

into the search by individuals for the work role in which they can be most effective and rewarded, and by institutions into the proper selection and placement of members. Then, since the matching is still far from perfect, considerable additional effort goes into training-and-development activities. Yet none of this can be well informed in the absence of knowledge of the principles of human development.

A significant fraction of American males spend their work life as managers in the large business enterprise, and their recruitment and growth are of obvious social as well as individual significance. The Management Progress Study—a longitudinal study of the young business man—was initiated by the Bell System in 1956. Its purpose is very general—to learn more than is now known about the characteristics and growth of men as they become, or try to become, the middle and upper managers of a large concern. The subjects of the study are 422 men who undertook careers with six of the System's operating telephone companies. Two-thirds of these men started with the System as new college graduates employed with the expectation that they would reach at least middle management. The remaining third is made up of men who started as vocational employees, advanced into lower management early in their careers, and who might be expected, like the college recruit, to reach at least middle management.

At the time of his inclusion in the study, each subject went through an assessment center designed to discover abilities, aptitudes, motivational and personality characteristics, attitudes, and interpersonal competence. Assessment procedures included interviews, objective and projective tests, paper-work administrative problems, a leaderless group discussion, and a miniature business game. The subjects spent 3½ days at the assessment center in groups of 12. The assessment staff conducted extensive discussions of each subject, rated each man on 25 variables, and prepared a narrative summary of each man's performance.

A two-pronged follow-up procedure is conducted annually. One phase of this is an intensive interview with each subject covering the previous year in his life. Although primary emphasis is given to job experiences and attitudes, all areas of life are explored. The second part of the annual procedure is the collection of material from company sources concerning significant features of the work environment, such as the boss; objective data, such as assignments, promotions, absences; and appraisals of performance and potential.

Each subject in the study underwent a special medical examination at approximately the time of his original psychological assessment. It is planned to

repeat these examinations periodically. It will be possible, therefore, to examine the relationships between work and health as the subjects grow older.

Needless to say, all information about individuals in the study is held in strictest confidence, and there is no feedback to the company or to the subjects themselves. The steadily growing case histories are stored off company premises at the Fels Research Institute for the Study of Human Development at Antioch College (Kagan & Moss, 1962). Several psychologists on university staffs as well as those in the Management Research Section of the American Telephone and Telegraph Company are conducting studies on various aspects of the data.

Although the Management Progress Study was instituted as a long-term study without any expectation of immediate practical results (Kappel, 1960), the mere conduct of the study and the reporting of gross observations on the total group of subjects have led to significant changes in certain personnel practices (Kappel, 1962). Among them are college recruiting standards and methods, the handling of college recruits during their first years in the System, and the application of the assessment-center method to the selection and development of managers.

The actual exploitation of the rich research materials has not, however, much more than gotten under way. It is expected that they will eventually yield not only valuable practical insights but will also contribute to the fundamental understanding of adult human behavior.

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Psychology in Action

SOME THOUGHTS ON ETHICS OF RESEARCH:

AFTER READING MILGRAM'S "BEHAVIORAL STUDY OF OBEDIENCE"

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CERTAIN problems in psychological research require the experimenter to balance his career and scientific interests against the interests of his prospective subjects. When such occasions arise the experimenter's stated objective frequently is to do the possible job with the least possible harm to his subjects. The experimenter seldom perceives in more positive terms an indebtedness to the subject for his services, perhaps because the detachment which his conditions require prevents appreciation of the subject as an individual.

Just a debt does exist, even when the subject's reason for volunteering includes course credit or monetary gain. Often a subject participates unwillingly in order to satisfy a course requirement. These requirements are of questionable merit ethically, and do not place the experimenter's responsibility to the subject. In most experimental conditions do not cause the subject pain or indignity, and are sufficiently interesting or challenging to present no problem of an ethical nature to the experimenter. But where the experimental conditions expose the subject to loss of dignity, or where he receives nothing of value, then the experimenter is obliged to consider the reasons why the subject volunteered and to reward him accordingly.

The subject's public motives for volunteering include having an enjoyable or stimulating experience, gaining knowledge, doing the experimenter a favor which may some day be reciprocated, and making a contribution to science. These motives can be taken into account rather easily by the experimenter who is willing to spend a few minutes with the subject afterwards to thank him for his participation, answer his questions, reassure him that he did well, and chat with him a bit. Most volunteers also have less manifest but equally legitimate motives. A subject may be seeking an opportunity to have contact with, be liked by, and perhaps confide in a person with psychological training. The dependent attitude of most subjects toward the experimenter is an artifact of the experimental situation as well as an expression of some subjects' personal need systems at the time they volunteered.

The dependent, obedient attitude assumed by most subjects in the experimental setting is appropriate to that situation. The "game" is defined by the experimenter and he makes the rules. By volunteering, the subject agrees implicitly to assume a posture of trust and obedience. While the experimental conditions leave him exposed, the subject has the right to assume that his security and self-esteem will be protected.

There are other professional situations in which one member—the patient or client—expects help and protection from the other—the physician or psychologist. But the interpersonal relationship between experimenter and subject additionally has unique features which are likely to provoke initial anxiety in the subject. The laboratory is unfamiliar as a setting and the rules of behavior ambiguous compared to a clinician's office. Because of the anxiety and passivity generated by the setting, the subject is more prone to behave in an obedient, suggestible manner in the laboratory than elsewhere. Therefore, the laboratory is not the place to study degree of obedience or suggestibility, as a function of a particular experimental condition, since the base line for these phenomena as found in the laboratory is probably much higher than in most other settings. Thus experiments in which the relationship to the experimenter as an authority is used as an independent condition are imperfectly designed for the same reason that they are prone to injure the subjects involved. They disregard the special quality of trust and obedience with which the subject appropriately regards the experimenter.

Other phenomena which present ethical decisions, unlike those mentioned above, can be reproduced successfully in the laboratory. Failure experience, conformity to peer judgment, and isolation are among such phenomena. In these cases we can expect the experimenter to take whatever measures are necessary to prevent the subject from leaving the laboratory more humiliated, insecure, alienated, or hostile than when he arrived. To guarantee that an especially sensitive subject leaves a stressful experimental experience in the proper state sometimes requires special clinical training. But usually an attitude of com-

passion, respect, gratitude, and common sense will suffice, and no amount of clinical training will substitute. The subject has the right to expect that the psychologist with whom he is interacting has some concern for his welfare, and the personal attributes and professional skill to express his good will effectively.

Unfortunately, the subject is not always treated with the respect he deserves. It has become more commonplace in sociopsychological laboratory studies to manipulate, embarrass, and discomfort subjects. At times the insult to the subject's sensibilities extends to the journal reader when the results are reported. Milgram's (1963) study is a case in point. The following is Milgram's abstract of his experiment:

This article describes a procedure for the study of destructive obedience in the laboratory. It consists of ordering a naive S to administer increasingly more severe punishment to a victim in the context of a learning experiment. Punishment is administered by means of a shock generator with 30 graded switches ranging from Slight Shock to Danger: Severe Shock. The victim is a confederate of E. The primary dependent variable is the maximum shock the S is willing to administer before he refuses to continue further. 26 Ss obeyed the experimental commands fully, and administered the highest shock on the generator. 14 Ss broke off the experiment at some point after the victim protested and refused to provide further answers. The procedure created extreme levels of nervous tension in some Ss. Profuse sweating, trembling, and stuttering were typical expressions of this emotional disturbance. One unexpected sign of tension—yet to be explained—was the regular occurrence of nervous laughter, which in some Ss developed into uncontrollable seizures. The variety of interesting behavioral dynamics observed in the experiment, the reality of the situation for the S, and the possibility of parametric variation within the framework of the procedure, point to the fruitfulness of further study [p. 371].

The detached, objective manner in which Milgram reports the emotional disturbance suffered by his subject contrasts sharply with his graphic account of that disturbance. Following are two other quotes describing the effects on his subjects of the experimental conditions:

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. He constantly pulled on his earlobe, and twisted his hands. 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].

In a large number of cases the degree of tension reached extremes that are rarely seen in sociopsychological laboratory studies. Subjects were observed to sweat, tremble,

stutter, bite their lips, groan, and dig their fingernails into their flesh. These were characteristic rather than exceptional responses to the experiment.

One sign of tension was the regular occurrence of nervous laughing fits. Fourteen of the 40 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 3 subjects. On one occasion we observed a seizure so violently convulsive that it was necessary to call a halt to the experiment . . . [p. 375].

Milgram does state that,

After the interview, procedures were undertaken to assure that the subject would leave the laboratory in a state of well being. A friendly reconciliation was arranged between the subject and the victim, and an effort was made to reduce any tensions that arose as a result of the experiment [p. 374].

It would be interesting to know what sort of procedures could dissipate the type of emotional disturbance just described. In view of the effects on subjects, traumatic to a degree which Milgram himself considers nearly unprecedented in sociopsychological experiments, his casual assurance that these tensions were dissipated before the subject left the laboratory is unconvincing.

What could be the rational basis for such a posture of indifference? Perhaps Milgram supplies the answer himself when he partially explains the subject's destructive obedience as follows, "Thus they assume that the discomfort caused the victim is momentary, while the scientific gains resulting from the experiment are enduring [p. 378]." Indeed such a rationale might suffice to justify the means used to achieve his end if that end were of inestimable value to humanity or were not itself transformed by the means by which it was attained.

The behavioral psychologist is not in as good a position to objectify his faith in the significance of his work as medical colleagues at points of breakthrough. His experimental situations are not sufficiently accurate models of real-life experience; his sampling techniques are seldom of a scope which would justify the meaning with which he would like to endow his results; and these results are hard to reproduce by colleagues with opposing theoretical views. Unlike the Sabin vaccine, for example, the concrete benefit to humanity of his particular piece of work, no matter how competently handled, cannot justify the risk that real harm will be done to the subject. I am not speaking of physical discomfort, inconvenience, or experimental deception per se, but of permanent harm, however slight. I do regard the emotional disturbance described by Milgram as potentially harmful because it could easily effect an alteration in the subject's self-image or ability to trust adult authorities in the future. It is po-

tentially harmful to a subject to commit, in the course of an experiment, acts which he himself considers unworthy, particularly when he has been entrapped into committing such acts by an individual he has reason to trust. The subject's personal responsibility for his actions is not erased because the experimenter reveals to him the means which he used to stimulate these actions. The subject realizes that he would have hurt the victim if the current were on. The realization that he also made a fool of himself by accepting the experimental set results in additional loss of self-esteem. Moreover, the subject finds it difficult to express his anger outwardly after the experimenter in a self-acceptant but friendly manner reveals the hoax.

A fairly intense corrective interpersonal experience is indicated wherein the subject admits and accepts his responsibility for his own actions, and at the same time gives vent to his hurt and anger at being fooled. Perhaps an experience as distressing as the one described by Milgram can be integrated by the subject, provided that careful thought is given to the matter. The propriety of such experimentation is still in question even if such a reparational experience were forthcoming. Without it I would expect a naive, sensitive subject to remain deeply hurt and anxious for some time, and a sophisticated, cynical subject to become even more alienated and distrustful.

In addition the experimental procedure used by Milgram does not appear suited to the objectives of the study because it does not take into account the special quality of the set which the subject has in the experimental situation. Milgram is concerned with a very important problem, namely, the social consequences of destructive obedience. He says,

Gas chambers were built, death camps were guarded, daily quotas of corpses were produced with the same efficiency as the manufacture of appliances. These inhumane policies may have originated in the mind of a single person, but they could only be carried out on a massive scale if a very large number of persons obeyed orders [p. 371].

But the parallel between authority-subordinate relationships in Hitler's Germany and in Milgram's laboratory is unclear. In the former situation the SS man or member of the German Officer Corps, when obeying orders to slaughter, had no reason to think of his superior officer as benignly disposed towards himself or their victims. The victims were perceived as subhuman and not worthy of consideration. The subordinate officer was an agent in a great cause. He did not need to feel guilt or conflict because within his frame of reference he was acting rightly.

It is obvious from Milgram's own descriptions that most of his subjects were concerned about their victims and did trust the experimenter, and that their distressful conflict was generated in part by the conse-

quences of these two disparate but appropriate attitudes. Their distress may have resulted from shock at what the experimenter was doing to them as well as from what they thought they were doing to their victims. In any case there is not a convincing parallel between the phenomena studied by Milgram and destructive obedience as that concept would apply to the subordinate-authority relationship demonstrated in Hitler Germany. If the experiments were conducted "outside of New Haven and without any visible ties to the university," I would still question their validity on similar although not identical grounds. In addition, I would question the representativeness of a sample of subjects who would voluntarily participate within a noninstitutional setting.

In summary, the experimental objectives of the psychologist are seldom incompatible with the subject's ongoing state of well being, provided that the experimenter is willing to take the subject's motives and interests into consideration when planning his methods and correctives. Section 4b in *Ethical Standards of Psychologists* (APA, undated) reads in part:

Only when a problem is significant and can be investigated in no other way, is the psychologist justified in exposing human subjects to emotional stress or other possible harm. In conducting such research, the psychologist must seriously consider the possibility of harmful aftereffects, and should be prepared to remove them as soon as permitted by the design of the experiment. Where the danger of serious aftereffects exists, research should be conducted only when the subjects or their responsible agents are fully informed of this possibility and volunteer nevertheless [p. 12].

From the subject's point of view procedures which involve loss of dignity, self-esteem, and trust in rational authority are probably most harmful in the long run and require the most thoughtfully planned reparations, if engaged in at all. The public image of psychology as a profession is highly related to our own actions, and some of these actions are changeworthy. It is important that as research psychologists we protect our ethical sensibilities rather than adapt our personal standards to include as appropriate the kind of indignities to which Milgram's subjects were exposed. I would not like to see experiments such as Milgram's proceed unless the subjects were fully informed of the dangers of serious aftereffects and his correctives were clearly shown to be effective in restoring their state of well being.

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