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Ethical Research

LEARNING OBJECTIVES

- Summarize Milgram's obedience experiment.
- Discuss the three ethical principles outlined in the *Belmont Report:* beneficence, autonomy, and justice.
- Define deception and discuss the ethical issues surrounding its use in research.
- List the information contained in an informed consent form.
- Discuss potential problems in obtaining informed consent.
- Describe the purpose of debriefing research participants.
- Describe the function of an Institutional Review Board.
- Contrast the categories of risk involved in research activities: exempt, minimal risk, and greater than minimal risk.
- Summarize the ethical principles in the APA ethics code concerning research with human participants.
- Summarize the ethical principles in the APA ethics code concerning research with animals.
- Discuss how potential risks and benefits of research are evaluated.
- Discuss the ethical issue surrounding misrepresentation of research findings.

Ethical concerns are paramount when planning, conducting, and evaluating research. In this chapter, we will explore ethical issues in detail, and we will examine some guidelines for dealing with these problems.

MILGRAM'S OBEDIENCE EXPERIMENT

Stanley Milgram conducted a series of experiments (1963, 1964, 1965) to study the phenomenon of obedience to an authority figure. He placed an ad in the local newspaper in New Haven, Connecticut, offering a small stipend to men to participate in a "scientific study of memory and learning" being conducted at Yale University. The participants reported to Milgram's laboratory at Yale, where they met a scientist dressed in a lab coat and another participant in the study, a middle-aged man named "Mr. Wallace." Mr. Wallace was actually a confederate (i.e., accomplice) of the experimenter, but the participants didn't know this. The scientist explained that the study would examine the effects of punishment on learning. One person would be a "teacher" who would administer the punishment, and the other would be the "learner." Mr. Wallace and the volunteer participant then drew slips of paper to determine who would be the teacher and who would be the learner. The drawing was rigged, however—Mr. Wallace was always the learner and the volunteer was always the teacher.

The scientist attached electrodes to Mr. Wallace and placed the teacher in front of an impressive-looking shock machine. The shock machine had a series of levers that, the individual was told, when pressed would deliver shocks to Mr. Wallace. The first lever was labeled 15 volts, the second 30 volts, the third 45 volts, and so on up to 450 volts. The levers were also labeled "Slight Shock," "Moderate Shock," and so on up to "Danger: Severe Shock," followed by red X's above 400 volts.

Mr. Wallace was instructed to learn a series of word pairs. Then he was given a test to see if he could identify which words went together. Every time Mr. Wallace made a mistake, the teacher was to deliver a shock as punishment. The first mistake was supposed to be answered by a 15-volt shock, the second by a 30-volt shock, and so on. Each time a mistake was made, the learner received a greater shock. The learner, Mr. Wallace, never actually received any shocks, but the participants in the study didn't know that. In the experiment, Mr. Wallace made mistake after mistake. When the teacher "shocked" him with about 120 volts, Mr. Wallace began screaming in pain and eventually yelled that he wanted out. What if the teacher wanted to quit? This happened—the volunteer participants became visibly upset by the pain that Mr. Wallace seemed to be experiencing. The scientist told the teacher that he could quit but urged him to continue, using a series of verbal prods that stressed the importance of continuing the experiment.

The study purportedly was to be an experiment on memory and learning, but Milgram really was interested in learning whether participants would continue to obey the experimenter by administering ever higher levels of shock to

the learner. What happened? Approximately 65% of the participants continued to deliver shocks all the way to 450 volts. Milgram's study received a great deal of publicity, and the results challenged many of our beliefs about our ability to resist authority. Milgram's study is important, and the results have implications for understanding obedience in real-life situations, such as the Holocaust in Nazi Germany and the Jonestown mass suicide (see Miller, 1986). What about the ethics of the Milgram study? How should we make decisions about whether the Milgram study or any other study is ethical?

THE *BELMONT REPORT*

Current ethical guidelines for both behavioral and medical researchers have their origins in ***The Belmont Report:*** *Ethical Principles and Guidelines for the Protection of Human Subjects of Research* (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). This report defined the principles and applications that have guided more detailed regulations and the American Psychological Association Ethics Code. The three basic ethical principles are beneficence, respect for persons (autonomy), and justice. The associated applications of these principles are assessment of risks and benefits, informed consent, and selection of subjects. These topics will guide our discussion of ethical issues in research.

ASSESSMENT OF RISKS AND BENEFITS

The principle of **beneficence** in the *Belmont Report* refers to the need for research to maximize benefits and minimize any possible harmful effects of participation. In most decisions we make in life, we consider the relative risks (or costs) and benefits of the decision. In decisions about the ethics of research, we must calculate potential risks and benefits that are likely to result; this is called a ***risk-benefit analysis.*** Ethical principles require asking whether the research procedures have minimized risk to participants.

The potential **risks** to the participants include such factors as psychological or physical harm and loss of confidentiality; we will discuss these in detail. In addition, the cost of *not* conducting the study if in fact the proposed procedure is the only way to collect potentially valuable data can be considered (cf. Christensen, 1988). The benefits include direct benefits to the participants, such as an educational benefit, acquisition of a new skill, or treatment for a psychological or medical problem. There may also be material benefits such as a monetary payment, some sort of gift, or even the possibility of winning a prize in a raffle. Other less tangible benefits include the satisfaction gained through being part of a scientific investigation and the potential beneficial applications of the research findings (e.g., the knowledge gained through the research might improve future educational practices, psychotherapy, or social policy). As we will

see, current regulations concerning the conduct of research with human participants require a risk-benefit analysis before research can be approved.

Risks in Psychological Research

Let's return to a consideration of Milgram's research. The risk of experiencing stress and psychological harm is obvious. It is not difficult to imagine the effect of delivering intense shocks to an obviously unwilling learner. A film that Milgram made shows participants protesting, sweating, and even laughing nervously while delivering the shocks. You might ask whether subjecting people to such a stressful experiment is justified, and you might wonder whether the experience had any long-range consequences for the volunteers. For example, did participants who obeyed the experimenter feel continuing remorse or begin to see themselves as cruel, inhumane people? A defense of Milgram's study follows, but first let's consider some potentially stressful research procedures.

Physical harm Procedures that could conceivably cause some physical harm to participants are rare but possible. Many medical procedures fall in this category—for example, administering a drug such as alcohol or caffeine, or depriving people of sleep for an extended period of time. The risks in such procedures require that great care be taken to make them ethically acceptable. Moreover, there would need to be clear benefits of the research that would outweigh the potential risks.

Stress More common than physical stress is psychological stress. For example, participants might be told that they will receive some extremely intense electric shocks. They never actually receive the shocks; it is the fear or anxiety during the waiting period that is the variable of interest. Research by Schachter (1959) employing a procedure like this showed that the anxiety produced a desire to affiliate with others during the waiting period.

In another procedure that produces psychological stress, participants are given unfavorable feedback about their personalities or abilities. Researchers interested in self-esteem have typically given a subject a bogus test of personality or ability. The test is followed by an evaluation that lowers self-esteem by indicating that the participant has an unfavorable personality trait or a low ability score.

Asking people about traumatic or unpleasant events in their lives might also cause stress for some participants. Thus, research that asks people to think about the deaths of a parent, spouse, or friend or their memories of living through a disaster could trigger a stressful reaction.

When stress is possible, the researcher must ask whether all safeguards have been taken to help participants deal with the stress. Usually a debriefing session following the study is designed in part to address any potential problems that may arise during the research.

Loss of privacy and confidentiality

Another risk is the loss of expected privacy and confidentiality. Researchers must take care to protect the privacy of individuals. At a minimum, researchers should protect privacy by keeping all data locked in a secure place. **Confidentiality** becomes particularly important when studying topics such as sexual behavior, divorce, family violence, or drug abuse; in these cases, researchers may need to ask people very sensitive questions about their private lives. It is extremely important that responses to such questions be confidential. In most cases, the responses are completely anonymous—there is no way to connect any person's identity with the data. This happens, for example, when questionnaires are administered to groups of people and no information is asked that could be used to identify an individual (such as name, Social Security number, or phone number). In other cases, such as a personal interview in which the identity of the person might be known, the researcher must carefully plan ways of coding data, storing data, and explaining the procedures to participants so that there is no question concerning the confidentiality of responses.

In some research, there is a real need to be able to identify individual participants. This occurs when individuals are studied on multiple occasions over time or when personal feedback, such as a test score, must be given. In such cases, the researcher should develop a way to identify the individuals but to separate the information about their identity from the actual data. Thus, if questionnaires or the computerized data files were seen by anyone, the data could not be linked to specific individuals.

In some cases, the risks entailed with loss of confidentiality are so great that researchers may wish to apply for a Certificate of Confidentiality from the U.S. Department of Health and Human Services. Obtaining this certificate is appropriate when the data could conceivably be the target of a legal subpoena.

Another privacy issue concerns concealed observation of behavior. In some studies, researchers make observations of behavior in public places. Observing people in shopping malls or in their cars does not seem to present any major ethical problems. However, what if a researcher wishes to observe behavior in more private settings or in ways that may violate individuals' privacy (see Wilson & Donnerstein, 1976)? For example, would it be ethical to rummage through people's trash or watch people in public restrooms? The Internet has posed other issues of privacy. Every day, thousands of people post messages on websites. The messages can potentially be used as data to understand attitudes, disclosure of personal information, and expressions of emotion. Many messages are public postings, much like a letter sent to a newspaper or magazine. But consider websites devoted to psychological and physical problems that people seek out for information and support. Many of these sites require registration to post messages. Consider a researcher interested in using one of these sites for data. What ethical issues arise in this case? Buchanan and Williams (2010) address these and other ethical issues that arise when doing research using the Internet.

INFORMED CONSENT

The *Belmont Report*'s principle of *respect for persons* or **autonomy** states that participants are treated as autonomous; they are capable of making deliberate decisions about whether to participate in research. The application here is **informed consent**—potential participants in a research project should be provided with all information that might influence their decision of whether to participate. Thus, research participants should be informed about the purposes of the study, the risks and benefits of participation, and their rights to refuse or terminate participation in the study. They can then freely consent or refuse to participate in the research.

Informed Consent Form

Participants are usually provided with some type of informed consent form that contains the information that participants need to make their decision. Most commonly, the form is printed for the participant to read and sign. There are numerous examples of informed consent forms available on the Internet. Your college may have developed examples through the research office. A checklist for an informed consent form is provided in Figure 3.1. Note that the checklist addresses both content and format. The content will typically cover (1) the purpose of the research, (2) procedures that will be used including time involved (remember that you do not need to tell participants exactly what is being studied), (3) risks and benefits, (4) any compensation, (5) confidentiality, (6) assurance of voluntary participation and permission to withdraw, and (7) contact information for questions.

The form must be written so that participants understand the information in the form. In some cases, the form was so technical or loaded with legal terminology that it is very unlikely that the participants fully realized what they were signing. In general, consent forms should be written in simple and straightforward language that avoids jargon and technical terminology (generally at a sixth- to eighth-grade reading level; most word processors provide grade-level information with the Grammar Check feature). To make the form easier to understand, it should not be written in the first person. Instead, information should be provided as if the researcher were simply having a conversation with the participant. Thus, the form might say:

> *Participation in this study is voluntary. You may decline to participate without penalty.*

instead of

> *I understand that participation in this study is voluntary. I may decline to participate without penalty.*

The first statement is providing information to the participant in a straightforward way using the second person ("you"), whereas the second statement has a legalistic tone that may be more difficult to understand. Finally, if participants are non-English speakers, they should receive a translated version of the form.

Check to make sure the informed consent form includes the following:

- ☐ Statement that participants are being asked to participate in a research study
- ☐ Explanation of the purposes of the research in clear language
- ☐ Expected duration of the subject's participation
- ☐ Description of the procedures
- ☐ Description of any reasonably foreseeable risks or discomforts and safeguards to minimize the risks
- ☐ Description of any benefits to the individual or to others that may reasonably be expected from the research
- ☐ If applicable, a disclosure of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to the individual
- ☐ Description of the extent, if any, to which confidentiality of records identifying the individual will be maintained
- ☐ If an incentive is offered, a description of the incentive and requirement to obtain it; also, a description of the impact of a decision to discontinue participation
- ☐ Contact information for questions about the study (usually phone contacts for the researcher, faculty advisor, and the Institutional Review Board office)
- ☐ Statement that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits to which the individual is otherwise entitled
- ☐ Form is printed in no smaller than 11-point type (no "fine print")
- ☐ Form is free of technical jargon and written at sixth- to eighth-grade level
- ☐ Form is not written in the first person (statements such as "I understand . . ." are discouraged)

Other information may be needed for research with high-risk or medical procedures. Much more information on developing an informed consent form is readily available on university and federal government websites, for example, *Tips on Informed Consent* from the Department of Health and Human Services: http://www.hhs.gov/ohrp/policy/ictips.html

FIGURE 3.1
Checklist for informed consent form

Autonomy Issues

Informed consent seems simple enough; however, there are important issues to consider. The first concerns lack of autonomy. What happens when the participants may lack the ability to make a free and informed decision to voluntarily participate? Special populations such as minors, patients in psychiatric hospitals, or adults with cognitive impairments require special precautions. When minors are asked to participate, for example, a written consent form signed by a parent or guardian is generally required in addition to agreement by the minor; this agreement by a minor is formally called *assent*. The Division of Developmental Psychology of the American Psychological Association and the Society for Research on Child Development have established their own guidelines for ethical research with children.

Coercion is another threat to autonomy. Any procedure that limits an individual's freedom to consent is potentially coercive. For example, a supervisor who asks employees to fill out a survey during a staff meeting or a professor requiring students to participate in a study in order to pass the course is applying considerable pressure on potential participants. The employees may believe that the supervisor will somehow punish them if they do not participate; they also risk embarrassment if they refuse in front of co-workers. Sometimes benefits are so great that they become coercive. For example, a prisoner may believe that increased privileges or even a favorable parole decision may result from participation. Researchers must consider these issues and make sure that autonomy is preserved.

Information Issues: Withholding Information and Deception

It may have occurred to you that providing all information about the study to participants might be unwise. Providing too much information could potentially invalidate the results of the study; for example, researchers usually will withhold information about the hypothesis of the study or the particular condition an individual is participating in (see Sieber, 1992). It is generally acceptable to withhold information when the information would not affect the decision to participate and when the information will later be provided, usually in a debriefing session when the study is completed. Most people who volunteer for psychology research do not expect full disclosure about the study prior to participation. However, they do expect a thorough debriefing after they have completed the study. Debriefing will be described after we consider the more problematic issue of deception.

It may also have occurred to you that there are research procedures in which informed consent is not necessary or even possible. If you choose to observe the number of same-sex and mixed-sex study groups in your library, you probably don't need to announce your presence and obtain anyone's permission. If you study the content of the self-descriptions that people write for an online dating service, do you need to contact each person to include their information in your study? When planning research, it is important to make sure that you do have good reasons not to obtain informed consent.

Deception occurs when there is active misrepresentation of information. The Milgram experiment illustrates two types of deception. First, participants were deceived about the purpose of the study. Participants in the Milgram experiment agreed to take part in a study of memory and learning, but they actually took part in a study on obedience. Who could imagine that a memory and learning experiment (that title does sound tame, after all) would involve delivering high-intensity, painful electric shocks to another person? Participants in the Milgram experiment didn't know what they were letting themselves in for.

Milgram's study was conducted before informed consent was routine; however, you can imagine that Milgram's consent form would inaccurately have participants agree to be in a memory study. They would also be told that they are free to withdraw from the study at any time. Is it possible that the informed consent procedure would affect the outcome of the study? Knowledge that the

research is designed to study obedience would likely alter the behavior of the participants. Few of us like to think of ourselves as obedient, and we would probably go out of our way to prove that we are not. Research indicates that providing informed consent may in fact bias participants' responses, at least in some research areas. For example, research on stressors such as noise or crowding has shown that a feeling of "control" over a stressor reduces its negative impact. If you know that you can terminate a loud, obnoxious noise, the noise produces less stress than when the noise is uncontrollable. Studies by Gardner (1978) and Dill, Gilden, Hill, and Hanslka (1982) have demonstrated that informed consent procedures do increase perceptions of control in stress experiments and therefore can affect the conclusions drawn from the research.

It is also possible that the informed consent procedure may bias the sample. In Milgram's experiment, if participants had prior knowledge that they would be asked to give severe shocks to the other person, some might have declined to be in the experiment. Therefore, we might limit our ability to generalize the results only to those "types" who agreed to participate. If this were true, anyone could say that the obedient behavior seen in the Milgram experiment occurred simply because the people who agreed to participate were sadists in the first place!

Second, the Milgram study also illustrates a type of deception in which participants become part of a series of events staged for the purposes of the study. A confederate of the experimenter played the part of another participant in the study; Milgram created a reality for the participant in which obedience to authority could be observed. Such deception has been most common in social psychology research; it is much less frequent in areas of experimental psychology such as human perception, learning, memory, and motor performance. Even in these areas, researchers may use a cover story to make the experiment seem plausible and involving (e.g., telling participants that they are reading actual newspaper stories for a study on readability when the true purpose is to examine memory errors or organizational schemes).

The problem of deception is not limited to laboratory research. Procedures in which observers conceal their purposes, presence, or identity are also deceptive. For example, Humphreys (1970) studied the sexual behavior of men who frequented public restrooms (called *tearooms*). Humphreys did not directly participate in sexual activities, but he served as a lookout who would warn the others of possible intruders. In addition to observing the activities in the tearoom, Humphreys wrote down license plate numbers of tearoom visitors. Later, he obtained the addresses of the men, disguised himself, and visited their homes to interview them. Humphreys' procedure is certainly one way of finding out about anonymous sex in public places, but it employs considerable deception.

Is Deception a Major Ethical Problem in Psychological Research?

Many psychologists believe that the problem of deception has been exaggerated (Bröder, 1998; Kimmel, 1998; Korn, 1998; Smith & Richardson, 1985). Bröder argues that the extreme examples of elaborate deception cited by these critics

are rare. Moreover, there is evidence that the college students who participate in research do not mind deception and may in fact enjoy experiments with deception (Christensen, 1988).

In the decades since the Milgram experiments in the 1960s, some researchers have attempted to assess the use of deception to see if elaborate deception has indeed become less common. Because most of the concern over this type of deception arises in social psychological research, attempts to address this issue have focused on social psychology. Gross and Fleming (1982) reviewed 691 social psychological studies published in the 1960s and 1970s. Although most research in the 1970s still used deception, the deception primarily involved false cover stories.

Has the trend away from deception continued? Sieber, Iannuzzo, and Rodriguez (1995) examined the studies published in the *Journal of Personality and Social Psychology* in 1969, 1978, 1986, and 1992. The number of studies that used some form of deception decreased from 66% in 1969 to 47% in 1978 and to 32% in 1986 but increased again to 47% in 1992. The large drop in 1986 may be due to an increase that year in the number of studies on such topics as personality that require no deception to carry out. Also, informed consent was more likely to be explicitly described in 1992 than in previous years, and debriefing was more likely to be mentioned in the years after 1969. However, false cover stories are still frequently used. Korn (1997) has also concluded that use of deception is decreasing in social psychology.

There are three primary reasons for a decrease in the type of elaborate deception seen in the Milgram study. First, more researchers have become interested in cognitive variables rather than emotions and so use methods that are similar to those used by researchers in memory and cognitive psychology. Second, the general level of awareness of ethical issues as described in this chapter has led researchers to conduct studies in other ways (some alternatives to deception are described below). Third, ethics committees at universities and colleges now review proposed research more carefully, so elaborate deception is likely to be approved only when the research is important and there are no alternative procedures available (ethics review boards are described later in this chapter).

THE IMPORTANCE OF DEBRIEFING

Debriefing occurs after the completion of the study. It is an opportunity for the researcher to deal with issues of withholding information, deception, and potential harmful effects of participation.

If participants were deceived in any way, the researcher needs to explain why the deception was necessary. If the research altered a participant's physical or psychological state in some way—as in a study that produces stress—the researcher must make sure that the participant has calmed down and is comfortable about having participated. If a participant needs to receive additional information or

to speak with someone else about the study, the researcher should provide access to these resources. The participants should leave the experiment without any ill feelings toward the field of psychology, and they may even leave with some new insight into their own behavior or personality.

Debriefing also provides an opportunity for the researcher to explain the purpose of the study and tell participants what kinds of results are expected and perhaps discuss the practical implications of the results. In some cases, researchers may contact participants later to inform them of the actual results of the study. Thus, debriefing has both an educational and an ethical purpose.

Is debriefing sufficient to remove any negative effects when stress and elaborate deception are involved? Let's turn again to Milgram's research. Milgram went to great lengths to provide a thorough debriefing session. Participants who were obedient were told that their behavior was normal in that they had acted no differently from most other participants. They were made aware of the strong situational pressure that was exerted on them, and efforts were made to reduce any tension they felt. Participants were assured that no shock was actually delivered, and there was a friendly reconciliation with the confederate, Mr. Wallace. Milgram also mailed a report of his research findings to the participants and at the same time asked about their reactions to the experiment. The responses showed that 84% were glad that they had participated, and 74% said they had benefited from the experience. Only 1% said they were sorry they had participated. When a psychiatrist interviewed participants a year later, no ill effects of participation could be detected. We can only conclude that debriefing did have its intended effect. Other researchers who have conducted further work on the ethics of Milgram's study reached the same conclusion (Ring, Wallston, & Corey, 1970). Other research on debriefing has also concluded that debriefing is effective as a way of dealing with deception and other ethical issues that arise in research investigations (Oczak, 2007; Smith, 1983; Smith & Richardson, 1983).

ALTERNATIVES TO DECEPTION

After criticizing the use of deception in research, Kelman (1967) called for the development of alternative procedures. Such procedures include role-playing, simulations, and "honest" experiments.

Role-Playing and Simulations

In one **role-playing** procedure, the experimenter describes a situation to participants and then asks them how they would respond to the situation. Sometimes, participants are asked to say how they themselves would behave in the situation; other times, they are asked to predict how real participants in such a situation

would behave. It isn't clear whether these two instructions produce any difference in results.

The most serious defect of role-playing is that, no matter what results are obtained, critics can always claim that the results would have been different if the participants had been in a real situation. This criticism is based on the assumption that people aren't always able to accurately predict their own behavior or the behavior of others. This would be particularly true when undesirable behavior—such as conformity, obedience, or aggression—is involved. For example, if Milgram had used a role-playing procedure, how many people do you think would have predicted that they would be completely obedient? In fact, Milgram asked a group of psychiatrists to predict the results of his study and found that even these experts could not accurately anticipate what would happen. A similar problem would arise if people were asked to predict whether they would help someone in need. Most of us would probably overestimate our altruistic tendencies.

A different type of role-playing uses **simulation** of a real-world situation. Simulations can be used to examine conflict between competing individuals, driving behavior using driving simulators, or jury deliberations, for example. Such simulations can create high degrees of involvement among participants.

Even simulations may present ethical problems. A dramatic example is the Stanford Prison Experiment conducted by Zimbardo (1973; Haney & Zimbardo, 1998). Zimbardo set up a simulated prison in the basement of the psychology building at Stanford University. He then recruited college students who were paid to play the role of either prisoner or guard for a period of 2 weeks. Guards were outfitted in uniforms and given sunglasses and clubs. Prisoners were assigned numbers and wore nylon stocking caps to simulate prison haircuts and reduce feelings of individuality. The participants became so deeply involved in their roles that Zimbardo had to stop the simulation after 6 days because of the cruel behavior of the "guards" and the stressful reactions of the "prisoners." This was only a simulation—participants knew that they were not really prisoners or guards. Yet they became so involved in their roles that the experiment produced higher levels of stress than in almost any other experiment one can imagine. An interesting follow-up to the Stanford Prison Experiment was conducted in 2001 in a collaborative effort between research psychologists and the BBC (http://www.bbcprisonstudy.org). The BBC Prison Experiment was very similar to the Stanford version but the researchers did concentrate on ethical issues. A five-person review panel monitored the progress of the experiment continuously, an emergency medical team and security personnel were present, and two clinical psychologists were on call. The study was scheduled for 8 days, and film crews recorded all events for a 4-hour series broadcast in 2002. The differences in the outcomes of the two studies are the subject of continuing discussion among psychologists; for example, the guards' relationship to the inmates was quite different in the BBC study.

Honest Experiments

Rubin (1973) encouraged researchers to take advantage of situations in which behavior could be studied without elaborate deception, in **honest experiments.** In the first such strategy, participants agree to have their behavior studied and know exactly what the researchers hope to accomplish. For example, speed dating studies have become a very useful way to study romantic attraction (Finkel, Eastwick, & Matthews, 2007; Fisman, Iyengar, Kamenica, & Simonson, 2006). Student participants can be recruited to engage in an actual speed-dating event held on campus or at a local restaurant; they complete numerous questionnaires and make choices that can lead to possible dates. Because everyone meets with everyone else, the situation allows for a systematic examination of many factors that might be related to date selection.

A related strategy presents itself when people seek out information or services that they need. Students who volunteer for a study skills improvement program at their college may be assigned to either an in-class or an online version of the course, and the researcher can administer measures to examine whether one version is superior to the other.

Another strategy involves situations in which a naturally occurring event presents an opportunity for research. For example, researchers were able to study the effects of crowding when a shortage of student housing forced Rutgers University to assign entering students randomly to crowded and uncrowded dormitory rooms (Aiello, Baum, & Gormley, 1981). Baum, Gachtel, and Schaeffer (1983) studied the stressful effects associated with nuclear power plant disasters by comparing people who lived near the Three Mile Island nuclear plant with others who lived near an undamaged nuclear plant or a conventional coal-fired power plant. Science depends on replicability of results, so it is notable that the same pattern of results as shown in the Three Mile Island study was obtained following the September 11 terrorist attacks (Schlenger et al., 2002). More than 2,000 adult residents of New York City, Washington, DC, and other metropolitan areas throughout the United States completed a Posttraumatic Stress Disorder (PTSD) checklist to determine incidence of the disorder. PTSD was indicated in 11.2% of the New York residents in contrast with 2.7% of the residents of Washington, DC, and 3.6% of those living in other metropolitan areas. Such natural experiments are valuable sources of data.

JUSTICE AND THE SELECTION OF PARTICIPANTS

The third ethical principle defined in the *Belmont Report* is termed **justice.** The principle of justice addresses issues of fairness in receiving the benefits of research as well as bearing the burdens of accepting risks. The history of medical research includes too many examples of high-risk research that was conducted with individuals selected because they were powerless and marginalized within

the society. One of the most horrific is the Tuskegee Syphilis Study, in which 399 poor African Americans in Alabama were not treated for syphilis in order to track the long-term effects of this disease (Reverby, 2000). This study took place from 1932 to 1972, when the details of the study were made public. The outrage over the fact that this study was done at all and that the subjects were unsuspecting African Americans spurred scientists to overhaul ethical regulations in both medical and behavioral research. The fact that the Tuskegee study was not an isolated incident was brought to light in 2010 when documentation of another syphilis study done from 1946 to 1948 in Guatemala was discovered (Reverby, 2011). Men in this study were infected with syphilis and then treated with penicillin. Reverby describes the study in detail and focuses on one doctor who was involved in both the Guatemala and Tuskegee studies.

The justice principle requires researchers to address issues of equity. Any decisions to include or exclude certain people from a research study must be justified on scientific grounds. Thus, if age, ethnicity, gender, or other criteria are used to select participants, the researcher must provide a scientific rationale.

RESEARCHER COMMITMENTS

Researchers make several implicit contracts with participants during the course of a study. For example, if participants agree to be present for a study at a specific time, the researcher should also be there. The issue of punctuality is never mentioned by researchers, yet research participants note it when asked about the obligations of the researcher (Epstein, Suedfeld, & Silverstein, 1973). If researchers promise to send a summary of the results to participants, they should do so. If participants are to receive course credit for participation, the researcher must immediately let the instructor know that the person took part in the study. These may seem to be little details, but they are very important in maintaining trust between participants and researchers.

FEDERAL REGULATIONS AND THE INSTITUTIONAL REVIEW BOARD

The *Belmont Report* provided an outline for issues of research ethics. The actual rules and regulations for the protection of human research participants were issued by the U.S. Department of Health and Human Services (HHS). Under these regulations (U.S. Department of Health and Human Services, 2001), every institution that receives federal funds must have an **Institutional Review Board (IRB)** that is responsible for the review of research conducted within the institution. The IRB is a local review agency composed

of at least five individuals; at least one member of the IRB must be from outside the institution. Every college and university in the United States that receives federal funding has an IRB; in addition, most psychology departments have their own research review committee (Chastain & Landrum, 1999). All research conducted by faculty, students, and staff associated with the institution is reviewed in some way by the IRB. This includes research that may be conducted at another location such as a school, community agency, hospital, or via the Internet.

The federal regulations for IRB oversight of research continue to evolve. For example, all researchers must now complete specified educational requirements. Most colleges and universities require students and faculty to complete one or more online tutorials on research ethics to meet these requirements.

The HHS regulations also categorized research according to the amount of risk involved in the research. This concept of risk was later incorporated into the Ethics Code of the American Psychological Association.

Exempt Research

Research in which there is *no risk* is exempt from review. Thus, anonymous questionnaires, surveys, and educational tests are all considered **exempt research,** as is naturalistic observation in public places when there is no threat to anonymity. Archival research in which the data being studied are publicly available or the participants cannot be identified is exempt as well. This type of research requires no informed consent. However, researchers cannot decide by themselves that research is exempt; instead, the IRB at the institution formulates a procedure to allow a researcher to apply for exempt status.

Minimal Risk Research

A second type of research activity is called **minimal risk,** which means that the risks of harm to participants are no greater than risks encountered in daily life or in routine physical or psychological tests. When minimal risk research is being conducted, elaborate safeguards are less of a concern, and approval by the IRB is routine. Some of the research activities considered minimal risk are (1) recording routine physiological data from adult participants (e.g., weighing, tests of sensory acuity, electrocardiography, electroencephalography, diagnostic echography, and voice recordings)—note that this would not include recordings that might involve invasion of privacy; (2) moderate exercise by healthy volunteers; and (3) research on individual or group behavior or characteristics of individuals—such as studies of perception, cognition, game theory, or test development—in which the researcher does not manipulate participants' behavior and the research will not involve stress to participants.

Greater Than Minimal Risk Research

Any research procedure that places participants at greater than minimal risk is subject to thorough review by the IRB. Complete informed consent and other safeguards may be required before approval is granted.

Researchers planning to conduct an investigation are required to submit an application to the IRB. The application requires description of risks and benefits, procedures for minimizing risk, the exact wording of the informed consent form, how participants will be debriefed, and procedures for maintaining confidentiality. Even after a project is approved, there is continuing review. If it is a long-term project, it will be reviewed at least once each year. If there are any changes in procedures, researchers are required to obtain approval from the IRB. The three risk categories are summarized in Table 3.1.

TABLE 3.1 Assessment of risk

Risk assessment	Examples	Special actions
No risk	Studying normal educational practices Cognitive aptitude/ achievement measures Anonymous surveys Observation of nonsensitive public behaviors where participants cannot be identified	No informed consent needed, but protocol must be judged as no risk by IRB
Minimal risk	Standard psychological measures Voice recordings not involving danger to participants Studies of cognition/ perception not involving stress	Fully informed consent generally not required, but debriefing/ethical concerns are important
Greater than minimal risk	Research involving physical stress, psychological stress, invasion of privacy, measures of sensitive information where participants may be identified	Full IRB review required, and special ethical procedures may be imposed

IRB Impact on Research

Some researchers have voiced their frustration about the procedures necessary to obtain IRB approval for research. The review process can take a long time, and the IRB may ask for revisions and clarifications. Moreover, the policies and procedures that govern IRB operations apply to all areas of research, so the extreme caution necessary for medical research is applied to psychology research (see Collins, 2002). Unfortunately, little can be done to change the basic IRB structure. Researchers must plan carefully, allow time for the approval process, and submit all materials requested in the application (Collins, 2002).

With the HHS regulations and review of research by the IRB, the rights and safety of human participants are well protected. Both researchers and review board members tend to be very cautious in terms of what is considered ethical. In fact, several studies have shown that students who have participated in research studies are more lenient in their judgments of the ethics of experiments than are researchers or IRB members (Epstein et al., 1973; Smith, 1983; Sullivan & Deiker, 1973). Moreover, individuals who have taken part in research that used deception report that they did not mind the deception and evaluated the experience positively (Christensen, 1988).

APA ETHICS CODE

Psychologists recognize the ethical issues we have discussed, and the American Psychological Association (APA) has provided leadership in formulating ethical principles and standards. The *Ethical Principles of Psychologists and Code of Conduct*—known as the ***APA Ethics Code***—was revised in 2002, and updates and amendments are issued periodically. The most recent version of the *Ethics Code* is available at http://apa.org/ethics/code/index.aspx. The preamble to the Ethics Code states the following:

> Psychologists are committed to increasing scientific and professional knowledge of behavior and people's understanding of themselves and others and to the use of such knowledge to improve the condition of individuals, organizations, and society. Psychologists respect and protect civil and human rights and the central importance of freedom of inquiry and expression in research, teaching, and publication. They strive to help the public in developing informed judgments and choices concerning human behavior. In doing so, they perform many roles, such as researcher, educator, diagnostician, therapist, supervisor, consultant, administrator, social interventionist, and expert witness. This Ethics Code provides a common set of principles and standards upon which psychologists build their professional and scientific work.

The five general principles relate to beneficence, responsibility, integrity, justice, and respect for the rights and dignity of others. Ten ethical standards address specific issues concerning the conduct of psychologists in teaching, research, therapy, counseling, testing, and other professional roles and responsibilities. We will be most concerned with Ethical Standard 8: Research and Publication.

RESEARCH WITH HUMAN PARTICIPANTS

The sections of Ethical Standard 8 that most directly deal with research using human participants are included below.

8.01 Institutional approval

When institutional approval is required, psychologists provide accurate information about their research proposals and obtain approval prior to conducting the research. They conduct the research in accordance with the approved research protocol.

8.02 Informed consent to research

a. When obtaining informed consent as required in Standard 3.10, Informed Consent, psychologists inform participants about (1) the purpose of the research, expected duration, and procedures; (2) their right to decline to participate and to withdraw from the research once participation has begun; (3) the foreseeable consequences of declining or withdrawing; (4) reasonably foreseeable factors that may be expected to influence their willingness to participate such as potential risks, discomfort, or adverse effects; (5) any prospective research benefits; (6) limits of confidentiality; (7) incentives for participation; and (8) whom to contact for questions about the research and research participants' rights. They provide opportunity for the prospective participants to ask questions and receive answers. (See also Standards 8.03, Informed consent for recording voices and images in research; 8.05, Dispensing with informed consent for research; and 8.07, Deception in research.)

b. Psychologists conducting intervention research involving the use of experimental treatments clarify to participants at the outset of the research (1) the experimental nature of the treatment; (2) the services that will or will not be available to the control group(s) if appropriate; (3) the means by which assignment to treatment and control groups will be made; (4) available treatment alternatives if an individual does not wish to participate in the research or wishes to withdraw once a study has begun; and (5) compensation for or monetary costs of participating including, if appropriate, whether reimbursement from the participant or a third-party payor will be sought. (See also Standard 8.02a, Informed Consent to Research.)

8.03 Informed consent for recording voices and images in research

Psychologists obtain informed consent from research participants prior to recording their voices or images for data collection unless (1) the research consists solely of naturalistic observations in public places, and it is not anticipated that the recording will be used in a manner that could cause

personal identification or harm, or (2) the research design includes deception, and consent for the use of the recording is obtained during debriefing. (See also Standard 8.07, Deception in Research.)

8.04 Client/patient, student, and subordinate research participants

a. When psychologists conduct research with clients/patients, students, or subordinates as participants, psychologists take steps to protect the prospective participants from adverse consequences of declining or withdrawing from participation.

b. When research participation is a course requirement or an opportunity for extra credit, the prospective participant is given the choice of equitable alternative activities.

8.05 Dispensing with informed consent for research

Psychologists may dispense with informed consent only (1) where research would not reasonably be assumed to create distress or harm and involves (a) the study of normal educational practices, curricula, or classroom management methods conducted in educational settings; (b) only anonymous questionnaires, naturalistic observations, or archival research for which disclosure of responses would not place participants at risk of criminal or civil liability or damage their financial standing, employability, or reputation, and confidentiality is protected; or (c) the study of factors related to job or organization effectiveness conducted in organizational settings for which there is no risk to participants' employability, and confidentiality is protected or (2) where otherwise permitted by law or federal or institutional regulations.

8.06 Offering inducements for research participation

a. Psychologists make reasonable efforts to avoid offering excessive or inappropriate financial or other inducements for research participation when such inducements are likely to coerce participation.

b. When offering professional services as an inducement for research participation, psychologists clarify the nature of the services, as well as the risks, obligations, and limitations. (See also Standard 6.05, Barter With Clients/Patients.)

8.07 Deception in research

a. Psychologists do not conduct a study involving deception unless they have determined that the use of deceptive techniques is justified by the study's significant prospective scientific, educational, or applied value and that effective nondeceptive alternative procedures are not feasible.

b. Psychologists do not deceive prospective participants about research that is reasonably expected to cause physical pain or severe emotional distress.

c. Psychologists explain any deception that is an integral feature of the design and conduct of an experiment to participants as early as is feasible, preferably at the conclusion of their participation, but no later than at the conclusion of the data collection, and permit participants to withdraw their data. (See also Standard 8.08, Debriefing.)

8.08 Debriefing

a. Psychologists provide a prompt opportunity for participants to obtain appropriate information about the nature, results, and conclusions of the research, and they take reasonable steps to correct any misconceptions that participants may have of which the psychologists are aware.
b. If scientific or humane values justify delaying or withholding this information, psychologists take reasonable measures to reduce the risk of harm.
c. When psychologists become aware that research procedures have harmed a participant, they take reasonable steps to minimize the harm.

These standards complement the HSS regulations and the *Belmont Report.* They stress the importance of informed consent as a fundamental part of ethical practice. However, fully informed consent may not always be possible, and deception may sometimes be necessary. In such cases, the researcher's responsibilities to participants are increased. Obviously, decisions as to what should be considered ethical or unethical are not simple; there are no ironclad rules.

ETHICS AND ANIMAL RESEARCH

Although this chapter has been concerned with the ethics of research with humans, you are no doubt well aware that psychologists sometimes conduct research with animals (Akins, Panicker, & Cunningham, 2004). Animals are used for a variety of reasons. The researcher can carefully control the environmental conditions of the animals, study the same animals over a long period, and monitor their behavior 24 hours a day if necessary. Animals are also used to test the effects of drugs and to study physiological and genetic mechanisms underlying behavior. About 7% of the articles in *Psychological Abstracts* (now *PsycINFO*) in 1979 described studies involving animals (Gallup & Suarez, 1985), and data indicate that the amount of research done with animals has been steadily declining (Thomas & Blackman, 1992). Most commonly, psychologists work with rats and mice, and to a lesser extent, birds; according to one survey of animal research in psychology, over 95% of the animals used in research were rats, mice, and birds (see Gallup & Suarez, 1985).

In recent years, groups opposed to animal research in medicine, psychology, biology, and other sciences have become more vocal and militant. Animal rights groups have staged protests at conventions of the American Psychological Association, animal research laboratories in numerous cities have been vandalized, and researchers have received threats of physical harm.

Scientists argue that animal research benefits humans and point to many discoveries that would not have been possible without animal research (Carroll & Overmier, 2001; Miller, 1985). Also, animal rights groups often exaggerate the amount of research that involves any pain or suffering whatsoever (Coile & Miller, 1984).

Plous (1996a, 1996b) conducted a national survey of attitudes toward the use of animals in research and education among psychologists and psychology majors. The attitudes of both psychologists and students were quite similar. In general, there is support for animal research: 72% of the students support such research, 18% oppose it, and 10% are unsure (the psychologists "strongly" support animal research more than the students, however). In addition, 68% believe that animal research is necessary for progress in psychology. Still, there is some ambivalence and uncertainty about the use of animals: When asked whether animals in psychological research are treated humanely, 12% of the students said "no" and 44% were "unsure." In addition, research involving rats or pigeons was viewed more positively than research with dogs or primates unless the research is strictly observational. Finally, females have less positive views toward animal research than males. Plous concluded that animal research in psychology will continue to be important for the field but will likely continue to decline as a proportion of the total amount of research conducted.

Animal research is indeed very important and will continue to be necessary to study many types of research questions (see http://www.apa.org/science/anguide.html). It is crucial to recognize that strict laws and ethical guidelines govern both research with animals and teaching procedures in which animals are used. Such regulations deal with the need for proper housing, feeding, cleanliness, and health care. They specify that the research must avoid any cruelty in the form of unnecessary pain to the animal. In addition, institutions in which animal research is carried out must have an *Institutional Animal Care and Use Committee* (*IACUC*) composed of at least one scientist, one veterinarian, and a community member. The **IACUC** is charged with reviewing animal research procedures and ensuring that all regulations are adhered to (see Holden, 1987). This section of the Ethics Code is of particular importance here:

8.09 Humane care and use of animals in research

a. Psychologists acquire, care for, use, and dispose of animals in compliance with current federal, state, and local laws and regulations, and with professional standards.

b. Psychologists trained in research methods and experienced in the care of laboratory animals supervise all procedures involving animals and are responsible for ensuring appropriate consideration of their comfort, health, and humane treatment.

c. Psychologists ensure that all individuals under their supervision who are using animals have received instruction in research methods and in the care, maintenance, and handling of the species being used, to the extent appropriate to their role. (See also Standard 2.05, Delegation of Work to Others.)

d. Psychologists make reasonable efforts to minimize the discomfort, infection, illness, and pain of animal subjects.
e. Psychologists use a procedure subjecting animals to pain, stress, or privation only when an alternative procedure is unavailable and the goal is justified by its prospective scientific, educational, or applied value.
f. Psychologists perform surgical procedures under appropriate anesthesia and follow techniques to avoid infection and minimize pain during and after surgery.
g. When it is appropriate that an animal's life be terminated, psychologists proceed rapidly, with an effort to minimize pain and in accordance with accepted procedures.

APA has also developed a more detailed *Guidelines for Ethical Conduct in the Care and Use of Animals* (http://www.apa.org/science/leadership/care/guidelines.aspx). Clearly, psychologists are concerned about the welfare of animals used in research. Nonetheless, this issue likely will continue to be controversial.

RISKS AND BENEFITS REVISITED

You are now familiar with the ethical issues that confront researchers who study human and animal behavior. When you make decisions about research ethics, you need to consider the many factors associated with risk to the participants. Are there risks of psychological harm or loss of confidentiality? Who are the research participants? What types of deception, if any, are used in the procedure? How will informed consent be obtained? What debriefing procedures are being used? You also need to weigh the direct benefits of the research to the participants, as well as the scientific importance of the research and the educational benefits to the students who may be conducting the research for a class or degree requirement (see Figure 3.2).

These are not easy decisions. Consider a study in which a male confederate insults the male participant. This study, conducted by Cohen, Nisbett, Bowdle, and Schwarz (1996), compared the reactions of college students living in the northern United States with those of students living in the southern United States. The purpose was to investigate whether males in the South had developed a "culture of honor" that expects them to respond aggressively when insulted. Indeed, the students in the North had little response to the insult, whereas the Southerners responded with heightened physiological and cognitive indicators of anger. The fact that so much violence in the world is committed by males who are often avenging some perceived insult to their honor makes this topic particularly relevant to society. Do you believe that the potential benefits of the study to society and science outweigh the risks involved in the procedure?

Obviously, an IRB reviewing this study concluded that the researchers had sufficiently minimized risks to the participants such that the benefits outweighed

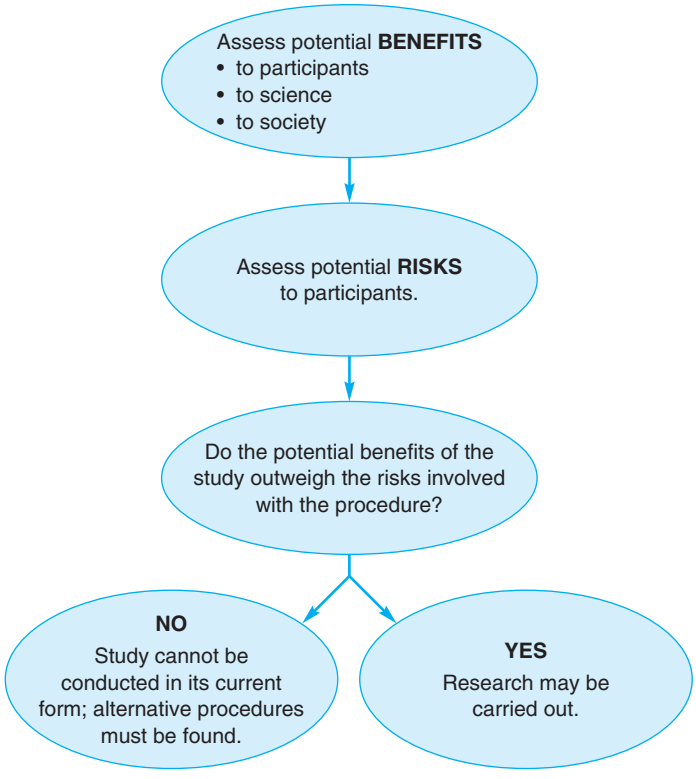

FIGURE 3.2
Analysis of risks and benefits

the costs. If you ultimately decide that the costs outweigh the benefits, you must conclude that the study cannot be conducted in its current form. You may suggest alternative procedures that could make it acceptable. If the benefits outweigh the costs, you will likely decide that the research should be carried out. Your calculation might differ from another person's calculation, which is precisely why having ethics review boards is such a good idea. An appropriate review of research proposals makes it highly unlikely that unethical research will be approved.

MISREPRESENTATION: FRAUD AND PLAGIARISM

Two other elements of the Ethics Code should be noted:

8.10 Reporting research results

a. Psychologists do not fabricate data. (See also Standard 5.01a, Avoidance of False or Deceptive Statements.)

b. If psychologists discover significant errors in their published data, they take reasonable steps to correct such errors in a correction, retraction, erratum, or other appropriate publication means.

8.11 Plagiarism

Psychologists do not present portions of another's work or data as their own, even if the other work or data source is cited occasionally.

Fraud

The fabrication of data is **fraud.** We must be able to believe the reported results of research; otherwise, the entire foundation of the scientific method as a means of knowledge is threatened. In fact, although fraud may occur in many fields, it probably is most serious in two areas: science and journalism. This is because science and journalism are both fields in which written reports are assumed to be accurate descriptions of actual events. There are no independent accounting agencies to check on the activities of scientists and journalists.

Instances of fraud in the field of psychology are considered to be very serious (cf. Hostetler, 1987; Riordan & Marlin, 1987), but fortunately, they are very rare (Murray, 2002). Perhaps the most famous case is that of Sir Cyril Burt, who reported that the IQ scores of identical twins reared apart were highly similar. The data were used to support the argument that genetic influences on IQ are extremely important. However, Kamin (1974) noted some irregularities in Burt's data. A number of correlations for different sets of twins were exactly the same to the third decimal place, virtually a mathematical impossibility. This observation led to the discovery that some of Burt's presumed co-workers had not in fact worked with him or had simply been fabricated. Ironically, though, Burt's "data" were close to what has been reported by other investigators who have studied the IQ scores of twins.

In most cases, fraud is detected when other scientists cannot replicate the results of a study. Suspicions of fabrication of research data by social psychologist Karen Ruggiero arose when other researchers had difficulty replicating her published findings. The researcher subsequently resigned from her academic position and retracted her research findings (Murray, 2002). Sometimes fraud is detected by a colleague who has worked with the researcher. For example, Stephen Breuning was guilty of faking data showing that stimulants could be used to reduce hyperactive and aggressive behavior in severely retarded children (Byrne, 1988). In this case, another researcher who had worked closely with Breuning had suspicions about the data; he then informed the federal agency that had funded the research.

Fraud is not a major problem in science in part because researchers know that others will read their reports and conduct further studies, including replications. They know that their reputations and careers will be seriously damaged if

other scientists conclude that the results are fraudulent. In addition, the likelihood of detection of fraud has increased in recent years as data accessibility has become more open: Regulations of most funding agencies require researchers to make their data accessible to other scientists.

Why, then, do researchers sometimes commit fraud? For one thing, scientists occasionally find themselves in jobs with extreme pressure to produce impressive results. This is not a sufficient explanation, of course, because many researchers maintain high ethical standards under such pressure. Another reason is that researchers who feel a need to produce fraudulent data have an exaggerated fear of failure, as well as a great need for success and the admiration that comes with it. If you wish to explore further the dynamics of fraud, you might wish to begin with Hearnshaw's (1979) book on Sir Cyril Burt. Controversy has continued to surround the case: One edited volume is titled *Cyril Burt: Fraud or Framed?* (Macintosh, 1995). Most analyses conclude, however, that the research was fraudulent (Tucker, 1997).

One final point: Allegations of fraud should not be made lightly. If you disagree with someone's results on philosophical, political, religious, or other grounds, it does not mean that they are fraudulent. Even if you cannot replicate the results, the reason may lie in aspects of the methodology of the study rather than deliberate fraud. However, the fact that fraud could be a possible explanation of results stresses the importance of careful record keeping and documentation of the procedures and results.

Plagiarism

Plagiarism refers to misrepresenting another's work as your own. You must give proper citation of your sources. Plagiarism can take the form of submitting an entire paper written by someone else. It can also mean including a paragraph or even a sentence that is copied without using quotation marks and a reference to the source of the quotation. Plagiarism also occurs when you present another person's ideas as your own rather than properly acknowledging the source of the ideas. Thus, even if you paraphrase the actual words used by a source, it is plagiarism if the source is not cited.

Although plagiarism is certainly not a new problem, access to Internet resources and the ease of copying material from the Internet may be increasing its prevalence. In fact, Szabo and Underwood (2004) report that more than 50% of a sample of British university students believe that using Internet resources for academically dishonest activities is acceptable. It is little wonder that many schools are turning to computer-based mechanisms of detecting plagiarism (e.g., http://www.turnitin.com).

Plagiarism is ethically wrong and can lead to many strong consequences, including academic sanctions such as a failing grade or expulsion from the school. Because plagiarism is often a violation of copyright law, it can be prosecuted as a criminal offense as well. Finally, it is interesting to note that some students

believe that citing sources weakens their paper—that they are not being sufficiently original. In fact, Harris (2002) notes that student papers are actually strengthened when sources are used and properly cited.

Ethical guidelines and regulations evolve over time. The APA Ethics Code and federal, state, and local regulations may be revised periodically. Researchers need to always be aware of the most current policies and procedures. In the following chapters, we will discuss many specific procedures for studying behavior. As you read about these procedures and apply them to research you may be interested in, remember that ethical considerations are always paramount.

ILLUSTRATIVE ARTICLE: ETHICAL ISSUES

Middlemist, Knowles, and Matter (1976) measured the time to onset of urination and the duration of urination of males in restrooms at a college. The purpose of the research was to study the effect of personal space on a measure of physiological arousal (urination times). The students were observed while alone or with a confederate of the experimenter, who stood at the next stall or a more distant stall in the restroom. The presence and closeness of the confederate did have the effect of delaying urination and shortening the duration of urination.

First, acquire and read the article:

> Middlemist, R.D., Knowles, E.S., & Matter, C.F. (1976). Personal space invasions in the lavatory: Suggestive evidence for arousal. *Journal of Personality and Social Psychology, 33*, 541–546. doi:10.1037/0022-3514.33.5.541

Then, after reading the article, consider the following:

1. Conduct an informal risk-benefit analysis. What are the risks and benefits inherent in this study as described? Do you think that the study is ethically justifiable given your analysis? Why or why not?
2. Redesign the study such that participants were given an opportunity to provide their informed consent. Do you think the results of the study would be affected by the changes that you suggest? Why or why not?
3. Describe some alternatives to the deception used in this study.
4. To what extent did the study adhere to the Ethics Code of the American Psychological Association?
5. If you were a member of your institution's IRB, would you vote to allow this study—as described—to be conducted? Why or why not?

Study Terms

APA Ethics Code (p. 55)
Autonomy (*Belmont Report*) (p. 44)
Belmont Report (p. 41)
Beneficence (*Belmont Report*) (p. 41)
Confidentiality (p. 43)
Debriefing (p. 48)
Deception (p. 46)
Exempt research (p. 53)
Fraud (p. 62)
Honest experiments (p. 51)
IACUC (p. 59)
Informed consent (p. 44)
Institutional Review Board (IRB; p. 52)
Justice (*Belmont Report*) (p. 51)
Minimal risk research (p. 53)
Plagiarism (p. 63)
Risk (p. 41)
Risk-benefit analysis (p. 41)
Role-playing (p. 49)
Simulation (p. 50)

Review Questions

1. Discuss the major ethical issues in behavioral research including risks, benefits, deception, debriefing, informed consent, and justice. How can researchers weigh the need to conduct research against the need for ethical procedures?
2. Why is informed consent an ethical principle? What are the potential problems with obtaining fully informed consent?
3. What alternatives to deception are described in the text?
4. Summarize the principles concerning research with human participants in the APA Ethics Code.
5. What is the difference between "no risk" and "minimal risk" research activities?
6. What is an Institutional Review Board?
7. Summarize the ethical procedures for research with animals.
8. What constitutes fraud, what are some reasons for its occurrence, and why doesn't it occur more frequently?

Activity Questions

1. Consider the following experiment, similar to one that was conducted by Smith, Lingle, and Brock (1978). Each participant interacted for an hour with another person who was actually an accomplice. After this interaction, both persons agreed to return one week later for another session with

each other. When the real participants returned, they were informed that the person they had met the week before had died. The researchers then measured reactions to the death of the person.

a. Discuss the ethical issues raised by the experiment.
b. Would the experiment violate the guidelines articulated in APA Ethical Standard 8 dealing with research with human participants? In what ways?
c. What alternative methods for studying this problem (reactions to death) might you suggest?
d. Would your reactions to this study be different if the participants had played with an infant and then later been told that the infant had died?

2. In a procedure described in this chapter, participants are given false feedback about an unfavorable personality trait or a low ability level. What are the ethical issues raised by this procedure? Compare your reactions to that procedure with your reactions to an analogous one in which people are given false feedback that they possess a very favorable personality trait or a very high ability level.
3. A social psychologist conducts a field experiment at a local bar that is popular with college students. Interested in observing flirting techniques, the investigator instructs male and female confederates to smile and make eye contact with others at the pub for varying amounts of time (e.g., 2 seconds, 5 seconds, etc.) and varying numbers of times (e.g., once, twice, etc.). The investigator observes the responses of those receiving the gaze. What ethical considerations, if any, do you perceive in this field experiment? Is there any deception involved?
4. Should people who are observed in field experiments be debriefed? Write a paragraph supporting the pro position and another paragraph supporting the con position.
5. Dr. Alucard conducted a study to examine various aspects of the sexual behaviors of college students. The students filled out a questionnaire in a classroom on the campus; about 50 students were tested at a time. The questionnaire asked about prior experience with various sexual practices. If a student had experience, a number of other detailed questions were asked. However, if the student did not have any prior experience, he or she skipped the detailed questions and simply went on to answer another general question about a sexual experience. What ethical issues arise when conducting research such as this? Do you detect any specific problems that might arise because of the "skip" procedure used in this study?
6. Read the following research scenarios and assess the risk to participants by placing a check mark in the appropriate box (answers below). Can you explain the basis for your answers?

Experiment Scenario	No Risk	Minimal Risk	Greater Than Minimal Risk
a. Researchers conducted a study on a college campus examining the physical attractiveness level among peer groups by taking pictures of students on campus and then asking students at another college to rate the attractiveness levels of each student in the photos.			
b. A group of researchers plan to measure differences in depth perception accuracy with and without perceptual cues. In one condition participants could use both eyes and in another condition one eye was covered with an eye patch.			
c. Researchers conducted an anonymous survey on attitudes toward gun control among shoppers at a local mall.			
d. College students watched a 10-minute video recording of either a male or female newscaster presenting the same news content. While the video played, an eye movement recording device tracked the amount of time the students were viewing the video.			

Answers

a. Greater than minimal risk
b. Minimal risk
c. No risk
d. Minimal risk