
From New Haven to Santa Clara

A Historical Perspective on the Milgram Obedience Experiments

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This article traces the history of obedience experiments that have used the Milgram paradigm. It begins with Stanley Milgram's graduate education, showing how some aspects of that experience laid the groundwork for the obedience experiments. It then identifies three factors that led Milgram to study obedience. The underlying principles or messages that Milgram thought could be extracted from his experiments are then presented, and the evidence in support of them is assessed. Jerry M. Burger's (2009) recent replication of Milgram's work—its place in the history of obedience research and its contribution to furthering the understanding of destructive obedience—is then examined.

Keywords: authority, obedience, Milgram, history of psychology, Holocaust

I wish to announce my departure from the Linsly-Chittenden basement laboratory. It served us well. Our last subject was run on Sunday, May 27. The experiments on "obedience to authority" are, Praise the Lord, completed. (Milgram, 1962)

In this letter to Claude Buxton, the chairman of Yale's Psychology Department, dated June 1, 1962, Stanley Milgram, a junior faculty member, notified him of the conclusion of a series of experiments consisting of over 20 conditions. These experiments were to become the most famous, controversial, and, arguably, most important psychological experiments of our time. For over 45 years, they have served as the prime example of the use of experimental realism in the service of a question of deep social and moral significance.

The day before Milgram wrote the letter, the Israeli government, after a long trial, hanged Adolf Eichmann for his pivotal role in the systematic murder of the majority of European Jewry. The close conjunction of these two events presaged a more substantive connection that was to be made later between these experiments and the behavior of the Nazis in World War II.

Milgram's participants consisted of about 800 volunteers from New Haven and surrounding areas. If one adds replications by others over the years—in the United States and in 11 other countries—by my count, approximately 3,000 individuals have been participants in obedience experiments using the Milgram paradigm.

This article traces the history of the obedience experiments. Beginning with Milgram's graduate education, I show how some aspects of that experience laid the groundwork for the obedience experiments. After identifying the

more proximal factors that led to the experiments, I then turn to the central messages of those experiments themselves. I conclude with an examination of Burger's (2009, this issue) recent replication—its place in the history of obedience research and its contribution to furthering our understanding of destructive obedience.

Stanley Milgram came from a lower middle-class background. He was born on August 15, 1933, in the Bronx, New York, to Jewish parents who had emigrated from Europe around the time of the First World War. His father Samuel was born in Hungary; his mother Adele, in Romania. They met and married in the United States and had three children: Marjorie, Stanley, and Joel. Samuel was a baker and cake decorator, while Adele helped him in the bakery in addition to running the Milgram household.¹

By the time Stanley was ready for college, the family had moved to the Queens section of New York, and he enrolled in Queens College, where he majored in political science and minored in art. When it came to graduate studies, he decided to leave political science because, as he once told interviewer Tavis (1974, p. 75), he "was dissatisfied with its philosophic approach." Instead, he applied to Harvard's Social Relations Department to pursue graduate studies in social psychology, and he began there in the fall of 1954.

The Department of Social Relations was created in 1946 as a pioneering effort to integrate the four disciplines of social anthropology, sociology, social psychology, and clinical psychology (Allport & Boring, 1946; Parsons, 1956). Its founding fathers were four of the most outstanding individuals in those fields, respectively: Clyde Kluckhohn, Talcott Parsons, Gordon Allport, and Henry Murray. Milgram thrived on the rich intellectual stimulation provided by the multidisciplinary Social Relations Department, and the program helped him develop a wide-ranging interest in the social sciences.

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¹ Alexandra Milgram, interviews with T. Blass, Riverdale, New York, April 25, 1993, and June 13, 1993.



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The person at Harvard with whom Milgram had been corresponding regarding admission was Gordon Allport, the head of the Department's graduate program. Allport was to become the most important person in Milgram's academic life. Their initial exchange of letters set the tone for their relationship as student and mentor.

Allport would be a constant source of encouragement for Milgram, and he had a bemused admiration for Milgram's limitless drive and persistence in the face of obstacles. But when Allport felt the necessity, he knew how much pressure to apply to Milgram without provoking his resistance. Milgram, in turn, was always deferential enough to Allport to get his way without seeming too pushy. And when it was time to do his dissertation, Milgram asked Allport to be his chairman. Other faculty, besides Allport, with whom Milgram was, and remained, close his whole lifetime were Jerome Bruner and Roger Brown.

During the 1955–1956 academic year, an event with long-term consequences for Milgram's professional life occurred. Solomon E. Asch came to Harvard as a Visiting Lecturer to fill in for Jerome Bruner, who was going on sabbatical that year. As a result of his writings and research, Asch was widely admired for his ability to blend a deep concern for philosophical issues with an inventive, uncluttered, and accessible experimental style. He had become famous for inventing an elegantly simple experimental paradigm for studying conformity—his well-known “line judgment task” (Asch, 1958).

Allport assigned Milgram to serve as Asch's teaching assistant in the fall and then as his research assistant in the spring. Asch was very satisfied with, and expressed his appreciation to, Milgram in a brief note, and in a more formal letter to Talcott Parsons, the department chairman, expressed his “thanks to the department for assigning to me this really able and likable young man” (Asch, 1956).

To return to Milgram's dissertation—in his letter asking Allport to be his chairman (Milgram, 1956), he indicated that his intended topic was “national character,” one in which assertions rested “on a scandalously narrow empirical base” (p. 1). He proposed to correct the situation by applying experimental techniques to study behavioral differences across several European countries. And, undoubtedly—through his work with Asch—he had become intimately familiar with Asch's technique, and he proposed to use it: “With appropriate variations, cross-national replication of these experiments may be a start in telling us something of social pressure and conformity among different national groups” (Milgram, 1956, p. 2).

Milgram began work on his doctoral dissertation in 1957. Specifically, Milgram carried out a cross-national comparison of conformity levels in Norway and France using a modification of Asch's technique. Rather than having participants judge lengths of lines, he used an auditory task in which participants had to indicate, on each trial, which of a pair of tones was longer. In addition, Milgram used a simulated majority to create peer pressure: Before giving an answer, the naive participant heard pre-recorded answers from five other “participants” (they were not physically present in the lab, although the naive participant believed they were). In his dissertation, Milgram (1960a) wittily explained the advantages of this procedure: “The group is always willing to perform in the laboratory at the experimenter's convenience, and personalities on tape demand no replay royalties” (p. 27).

It was an ambitious study that took almost two years to carry out. After piloting the procedure at Harvard during the summer of 1957, Milgram spent 1957–1958 conducting the experiment in Oslo, Norway, and 1958–1959 repeating it in Paris. Milgram conducted a total of 14 experimental variations, involving 390 participants altogether, and found that, generally, Norwegians were more conforming than the French participants (Milgram, 1960a, 1961).

This was an important, pioneering study because it was one of the first to take the question of cross-cultural differences in behavior out of the realm of speculation and personal anecdote and into the realm of systematic behavioral observation and variation. It also contributed importantly to Milgram's professional growth. Having successfully completed an experiment that helped break new ground in cross-cultural research, he now knew that he was capable of doing original research. That knowledge made him aim high, and not settle for the ordinary, in his future career as a researcher.

In addition—although he did not know it at the time—the largely benign and accepting response of his participants to a potentially ethically problematic experiment undoubtedly eased the way later for the obedience experiments. In his conformity experiments, not only were participants deceived but many “revealed aspects of their personalities that might be considered unflattering; conformist subjects felt ashamed or even humiliated when in the [postexperimental] interview, they were confronted with the true nature of the experiment” (Milgram, 1960a, p. 170). So, in order to assess their reactions to the ethics of

the experiment, Milgram sent a questionnaire to his Norwegian participants. One of the questions—which used the same wording and scalar format as would be used later in the obedience experiments—asked how they now felt about having been in the experiment. The majority—70 out of 96—said they were glad or very glad, only one said he was sorry, and not one indicated that he was very sorry. “It appears,” Milgram (1960a) concluded, “that most subjects were glad to have participated, despite the trickery involved” (pp. 174–175).

After completing the French portion of the experiment in the spring of 1959, Milgram returned to the United States. He was set to spend a “final, beatific year” (Milgram, 1959) in Cambridge analyzing his data and writing up his dissertation, when at the end of the summer, Asch—who was then at the Institute for Advanced Study in Princeton as a Visiting Member—offered Milgram a paid position to help edit a book on conformity that he was writing.

Milgram accepted the position with the understanding that Asch would allow him time to work on his dissertation. He also expected that the job would come with a formal affiliation with the Institute. It turned out that neither of these expectations was fulfilled. Asch made heavy demands on his time, leaving Milgram only nights and weekends to attend to his dissertation. Neither was there any formal affiliation with the Institute. Asch’s file at the Institute’s library and his papers at the Archives of the History of American Psychology show no mention by Asch of Milgram in any of his correspondence with the administration.

Despite the less-than-ideal conditions, Milgram was able to complete his dissertation in time to be awarded a PhD in social psychology in June 1960. (Asch’s book on conformity was also completed—although it ended up never being published; Milgram, 1984a).

Toward the end of his stay with Asch, Milgram received an offer from Yale University’s Psychology Department to come to Yale as an assistant professor, beginning in the fall. Although he already had a job offer from Bruner as a research fellow in cognitive studies at Harvard, he ended up taking the position at Yale, but only after some vacillation. As he wrote Allport (Milgram, 1960d),

It was a very hard decision that no one seemed willing to make for me, so I let the mist swirl round and round until a vague imbalance inclined my step toward Yale. . . . The thread of a motive must have latched on to something that Yale offered, what was it?—status, challenge, a chance to leave “home” and work up a good set of credentials on my own?

By the time Milgram left Asch toward the end of June, he had decided that his research at Yale would focus on obedience.

How did he come up with the idea of studying obedience? When an interviewer asked him, Milgram (1980, p. 188) answered, “Very often, when there is an idea, there are several points of origin to it.” And, in fact, one can identify three factors or events that led Milgram to study obedience to authority.

First, his obedience experiments can be seen as a kind of spin-off from Asch’s conformity experiments—Milgram had been thinking about how one could use Asch’s paradigm for studying something more consequential than the original experiments. Perhaps, instead of a group exerting pressure on an individual in judging lengths of lines, one could have the group try to induce an individual to give increasing amounts of shock to another person. As Milgram thought about it more, he pondered what would serve as the appropriate control condition:

Well, I guess I would have to study a person in this situation in the absence of any group pressure. But then . . . what would be the force that would get him to increase the shocks? And then the thought occurred that 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. (Milgram, 1980, p. 189)

A second factor that led Milgram to his obedience research was his attempt to fathom the Holocaust. This interest in the Holocaust was rooted in a lifelong identification with the Jewish people. In a little speech he gave at his Bar Mitzvah celebration, in the year following the end of World War II, he had written (Milgram, 1946),

As I come of age and find happiness in joining the ranks of Israel, the knowledge of the tragic suffering of my fellow Jews throughout war-torn Europe makes this also a solemn event and an occasion to reflect upon the heritage of my people.

And in 1958 while in Europe conducting his dissertation research, he wrote John Shaffer, a Harvard schoolmate,

My true spiritual home is Central Europe. . . . I should have been born into the German-speaking Jewish community of Prague in 1922 and died in a gas chamber some twenty years later. How I came to be born in the Bronx Hospital I’ll never quite understand. (Milgram, 1958)

Perhaps it is no surprise that among the earliest talks Milgram gave about his obedience research was one to the Hillel chapter at Yale (Bnai Brith Hillel Foundation, Yale University, 1962).

The third factor that was a driving force that led to his research on obedience was Milgram’s decision early on in graduate school that his goal would be to pursue an academic career in social psychology. Milgram’s first year at Harvard was supported by a Ford Foundation Fellowship in the Behavioral Sciences. In May 1955, toward the end of that year, the administrator of the fellowship program sent a questionnaire to all recipients. In response to the question “Do you have any long-range plans involving a career in the behavioral sciences?” Milgram (1955, p. 3) answered, “Yes. This year I really fell in love with the discipline. . . . I hope to follow through to a Ph.D. in Social Psychology and then, probably, secure a position with a psychology faculty of a fair sized university, where I would teach and engage in research.”

Milgram knew that to succeed in academic life he would have to come up with an important and distinctive program of research to make his mark. Roger Brown recalled that, while still a graduate student, Milgram told him that “he had hoped to hit upon a phenomenon, such as Asch had done, of great consequence, and then just worry it to death.”² And very soon after his arrival at Yale, Milgram wrote a friend in New York that he was ruminating about coming up with “the boldest and most significant experimental research” (Milgram, 1960b, p. 1) he could think of. With the obedience experiments, he certainly succeeded in doing just that.

Milgram piloted his obedience experiments toward the end of his first semester at Yale, in November and December of 1960, with members of an undergraduate seminar in small groups. Recalling those pilot studies many years later, he wrote,

There was a certain amount of excitement and anticipation as we awaited the first subject. The study, as carried out by my small groups class under my supervision, was not very well controlled. But even under these uncontrolled conditions, the behavior of the subjects astonished the undergraduates and me as well. . . . I do not believe that the students could fully appreciate the significance of what they were viewing, but there was a general sense that something extraordinary had happened. And they expressed their feelings by taking me to Mory’s tavern when we had finished with our work, a locale then off limits to mere faculty. (Milgram, 1979, pp. 4–5)

Carl Hovland suggested that Milgram apply for a grant to support his planned obedience research. After sending preliminary letters of inquiry in October and November to the National Institute of Mental Health, the Office of Naval Research, and the National Science Foundation (NSF), on January 27, 1961, Milgram submitted a formal application to the NSF titled “Dynamics of Obedience: Experiments in Social Psychology,” requesting \$30,348 for a two-year period beginning June 1, 1961.

The grant review panel’s discussion notes (National Science Foundation, 1961, p. 3) stated that “this is a bold experiment on an important and fundamental social phenomenon.” Although the panel’s opinion had been divided on the proposal’s merits, its final rating was “Meritorious,” and Milgram was notified of his grant’s approval on May 3, 1961. He immediately sprang into action, attending to the numerous details that needed to be worked out in preparation for the experiment: A false, more refined version of the shock machine was built, participants were recruited through an ad in the *New Haven Register* and through mailings, laboratory procedures were worked out, scripts were written, word lists were prepared, and a research team was hired, who then rehearsed their routines. Milgram (quoted in Tavris, 1974, p. 75) recalled that “it took a tremendous amount of rehearsal. . . . Two full weeks with constant screaming on my part, constant.”

The role of “experimenter” was played by John Williams, a 31-year-old biology teacher. Somewhat gaunt looking, he projected an aura of technical efficiency. The role of “learner” was played by James McDonough, a pudgy 47-year-old Irish-American with a pleasant, unas-

suming manner, who was the head payroll auditor of the New York, New Haven, & Hartford Railroad. There was a sad irony involved in his participation. In his scripted complaints in most of the conditions in the obedience experiments, he referred to a heart condition. According to his youngest son Robert (personal communication, December 9, 2000), this script was actually based on fact. His father did have a heart problem and died from it about three years later.

The laboratory doors finally opened on August 7, 1961, and from then until the end of May 1962, Milgram conducted over 20 variations of his obedience experiment. Since, undoubtedly, readers are already familiar with the technical details of Milgram’s basic experimental procedures, I do not describe them. Rather, I identify the underlying principles or messages that Milgram thought could be extracted from those experiments.

First, humans have a powerful propensity to obey authority. Did we need Milgram to tell us this? Of course not. What he *did* teach us is just how strong this tendency is—so strong, in fact, that it can make us act in ways contrary to our moral principles. People generally assume that there is a direct line between the kind of individual a person is and the nature of his or her actions, but Milgram showed that it does not take evil or aberrant persons to carry out actions that are reprehensible and cruel. In his very first obedience publication, Milgram (1963, p. 376) noted the surprising finding of

the sheer strength of obedience tendencies manifested in this situation. Subjects have learned from childhood that it is a fundamental breach of moral conduct to hurt another person against his will. Yet 26 subjects [out of 40] abandon this tenet in following the instructions of an authority who has no special powers to enforce his commands.

Second, Milgram identified the internal mediating mechanisms that he believed made destructive obedience possible and resulted in people’s willingness to follow a leader’s cruel orders when they would not normally behave this way when acting under their own steam. Milgram argued that when people accept the legitimacy of an authority—that is, when they believe that the person in charge has the right to prescribe their behavior and they, in turn, feel an obligation to submit to that authority—certain internal changes take place.

The first change that makes destructive obedience possible is accepting the authority’s definition of the situation, of reality. The follower comes to see things through the eyes of the person in charge, so to speak. As Milgram (1965c) put it,

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 experiment-

² Roger Brown, interview with T. Blass, William James Hall, Harvard University, June 23, 1993.

er's definition of the situation, into performing harsh acts. (p. 74, italics added)

A Vietnam veteran, a student in one of my social psychology classes, told of an incident that illustrates this process. He was a member of a unit patrolling the coastline. He saw a boat approaching in the distance. As it got nearer, he realized that it was only a fishing sloop and, therefore, presumably harmless. The officer in charge asked him, "What are you waiting for? Blow it out of the water." "But it's only a fishing sloop," the soldier replied. "No," said the officer, "it's a gunboat." The soldier blew it out of the water.

The second internal change that makes people receptive to destructive commands, according to Milgram, is entry into the "agentic state," the main feature of which is a shift in responsibility from the follower to the leader. Although this shift-in-responsibility idea—that obedience to malevolent orders is predicated on the individual's shedding of responsibility and handing over of it to the authority in charge—has intuitive appeal, Milgram's own empirical evidence was only partially supportive of the process.

In the first four conditions (the four-part proximity series), after their experimental session, participants were presented with a "responsibility clock"—a disc with three movable rods that allowed the participants to divide it into three segments. The participant was asked, "How much was each of us responsible for the fact that this person was given electric shocks against his will?" The participant answered the question by moving the rods into positions that would spatially represent the percentages of responsibility he assigned to each of the three participants in the experiments—the experimenter, himself, and the learner (Milgram, 1974).

A pattern of responsibility allocations that would be completely supportive of Milgram's shift-in-responsibility process would be one in which obedient, compared with defiant, held on to a lesser amount of responsibility and relinquished a greater amount to the experimenter. The results showed that the pattern of responsibility assignments was only partially supportive of expectations: Whereas obedient participants did indeed hold on to a smaller percentage of responsibility than did defiants, the amount of responsibility handed over to the experimenter was virtually identical among both obedient and defiant. Where the obedient and defiant differed was in regard to the learner, to whom obedient ascribed about twice as much responsibility as did defiant (Milgram, 1974, p. 203, Table 9). While this is an interesting result, in that it is in line with the well-known "blaming-the-victim" phenomenon, it is not the one expected on the basis of the shift-in-responsibility-pattern posited by Milgram.

The third lesson that can be drawn from Milgram's obedience studies is how much human behavior is a product of the characteristics of the immediate situation, which often override our personal dispositions. This can be seen, for example, in the very first set of experiments in Milgram's series, the four-part proximity series (mentioned earlier), which varied the psychological and physical dis-

tance between the participant-teacher and the learner. As distance was reduced, so was the degree of obedience.

In fact, although the most revelatory and widely known outcome of the obedience experiments is the unexpectedly extreme degree of obedience Milgram found, this was not his primary goal. Rather, it was to show how obedience is responsive to modifications in the immediate situation. The continuous centrality of this goal is clearly conveyed by the fact that the following statement, with some variations, appears repeatedly in Milgram's writings: "The crux of the study is to systematically vary the factors believed to alter the degree of obedience to the experimental commands" (Milgram, 1963, p. 372; see also, e.g., Milgram, 1965c, 1974, 1984b, 1998).

He made this clear in his earliest written statement about his plan to study obedience, in a preliminary inquiry to the Office of Naval Research about possible grant support for his research (Milgram, 1960c, p. 1):

Obedience is as basic an element in the structure of social life as one can point to. . . . The question is not so much the limits of obedience. . . . It is by no means the purpose of the study to try to set the absolute limits of obedience. . . . Only the circumstances of real life will extract the highest measure of compliance from men. We can, however, approach the question from a somewhat different viewpoint. Given that a person is confronted with a particular set of commands "more or less" appropriate to a laboratory situation, we may ask which conditions increase his compliance and which make him less likely to comply.

Since the beginning of the trait-situation debate unleashed by Mischel's (1968) book *Personality and Assessment*, the obedience experiments have often been used as strong ammunition by "situationists," and appropriately so, since Milgram himself was clearly in that camp, as this quote from his book (Milgram, 1974, p. 205) indicates:

The disposition a person brings to the experiment is probably less important a cause of his behavior than most readers assume. For the social psychology of this century reveals a major lesson: Often, it is not so much the kind of person a man is as the kind of situation in which he finds himself that determines how he will act.

Yet, despite the fact that the obedience experiments are widely regarded as one of the prime examples of how behavior is powerfully responsive to situational variations, a closer look at the obedience experiments reveals that a more modest and nuanced perspective is called for.

Let us again consider the four-part proximity series, consisting of the following four conditions, representing decreasing distance between teacher and learner: *remote*—in which the victim's protests consisted only of a couple of knocks on the wall; *voice-feedback*—in which prerecorded vocal complaints were introduced; *proximity*—in which the learner was placed in the same room within a few feet of the teacher; and *touch-proximity*—the ultimate reduction in distance, in which, after 150 volts, the teacher had to place the learner's hand onto a shock plate for him to receive shock. The obedience rates in these conditions were 65%, 62.5%, 40%, and 30%, respectively. Milgram described these results as follows: "Obedience

was significantly reduced as the victim was rendered more immediate to the subject” (Milgram, 1965c, p. 62; 1974, pp. 34, 36). Milgram did not provide any data analyses to support this statement. My own analysis—yielding $\chi^2(3, N = 160) = 14.08, p < .01$, for an overall significant effect across all four conditions—is supportive of Milgram’s statement (Blass, 1991). (All subsequent statistical analyses in this article are also mine.)

However, closer scrutiny of between-condition differences reveals a puzzling set of results. The first one, not even requiring a test of significance, is the fact that the remote and voice-feedback conditions yielded almost identical rates of obedience. In the remote condition, 26 participants out of 40 administered the maximum shock, whereas 25 of 40 did so in the voice-feedback condition. This occurred even though in the voice-feedback condition, with the introduction of vocal complaints, the evidence of the learner’s suffering was much more prolonged, pronounced, and unambiguous. In other words, the miniscule drop in the obedience rate is not commensurate with the drastic difference in the characteristics of the situations the participant was confronted with in the two conditions.

Also not significant was the difference in obedience rates between the proximity and touch-proximity conditions, the third and fourth experimental variations. In the former, 16 of 40 participants were fully obedient, whereas the obedience rate was 12 out of 40 in the latter, $\chi^2(1, N = 80) = 0.879$. Again, the small decrease in the amount of obedience does not seem to be commensurate with the amount of increased involvement in the punishment of the victim in the touch-proximity condition. Milgram (1974) described an experimental session in this condition as follows: “The scene is brutal and depressing: [the participant’s] hard, impassive face showing total indifference as he subdues the screaming learner and gives him shocks” (p. 46). Altogether, in the four-part proximity series, the following differences in obedience rates are significant: remote versus proximity condition—26 out of 40 versus 16 out of 40, $\chi^2(1, N = 80) = 5.01, p < .05$; remote versus touch-proximity condition—26 out of 40 versus 12 out of 40, $\chi^2(1, N = 80) = 9.82, p < .01$; voice-feedback versus proximity condition—25 out of 40 versus 16 out of 40, $\chi^2(1, N = 80) = 4.05, p < .05$; and voice-feedback versus touch-proximity condition—25 out of 40 versus 12 out of 40, $\chi^2(1, N = 80) = 8.50, p < .01$.³

Does the pattern of results in the four-part proximity series make sense? Milgram suggested a number of mechanisms that might have accounted for the effects of changes in visibility and proximity of the victim to the participant (e.g., empathic cues, denial, and narrowing of the cognitive field; see Milgram, 1965c, pp. 63–65; 1974, pp. 36–40). But why variations in amount and intensity of feedback (Experiment 1 vs. 2) or absence versus presence of physical contact (Experiment 3 vs. 4) did not also have effects still remains a puzzle.

There are additional findings that are also problematic for the contention that situational factors are the preeminent determinants of obedience to authority—those of Experiment 5, the *new baseline* condition (Milgram, 1974, pp.

55–57, 60). Experiment 5 was similar to Experiment 2, the *voice-feedback* condition, with the addition of information indicating that the victim had a heart condition. (See the learner’s schedule of protests in Milgram, 1974, pp. 56–57.) Logically, one would expect a victim with a heart condition to be perceived as being at greater risk than one who, though also protesting vigorously, did not mention a heart problem. Thus, the stimulus situations were clearly different in the voice-feedback and the new baseline conditions, and yet the rates of obedience were very similar—62.5% and 65%, respectively.

To sum up, the kind of findings just reviewed lead to the following question. Beyond the revelatory nature of situational obedience effects—that actions that were thought to be inflexibly rooted in one’s conscience are more malleable than expected—one can ask: How much about the situational determinants of obedience has been demonstrated in an orderly way? Just how far has our knowledge of situational determinants been advanced when two knocks on the wall (Experiment 1), continuous screaming and pleading (Experiment 2), and the addition of complaints by the victim about his heart (Experiment 5) all yielded similarly high obedience rates (62.5%–65%)? Or when the heart-complaint condition conducted by a new experimenter (Experiment 6) yielded only a 50% obedience rate, which was the same order of magnitude as the Bridgeport replication (Experiment 10; 47.5%)? In order to understand these patterns of results, one needs to be able to identify the underlying features of the situation that do and do not lead to changes in degrees of obedience and to conceptualize them in terms of more molar constructs. Until that can be done, more restraint is called for in the use of the obedience experiments as powerful evidence for the dominant role of situational variations as determinants of behavior.

Milgram first published results from his obedience experiments in a series of reports within a three-year period (Milgram, 1963, 1964a, 1965a, 1965c). During this time, two additional articles appeared, one describing pilot procedures and findings from the research with his students in the fall semester of 1960 (Milgram, 1964c) and the other presenting a rebuttal of Baumrind’s (1964) criticisms (Milgram, 1964b), which also contained new information on the well-being of his participants in the form of postexperimental questionnaire data and an excerpt from a brief psychiatric report (Errera, 1972). Milgram’s documentary film *Obedience* also made its appearance at this time (Milgram, 1965b). In 1966, Elms and Milgram reported the results of a comparison of samples of obedient and defiant participants on a number of personality and other self-report measures that Elms had administered to them several months after their participation in the obedience experiments. In 1967, Milgram published an article describing his

³ A second statistical analysis on Milgram’s second dependent measure, maximum shock levels administered, using a one-way between-groups analysis of variance with follow-up tests of between-condition differences with the Newman-Keuls procedure, yielded exactly the same pattern of results as the obedience-rate scores.

research in a small-circulation British magazine. Although no new data were presented, it was here that Milgram first conveyed the importance of relinquished responsibility in the obedience process. (That article also served as the introductory chapter in Milgram, 1974.)

A few years later, Milgram (1972) wrote a rebuttal of an article by Orne and Holland (1968) that argued—drawing on Orne’s “demand characteristics” concept—that Milgram’s participants probably saw through the deception. Milgram’s article included newly reported postexperimental data in support of his claim that most participants believed the shocks were genuine and very painful. A full description of the research program did not appear until 1974 with the publication of his book *Obedience to Authority: An Experimental View* (Milgram, 1974). This book presented 19 variations in similar detail (i.e., in addition to the verbal descriptions, frequency distributions of breakoff points for each condition appeared in tabular form). Nine of these conditions were described for the first time. Eventually, the book would be translated into 11 languages.

Ironically, by the time his book appeared, developments were taking place that would make it increasingly difficult to conduct any more Milgram-type obedience experiments. In 1973, the American Psychological Association published its first comprehensive ethical principles for research with human participants. And in 1974, the U.S. government passed the National Research Act (1978), which would eventuate in regulations requiring the screening of human research by institutional review boards (IRBs). In fact, as far as I can tell, the last Milgram-type obedience experiments were conducted in the United States in 1975 and 1976. Geller (1975) conducted a role-played version of the obedience experiments for his doctoral dissertation, supervised by Milgram (and using his shock machine). And Costanzo’s (1976) experiment, also a doctoral dissertation, varied gender of participant and victim in a factorial design. All subsequent replications took place abroad, with the last ones conducted in India (Gupta, 1983) and Austria (Schurz, 1985).

Burger’s (2009) experiment, conducted in 2006, marks a major milestone in the history of obedience research: Conducted about 45 years after Milgram’s obedience series, it is the first such experiment in the United States in 30 years. The experiment was made possible by the simple, but insightful observation by Burger that in one of Milgram’s baseline conditions (Experiment 5, the new baseline condition, in which the learner complained of a heart condition), 79% of participants who continued past 150 volts ended up continuing to the 450-volt maximum. The 150-volt shock was a pivotal point in Experiment 5, because it was the first time the learner protested extensively, saying that his heart was beginning to bother him and begging to be let out. The learner’s protests began after 75 volts, but each time, with the exception of 120 volts when the learner said “Hey, this really hurts,” the protest was merely a grunt (“Ugh!”; Milgram, 1974, p. 56).

Burger’s (2009) observations opened the door to the possibility of a replication that would have a higher chance of being ethically acceptable and still allow meaningful

comparisons with Milgram’s findings. By making 150 volts the maximum shock, Burger ensured that participants would experience only a minimal amount of stress and at the same time made it possible to say with a high degree of probability that participants who were willing to continue past 150 volts would have continued to 450 volts—had they been given the opportunity.

The requirement of informed consent is a central tenet of federal regulations governing research with human participants, and IRBs are duty bound to ensure that researchers comply with this requirement (Forsyth, 2008). Burger (2009) was able to come up with a formulation—which apparently satisfied his IRB—that did this without divulging the full details of the experiment beforehand. To do so would have invalidated the results. He accomplished this by including the following in his consent form:

I may not be told the entire purpose of the study prior to participation. The experimenter may withhold information about the nature of the study or provide misleading information. However, the full purpose and nature of the investigation . . . will be revealed to me at the end of my participation. (J. Burger, personal communication, May 5, 2008)

Burger’s (2009) experiment comprised two conditions. The main one was the “base condition,” which closely duplicated Milgram’s Experiment 5 but with the important difference that the maximum shock possible was 150 volts, rather than 450 volts. The second was the “modeled refusal condition.” In both conditions, the experiment was ended after the participant started reading again from the word list after hearing the learner’s protests following the 150-volt “shock.” Since only the base condition, not the modeled refusal condition, lends itself to comparison with Milgram’s findings, my comments focus on the base condition. The modeled refusal condition does not correspond to any of Milgram’s experimental conditions. In fact, to the best of my knowledge, such a condition cannot be found at all in the obedience literature.

Burger (2009) obtained two important findings. First, the percentage of obedient participants in the base condition did not differ significantly from the rate of obedience obtained by Milgram. And second, there was no significant difference between male and female participants in their obedience rates. Both of these results are consistent with earlier findings. In an attempt to determine whether rates of obedience had changed over time, I took all the baseline experiments conducted over a 25-year period—beginning with Milgram’s studies and continuing up to the last one reported in the literature (Schurz, 1985)—and ran a correlation between the obedience rate obtained in a study and when the study was conducted. I found absolutely no relationship between when a study was conducted and the amount of obedience obtained; the correlation coefficient hovered near zero (Blass, 1999, 2004).

The finding of no gender differences by Burger (2009) not only supports Milgram’s own results—identical obedience rates of 65% for men and women (Milgram, 1974)—but is also consistent with the broader literature. In a review of all methodological replications that used both male and

female participants, I found that in 8 out of 9 cases they did not differ in their rates of obedience (Blass, 1999).

Burger (2009) broke new ground—and set a new standard for ensuring the well-being of human participants in potentially stressful research—by using a two-step screening procedure, which included risk assessment by a clinical psychologist. This was a “first” in the history of obedience research. Neither Milgram’s participants nor those in later replications by other researchers had been screened prior to their participation.

On the basis of their scores on measures of anxiety and depression and a semi-structured interview, the clinical psychologist in Burger’s (2009) study dropped 38% of the potential participants. Also, Burger’s participants were more ethnically diverse and comprised a wider age range (20 to 81) than Milgram’s participants (who were between the ages of 20 and 50). Do these factors raise the question of comparability? Maybe. But even if they do, I do not see this as problematic. On the contrary, the fact that Burger obtained the same obedience rate as Milgram did—as well as no sex differences—despite substantive differences in participant characteristics enhances the importance of his findings by demonstrating the resilience of obedience tendencies. On the basis of my statistical analyses, mentioned earlier, which showed no changes in obedience rates over a 25-year period as well as no differences in average rates of obedience obtained in the United States versus other countries (Blass, 2004)—that is, stability that transcends both time and place—I have argued that Milgram has identified one of the universals of social behavior (Blass, 2002). Burger’s demonstration of the constancy of obedience despite changes in the individual characteristics of participants serves to strengthen the universality argument.

Burger (2009) had a second, subsidiary measure of responsiveness to commands—the point along the shock continuum when participants first received a prod from the experimenter—which provides yet another index of similarity to Milgram’s findings of 45 years ago. Modigliani and Roachat (1995) carried out a fine-tuned analysis of the audiotaped recordings of the experimental sessions in the Bridgeport condition (Experiment 10 in Milgram, 1974, pp. 61 and 66–70). Other than a change in location and sponsorship, the experimental procedures, the research team, and the schedule of protests were identical to those in Experiment 5. The experimental setup was moved from Linsly-Chittenden Hall at Yale to an office suite in a commercial building in downtown Bridgeport. The research was completely dissociated from Yale and supposedly run by a fictitious organization, Research Associates of Bridgeport.

Modigliani and Roachat (1995) found that the earlier in the experiment a participant showed some resistance, the greater the likelihood that he would end up defying the experimenter. Burger’s (2009) analysis of the timing of prods in his base condition essentially duplicated Modigliani and Roachat’s results: Participants who ended up stopping before the end were prodded earlier than those who were fully obedient.

To summarize Burger’s (2009) main findings: He obtained the same obedience rate as Milgram. Like Milgram and almost all replications, he found no gender differences. And he also found that the earlier a participant expressed hesitation, the more likely it was that he or she would end up defying the experimenter.

Importantly, also, Burger’s (2009) experiment can serve as a bridge between the past and the future of obedience research. Not only has he demonstrated that some of Milgram’s main findings still hold up today, some 45 years later, but, in creating an ethically benign version of the Milgram paradigm, he has shown that we can look forward to future obedience studies that will try to answer questions unexplored by Milgram or anyone else since.

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