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 1955. 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 remainder third is made up of men who started as vocational employees, advanced into lower managerial positions in the System, and who might be expected, like the college recruits, 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 34 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 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 from this study. The data will be 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 (Kappell, 1960), the mere conduct of the study and the reporting of gross observations on the total group of subjects has led to significant changes in certain personnel practices (Kappell, 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 projected that they will eventually yield not only valuable practical insights but will also contribute to the fundamental understanding of adult human behavior.

REFERENCES

KAPPEL, F. R. From the world of college to the world of work. Bell Teleph. Mag., 1961, 41, 3-16.

DOUGLAS W. BAY
American Telephone and Telegraph Company
New York City

Psychology in Action

SOME THOUGHTS ON ETHICS OF RESEARCH:
AFTER READING MILGRAM'S "BEHAVIORAL STUDY OF OBEDIENCE"
DIANA BAUMRIND
Institute of Human Development, University of California, Berkeley

CERTAIN problems in psychological research require the experimenter to balance his career and scientific interests against the interests of his respective 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 technical terms an indebtedness to the subject for his data, perhaps because the detachment which his role requires prevents appreciation of the subject individual as a person. The fact remains that his debt does exist, even when the subject's subsequent volunteering includes course credit or a sum of money. Often a subject participates unwillingly in order to satisfy a course requirement. These requirements are unquestionable, but the experimenter's responsibility to the subject is not clear. To consider the reasons why the subject volunteered and to reward him accordingly, the subject's public motives for volunteering in an enjoyable or stimulating experience, degree of knowledge, doing the experimenter a favor may some day be reciprocated, and making a contribution to science. These motives can be taken into account and a subject's performance. The experimenter who is spending a few minutes with the subject afterward to thank him for his participation, answer his questions, reassure him that he did well, and even a bit. Most volunteers also have less amount of equality legitimate, motives. A subject may seeing an opportunity to have contact with, be bonded by, and perhaps confused in a person with psychological training. The dependent attitude of most experts toward the experimenter is an artifact of the experimental situation as well as an expression of some participants' personal need systems at the time they volunt.
passion, respect, gratitude, and common sense will suffice, and no amount of clinical training will substit-
tute. 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 effec-
tively.

Unfortunately, the subject is not always treated with
the respect he deserves. The most common
place 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. Mil-
gram's (1963) study is a case in point. The follow-
ing is Milgram's abstract of his experiment:

This article describes a procedure for the study of de-
structive obedience in the laboratory. It consists of or-
dering a naive S to administer increasing doses of
shock to a victim in the context of a learning experi-
ment. Punishment is administered by means of a shock
generator with 50 graded switches ranging from Slight
Shock to Danger: Severe Shock. The victim is a con-
federate 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 experimen-
tal conditions 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, trem-
bling, and shaking were typical expressions of this emo-
tional discomfort. One unexpected sign of tension—yet to be
explained—was the regular occurrence of nervous
laughing. Several Ss developed uncontrollable
outbursts of laughter. 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 sub-
jects indicates that he was unaware of the emotional
disturbance. Following are two other quotes describ-
ing the effects on his subjects of the experimental con-
ditions:

I observed a mature and initially poised business-
man 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 out his earphone and twisted his
head. At one point he pushed his fist into his forehead and mat-
tered: "Oh God, let's stop it." And yet he continued to respond to
every word of the experimenter, and obeyed to the end [p. 371].

In a large number of cases the degree of tension reached
exceedingly high levels. This was observed in the conjunctival
studies. Subjects were observed to sweat, tremble,
stutter, bite their lips, grin, and dig their fingernails into
their faces. These were characteristic rather than excep-
tional responses to the experiment.

One sign of tension was the regular occurrence of nerv-
ous laughing fits. Fourteen of the 40 subjects showed
definite signs of nervous laughter and smiling. The laugh-
ter 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. 371]

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 written statement was arranged between
the subject and the victim, and an effort was made to
reduce any tensions that arose as a result of the ex-
periment [p. 371].

It would be interesting to know what sort of pro-
cedures could dissipate the type of emotional distur-
bance just described. In view of the effects on subjects,
traumatic to a degree which Milgram himself considers
nearly unprecedented in sociopsychological experi-
ments, his usual assurance that these tensions were
dispersed before the subject left the laboratory is un-
convincing.

What could be the rational basis for such a posture
of assurance? Perhaps the S felt that by including the ex-
periment in his own self-concept he partially explained the sub-
jects' emotional reactions. "Thus they assume that the
discomfort caused the victim in 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 po-
sition to objectify his faith in the significance of his
work as medical colleagues at points of breakthrough.
His experiential 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 ascribe his results; and
these results are hard to reproduce by colleagues with
opposing theoretical views. Unlike the Sahom vaccine,
for example, the correct belief to be given to his
work when handled, 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
effectually alter the subject's self-image or abil-
ity 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 un-
worthy, particularly when he has been led to a commit-
mint by an individual he has reason to
trust. The subject's personal responsibility for his
actions is not erased because the experimenter reveals
him to the means he used to stimulate these
actions. The subject realizes that he would have hurt
the victim if the experimenter had not pressured him
into actions. The realization that he also made a fool of himself by accepting the experi-
mental 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-ac-
ceptant but friendly manner reveals the hoax.

A fairly distinct instance of interpersonal experi-
ence 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 de-
scribed 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 ques-
tion even if such a reparational experience were forth-
coming. Without it I would expect a naive, sensitive
subject to remain deeply hurt and anxious for some
years and a sophisticated, cynical subject to become
increasingly alienated and distrustful.

In addition, the experimental procedure used by
Milgram does not appear suited to fulfill the objectives of
the study because it does not take into account the spe-
cial quality of the set which the subject has in the ex-
perimental situation. Milgram is concerned with a
terribly important problem, namely, the social con-
sequences of destructive obedience. He says,

As the chambers were built, death camps were guarded, only
traces of corpses were produced with the same efficiency
that we have studied. These inhuman 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].

The parallel between authority-subordinate rela-
tions in Hitler's Germany and in Milgram's labo-
yatory is clear. In the former situation the SS man
was the superior of the German Officer Corps, when
obedience to his orders had no reason to think of his
superior officer as benevolent, disposed towards himself
his victims. The victims were perceived as passive
puppets and not worth of consideration. The subordi-
ated officer was an agent in a great cause. He did not
feel guilt or conflict because within his frame of
reference he was acting right.

It is obvious from Milgram's own descriptions that
most of his subjects were concerned about their vic-
tims and did trust the experimenter, and that their
emotional conflict was generated in part by the conse-
quencces of these two disparate but appropriate atti-
tudes. Their distress may have resulted from shock at
what the experimenter was doing to them as well as
what they thought they were doing to their vic-
tims. I feel there is not a convincing parallel
between the phenomenon studied by Milgram and de-
structive obedience as that concept would apply
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 psy-
chologist are seldom compatible with the subject's
ongoing state of well being, provided that the exper-
imenter is willing to take the subject's motives and
interests into consideration when planning his methods
and corrections. Section 4b in Ethical Standards of
Psychologists (APA, undated) reads in part:

Only when a problem is significant and can be in-
vestigated in no other way, is the psychologist justified
in exposing human subjects to emotional stress or other
painful conditions. Conducting such research, the psychologist
must seriously consider the possibility of harmful after-
effects, and should be prepared to remove them as soon
as they are permitted by the design of the experiment. Where
the subject is aware of serious aftereffects exists, research should be
conducted only if the subjects or their responsible agents
are fully informed of this possibility and volunteer never-
theless [p. 121].

From the subject's point of view procedures which in-
volves loss of dignity, self-esteem, and trust in rational
authority are probably most harmful in the long run and
require the most thoughtfully planned repARATION,
if engaged in at all. The public image of psychology as a profes-
sion is greatly related to our own actions, and some of these actions are changeeworthy. 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 in-
dignities 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 the corrections were
clearly shown to be effective in restoring their state of
well being.

REFERENCES

American Psychological Association, Ethical Standards of
Psychologists: A summary of ethical principles. Washing-
ton, D, C: APA, undated.

Milgram, S. Behavioral study of obedience. J. abnorm.