benign procedure can profoundly affect subjects in ways experimenters could not have foreseen, however sensitive, caring, and insightful they might be. For example, consider a series of "social dilemma" experiments conducted by Robyn Dawes, Jeanne McTavish, and Harriet Shaklee (1977). Typically in these investigations, subjects are faced with the decision to cooperate with others, or to "defect." When everyone cooperates, everyone benefits financially; but when one or more participants choose to defect, the deserters receive a high payoff, and those who choose to cooperate lose money. The rules of the game are fully explained to all subjects at the outset of the experiment and subjects' responses are anonymous. No deception is involved. This scenario seems innocuous enough.

However, 24 hours after one experimental session, an elderly man called the experimenter. He had been the sole defector in his group, thereby winning $19 while everyone else won only $1. He wanted to return his winnings to be divided equally among the other (cooperative) participants. During the conversation, he reported that he felt miserable about his greedy behavior and that he hadn't slept all night. After a similar experiment, a woman who cooperated while others defected revealed that she felt gullible and had learned that people were not as trustworthy as she had earlier believed. Thus, despite careful planing by the investigators, these "social dilemma" experiments had powerful effects on subjects—effects that could not have been easily anticipated. Our point is simple but important: *No code of ethics can anticipate all problems*, especially those that arise when subjects discover something unpleasant about themselves or others in the course of their participation.

In recent years students of human behavior have become increasingly concerned with ethical issues. Debates about research ethics range far beyond the narrower questions examined in this chapter. Some of the issues raised are the rights and responsibilities of the researcher who wants to study differences between subcultures or ethnic groups; the obligation of the researcher to consider the broader societal implications of the research; the possibility of free choice when the subject is captive, as in research on prisoners; the accountability of the researcher for the subsequent use and misuse of the research data by others. We cannot begin to deal with all these issues here, despite their obvious importance to the researcher. Clearly, researchers will need to examine their own planned research in terms of these concerns, and they may want to consult writers who have considered the problems of research ethics in greater depth, including sources such as Herbert Kelman (1968), Allan Kimmel (1988), Arthur Miller (1972b), Thomas Murray (1982), Robert Sears and his colleagues (1967), and the American Psychological Association (APA) (1953; 1981; 1982). In addition, the Department of Health and Human Services and one of its agencies, the National Institutes of Health (NIH), have been issuing comprehensive guidelines and regulations for research with human subjects. The prospective experimenter should study these guidelines before undertaking research. In this chapter we limit ourselves to some more narrowly focused concerns facing the experimenter in social psychology. Such a limitation should not be taken as an invitation to ignore the broader problems but rather as another example of the emphasis of this book on the more mundane and practical questions to be faced by the researcher.

Thus, our aim is largely descriptive. We attempt to describe the nature of some practical ethical questions faced by social psychologists and the ways in which they attempt to resolve these problems in a manner consistent with the value they place on scientific inquiry and—just as important—on human dignity and well-being.

PAIN AND SUFFERING

The study of certain psychological processes, such as responses to fear or punishment or frustration, depends on the successful arousal of some discomfort or distress in the subjects. Physical pain is involved in studies in which electric shock or other stressful stimuli, such as ice-cold water or loud noise, are used. Psychological discomfort is more common in social psychological research and more various in its manifestations; the psychological pressure applied by the unanimous majority in the Asch experiment is a good example. The stress may be temporary, or it may involve some risk that the subject will continue to worry or suffer after the experiment has ended. It may affect some subjects adversely, but not others. In general, the unifying feature of this variety of treatments is that they all involve the subject in an experience which is actually or potentially distressing.

In most cases, the experimenter who is contemplating a treatment which may be painful or upsetting to the subjects first seeks out ways to answer the question without using stressful procedures. Of course nonstressful alternatives will usually reduce the impact of an experiment. If the purpose of the stress is simply to create impact for its own sake, or to raise the subject's level of involvement, it may be possible to eliminate the stressful procedure without notably altering the question under study.

Even though the researcher may make every effort to find an innocuous treatment, it is not always possible. At least at our present state of knowledge, valid answers to many social psychological questions depend on experimentation which causes subjects some psychological discomfort, such as anxiety, embarrassment, annoyance, or insecurity. One simply cannot fully investigate the effects of anxiety except in situations which make people anxious, and for the greatest clarity of inference, the experimenter must be able to schedule that anxiety. An experiment might require subjects to submit to painful electric shocks, perform monotonous tasks, experience embarrassment, act aggressively toward another person, tell lies, resolve a moral dilemma, eat grasshoppers, or any of hundreds of other stressful procedures ranging from mild inconvenience to high levels of unpleasant arousal. When stress is an integral part of what the experimenter is trying to understand, it may be extremely difficult or impossible to remove the stress without eliminating the whole phenomenon of interest.

Although painful or unpleasant procedures are sometimes necessary, their use always raises serious ethical problems for the researcher. Each experimenter must decide how to deal with these problems; however, we would like to summarize our ideas about this issue and to offer a few tentative recommendations. These suggestions are the product of a series of discussions in which we tried to formulate our own thoughts and to make our opinions explicit. We considered the problems we faced in our own research and attempted to reconstruct our concern about the welfare of the subjects and the modifications we had made to deal with this concern and assuage our conscience. We discussed experiments that were planned but rejected for ethical reasons. We argued. What follows does not represent a fundamental agreement, for none was ever reached. Instead, it represents a tentative consensus on a few points and a presentation of the issues and arguments involved in a few other areas. None of these suggestions is particularly original; they have been presented elsewhere by other researchers, and to some extent they represent the kinds of ideas that are generally discussed by social psychologists who are concerned with these issues.

First of all, when the stressful procedures are free of deception, the problem is less acute, because the experimenter can warn the subject in advance, and the subject can decide to withdraw from participation in the study. We feel that whenever stressful procedures are used, it is a good idea to give the subject as much information about the experiment as possible. When there is no need for deception we recommend that the subject be informed of the likely extent of the discomfort or inconvenience and be given a free choice as to whether to participate in the experiment. We also believe that once the subject has consented to participate in an experiment involving a given amount of discomfort, the experimenter must not go beyond the limits agreed to by the subject; otherwise, the whole idea of voluntary consent is undermined. In addition, subjects should be allowed to quit at any time during the experiment, and they should be explicitly informed of this option at the outset. Of course, it may be extremely difficult for the subject to refuse to participate or continue in the experiment, for fear of looking like a coward, of ruining the experiment, or for any number of other reasons. Thus, the ethical problem is not completely removed because the subject may not feel entirely free to choose what to do, although there is more choice than in an experiment in which important information is distorted or withheld. We believe that the experimenter should do everything possible to make sure that the subject has a real choice; for example, one strategy might be to employ a confederate who does refuse to participate in the experiment. In addition, the experimenter should observe the subject carefully. Any unusual signs of distress should be grounds for terminating the experiment. When the experiment is over, the investigator should interview the subject to make sure that there are no lingering ill effects (see Chapter 10).

These ideas are similar to those set down in codes of research ethics under the rubric "informed consent" (U.S. Public Health Service, 1969; American Psychological Association, 1982). Before the subject agrees to participate, "the investigator informs all participants of all aspects of the research that might reasonably be expected to influence willingness to participate and explains all other aspects of the research about which the participants inquire" (American Psychological Association, 1982, Principle 9, p. 5). Allowing the subject to leave in the middle of an experiment is another aspect of the same principle. A description of an experiment is obviously much less "informative" than actual participation is; the subject who, on the basis of experiences in the study, decides not to continue in the experiment is essentially withdrawing consent as a consequence of the additional information.

How much discomfort may an experimenter inflict on a subject in the name of science? This question is not easily answered. The reasons for this should be clear: First, one cannot easily quantify the psychological discomfort caused by an experimental procedure, as is clear from our previous description of the unforeseen discomfort encountered by subjects in the experiment by Dawes, McTavish, and Shaklee (1977). Moreover, in many cases, the amount of psychological stress is as much a function of the incidental demeanor of the experimenter as of the actual procedure involved. The experimenter may approach the subject with respect and sympathy, communicating interest and concern and expressing gratitude for the subject's help in providing important information; this kind of considerate regard may lead many subjects to accept difficult procedures as justifiable. However, the experimenter may ignore the subject's individuality, communicating both a desire to reduce observations to a number and a lack of concern about the subject as a person. Subjects so treated may feel that even quite innocuous experiments were not worth their time and trouble.

The experimenter sets the tone, and the general atmosphere for the subjects may be largely independent of the experimental treatments. Unless the experimenter is careful, even the most innocent-looking procedure can cause a subject to feel uneasy or inept. Because the experimenter-subject relationship is, by nature, one of unequal status, it is relatively easy for an experimenter—wittingly or unwittingly—to make a subject feel small and powerless. This is one reason that it may be difficult for the subject to drop out of the experiment. It is also the reason why it is difficult to determine the actual amount of discomfort caused to a subject simply by looking at the "method" section of a published report. In the hands of a careful, caring experimenter, a procedure that appears harmful may produce little stress. Similarly, in the hands of an arrogant or insensitive experimenter, a procedure that appears innocuous enough may upset the subject a great deal.

In examining our own research ideas and those of other social psychologists, we often consider the unpleasantness of the subject's experience in terms of the value of the experiment. On one hand few experimenters would cause even a small amount of discomfort to a subject "just for the hell of it," that is, without a clear idea of what they were looking for in the experiment. On the other hand, many experimenters would be willing to burden subjects

with some strain if the experiment were an important one and if there were no other way of performing it. It is commonly accepted that the merits of a proposed experiment should be a factor in deciding whether to employ a potentially stressful procedure (American Psychological Association, 1982; Freund, 1967; Kelman, 1968; Ring, 1967; Rubin, 1970). But in practice, it is almost as difficult to arrive at an objective judgment of the ultimate importance of an experiment as it is to judge the extent of the subject's discomfort. Most experimenters have a strong feeling that their own experiments are important, but others may not agree. All universities now have a committee on human subjects which reviews all proposed research with an eye to just these issues. Such a committee provides a good check on the sometimes overoptimistic views of a prospective experimenter but cannot serve as a substitute for the experimenter's careful thought about the issues. A good rule of thumb is to place the degree of discomfort at the mildest possible level which is consistent with the hypothesis; although this may be far from ideal scientifically, it is a reasonable and necessary compromise.

The degree of stress the experimenter is willing to allow should also be a function of the number of precautions taken. Thus, a second rule of thumb is to make sure that the level of stress or discomfort is low enough so that the experimenter is confident that any ill effects can be erased or resolved. A given degree of stress may be within reasonable bounds if the experimenter has guarded against serious consequences. For example, consider Stanley Milgram's experiment (1963) in which subjects believed that they were giving severe electric shocks to a person who beat on the wall and begged to be let out of the experiment. Participation in this experiment was obviously an extremely disturbing experience for many subjects, and some writers (e.g., Baumrind, 1964) have questioned the ethics of Milgram's procedures. Milgram himself recognized the danger that serious psychological consequences might result and took special precautions to prevent them (see Milgram, 1964). After the experiment was over, Milgram introduced the subject to his "victim" and discussed the experiment with him at length, reassuring him that his behavior was perfectly normal. Later on, when the whole series of studies had been completed, Milgram sent out a five-page report about the experiments to all the subjects, along with a follow-up questionnaire designed to find out how they felt about their participation in the experiment. Finally, Milgram conducted a further follow-up study in which the 40 subjects "most likely to have suffered consequences from participation" were interviewed by a psychiatrist in order to find out whether there were any lingering ill effects resulting from their experience in the research. The psychiatrist found no evidence of deleterious effects in any of the subjects (Milgram, 1964, p. 850).

Finally, an experimenter who plans to expose subjects to some negative experience should take special precautions to make sure that the experiment is *scientifically* acceptable. For example, experiments conducted as casual classroom exercises or as undergraduate research projects are less likely to be methodologically sound studies which advance the science of psychology, and we believe that the use of ethically questionable procedures is therefore inappropriate in these contexts. If the experiment is conducted solely for purposes of pedagogy and the experimenter is not interested in really learning something about social behavior, *or* if the study is carried out so negligently that nothing can be learned from looking at the results, there is no justification for putting subjects through an unpleasant experience.

DECEPTION

Most of the research we have discussed thus far has involved deception. Social psychologists have long considered it necessary in some kinds of experiments to withhold information from subjects. Indeed, experimenters often find themselves in the troublesome position of concealing the truth from their subjects in order to *reveal* a truth about human behavior. Sometimes experimenters deliberately attempt to mislead their subjects. The experimenter's independent variable often involves some particular psychological state, such as fear or anger, which cannot be aroused effectively unless the subjects believe in the eliciting events. It would be difficult to make subjects really angry, for example, if they were informed that the experimenter was following a script designed to infuriate them. Many dependent variables involve behaviors which subjects might not want to perform if they knew how the experimenter planned to interpret the behavior. The obedient behavior of the subjects in the Milgram (1973) experiment is a good example of this kind of dependent variable. Had the subjects known that their behavior would be compared with the obedient behavior of Nazi officials who were "only following orders," they might have been much more likely to resist the experimenter's influence. Finally, the experimenter often desires to keep the subject uninformed of the purposes of the study, so that the results of the research can be generalized to uninformed people in similar situations outside of psychological experiments.

In most social psychological experiments, the subject is kept partially ignorant of the true purpose of the experiment; the deception is in not telling the whole truth about what is going on. In some experiments, the deception is more elaborate, involving a carefully staged production with a large cast, a well-rehearsed script, and a variety of misleading embellishments. The use of deception in social psychology has raised methodological questions, which we shall discuss in Chapter 6, and ethical questions, to which we now turn.

The ethical questions raised by the use of deception include the invasion of the subjects' privacy by eliciting information which they do not intend to share and the violation of their expectations of openness and honesty on the part of the experimenter. The subjects' understanding of the situation is incomplete or false, and thus it is impossible for them to give their fully informed consent. For this reason, we believe that the experimenter should try to find a procedure which will answer the question without deceiving the subjects; that is, one that is *not* chosen on purely methodological grounds. Even if a deceptive procedure seems the most appropriate for the experimental question, we be-

lieve that other procedures should be considered as well, and if a technique which uses less deception will do almost as well, it is usually preferable. But, more often than not, these efforts will be fruitless; some questions invite bias due to the defensiveness or cooperativeness of subjects, and deception is the best practical technique for avoiding this kind of bias. In essence, the problem is that if we are completely open and honest in describing our procedures to the subjects, we may create pressures which make it practically impossible for them to be completely open and honest with us. For example, it is hard to imagine an experimenter collecting valid data on the effects of group pressure on conformity (as in the Asch experiment) by announcing the purpose of the experiment in advance.

And the dilemma is even more difficult. Even if we begin by choosing a nondeceptive technique, sooner or later we may have to validate our procedures by using deception. For example, Craig Smith and Ellsworth (1985) theorized that different emotions are caused by different ways of interpreting the situation. Encountering a filthy derelict asleep on the street, one person may experience disgust, a second sorrow, and a third guilt because of their differing interpretations. Smith and Ellsworth began their investigations by asking people to remember and talk about emotional experiences they had had. No deception was involved, and the critic might argue that no "real" emotions were either. In follow-up research Smith and Ellsworth studied subjects who were actually experiencing emotions: They were about to take a difficult exam (fear, hope), or they had just received their grade (joy, anger). Again there was no deception, and this time the emotions were real, but there was no random assignment and little control. The theory that the different interpretations *cause* the different emotions has still not been given an adequate test, and it is hard to imagine that such a test could be carried out without deception. Still, it was perhaps preferable to begin with the nondeceptive studies. If neither the memory study nor the uncontrolled "real-life" study had shown a speck of support for Smith and Ellsworth's ideas, they might have decided that there was no point in "validating" these ideas in a deception experiment.

What specific problems are posed by the use of deceptive techniques? If deception is used, the experimenter is not only misleading the subjects but also invading their privacy by extracting data under false pretenses. This often involves an outright lie: The experimenter presents the subject with a largely untrue "cover story." But deception occurs in more subtle forms as well. If a cover story about one or more aspects of the experiment is a sin of commission, a failure to inform the subject of the true purpose (or sometimes even the existence) of the dependent variable measure is an analogous sin of omission. Thus, a projective technique such as the Rorschach or the Thematic Apperception Test (TAT) is a deceptive device unless the subject is forewarned about what it is really supposed to measure. In using the TAT, psychologists typically present subjects with a set of pictures and ask them to write stories about each picture, ostensibly as a test of creativity. If the psychologist then takes the stories and uses them to make inferences about unconscious sources

of conflict and anxiety in the subject's personal life, the subject's privacy has been invaded. Told beforehand that the test was an instrument designed to uncover specific aspects of his or her underlying personality dynamics, the subject might have written different stories or even refused to take the test.

Deception is also involved when the experimenter gives a veridical picture of the general purpose of the test, but fails to mention its special purpose, for example, to gauge the subject's current level of sexual arousal. A simple interview often contains an even more subtle element of deception. As Edward Shils (1959) has pointed out, interviewers express concern about the establishment of "rapport" with the respondents. Techniques for establishing rapport frequently involve procedures for gaining the confidence of the respondents by behaving in a pseudo-friendly manner, thus seducing them into "voluntarily" revealing themselves under false pretenses.

The social psychological experiment usually involves more brazen forms of deception than simply pretending to be friendly. Often, the deception is innocuous, designed to either ascertain the subject's reaction to a particular untrue event or merely keep the subject from guessing the true purpose of the experiment. An example of innocuous deception is the typical communication-persuasion study (e.g., Hovland and Weiss, 1951), in which the experimenter deceives the subject by attributing a statement to a false source. We consider this innocuous because, so far as the subject is concerned, it is usually of little consequence whether a particular communicator did or did not make a particular statement.

Is deception that is truly innocuous harmful to subjects—even if there are no stressful or difficult aspects to the procedure? Most critics of social psychological experiments take it for granted that simply lying to subjects produces harm to them or to their perception of the psychological enterprise (Baumrind, 1985; Kelman, 1968), but, in fact, there is no empirical evidence to support the claim that deception per se is any more harmful than nondeception experiments. In a recent review of the literature, Christensen (1988) points out that follow-up interviews of subjects in deception experiments consistently reveal that surprisingly few subjects feel that they were harmed by the deception. Indeed, interestingly enough, in those rare instances where the effects of deception have been studied systematically, the general finding is that subjects are actually happier with deception experiments than with nondeception experiments. For example, Smith and Richardson (1983) found that subjects who participated in deception experiments reported that they enjoyed the experience more and received more educational benefit from them than subjects who participated in nondeception experiments. This may be because deception experiments are usually more interesting than nondeception experiments. It may be because experimenters are more likely to talk to subjects about their experiences after an experiment involving deception. It may be that in *most* experiments the major "harm" that might befall a subject is boredom, and subjects in deception experiments are less bored!

It has been suggested that we should not take our subjects' statements at face value when they say they didn't mind (or even liked) a deception experiment because they are only trying, consciously or unconsciously, to please the experimenter (Baumrind, 1985). It is true that we should ask these questions carefully in the course of a genuine conversation (see Chapter 10). But if we do so, then we should also respect our subjects enough to take what they say seriously, and not prejudge their responses because of our own attitudes about deception.

But this should not lull us into complacency, because not all deception experiments involve procedures that are innocuous. Suppose the deceptive procedure leads the subject into a situation that causes anguish, distress, or discomfort. When this happens, we are on dangerous ground; all the ethical problems discussed in the first part of this chapter become even more problematic because the use of deception wholly or partly precludes the use of the basic safeguard of the nondeceptive stressful experiment: namely, the informed consent of the subject. In the Asch experiment, a subject had no way of knowing that an apparently straightforward "perceptual judgment" study would lead to a situation of being forced to decide between being a publicly visible deviant or a sellout to personal convictions. We might consider that the increased self-awareness provided by the experiment was a valuable educational experience, but it is an experience which the subject, when volunteering for an experiment on visual perception, could not foresee. It was not part of the bargain. We would argue that any procedure that induces subjects to confront some unpleasant aspects of themselves should raise researchers' deep ethical concern. Although the researcher might insist that such procedures are "therapeutic" or "educational" for subjects (indeed, many *subjects* have made this point), this reasoning does not, in and of itself, justify the procedure. First, the experimenter could not possibly know in advance that it would be therapeutic for all subjects. Second, even if experimenters were omniscient in that regard, they have no special right to expose unsuspecting people to disturbing facts about themselves in the name of education, even when personal insights thereby obtained might be "good for them."

It could be argued that the results are good or useful for society even though the procedure may be harmful to some of the subjects. Again, this does not in and of itself justify the procedure unless the subjects themselves are in a position to weigh societal benefits against individual discomfort. It should also be clear that an ex post facto defense is not adequate. That is, suppose an experimenter puts a subject through some very stressful experiences and then finds *afterward* that all subjects attest that they are glad they participated and would still have agreed to participate if they had been properly informed in advance. Some subjects might be attempting to justify having gone through an arduous experience (see Aronson & Mills, 1959). Once a stressful experiment is over, an ex post facto endorsement is ambiguous at best.

Earlier we used the word "bargain." This word was not chosen casually, for it is this concept which is at the heart of the ethical dilemma faced by experimental social psychologists. Whether or not deception is innocuous, if subjects have not consented in advance to allow the experimenter to manipulate and observe a specific aspect of their behavior, their privacy is being invaded. They no longer have the opportunity to decide what personal information they will disclose to the experimenter. This is no less true if they volunteer for an experiment which might appear to be *more* unpleasant than the real one. For example, in Stanley Schachter's experiments on affiliation (1959), the subjects volunteered for an experiment in which they were told that they would receive some painful electric shocks. This did not happen; instead, the experimenter observed how their *fear* of the shock affected their tendency to affiliate. The subjects almost certainly sighed in relief when they were told that they weren't going to be shocked after all. Nevertheless, they had not been forewarned that the experimenter was going to observe the effect of fear on their desire to be with other people. They had no opportunity to decide whether they wanted to participate in an experiment on fear and affiliation, because they did not find out that that was what the experiment was about until after they had already participated.

During the past several years, moral philosophers have entered the controversy and have suggested some solutions to the problem of informed consent. Although creative, these suggestions strike us as impractical in the extreme. One example will suffice. Soble (1978) has suggested a technique known as "Prior General Consent Plus Proxy Consent." In this technique, the experimenter first obtains the general consent of the subject to participate in an experiment that may involve extreme procedures. The subject then empowers a friend to serve as a proxy, that is, to examine the details of the specific procedure in advance and to make a judgment as to whether the subject would have consented if given the choice. If the proxy says "yes," the experimenter may proceed. Although this technique may be ethical in the most technical sense, it has some obvious ethical and methodological flaws. First, subjects are still agreeing to something they cannot possibly understand: The proxy can be wrong. Second, it is reasonable to assume that most proxies will make conservative errors, that is, they will try to protect the welfare of the subject by being more cautious than the subject would have been. If that is the case, and a substantial number of proxies say "no," we may end up with a sample of extreme and unknown bias. Third, this cumbersome and rather dramatic procedure may have more impact on the subject than the actual experiment, thus distorting the subjects' responses (Adair, Dushenko & Lindsay, 1985). Finally, one may have ethical qualms about placing this burden of responsibility on the proxy.

Although it is not always possible in social psychological experiments to obtain the subject's informed consent, at least it is possible to ensure that the personal information obtained in studies entailing a partial invasion of privacy will be kept completely confidential. Confidentiality is by no means a remedy for the ethical problems of social psychological experiments, but it is an important safeguard. In experiments in social psychology the subject can remain

onymous, except to the experimenter. That is, social psychologists tend to interested in general principles of human behavior rather than in the behavr of any specific individual: in aggregate data, not individual responses. Conequently, only the experimenter will ever be aware that a particular person ehaved in a certain manner. Moreover, the experimenter has absolutely no nterest in linking the person to the behavior. At the close of the session, the ubject's data can be transferred to a coded data sheet that contains no names, o that no one can know whose data they are. The very impersonality of this rocess is a great advantage, because it precludes the misuse of the data hereby obtained. We recommend that any experimenter conducting social sychological research take these precautions to protect the subjects' anonymty. Both before and at the close of the session the experimenter should make ure that the subject understands that all personal information will be kept nonymous.

ALTERNATIVES TO DECEPTION

n the 1960s and 1970s, debates raged concerning the ethics of the use of deception in social psychological experiments. Battle lines were drawn between pponents and proponents of deception research. Opponents described deception experiments as "confidence games" (Forward, Canter, & Kirsch, 1976) nd noted numerous possible dangers of this method (e.g., Kelman, 1967). ome critics also questioned the use of deception on methodological grounds. or example, they challenged the validity of responses provided by hoodinked subjects and even accused experimenters of deceiving themselves in ssuming that subjects are taken in by their clever stratagems. They suggested lternatives such as role playing. On theoretical and methodological grounds, roponents pointed to the many inadequacies of these alternatives to deception (e.g., Aronson & Carlsmith, 1968; Cooper, 1976; Freedman, 1969; West & unn, 1978). As Joel Cooper (1976) so colorfully noted, the debate came to esemble cowboy movies of yesteryear in which the villainous black-clad "bad ays" shot it out with the heroic "good guys" dressed in pristine white. Of ourse, just who were the "good guys" and who were the "bad guys" is not ways clear, for the ethical and practical issues involved in assessing the morality and practicality of deception experiments are myriad and complex. This, deed, is the definition of a dilemma. Are we "good guys" if we protect the bject from experiencing an hour's worth of anxiety or are we "good guys" if e wrestle with our own conscience in order to discover something that might elp us understand an important societal phenomenon such as obedience or nformity or racial prejudice?

As we noted earlier, the use of deception *does* raise serious questions about e rights of subjects and the invasion of their privacy. When deception is emoyed, crucial information is withheld from subjects, or specious information provided to them. Under such circumstances, it is impossible for subjects to ovide consent that is truly informed. Accordingly, the investigator should

not embark on a deception experiment without first exploring the possibilities for studying the same question or testing the same hypothesis without deception. Going beyond this recommendation that specific alternative procedures be considered for specific experiments, some psychologists have proposed more *general* procedures as an adequate substitute for deception across a variety of experimental situations. Some research has been done to evaluate the efficacy of these alternative procedures (e.g., Holmes & Bennett, 1974; Miller, 1972a; Willis & Willis, 1970). Despite "mixed results," however, interest in the potentialities of these new, nondeceptive techniques has increased with the concern about the ethical implications of traditional deception experiments.

Role Playing

Perhaps the most frequently cited alternative technique is the **role-playing** situation, simulation, or "as-if" experiment, in which subjects are asked to behave as if they were in a particular situation. Typically, the experiment is explained to the subjects in advance, and they are asked to behave as they would behave if the situation were real instead of experimental or as if they did not know the purpose of the research. This approach attempts to enlist the subjects' aid in actively and conscientiously collaborating with the experimenter. An increasing number of psychologists concerned about the dehumanizing aspects of deception research recommend the role-playing approach.

An early example of this approach is provided in a study by Milton Rosenberg and Robert Abelson (1960). These investigators asked each subject to play the role of the owner of a department store. The subjects were then presented with a set of attitudes that, as a store owner, they were supposed to hold. These attitudes were purposely arranged so that an inconsistency of one sort or another appeared somewhere in the set. For instance, all subjects were told they should set a positive value on keeping sales high; one group was then told that they should feel negatively toward modern art and positively toward Fenwick, the manager of their rug department. (Other groups were fed different attitudes about Fenwick and modern art). All subjects were then given beliefs to the effect that (1) displays of modern art reduce sales; (2) Fenwick plans to use a display of modern art in the rug department; and (3) under Fenwick's management the volume of rug sales has increased. Finally, the subjects were asked to estimate their new attitudes after assimilating this information. As predicted, the results showed that people choose the simplest paths toward resolving unbalanced cognitive structures.

This experiment has the great virtue of not requiring deception. It also has a fairly high degree of mundane realism, in the sense that these things might actually happen to people, whether or not they own a department store. Indeed, it is frequently argued (Brown, 1962; Kelman, 1968; Schultz, 1969) that this procedure is actually a better technique for carrying out experiments than are the more elaborately staged experiments of the kind we have been discussing—that is, experiments in the tradition of Asch, Milgram, or Aronson and

Mills. As Brown (1962, p. 74) put it, "We believe that a role-playing subject will behave in a way that corresponds more closely to the life situation than a hoodwinked subject will."

There are some very serious difficulties with this point of view, however, and these difficulties are similar to the problems arising from introspective reports, which we discussed earlier. First, when we ask subjects to predict how they would behave in a given situation, they may well be unable to do so in a veridical fashion. If they have not actually experienced a similar situation, their basis for predicting what they would do is probably no better than the experimenter's. Second, even if they *have* experienced a similar situation in the past, they face at least two additional cognitive tasks: (1) to recall accurately the last time they were in a similar situation; and (2) to decide what they should say or do in the *current* situation, given their assumptions about what the experimenter expects, and their desire to appear competent, psychologically healthy, and otherwise socially desirable.

In an experiment that involves deception, it is possible to arrange events which have an impact on the subject. The subject, involved in an ongoing situation which requires a response, often must act without sufficient time to think things over and without fully understanding the implications of various alternative responses. In a simulation study, the subject is typically not faced with the same impact or the same pressures, and it is asking a great deal to request that the subject pretend to be in a new and unfamiliar situation and to make correct inferences about how he or she would behave. Regardless of how well motivated, the subject can only guess. Jonathan Freedman (1969, p. 111) forcefully points out the basic difficulty with these kinds of data:

> The argument comes down to the simple truth that data from role-playing studies consist of what some group of subjects guess would be their reactions to a particular stimulus. The subjects are giving their intuitions, their insights or introspections about themselves as others. If you are studying the myths and values of a society this data would be useful. If you want to know how people behave, it is, at best, suggestive. If you are interested in people's intuitions, fine; if you are interested in their behavior . . . , you must ordinarily use the experimental method. Just because a significant number of subjects have the same intuition about something does not make them correct. We must rely on real data, not on opinion surveys. Consensus is not truth.

Essentially, the problem boils down to the fact that we have no way of knowing whether the subjects' guesses are accurate. In many situations we might actually expect subjects' statements about themselves to be inaccurate. First, if asked to predict their behavior in a completely unfamiliar situation, subjects may have no idea what they would do. Second, even if they were able to predict accurately how they would behave in some hypothetical situation, they might decide that this behavior would be too peculiar, and they would therefore give the experimenter a more reasonable response. We have no reason to assume that a subject will perceive the consequences of telling the truth as more attractive than the consequences of giving a "good," or "reasonable," or "intelligent" answer. In general, we might predict the subject's perception to be just the reverse. The response might stem from fear that the experimenter might think the subject strange for responding in an apparently unconventional way. Or, it might stem from a desire to help the experimenter. Thus, a response may well reflect what the subject thinks most people would do, even though that is contrary to what the subject would in fact do.

Let us be more concrete. Suppose that we ask a male subject to role-play a situation in which he is seeking a date. We tell him to predict for us how he would respond when faced with a choice between a moderately attractive woman and a stunning woman. Let us imagine that in a real situation this particular subject would, out of shyness, a low level of aspiration, or bad prior experience with stunning women, choose the moderately attractive woman. Being reasonably self-aware, he realizes that he would make this choice. Nevertheless, he might feel that most people would choose the very stunning woman. In order to appear normal and to avoid having to make embarrassing explanations, he might tell us that he would choose the very stunning woman. Thus, when the prevalent belief in the folk culture is that most people do X, a subject may respond "X," knowing that she or he does not do X but believing that it is an accurate description of human behavior the experimenter wants the subject to provide.

Several investigators have suggested that subjects are very sensitive to and concerned about the experimenter's opinion (Riecken, 1962; Rosenberg, 1965). Others have shown that subjects tend to be cooperative and "help" the experimenter whenever possible (Orne, 1962). Finally, subjects often perceive an experiment as a testing situation and are motivated to "look good": to conform to the image of a healthy, intelligent, mature person (Silverman, Shulman, & Wiesenthal, 1970). Harold Sigall, Elliot Aronson, and Thomas Van Hoose (1970) found that this motivation to present a favorable image tends to override the desire to help the experimenter or confirm the experimental hypothesis. In their experiment, subjects in one condition were faced with a situation in which "cooperation" demanded one response and "looking good" demanded the exact opposite response. Subjects did not cooperate in this condition. The authors concluded that "subjects looked as though they were cooperating only when such 'cooperation' resulted in good, effective behavior" (1970, p. 7; see also Greenberg and Folger, Chapter 6). It should be clear that the problem is a particularly sticky one when, as in the case of the Rosenberg-Abelson (1960) experiment, the actual hypothesis involves a course of action which makes sense for most people. In this kind of experiment, we are always faced with the possibility that our data are nothing more than the opinions of a sample of people about how most people would behave in a given situation—as Freedman (1969) has noted, it would be establishing truth by taking a poll.

Although the simulation experiment may possess a certain degree of mundane realism (see Chapter 2), it is usually totally lacking in experimental realism. We can conceive of a continuum of realism ranging from a situation in which subjects merely play a role, attempting to predict how they would

behave in some situation, to the other extreme, a situation in which subjects are totally unaware of being in an experiment and instead are faced with a social situation to which a response must be made. Let us illustrate this continuum by giving some examples of how the Asch experiment might have been carried out in different ways.

At one end of the continuum one could describe the situation and ask the subjects to predict how they would behave. Our guess is that many fewer people would conform in this situation than in the experiment as Asch ran it. Indeed, to take a parallel case, Milgram (1973) asked a group of undergraduates (from the same population used to recruit the actual subjects in some of the experiments) to predict how many subjects would obey the experimenter and continue delivering shocks until the highest level had been reached. The highest estimate was 3 percent whereas in the actual experiment 65 percent of the subjects typically persevere through the entire series. A group of psychiatrists asked the same question were no better than the students at predicting the behavior of subjects exposed to the experimental situation (Milgram, 1973).

Returning to the Asch study, a slightly more realistic technique might be to show the lines to the subjects and provide them with false information about how all previous subjects had responded. If they believed the experimenter, this information might cause them some concern, but there would be little pressure on them to conform. More realistic yet would be the situation used by Morton Deutsch and Harold Gerard (1963) and by Richard Crutchfield (1955), in which the subject sees the ostensible responses of the other subjects light up on a panel. Asch's own technique is still more realistic. Here the subject is faced by a number of confederates, all of whom state their judgment while the subject watches, leaving the subject to state a judgment while being watched by them. Even more realistic would be a situation in which the subject was not in a laboratory and was unaware that an experiment was being carried out but was faced with the same type of contradiction as in the Asch experiment. Here, mundane realism would increase the experimental realism of the situation.

It is reasonable to argue that as experimental realism and deception increase, the ethical problems become more serious. Precisely because we may be discovering aspects of behavior which the subject might not wish to disclose (or might not even be aware of), we must worry about the fundamental ethical problems. To us, it does not seem reasonable to argue that role-playing experiments, which mitigate these problems, are also superior methodologically. The reason that a dilemma exists for the experimental social psychologist is precisely that the methodological adequacy of an experiment tends to be inversely related to the protection of the subject's right to withhold information. Enough data have already been collected on this question to indicate that it is foolish to assume that role playing or self-reporting automatically provides an accurate representation of the subject's behavior in a corresponding real-life situation. In a classic study conducted more than 40 years ago, La Piere sent out questionnaires to a large number of hotel owners, asking whether they

accepted Chinese guests. More than 90 percent of the hotel owners who returned the questionnaires indicated that they would refuse accommodations to Chinese. La Piere then traveled about the country, accompanied by a Chinese couple, and visited the same hotels to find out how well their stated policies corresponded with their actual practices. He found, to his surprise, that the Chinese couple was accepted by 99 percent of these hotels. La Piere concluded that a self-report "may indicate what the respondent would actually do when confronted with the situation symbolized in the question, but there is no assurance that it will" (1934, p. 236).

It has been argued that simulation studies have demonstrated their usefulness in that they have succeeded in producing orderly results (Kelman, 1968). But order is no substitute for validity. It is quite possible that people's ideas about behavior are simpler and *more* orderly than their actual behavior. Indeed, there are convincing reasons—both theoretical and empirical—to expect this to be true. Social cognition researchers (e.g., Markus & Zajonc, 1985; Nisbett & Ross, 1980; Tversky & Kaheman, 1973, 1974) have cogently argued that there are strong simplifying strategies or biases built into the ways people interpret and reason about the social world. One such bias is that we tend to assume much more interpersonal consistency than actually exists (Kelley, 1967). That this bias extends to perceptions of behavior in experimental situations is demonstrated in a study by Anthony Doob (1967), in which he found that subjects' guesses about how people would behave in an experiment were "more orderly than the data that were produced by these same subjects when they did not know that it was all make believe" (p. 31). Thus, subjects' honest verbal responses may show a gratifying consistency while bearing little resemblance to their own behavior in an actual situation.

Another example of the inaccurate simplicity of role-playing subjects' responses lies in their ability to mirror only "obvious" findings obtained via deception experiments. That is, subjects might well be able to "predict" the main effects of one or another independent variable, but subjects are seldom capable of predicting the more subtle interactive effects of two or more independent variables (Miller, 1972a). For example, Richard and Yolanda Willis (1970) compared the responses of role-playing and involved subjects in a conformity experiment. They found that role-playing subjects duplicated the responses of subjects who were actively engaged in events in the laboratory only when the main effect of one independent variable was assessed. The subtle effects of a two-way interaction which influenced involved subjects were totally lost on subjects who only played the role of someone responding to conformity pressures.

What if a role-playing study does produce results similar to those found in a previous deception experiment? Some investigators have succeeded in obtaining data from role-playing experiments that replicate the results of the corresponding deception experiments (e.g., Bem, 1965; Greenberg, 1967). For example, Bem has carried out successful role-playing replications of several cognitive dissonance experiments, including the Festinger and Carlsmith

forced-compliance experiment. In Bem's role-playing simulation of this study, subjects were told that they were participants in an experiment designed to "determine how accurately people can judge another person" (1968, p. 250). The subjects listened to a tape recording that described the experience of Bob, a subject in one of the conditions of the Festinger-Carlsmith experiment. The tasks were described, and the subjects were told that Bob had accepted an offer of $1 or $20 to tell the next subject (and occasional future subjects) that the tasks were fun and exciting. The subjects then heard a tape recording supposedly of Bob telling the waiting subject about the tasks. After listening, they were given the same scales that the subjects in the original study had filled out and were asked to rate the tasks as Bob would have rated them. The new subjects accurately guessed how the subjects in each condition of the original experiment had responded. Thus, Bem successfully replicated the Festinger-Carlsmith study without using any deception.

There are problems with this line of research, however, that indicate that even successful replication does not prove that role-playing studies have the same meaning as their non-role-playing counterparts. Although Bem was successful in deciding which aspects of the situation to make salient in order to replicate the original results, other authors, providing additional information about the experiences of the subjects in the original experiment, were not able to replicate these results (e.g., Jones, Linder, Kiesler, Zanna, & Brehm, 1968). Whether a role-playing study produces results equivalent to those of an experiment apparently depends on subtle features of the role-playing situation. Without the original study as a criterion, there is no way of guessing the adequacy of the simulation. We cannot know in advance whether the results of role-playing study will correspond to those of a comparable study that does not involve role playing. Thus, in order to be sure of the validity of a role-playing study, it is always necessary to perform the corresponding non-role-playing experiment, and the purpose of simulation as a substitute for deception is defeated.

A Role for Role-Playing Studies

We do not mean to condemn all uses of role-playing studies. They are useful for generating new ideas and hypotheses, for exploring subjects' beliefs about the way people behave, for studying the accuracies and inaccuracies in their processing of social information, and for making inferences about the salience and influence of various aspects of an experimental situation. Indeed, the present burgeoning interest in attribution and other varieties of social cognition research is primarily concerned with people's beliefs about behavior and the ways they use and misuse social information in making inferences or decisions. Of course, even in these kinds of studies, it is impossible to be sure that a person's social belief or social judgment corresponds to such beliefs or judgments in the face of actual behavior *unless* we examine her or his responses in both situations. For example, the goals of subjects in social judgment studies are often different from their goals in their interactions with other people (Swann, 1984). In the laboratory, they are often exposed to social information and asked to make global predictions or judgments in order to answer the experimenter's question. However, in the real world—and in the typical impactful deception experiment—people are less motivated to make accurate global predictions, and more motivated to make accurate specific predictions in order to respond adaptively to the behavior of others. Furthermore, subjects asked to make social judgments in the sterility of the well-controlled laboratory situation are exposed to different information than is provided by live interactions. This discrepancy in the amount and kind of social information conveyed to subjects (in role-playing versus impactful deception experiments) can serve as a kind of experimental artifact, one which generates systematic differences between the behavior of role-playing subjects and involved subjects, differences which, according to some (e.g., Funder, 1987; Swann, 1984), tend to underestimate people's ability to process social information accurately.

Finally, we should make it clear that the kind of role-playing situation we are most concerned about is the situation in which the subjects are told *what variables* the experimenter is interested in and asked to say, or act out, how they would respond to those variables. This is asking for an opinion on our hypothesis, and may have a direct impact on the internal validity of the study. The situation in which subjects are asked to play a role (for example, to participate on a mock jury, *unaware* that the experimenter is manipulating jury composition, or the attractiveness of the defendant, or some other variable) is less risky. Here the external validity of the study is an open question (can we generalize these results to real juries?), but the internal validity (can we trust our results?) is not subject to the distortions of role-playing subjects.

In the future perhaps we will have a way of knowing in advance when subjects' role-playing or social judgments *in* the laboratory are similar to behaviors or judgments *outside* the confines of the social psychological laboratory. Such a comprehensive theory of role playing would enable researchers to delimit the validity of role-playing studies. According to Freedman (1969):

> If such a theory were proposed, extensively tested and supported by data, it would presumably be possible to have considerable confidence in appropriate role-playing studies. If we trusted the theory, we would trust the data that came from those role-playing studies which it predicted would coincide with experimental studies. Under these circumstances, role-playing could substitute for experimental procedures.

Unfortunately, we are a long way from having such a theory. For the time being, since we don't know when we can trust simulations, we cannot regard them as adequate alternatives to non-role-playing experiments or as reliable predictors of subjects' behavior when faced with the stimulus in question.

Mutual Disclosure

A second type of alternative to deception that has been suggested (Jourard, 1968; Kelman, 1968; Schultz, 1969) is simply to increase the amount of truthful communication between the experimenter and the subject during the course of the experiment. At the most conservative level, application of this principle might simply involve disclosing to the subject that full information about the experiment will be given only after it is over, asking the person to behave "normally," and reiterating that all the relevant information will be given and any questions answered at the end of the experiment. This is a reasonable suggestion, which essentially involves making the "contract" between the experimenter and the subject explicit. At the other extreme is Sidney Jourard's (1968) proposal for free experimenter-subject dialogue, in which the experimenter first discloses the general purpose of the experiment, a personal conception of the meaning of the experimental operations and the dependent variable measures, and assumptions about what they reveal and then solicits the subject's statement of the meaning of the operations and measures. The basic rationale behind this procedure, for which there is some evidence (Jourard, 1968), is that the amount and validity of a subject's self-disclosure to the experimenter is a function of the amount of the experimenter's disclosure. The subject's role is one of "collaborator" rather than of "object"; in some ways this role is similar to that of subjects in Wundt's and Titchener's early studies of consciousness.

This collaborator role is also similar to the situation we have recommended for pilot experiments and postexperimental interviews. A great deal of mutual benefit can be derived from a free and open dialogue between the experimenter and the subject. In addition, from the experimenter's point of view, such an interaction is also frequently less strenuous and more gratifying than carrying out a deception experiment, and it is with some wistfulness that we read suggestions for the application of this technique throughout an experiment. But we have reservations. Most important is the probability that the addition of a supportive, self-revealing dialogue to a given stimulus situation will change the whole nature of that situation. Jourard himself suggests that such dialogues are rare and valuable occurrences in everyday life. If this is so, the inclusion of such an event in an experiment will inevitably have a profound effect on the subject's perceptions and interpretations of the situation, and we would not be justified in generalizing the subject's reactions to the same situation experienced alone. Most experimenters in social psychology want to be able to generalize to real-world situations in which subjects cannot ask the meaning of things that happen to them or the intentions of people they meet and also expect to receive a full an honest answer before they have to respond. If they could, they might respond differently. If, as social psychologists, we are interested in how people behave when they have insufficient time or motivation for the conscious analysis of the nature of the stimuli or the implications of their response alternatives, when there is no omniscient helper whom they can ask for explanation, when they have no opportunity to explain and

qualify the meaning of their behavior, we have to let subjects fend for themselves in the experimental situation. After the experiment is over, we can engage in a mutually revealing dialogue with the subjects, trading interpretations, explaining our purposes to each other, and perhaps achieving a relationship of the sort Jourard describes.

This is not to say that the method of mutual disclosure is inappropriate for experimentation in social psychology. There are questions that may be profitably explored using this technique, just as there are situations in which role playing can be usefully employed. Indeed, to do justice to Jourard, he is basically concerned with a different question from those we have been discussing in this book. We have been dealing with questions involving the conditions and variables that typically affect human behavior, whereas Jourard is concerned with the atypical instances when behavior is not controlled by the usual constraints. The procedure he suggests may be a means of creating such instances. As such, it could be a useful and valuable technique, but it is obvious that it is not universally applicable to social psychological problems. No single technique will answer all questions, and one of the most important steps in conducting a study is to find a procedure that is appropriate for the question asked.

DEBRIEFING

Whether or not deception is employed, the experimenter is obliged to go to great lengths to protect the subjects' welfare. An important opportunity for doing so is the postexperimental session. In a typical deception experiment, the experimenter will (and should) spend more time with the subject after the experiment is over than during the experimental session itself. Much of this time is spent in describing the nature of the experiment and the reasons for the deception.

But it is not that simple. Debriefing following a deception experiment is not simply a matter of exposing a subject to the truth. There is nothing magically curative about the truth; indeed, if the truth is harshly or hastily presented, it can hurt the subject more than no explanation at all. There are vast differences in how debriefing sessions are conducted, and these differences are of crucial importance in determining whether a subject is uncomfortable after the experiment.

Many effective debriefing techniques exist. Here, we will talk about those aspects of the debriefing session that are designed to minimize the uneasiness caused by the use of deception. Perhaps the most essential aspect of the process is that the experimenter communicate both sincerity as a scientist seeking the truth and awkwardness about the fact that it was necessary to resort to deception in order to arrive at the truth. No amount of postexperimental gentleness or sensitivity is as effective in relieving a subject's discomfort as an honest account of the experimenter's *own* discomfort in the situation. Although no one enjoys being deceived, much of the displeasure may stem from

a feeling that one's deceiver is feeling smug about it. Therefore, we recommend that the experimenter frankly explain that the deception was necessary (if it really was, the subject will understand this) and express regret about this necessity. The experimenter should make it clear to the subject that there was no other way to test the experimental question in a satisfactory manner. It is also important to provide the subject with an account of the experiment and the reasons the experimenter thinks it is worthwhile, in order to allow the *subject* to decide whether it was valuable. Obviously, it would be presumptuous for the experimenter to make light of the subject's uneasiness or to suggest that everyone shares the opinion that the scientific ends justify the means. The experimenter has no right to assume that this commitment to science is shared by the subject.

Although a careful and thorough debriefing procedure is costly in terms of time and effort, it is well worth the price; it is our experience that the vast majority of subjects gain understanding of the complexity of experimentation and actually become enthusiastic about the research process in general, and about the specific experiment in which they participated, as a direct result of the debriefing process. Debriefing also has the advantage of serving an educational-didactic purpose, which results in some compensation to the subjects for their services. We will discuss our recommendations for the content of the debriefing session in more detail in Chapter 10. For now, let us sum up by saying that whether or not deception is employed in an experiment, a sensitive and thorough debriefing is an essential component of any study. Moreover, whether or not subjects experience pain, discomfort, or embarrassment during the course of their participation, they have contributed to our understanding of human social behavior. Experimenters are ethically if not morally obliged to "return the favor" by explaining to subjects the questions in which we are interested and the reasons underlying the methods we used to answer them and, finally, to relay to subjects just what it is they have helped us discover about social behavior. After all, yet another way to conceive of social psychological experiment is that of an opportunity for the exchange of knowledge between subject and experimenter.

THE RELATIONSHIP BETWEEN THE SUBJECT AND THE EXPERIMENTER VIEWED AS A CONTRACT

Suppose deception has been employed. No matter how skillfully the experimenter may explain the treatments and reestablish rapport with the subject at the close of the experiment, the fact remains that the subject has been deceived, and no amount of restoration can erase the experimenter's dishonest behavior. Most experimental social psychologists are uncomfortable with this ethical burden but are willing to accept it. They feel that if a deception experiment is the only way to discover something of real importance, the truths so discovered are worth the lies told in the process, so long as no harm befalls the subject. The experimenter can also take comfort in the knowledge that in most

cases the subject, although not aware of the true purpose of the experiment, at least is aware of *being in* an experiment. The person knows that his or her relationship to the experimenter is that of subject. Indeed, the two principals are—in effect—parties to an experimenter-subject contract. The possibility that deception will be used can be considered one of the implicit clauses in this contract. A significant number of subjects—although not aware that there is deception in a given experiment and certainly not cognizant of the nature of that deception—nevertheless have an inkling that things often are not what they seem in psychological experiments. This is not to imply that the subject is simply playing a game with the experimenter or is spending time in the experiment generating specific hypotheses about the nature of the research. The situation is much more ambiguous. Although aware that some of the relevant information is missing, the subject may simply experience the situation without stepping back during the actual experiment to analyze the experimental events. This behavior is somewhat similar to that of the "faithful subject" described by Stephen Weber and Thomas Cook (1972). Thus, in debriefing subjects, most of us will hear an occasional person say, "Yes, I had a feeling that there might be something more involved in the experiment, but I didn't know what it might be." In short, subjects are not shocked or even surprised that they were deceived. They seem to accept deception as part of an implicit bargain. Many experimenters find it desirable to make this implicit clause explicit by telling the subject in advance that some aspects of the experiment cannot be explained at that time and may be slightly different from what they appear to be. Indeed, Weber and Cook find that this sort of introduction may enhance the probability that subjects will adopt the "faithful subject" role.

In a few experiments, investigators have used the supposed "debriefing" session as a suspicion-free opportunity to introduce further experimental manipulations. We are opposed to this procedure on both moral and practical grounds. One of our major objections to the use of a false debriefing session to introduce deceptive manipulations is that the possibility of deception in the midst of the debriefing is *not* a part of the implicit contract. Most subjects assume that a distinctly different phase of their interaction with the experimenter is signaled by the experimenter's announcement that the experiment is over, a phase in which complete honesty is to be expected. Most experimenters encourage this assumption. If experimenters continue to violate this aspect of the contract, subjects will have no way of knowing for sure when the experimenter is telling the truth and when expressed sincerity might be a further ploy. Similarly, they will be unable to be certain when it is safe to disclose their inner thoughts about the experiment without these thoughts being used as data. This is clearly unethical. On a practical level, once subjects realize they have been deceived, if they know that it is possible for a debriefing session to serve as a clever contextual device for fooling them *again*—perhaps even for eliciting their inner feelings in order to *use* them as part of the experiment—they will understandably hesitate to reveal much to the experimenter during the postexperimental session.

This might seem like hairsplitting. Isn't deception simply deception? Shouldn't we be consistently "for" or consistently "against" it? We don't think so. We believe that the implicit contract is important, and an illustration will clarify our position. Suppose that a subject volunteers for an experiment on group problem solving and that the experimenter assigns a routine task to a male and a female subject. In the course of their performance of that task, the experimenter leaves the room, and the female subject, who is very attractive, begins to flirt with the male subject. Suppose further that the woman is really a confederate of the experimenter and that the purpose of the experiment is to observe the subject's response to flirtation. Admittedly, such a situation is highly deceptive. But this is tempered by the fact that the subject came into the room willingly in order to participate in a psychological experiment. Compare this with a situation in which the confederate approaches the subject outside a classroom—in the dining hall or in his dormitory—and engages in the same kind of flirtatious behavior. As soon as he makes a pass, the young woman explains that it was all an experiment and hands him a 25-item questionnaire. The latter situation has certain naturalistic advantages, but many experimental social psychologists might prefer to avoid it on the grounds that the subject has not entered into a contractual relationship. If the questionnaire is the dependent variable measure, the subject can, of course, refuse to answer the questions. But if the dependent variable is some behavior which the confederate observes before telling the subject about the experiment, even that protection is denied him. This procedure is more extreme than either a naturalistic observation study in which subjects' behaviors are observed without their knowledge but is not manipulated, or a laboratory deception experiment, in which subjects have tacitly invited the experimenter to observe their behavior but are unaware of which aspects are being revealed. The naturalistic flirtation study raises additional ethical problems, since the concept of the experimental contract is no longer applicable.

ETHICS IN THE FIELD

From the foregoing, it should be apparent that the experimenter who wants to conduct an experiment in the field faces an additional ethical problem that does not arise in laboratory experimentation: The subjects are often unaware that they are in an experiment. The field experimenter cannot take comfort in the concept of a contractual understanding. It may not be possible to obtain informed consent. The problem is serious and perplexing, and the experimenter should consider the consequences with care.

Before considering different aspects of this problem in detail, we should point out that the line between a successful laboratory experiment in which deception is employed and a field experiment in which the subjects are unaware that they are subjects is not always as clear as it may seem. To some extent one technique slides into the other. Some of the most effective laboratory manipulations are those in which we succeed in presenting the independent variable as an event unrelated to the experiment, a nonce event that has nothing to do with the research or the experimenter's purpose. If the experimenter is completely successful, the subject will see the treatment as something which happens outside the context of the experiment and will be unaware of the dependent variable measure. The situation is analogous to a field experiment: If the manipulation of the independent variable and the measure of the dependent variable are seen as unrelated to the experiment, subjects will be unaware of being a subject during the very time that their behavior is influenced or measured—in other words, during the real experiment. The subject may, in fact, be unaware that the experimental "contract" is still in effect. The problem is not quite as extreme in the laboratory as it can be in a field experiment, since the subject has at least agreed to provide data for the experimenter, but the two situations are more similar than might appear at first glance. Indeed, in some laboratory experiments the subject may believe that the most crucial parts of the experiment are not parts of the experiment at all.

For example, in a classic experiment by Leon Festinger and Merrill Carlsmith (1959), the subject was required to spend an hour working on a dull, repetitive task: turning pegs a quarter turn at a time or packing spools in a box, and starting over again from the beginning each time the task was completed. At the end of the hour, the experimenter, somewhat agitated, came in and explained that the subject scheduled for the next hour was supposed to be given a positive expectation about the enjoyability of the task and that the assistant who normally provided that expectation by describing the task in glowing terms had not shown up. Apparently as a last-ditch measure, the experimenter then asked if the subject would perform the assistant's job and tell the next subject that the task was fun and exciting. Subjects were paid either $1 or $20 to take on the role of substitute assistant for the next subject and for any future occasions when the regular assistant could not make it. After describing the experiment to the "next subject" (actually a confederate), subjects were asked to indicate their own opinions of the task. The experimenters predicted that subjects who had been paid only $1 would like the task more, since the only way to reduce the inconsistency between their unfavorable initial impressions and their favorable verbal descriptions of the same task was to decide that the task was not so bad after all.

In many cases field research may use as a dependent variable information in the public domain. In such cases, the subject's lack of informed consent may not be a serious problem. For example, G. W. Hartmann (1936) studied the effects of different types of political advertisements by using one type in one voting precinct and another in a different precinct. The percentage of people voting for a particular candidate in a particular precinct is publicly available. Moreover, there is certainly nothing to prevent an experimenter from circulating political advertisements (especially if they are consistent with private beliefs and conform to normal standards for political campaign material).

The factors that should be taken into consideration in deciding whether to run a given deception experiment apply equally well to field experiments.

First, there is the availability of alternative modes of studying the same question. This is not always a useful consideration in the decision of whether to conduct a field experiment, however. Often, the decision to do a field experiment instead of a laboratory experiment is reached after alternative procedures have been considered or actually used. In some cases the investigator decides on the field experiment after concluding that there is no adequate way of conducting a given study in the laboratory. For example, recall the field experiment by Harris (1974) in which she measured the amount of aggression displayed by people when confederates stepped in front of them as they stood in line in banks, stores, and restaurants. Subjects in the field were undoubtedly less self-conscious than subjects who might have had a similar experience under the watchful eye of an experimenter. It is therefore likely that their responses to the intrusion were more genuine and therefore more valid. Thus, the possibility of an alternative mode has already been explored independently of ethical considerations. In addition, in some cases the investigator is specifically interested in the applicability of some theory or findings *outside* the laboratory, in which case any nonfield alternative will be irrelevant. Nonetheless, the additional ethical problems of field research should be considered in choosing a setting; if they raise any serious questions, the possibility of a laboratory setting should be explored.

Second, there is the consideration of the merit of the research. As we have mentioned repeatedly, the importance and merit of an experiment are difficult qualities to measure. The best we can do here is to advise that the experimenter be aware of the ethical problems involved and weigh benefits of the proposed experiment against them.

Third, there is the consideration of confidentiality or anonymity of the results. Here, the field experiment has a slight advantage. In a laboratory experiment it is *possible* (though, as we have said, highly unethical) that the experimenter might reveal to someone how a specific person behaved in the experiment. It is also *possible* that this information could have negative consequences for the person. Consider, for example, the subject who delivered the strongest shock in the Milgram experiment. As long as *someone* knows that he did so, that subject's protection is not totally guaranteed. In some field experiments it is impossible for a given person to be associated with a given behavior, simply because not even the experimenter knows the subjects' names. Anonymity can be more easily ensured in such instances.

For example, Anthony Doob and his colleagues (1969) conducted a series of field experiments in a chain of discount houses in order to find out whether the "introductory low price offer" really does increase the final sales of a product. Using an argument similar to that of Aronson and Mills (1959), they reasoned that if customers initially bought the product at a higher price, they would have expended more negative effort and should therefore like the product more and continue to buy it more. The researchers divided the stores into pairs matched on gross sales and randomly assigned one of each pair to the "introductory low price" conditions and the other to the regular price condition. Thus, in one

of the experiments, a new brand of mouthwash was introduced at $.25 a quart in half the stores and at $.39 a quart in the other half. Nine days later the price was brought up to $.39 for all stores. These researchers found—as predicted—that in subsequent weeks more mouthwash was sold in the stores that had *not* used the introductory low price offer. The dependent variable in the experiment was amount of sales, recorded by the buyers as they replenished the stock. There was no way for the experimenters to know which subjects had returned to buy the increased-price mouthwash and which had switched brands; no one even knew who the subjects were. Thus, this experiment ensured complete anonymity for subjects.

Finally there is the consideration of the level of risk involved in field experiments. On the whole, we recommend much lower levels of stress than are allowable in the laboratory; in field experiments in which debriefing is impossible, the level of stress should be negligible. There are many occasions when nature provides noxious experiences, and one alternative for the social psychologist who wishes to study real-world responses to stress is simply to wait for naturally occurring stressful events. An in-between situation arises when it is known that some event is going to happen—a remedial-reading program in a school for example, or a new type of therapy at a hospital—and the psychologist is called in to decide who gets the treatment. Since it is both ethical and methodologically sound to assign subjects at random to treatments whose effects are unknown (see Chapter 1), such a situation can provide useful data on variables that the psychologist otherwise could not or would not control.

However, if the treatment involves some event that is not particularly stressful—some ordinary event that could happen to the subject every day, such as a price change in the local brand of mouthwash—the only difference between this occasion and a hundred similar occasions is that this one is part of a systematic study, and we do not believe that the ethical problems raised by conducting a field study are any more serious than those of many laboratory studies. In both cases, experimenters have an obligation to terminate the research immediately upon seeing any bad effects on the subjects, regardless of what prior evidence might have led them to expect.

In discussing the ethical questions raised in field research, some investigators have suggested the use of modified field studies as an ethically preferable alternative to laboratory deception research. For example, as early as 1967, William McGuire suggested that the social psychologist should take advantage of "natural manipulations" outside the laboratory, employing the best applicable quasi-experimental design for a specific problem in order to approach valid cause-and-effect inferences when random assignment of subjects to manipulated conditions is impossible or inadvisable. This procedure avoids the problems raised by the experimenter's responsibility for events that may be harmful or disturbing to the subject. It is not free of ethical problems, however, for it can exacerbate the problems of invasion of privacy, especially when subjects are unaware that their behavior is being observed for research purposes. Methodologically, it has the advantage of demonstrable

"generalizability" and if subjects are unaware, nonreactivity (i.e., freedom from artifacts due to subjects' knowledge that their behaviors are being measured). For example, if we take advantage of an earthquake or other natural disaster to observe who chooses to affiliate with others, we know that our results apply to at least one nonlaboratory situation, and we can be sure that the subjects' behavior was not caused by their perceptions of what was desirable from the experimenter's point of view. However, this method has the disadvantage of precluding proof of causality, since we do not have control over the "treatment." Once this limitation is accepted, however, field research using quasi-experiments in natural settings and supported by social psychological predictions, conceptions, and theories can offer a useful alternative to laboratory experimentation.

A different means of modifying field experiments has been suggested by Herbert Kelman (1968, p. 225), who raises the possibility of designing field experiments "in which, with full cooperation of the subject, specific experimental variations are introduced. The advantages of dealing with motivations at a real-life level of intensity might well outweigh the disadvantage of subjects knowing the general purpose of the experiment." Although it is difficult to be sure just what sort of event Kelman has in mind, his recommendation seems to mirror the advantages and disadvantages of McGuire's suggestion. That is, the problem of deception and invasion of privacy is eliminated, since the experimenter obtains the subject's fully informed consent and even cooperation. However, the experimenter is manipulating the subject's behavior and introducing potentially distressing or harmful stimuli at a real level of intensity. Generalizability to noncooperative subjects is questionable, and reactivity is likely to be maximal, but if adequate steps can be taken to counteract the dangers of bias and reactivity, the basic design does allow for causal inferences.

The experimenter who employs this procedure because of the advantages of obtaining the subject's informed consent should make an effort to ensure that the subject's consent is in fact freely given. In some contexts, requests made by a psychological experimenter are, by virtue of the experimenter's role, difficult to refuse, even though the subject may have qualms about participating. For example, in attempting to set up a control group for an experiment designed to study the amount of social control exerted under hypnosis, Martin Orne (1962) tried to find a task so boring and pointless that nonhypnotized subjects would either refuse to do it or soon stop working at it. He was unable to find such a task. Subjects willingly spent hours performing page after page of trivial addition and, according to task instructions, ripping up each page as soon as they had finished. Orne concludes that "a particularly striking aspect of the typical experimenter-subject relationship is the extent to which the subject will play his role and place himself under the control of the experimenter. Once a subject has agreed to participate in a psychological experiment, he implicitly agrees to perform a very wide range of actions or requests without inquiring as to their purpose, and frequently without inquiring as to their duration" (1962, p. 77). Although Orne did not use situations that would actually

result in a "severe physical pain or exhaustion," there is no a priori reason to believe that subjects would feel free to refuse to participate in these situations either. Thus, the experimenter who wishes to expose consenting subjects to intense experiences should consider very carefully the meaning of their consent and perhaps allow them an opportunity to refuse gracefully, for example, as we mentioned earlier, by having a confederate present who does refuse the request. By introducing the confederate, of course, we are reintroducing deception into the research. The irony of this procedure is that we are here using deception to make sure that the subject is perfectly free to give an honest refusal.

Which of these two methods of field research an experimenter chooses will depend on their appropriateness for the particular problem to be studied. Each poses a different problem: the possibility of invasion of privacy in the method suggested by McGuire, and the possibility of unwilling "informed consent" in the Kelman procedure. There is no consensus on which of these possibilities is the more dangerous. Some investigators feel that the use of noxious conditions in social psychological experiments is the more serious problem (e.g., McGuire, 1967); others imply that the invasion of the subject's privacy is more important.

ETHICS IN EXPERIMENTS WITH CHILDREN AS SUBJECTS

The use of children as subjects in experimental social psychological research raises some of the same ethical problems as the field experiment does. Typically, the subjects are unaware that they are in an experiment, unaware even that experiments exist. They are completely "naive" subjects, and often this naivete is exactly what attracts the social psychologist to the nursery school in the first place. In general, such an experimenter is not particularly interested in contributing to developmental psychology but simply wants to conduct an experiment involving a deception so transparent that it would be unlikely to convince the proverbial college sophomore. Or the experimenter may be interested in studying some form of behavior which is less strongly inhibited in children than in college students, such as the physical expression of aggression. Or finally, the social psychologist may feel that children are more malleable, more easily influenced than adults. This very malleability, however, may imply that the consequences of the experiment may be more profound with children and thus that even greater caution is necessary.

Another similarity between research with children subjects and field research is that effective debriefing is often neither possible nor particularly desirable. Usually, with very young subjects, the experimenter employs some other means of ensuring that the children do not leave the experimental situation with any feeling of anxiety or inadequacy. It is a good idea to play with the subjects and talk to them and make every effort to make sure that they are feeling happy and contented at the end of the experimental session (see Smith, 1967).

The issue of informed consent is typically met by obtaining consent from the parents and/or from the person in charge of a university-administered nursery school, when the parents have delegated the responsibility of providing informed consent to this person. This second system is often a very good arrangement, since the nursery school administrator usually has enough knowledge of psychological research and enough concern for the welfare of the children to make "informed consent" a meaningful term, and in addition the experimenter can be assured that the parents do not object to having their children participate in experiments. It is a good idea for the investigator to take steps to make sure that the parents really are informed about the particular experiment, however, since they are in a position to know whether a given manipulation might have unexpected undesirable effects on their child. If the real reasons for deceiving the subjects is that it is necessary that they be ignorant of the true purpose of the experiment, there should be no reason for withholding this information from the parents. In the interests of both the child and the psychologist, the parents should be informed in advance.

But of course no one except the child knows what it is really like to go through the experiment, and the child has not given any informed consent. As with field experiments, then, the experimenter should use only very low levels of arousing experimental manipulations and should watch the child at all times to be able to terminate the experiment immediately if the child shows any signs of untoward distress. As with field situations, one useful rule of thumb for choosing stimulus situations for research with child subjects is to choose the sorts of situations which most children are exposed to anyway in their everyday lives. For example, in attempting to arouse fear in a nursery school setting, Merrill Carlsmith, Mark Lepper, and T. K. Landauer (1974) showed children a clipping from the Walt Disney cartoon *The Legend of Sleepy Hollow*. Although the sequence shown was frightening, it was assumed to involve a kind and level of fear that the children could cope with, since it was from the same movie that large numbers of children have seen and enjoyed on their own.

INSTITUTIONAL GUIDELINES

There are no absolute rules set down in a code that can provide instant answers to any of the ethical questions raised here. As mentioned previously, both the U.S. Public Health Service and the American Psychological Association have set out codes that, although they establish some guidelines, are necessarily full of ambiguities. The consensus of these reports is that each proposed research study must be considered separately. And we agree. This consideration begins with the individual experimenter, who weighs the consequences of alternative courses of action and makes a choice. If the experiment involves the infliction of physical or psychological discomfort or the use of deception, how valuable will the results of the research be? How much will the subjects suffer? If the planned research is not carried out, what will be lost? If

the design is altered by removing the deception or the possibility of the subjects' distress, how will this alteration affect the validity of the results?

Probably few psychologists would demand that deception or the use of unpleasant treatments be eliminated altogether. What is being recommended, as a minimum standard, is that the investigator be aware of the ethical implications of these procedures. The scientist must be concerned about the health and welfare of subjects. Thus, we recommend that whenever possible, the experimenter should avoid the use of deception or any methods that cause discomfort to the subject. If there is a reasonable way of constructing a given experiment to avoid these problems, the experimenter is obligated to find it. We agree with other commentators (for example, Kelman, 1968) in deploring the fact that many novice experimenters in social psychology, in assuming that extreme measures are inevitable, do not first attempt alternative solutions in which the amount of deception or discomfort necessary is slight or nonexistent. Such solutions may be difficult to find, but nonetheless the experimenter has an obligation to try to find them.