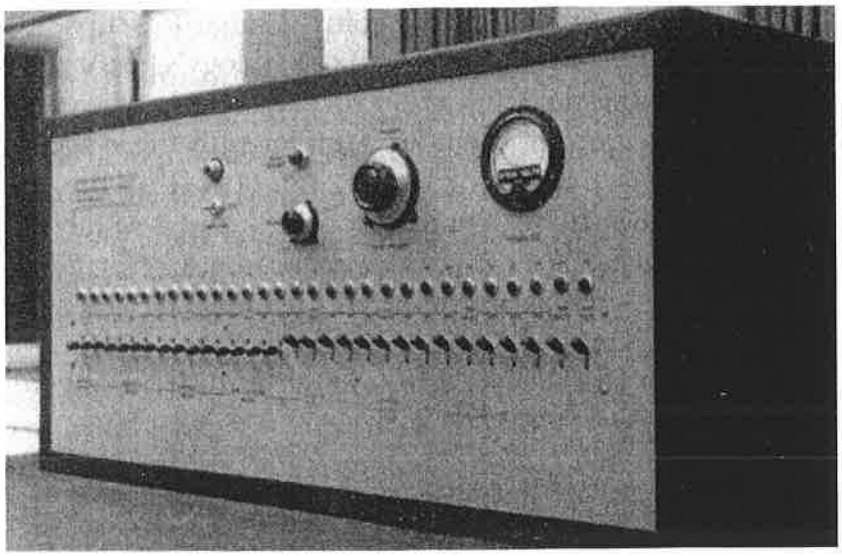

FIGURE 40-1 Milgram's experimental "shock" generator (Copyright 1965 by Stanley Milgram. From the film OBEDIENCE, distributed by Penn State Media Sales)

The participants for this study were 40 males between the ages of 20 and 50. They consisted of 15 skilled or unskilled workers, 16 white-collar sales- or businessmen, and 9 professional men. They were recruited through newspaper ads and direct-mail solicitation asking for volunteers to be paid participants in a study about memory and learning at Yale University. Each man participated in the study individually. To obtain an adequate number of participants, each man was paid $4.50 (remember, these were 1963 dollars, worth about $30 today). All participants were clearly told that this payment was simply for coming to the laboratory, and it was theirs to keep *no matter what happened after they arrived.* This was to ensure that participants knew they could withdraw at any time and did not feel coerced to behave in certain ways because they were worried about not being paid.

In addition to the participants, two other key participants were part of the study: a confederate (a 47-year-old accountant) posing as another participant and an actor (dressed in a gray lab coat, looking very official) playing the part of the experimenter.

As participants arrived at the social interaction laboratory at Yale, each was seated next to another "participant" (the confederate). Obviously, the true purpose of the experiment could not be revealed to participants because this would completely alter their behavior. Therefore, the experimenter told each participant a cover story explaining that this was a study on the effect of "punishment on learning." The participants then drew pieces of paper out of a hat to determine who would be the teacher and who would be the learner. This drawing was rigged so that the true participant always became the teacher and the accomplice was always the learner. Keep in mind that the "learner" was a confederate in the experiment, as was the person playing the part of the experimenter.

The learner was then taken into the room next door and was, with the participant watching, strapped to a chair and wired up with electrodes (complete

with electrode paste to "avoid any blisters or burns") connected to the shock generator in the adjoining room. The learner, although his arms were strapped down, was able to reach four buttons marked a, b, c, and d to answer questions posed by the teacher from the next room.

The learning task was thoroughly explained to the teacher and the learner. Briefly, it involved the learner memorizing connections between various pairs of words. It was a rather lengthy list and not an easy memory task. The teacher-participant would read the list of word pairs and then test the learner's memory of them. The teacher was instructed by the experimenter to administer an electric shock each time the learner responded incorrectly. Most important, for each incorrect response, the teacher was instructed to move up one level of shock voltage on the generator. All this was simulated so realistically that no participant suspected that the shocks were not really being delivered.

The learner-confederate's responses were preprogrammed to be correct or incorrect in the same sequence for all the participants. Furthermore, as the amount of voltage increased with incorrect responses, the learner began to shout his discomfort from the other room (in prearranged, prerecorded phrases, including the fact that his heart was bothering him), and at the 300-volt level, he pounded on the wall and demanded to be let out. After 300 volts he became completely silent and refused to answer any more questions. The teacher was instructed to treat this lack of a response as an incorrect response and to continue the procedure.

Most of the participants would turn to the experimenter at some point for guidance on whether to continue the shocks. When this happened, the experimenter ordered the participant to continue, in a series of commands increasing in severity:

Command 1: Please continue.

Command 2: The experiment requires that you continue.

Command 3: It is absolutely essential that you continue.

Command 4: You have no other choice: you must go on.

A measure of obedience was obtained simply by recording the level of shock at which each participant refused to continue to deliver shocks. Because 30 switches were on the generator, each participant could receive a score of 0 to 30. Participants who went all the way to the top of the scale were referred to as *obedient subjects,* and those who broke off at any lower point were termed *defiant subjects.*

RESULTS

Would the participants obey the commands of this experimenter? How high on the voltage scale did they go? What would you predict? Think of yourself, your friends, people in general. What percentage do you think would deliver shocks all the way through the 30 levels. all the way up to "450 volts—danger: severe shock"? Before discussing the actual results of the study, Milgram asked

a group of Yale University senior psychology majors, as well as various colleagues, to make such a prediction. The estimates ranged from 0% to 3%, with an average estimate of 1.2%. That is, no more than 3 people out of 100 were predicted to deliver the maximum shock.

Table 40-1 summarizes the "shocking" results. Upon command of the experimenter, every participant continued at least to the 300-volt level, which was when the confederate banged on the wall to be let out and stopped

TABLE 40-1 Level of Shock Delivered by Participants

NUMBER OF VOLTS TO BE DELIVERED	NUMBER WHO REFUSED TO CONTINUE AT THIS VOLTAGE LEVEL
Slight shock	
15	0
30	0
45	0
60	0
Moderate shock	
75	0
90	0
105	0
120	0
Strong shock	
135	0
150	0
165	0
180	0
Very strong shock	
195	0
210	0
225	0
240	0
Intense shock	
255	0
270	0
285	0
300	5
Extreme intensity shock	
315	4
330	2
345	1
360	1
Danger: severe shock	
375	1
390	0
405	0
420	0
XXX——	
435	0
450	26

(Source: Adapted from Milgram, 1963, p. 376.)

answering. Most surprising is the number of participants who obeyed orders to continue all the way to the top of the scale.

Although 14 participants defied orders and broke off before reaching the maximum voltage, 26 of the 40 participants, or 65%, followed the experimenter's orders and proceeded to the top of the shock scale. This is not to say that the participants were calm or happy about what they were doing. Many exhibited signs of extreme stress and concern for the man receiving the shocks and even became angry at the experimenter. Yet they obeyed.

The researchers were concerned that some of the participants might suffer psychological distress from the ordeal of shocking another person, especially when the learner had ceased to respond for the last third of the experiment. To help alleviate this anxiety, after the participants finished the experiment, they received a full explanation (called a "debriefing") of the true purpose of the study and of all the procedures, including the deception that had been employed. In addition, the participants were interviewed as to their feelings and thoughts during the procedure and the confederate "learner" was brought in for a friendly reconciliation with each participant.

DISCUSSION

Milgram's discussion of his findings focused on two main points. The first was the surprising strength of the participants' tendency to obey. These were average, normal people—not sadistic, cruel individuals in any way—who agreed to participate in an experiment about learning. Milgram points out that from childhood these participants had learned that it is immoral to hurt others against their will. So why did they behave this way? The experimenter was a person in a position of authority, but if you think about it, how much authority did he really have? He had no power to enforce his orders, and participants would lose nothing by refusing to follow orders. Clearly it was the *situation* that carried a force of its own that somehow created an atmosphere of obedience.

The second key observation made during the course of this study was the extreme tension and anxiety manifested by the participants as they obeyed the experimenter's commands. Again, it might be expected that such discomfort could be relieved simply by refusing to go on, and yet this is not what happened. Milgram quotes one observer (who watched a participant through a two-way mirror):

> I observed a mature and initially poised businessman enter the laboratory smiling and confident. Within 20 minutes he was reduced to a twitching, stuttering wreck who was rapidly approaching a point of nervous collapse.... At one point he pushed his fist into his forehead and muttered, "Oh, God! Let's stop it." And yet he continued to respond to every word of the experimenter and obeyed to the end. (p. 377)

Milgram listed several points at the end of the article to attempt to explain why this particular situation produced such a high degree of obedience. In summary, from the point of view of the participant, his main points were that (a) if it is being sponsored by Yale, I must be in good hands, and

who am I to question such a great institution; (b) the goals of the experiment appear to be important, and therefore, because I volunteered, I'll do my part to assist in the realization of those goals; (c) the learner, after all, also voluntarily came here and he has an obligation to the project, too; (d) hey, it was just by chance that I'm the teacher and he's the learner—we drew lots and it could have just as easily been the other way around; (e) they're paying me for this, I'd better do my job; (f) I don't know all that much about the rights of a psychologist and his participants, so I will yield to his discretion on this; and (g) they told us both that the shocks are painful but not dangerous.

SIGNIFICANCE OF THE FINDINGS

Milgram's findings have held up quite well in the 40-plus years since this article was published. Milgram himself repeated the procedure on similar participants outside of the Yale setting, on unpaid college student volunteers, and on women participants, and he found similar results each time.

In addition, he expanded further on his findings in this study by conducting a series of related experiments designed to reveal the conditions that promote or limit obedience (see Milgram, 1974). He found that the physical, and therefore emotional, distance of the victim from the teacher altered the amount of obedience. The highest level of obedience (93% going to the top of the voltage scale) occurred when the learner was in another room and could not be seen or heard. When the learner was in the same room with the participant and the participant was required to force the learner's hand onto a shock plate, the rate of obedience dropped to 30%.

Milgram also discovered that the physical distance of the authority figure to the participant also influenced obedience. The closer the experimenter, the greater the obedience. In one condition, the experimenter was out of the room and telephoned his commands to the participant. In this case, obedience fell to only 21%.

On a more positive note, when participants were allowed to punish the learner by using any level of shock they wished, no one ever pressed any switch higher than no. 2, or 45 volts.

CRITICISMS

Although Milgram's research has been extremely influential in our understanding of obedience, it has also had far-reaching effects in the area of the ethical treatment of human participants. Even though no one ever received any shocks, how do you suppose you would feel if you knew that you had been willing to shock someone (possibly to death) simply because a person in a lab coat told you to do so? Critics of Milgram's methods (e.g., Baumrind, 1964; Miller, 1986) claimed that unacceptable levels of stress were created in the participants during the experiment. Furthermore, it has been argued that the potential for lasting negative effects existed. When the deception was revealed to participants at the end of their ordeal, they may have felt used, embarrassed, and possibly distrustful of psychologists or legitimate authority figures in the future.

Another line of criticism focused on the validity of Milgram's findings (e.g., Brief et al., 1995; Orne & Holland, 1968). One commonly cited basis for this criticism was that because the participants had a trusting and rather dependent relationship with the experimenter, and the laboratory was an unfamiliar setting, obedience found there did not represent obedience in real life. Therefore, critics claim, the results of Milgram's studies were not only invalid, but because of this poor validity the treatment his participants were exposed to could not be justified.

Milgram responded to criticisms by surveying participants after they had participated. He found that 84% of his participants were glad to have participated, and only 1% regretted the experience. In addition, a psychiatrist interviewed 40 of the participants who were judged to have been the most uncomfortable in the laboratory and concluded that none had suffered any long-term effects. As to the criticism that his laboratory findings did not reflect real life, Milgram said, "A person who comes to the laboratory is an active, choosing adult, capable of accepting or rejecting the prescriptions for action addressed to him" (Milgram, 1964, p. 852).

The Milgram studies reported here have been a focal point in the ongoing debate over experimental ethics involving human participants. It is, in fact, arguable whether this research has been more influential in the area of the psychology of obedience or in policy formation on the ethical treatment of humans in psychological research (as summarized in this book's Preface).

RECENT APPLICATIONS

The breadth of influence that Milgram's obedience project continues to exert on current research can best be appreciated through a brief annotated selection of recent studies that have been primarily motivated by Milgram's early methods and findings. As has been the case every year since the early 1960s when Milgram carried out his studies, these studies are divided between attempts to refine and elaborate on people's tendency to obey authority figures and the omnipresent debate about the ethics of using deception in research involving human participants.

Thomas Blass, a leading authority on the work and career of Stanley Milgram, and author of a biography of Milgram, *The Man Who Shocked the World* (Blass, 2004), has reviewed all the research and social implications stemming from Milgram's obedience studies (Blass, 1999; 2002). In general, Blass has found universal support for Milgram's original findings, but, more importantly, he suggests that obedience rates have not changed significantly during the 40-plus years since Milgram first published his findings. This is contrary to many people's intuitive judgments that Americans in general have become less respectful of authority and more willing to rebel and fight back when ordered to perform behaviors with which they disagree.

Another question that often arises about Milgram's early studies concerns gender and the fact that all his original participants were male. Do you think, overall, that men or women would be more likely to obey an authority

figure? Blass's review of later studies by Milgram and numerous others found *no difference* in obedience rates for males versus females. (For more details about the history and influences of Milgram's work, see Blass's Web site at http://www.stanleymilgram.com.)

A very pertinent application of Milgram's findings examined the psychological experience of "execution teams" charged with carrying out the death sentence in Louisiana State prisons (Osofsky & Osofsky, 2002). The researchers interviewed 50 correctional officers who were directly involved with executions. They found that, although exposed far more than most people to trauma and death, the participants were not found to be clinically depressed. They reported relying on religious beliefs, identification with their peer group, and their ability to diffuse responsibility to deal with painful emotions. "Nevertheless, the officers experience conflicted feelings and frequently report having a hard time carrying out society's 'ultimate punishment'" (p. 358).

On the ethics side, a study employed Milgram's research in examining potentially thorny ethical issues for social science research conducted on the Internet (Pittenger, 2003). Today, a great deal of research is conducted via the World Wide Web, and the number of such studies is likely to increase significantly in the future. Pittenger contends that researchers must be alert to potential ethical violations relating to invasion of privacy, obtaining informed consent, and using deceptive tactics online. "The Internet offers unique challenges to researchers," Pittenger writes. "Among these are the need to define the distinction between private and public behavior performed on the Internet, ensure mechanisms for obtaining valid informed consent from participants, performing debriefing exercises, and verifying the validity of data collected" (p. 45).

An important question is this: What should be done to protect participants from irresponsible, deceptive practices in psychological research, while at the same time allowing for *some* deception when absolutely necessary for scientific advancement? A study by Wendler (1996) suggested that participants in studies involving deception be given an increased level of "informed consent." (See the discussion of this concept in the Preface to this book.) This enhanced informed consent would inform you of the study's *intention* to use deception before you agree to be a participant in the experiment, although you would not be aware of the exact nature of the deception. "This 'second order consent' approach to acceptable deception," claims Wendler, "represents our best chance for reconciling respect for participants with the occasional scientific need for deceptive research" (p. 87).

CONCLUSION

Milgram historian Thomas Blass's (2002) remarks in a biographical review of Milgram's life and work provide a fitting conclusion to this reading:

> We didn't need Milgram to tell us we have a tendency to obey orders. What we didn't know before Milgram's experiments is just how powerful this tendency is.

> And having been enlightened about our extreme readiness to obey authorities, we can try to take steps to guard ourselves against unwelcome or reprehensible commands (p. 73).

Baumrind, D. (1964). Some thoughts on the ethics of research: After reading Milgram's "Behavioral Study of Obedience." *American Psychologist, 19,* 421–423.

Blass, T. (1999). The Milgram paradigm after 35 years: Some things we now know about obedience to authority. *Journal of Applied Social Psychology, 29*(5), 955–978.

Blass, T. (2002). The man who shocked the world. *Psychology Today, 35,* 68–74.

Blass, T. (2004). *The man who shocked the world.* New York: Basic Books.

Brief, E., Collins, B., & Miller, A. (1995). Perspectives on obedience to authority: The legacy of the Milgram experiments. *The Society for the Psychological Study of Social Issues, 51,* 1–19.

Milgram, S. (1964). Issues in the study of obedience: A reply to Baumrind. *American Psychologist, 19,* 448–452.

Milgram, S. (1974). *Obedience to authority.* New York: Harper & Row.

Miller, A. G. (1986). *The obedience studies: A case study of controversy in social science.* New York: Praeger.

Orne, M. T., & Holland, C. H. (1968). On the ecological validity of laboratory deceptions. *International Journal of Psychiatry, 6,* 282–293.

Osofsky, M., & Osofsky, H. (2002). The psychological experience of security officers who work with executions. *Psychiatry: Interpersonal and Biological Processes, 65,* 358–370.

Pittenger, D. (2003). Internet research: An opportunity to revisit classic ethical problems in behavioral research. *Ethics and Behavior, 13,* 45–60.

Wendler, D. (1996). Deception in medical and behavioral research: Is it ever acceptable? *Milbank Quarterly, 74*(1), 87.