CHAPTER 2

Ethics in Research

Psychologists conduct research not only because they enjoy the process, but also because psychology as a discipline is defined by, and dependent on, psychological research. However, conducting research requires awareness and consideration of a number of ethical concerns. Two major areas of ethical consideration are the treatment of participants while conducting the research and the use of the research results.

Ethical Treatment of Research Participants

The participants of psychological research are usually either animals or humans. How the participants are treated during the course of a research project is in part mandated by law, in part regulated by guidelines developed by psychologists, and in part determined by the researcher's own conscience. Together, these factors lead to research that not only provides valuable information about behavior but also respects the dignity of the research participants.

There is a long history of human research, not all of it conducted ethically. Horrific experiments on humans were conducted by Nazi doctors using concentration camp prisoners during World War II (Bülow, 2010)

and by Japanese physicians using prisoners, noncombatants, and prisoners of war (Harris, 2011).

The United States is not innocent of unethical treatment of human research participants. In the 1950s the CIA created a program called MK-ULTRA that investigated substances such as LSD that might be used to control the minds of soldiers or make enemy leaders insane. Among those given the drug unwittingly were psychiatric patients, CIA employees, and U.S. soldiers. At least two people died as a result of their participation, including a tennis pro who was in the New York Psychiatric Institute for depression (Zetter, 2010). Perhaps less dramatic was the testing of antimalarial drugs at Stateville Penitentiary in Joliet, Illinois, for nearly 30 years starting in the 1940s. During the Nuremberg Trials, the defense attorneys of Nazi concentration camp physicians argued that their experiments were no different than the use of prisoners in Stateville. Among the many stark differences between the two research settings is that the prisoners for the Stateville studies were volunteers. However, as prisoners in the penitentiary they may have felt some coercion to participate thinking that their situation might be improved if they did, or worsened if they didn't.

As a result of the stories told of vivisection and other torturous experiments on humans during the Nuremberg Trials, the Nuremberg Code, a code of ethical research conduct, was created. Among the principles the code states is that participants must give voluntary consent, the research should yield results for the good of society that could not be obtained by other means, and that the experiments should be conducted in a way that avoids all unnecessary physical and mental suffering and injury.

The Declaration of Helsinki was created in 1965, when the World Medical Association established recommendations for biomedical human research. 1974 saw the National Research Act, which created the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research in the United States. This commission was charged with identifying the basic ethical principles that should guide human research. The commission generated the Belmont Report in 1979, which summarizes three basic ethical principles: respect, beneficence, and justice. Respect for persons emphasizes that people need to be treated as individuals who can make their own decisions about what will and won't happen to them, and that those who cannot make those decisions for themselves need to be protected. Beneficence emphasizes that humans should not be harmed and that research should maximize benefits and minimize potential harm. The final principle is justice—that the selection of participants needs to be done fairly.

In 1981, the U.S. Department of Health and Human Services issued the Code of Federal Regulations, Title 45—Public Welfare, Part 46—Protection of Human Subjects. These are guidelines, based on the Belmont Report, for assuring that human research is done ethically. This code (with some modifications over the years) has been adopted as policy by most, if not all, federal departments and agencies that sponsor human research (History of Research Ethics, n. d.) and must be followed by all research funded by these agencies. Colleges and universities generally follow these guidelines when evaluating the ethics of human research on their campuses.

Ultimately, the ethical treatment of research participants is the responsibility of the researcher. It is the researcher who decides what research to do and what method to use. A researcher might decide not to investigate a certain topic or use a particular methodology because he or she is uncomfortable with the ethical ramifications. In other cases, a researcher may not easily perceive genuine ethical problems with a method he or she was planning to use. To help researchers see their projects from others' points of view, and in an attempt to ensure the safety and well-being of human participants in research, **institutional review boards (IRBs)** review proposals for research with human participants.

IRBs are committees of individuals with diverse backgrounds who review proposals for research with human participants. Members of an IRB at a college may include faculty members from different academic departments, as well as members of the community. The members' diverse backgrounds help bring different perspectives to the review process. All research using human participants that is federally funded must be reviewed by an IRB, but changes in the law in 1981 and subsequent revisions have exempted many other types of research from review. Such exemptions include research that involves common educational practices and research in which the participants remain **anonymous**, that is, no one, not even the researcher, knows the identity of the participants (Public Welfare, 2005). In an effort to guarantee the ethical treatment of human participants, however, most colleges and universities have an IRB that is at least aware of all research proposals involving human participants. Research that is exempt from IRB review under federal guidelines might also be exempt from the full institutional review; however, many institutions do not allow exemptions from this review.

Typically, a researcher completes an application form for the IRB that asks specific questions about the procedures to be used in a research project, whether there are any known risks or benefits related to the procedure, and how the participants' confidentiality will be maintained. Often, a detailed research proposal is supplied with the application. An important part of the application to the IRB is the informed consent form.

The **informed consent form** (sometimes called an **information and consent form)** is given to each participant prior to participation in the project. It describes the purpose of the study and what the participant will be asked to do. Any known risks or benefits related to the study are made clear to the participant. Even if the participant signs the informed consent form, that person is still free to stop participating at any point during the project; this is also clearly stated in the informed consent form. An example of an informed consent form is presented in figure 2.1.

Figure 2.1 A Sample Information and Consent Form

BRADLEY UNIVERSITY
Information and Consent Form
Study Title: Personality Test

Introduction: You are being asked to participate in a research study. Your participation is voluntary. Your decision to participate or not to participate will have no effect on your academic standing. Please ask questions if there is anything you do not understand. The purpose of this study is to learn about the personalities of those enrolled in PSY 104: Principles of Psychology.

What is involved in the study?

- You will take a seat at a table with two others. Once everyone is seated the facilitator will hand out the same personality inventory to the participants. Once the inventory is completed by everyone the participants will be debriefed about the intention of the study.

How many people will take part in the study?

- It is anticipated that 30 female college students enrolled in Principles of Psychology at Bradley University will participate.

How long will I be in the study?

- You will be in the study for one day for 5-10 minutes.

What are the risks of participating in the study?

- There is minimal risk if you choose to participate in this study. Some people might find that the presence of others makes them uncomfortable.

What are the benefits of participating in the study?

- You will earn one extra credit point for PSY 104 for your participation. You will also, see firsthand how psychologists conduct research.

What other options are there?

- You do not have to participate in this study. There will be other extra credit opportunities available in PSY 104.

What about Confidentiality?

- All reasonable efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Raw data will be stored in a locked file and destroyed when appropriate.
- Organizations or individuals that may inspect and/or copy your research records for quality assurance and data analysis include groups such as:
  - Bradley University faculty advisor, Wendy Schweigert

What are the costs?

- There are no costs for participation in this study, and you will receive no payment for taking part in this study.

What are my rights?

- Taking part in this study is voluntary. You may choose not to take part and may leave the study at any time.

Who should I call with questions or problems study?

- Questions about this study may be directed to the researcher or the research advisor in charge of this study: Dr. Schweigert at (309) 677-2581 during business hours
- If you have general questions about being a research participant, you may contact the CUHSR office at (677-3877) during normal business hours. The Chairperson of this committee will discuss the matter with you.

Documentation of informed consent

You are voluntarily making a decision to participate in this study. Your signature means that you have read and understood the information presented and have decided to participate. Your signature also means that the information on this consent form has been fully explained to you and all your questions have been answered to your satisfaction. If you think of any additional questions during the study, you should contact the researcher(s).

I agree to participate in this study Date

_____ _____

Signature of Participant or legally authorized representative

_____

Printed Name

If the participants are children or individuals who cannot give their own consent, the consent form is read and signed by each participant's parent, guardian, or legal representative. The individuals, however, should also be asked if they want to participate and should be free to say no or to end their participation at any time.

When I was a member of an IRB, I always put the most emphasis on the informed consent form when evaluating a proposal. It may be the only information the participants receive about what to expect and what risks and benefits may be involved. It is essential that it be accurate, understandable, and clearly written. The goal of the informed consent form is not to convince the individual to sign it; rather, the goal is to pro-vide enough information so that he or she can make an informed decision. The consent form simply documents that the person has consented to participate, and review of the form by the IRB ensures that he or she is given adequate information to make an informed decision. Although the consent form provides much information about the study, the researcher will typically describe the study to the participant orally and offer an opportunity for the participant to ask questions.

A researcher who has taken the time to plan and develop a research project may sometimes regard review by an IRB as an unnecessary hurdle before data collection can begin. However, the importance of an impartial review should not be underestimated. Ethical concerns are not always obvious; subtle and inconspicuous effects may easily be overlooked. I once used a procedure that involved rapidly presenting slides to the participants. During its development, I had tried the procedure on myself and a number of willing friends with no ill effects, but an impartial reviewer who experienced the procedure found it gave him a headache. Of course, the risk of headache or other discomfort was added to the informed consent form. If it had not been for that reviewer's comment and the inclusion of that risk in the information provided to participants, those who experienced headaches from the procedure may have believed that I was trying

to hide a negative side effect. Ignoring ethical problems does not make them go away; they can also harm the reputation of the researcher and of psychology as a whole.

Concern for participants' welfare does not start at the IRB, nor does approval of the procedure by the IRB release the researcher from responsibility for any ethical violations the board may have missed. Ethical considerations must be addressed throughout the development of the project. To aid researchers in identifying important ethical concerns, the **American Psychological Association (APA)**, a national organization of psychologists and people in related fields, has developed a set of fundamental principles. These **APA ethical principles in the conduct of research** are presented in box 2.1.

According to ethical research principles, the researcher is obligated to make a careful ethical evaluation of his or her proposed methodology. If there is any question of an ethical violation, the researcher should seek ethical advice from others. Thus, even when an IRB review is not required, a researcher should not hesitate to ask other individuals for advice.

The primary ethical concern is whether the participants of the experiment would be at **risk** or at **minimal risk**. Risk can be defined as the potential for physical or psychological harm to a research participant. Although the APA does not define "minimal risk," the definition used by IRBs reviewing biomedical and behavioral research is as follows:

> *Minimal risk* means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. (Public Welfare, 2005)

Thus, if the procedure involved in an experiment causes no more physical or psychological stress than a person would expect to encounter in everyday life, nor any greater risk of harm than a person usually faces, then a participant is at minimal risk. A person who spends an hour carrying out a very boring task in a psychological experiment may experience the discomfort of being bored, but this is not likely to be any more harmful or stressful to the individual than the boredom encountered in everyday life. Similarly, completing a paper-and-pencil psychological test—such as the Minnesota Multiphasic Personality Inventory (MMPI), which entails answering over 500 true/false questions—can be a long, somewhat stressful endeavor. However, since it is not unusual for students to be tested with long, somewhat stressful paper-and-pencil examinations, student participants completing the MMPI would probably be considered at minimal risk. In a study where the participants received painful but nonharmful shocks, the participants might very well be considered at risk, because the stress associated with the shocks might be deemed of greater magnitude than they would typically encounter.

Box 2.1
Excerpts from the American Psychological Association's *Ethical Principles of Psychologists and Code of Conduct*

8. Research and Publication

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 payer 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.

(continued)

(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.

It is the researcher's (and IRB's) responsibility to assess whether the participants are at risk or at minimal risk. If the researcher believes the participants may be at risk, a decision must be made regarding whether the risk to the participants outweighs the possible benefits of the knowledge gained. When the risk is relatively small compared to the possible gains, most advisory boards allow the research to be conducted (with fully informed consent from the participants, of course). However, as the risk to the participants of a study increases, the researcher becomes more obligated to consider alternative procedures that present a smaller risk.

If an investigation involves some risk of negative effects, the risk must be made clear to the participant. If the risk is serious, the investigator is obligated to consider alternative procedures. If no alternative procedures exist, an important decision must be made. Should research on the topic be scrapped, or do the potential benefits of the knowledge from the research outweigh the risk to the participants? Research involving serious risk to the participants should only be undertaken if there are great potential benefits or when the risk to the participants would be even greater if the research were not conducted.

Regardless of whether an advisory board has given the go-ahead for a project, and regardless of whether the researcher is the person who actually collects the data for the project, the researcher is always responsible for ensuring that the project is conducted in an ethical manner. Often, students or technicians who work for a researcher will actually conduct the research. If a research assistant behaves unethically, both the assistant and the primary researcher are responsible for that behavior and for alleviating any negative side effects caused by it.

In addition to informing the participants of any risks (as well as any benefits) participation might involve, the researcher should also answer all of the participants' questions about the study. This may require some special efforts if the participants are children or people with mental or physical limitations that hinder communication, but it is an important step that ascertains that the participant fully understands what is expected and what to expect.

Special efforts to safeguard the participants also are required when full disclosure of the purpose of a study or the procedure prior to the investigation might impair the validity of the results. For example, in an investigation of reactions to emergency situations, the researcher cannot tell the participants that a staged emergency situation is about to occur and still be certain that the results reflect what the participants would do in real life. According to the APA, studies involving **deception** (lying or misleading participants) or concealment should only be conducted when no known alternative procedure is available and if the researcher does not deceive the participant about any factors that might affect their willingness to participate. Also, if studies involving deception or concealment are conducted, it is important to let participants know the true purpose of the study as soon as possible, this is called **debriefing**.

Even if a participant has signed the consent form, he or she still has the right to quit the study at any time. Of course, this can be very frustrating for an investigator. Moreover, if participants from one group quit the project more than do participants from another group, it can affect the interpretability of the results. However, as frustrating and disappointing as it may be for the researcher when a participant decides to withdraw from an investigation, no effort should be made to convince the person to stay. As a volunteer, it is the participant's right to terminate his or her participation, and that right must be respected.

Similarly, no undue effort should be made to convince a person to serve as a participant in an investigation. The participant must be in a situation allowing **free consent**. Free consent is consent given without coercion or pressure to comply. Clearly, whining and pleading by the researcher are unacceptable. However, it's also important to guard against situations in which a person feels coerced because the researcher is in a position of authority. For example, a student may feel pressure, imagined or not, to participate in an investigation conducted by his or her advisor or instructor. Or a patient may wonder if declining to participate in a study will affect the medical treatment provided. An employee may wonder if volunteering to serve as a participant might translate into a few more dollars in the next raise. A researcher who is in a position of influence or authority must make extra efforts to avoid any real or perceived coercion of potential participants.

While researchers need to provide all the relevant information for a person to decide if he or she wishes to participate in a study, all the details regarding the actual purpose of the study may not be fully explained at the time the procedures are described. When the participants know the purpose of the study, they often try, in a spirit of helpfulness, to behave in the way they think the experimenter wants. Thus, while the procedure, risk, and benefits might be described in detail, the reason for conducting the research might not be explained thoroughly before the person participates. Standard 8.08 of the APA ethical guidelines states, however, that information about the purpose of the study should be provided as soon as possible after the data have been collected. As mentioned above, the participants should be debriefed. Often debriefing occurs immediately after an individual's data have been collected; at other times, debriefing may be provided at a later date, after the data are collected from all the participants. This may be necessary to prevent knowledge of the study's purpose from leaking to others before they participate.

Even when provided with the true purpose of an investigation, participants will often create their own additional misconceptions. As many psychology majors have noticed when talking to students of other disciplines, people often have the mistaken notion that psychologists can read their minds. A subset of participants asked to rate how often they have heard figurative phrases such as "let the cat out of the bag" in a study I conducted believed that how they rated a list of these phrases told me something about their personalities. In debriefing, such misconceptions about the purpose of a research project should be removed so that the researcher—and psychology in general—will not suffer (or benefit) from them. When explaining the true purpose of the study during debriefing, the researcher should clarify any aspects of the study that were concealed or misrepresented. For example, if the study included a **confederate** (a research assistant who posed as a participant) this would be made clear during the debriefing. The researcher should also answer all the participants' questions about the study at this point.

Unless other arrangements have been made between the researcher and participant prior to data collection, all information collected during the course of the project is confidential, which means that the information collected will not be shared with anyone outside of the research project. **Confidentiality** is not a principle to be taken lightly. Off-hand comments to others about a silly thing a participant did during the study serve only to undermine the respectability of the researcher, the research, and psychology in general. In other cases, the information gained from a participant may be very sensitive and could cause the person great distress if it was learned by others outside of the experiment. Perhaps more importantly, if participants know that the information they give will be kept confidential, they can let down their guard and act naturally. This is essential in psychological research, where the value of the results depends on participants reflecting real behavior.

Internet Research Ethics

Increasingly, the Internet is being used in research, either as a focus of the research or as a way to collect data. Research involving the Internet might involve giving surveys, observing participants in virtual worlds, asking participants to carry out a task via the Internet, or analyzing content that is stored on the Internet. The use of the Internet in research has become an area of special concentration within the realm of research ethics because the Internet brings with it some of its own problems and issues. The American Association for the Advancement of Science (AAAS) and the National Institute of Health (NIH) convened a workshop on the issue in 1999 (Buchanan & Ess, 2009). The Association of Internet Researchers (Ess & AoIR, 2002) developed a set of guidelines to help researchers, research participants, and members of ethics review panels determine ethical issues and make decisions regarding Internet research. The APA formed the Advisory Group on Conducting Research on the Internet in 2001 and that group published a report on the topic (APA, 2002; Kraut et al., 2004). In 2008, the *International Journal of Internet Research Ethics* was founded (Buchanan & Ess, 2009). All of this attention indicates that there is clearly interest in and concern about the ethical issues related to Internet research.

A primary area of concern is the privacy of the information provided by participants via the Internet. While researchers gathering paper-and-pencil responses can control access to that data, much of that control is lost when the data are collected via the Internet. For instance, in some research, the researcher can quote comments made by participants without disclosing the name of the source. A third party, however, could be able to search the Internet for the quoted material and determine who made the original statement.

One might think that online surveys created by the researcher would be more secure than gathering data from listservs, blogs, and virtual worlds. This may be so if the company that designed the survey software has incorporated options that protect the rights of the respondents. However, if the IP addresses of the respondents' computers are stored then the results may not remain anonymous. Someone could use the IP addresses to determine who responded and how.

Privacy of data becomes even more important when sensitive topics are being investigated. A researcher who studies underage drinking or other illegal activities as portrayed on the Internet must be very careful about how the information is gathered, stored, and used so as not to violate the trust of the participants or any relevant laws. Researchers conducting investigations involving emotionally or legally sensitive materials via the Internet must be extra cognizant of the privacy and security of that information.

The privacy of the participants must also be considered at the user's end of the interaction. If the participant is using a shared computer the information they provide may be available on the computer for other users to access. Information about how to erase that information should be provided when the study is first described to the participant.

The Internet makes getting informed consent more challenging than when conducting face-to-face research. When the respondent is anywhere in the world the researcher cannot be positive that the person is an adult, a member of the population being studied, or even mentally capable of giving consent. There also can be questions regarding whether the informed consent given at one point in time is still "good" at a later point in a study. Consider a study examining how people search for items on retail websites. Although participants agree to participate, it may become unclear at what point the study begins or ends. Does the informed consent continue on new product pages? Does the study continue when the person clicks through to other websites? What if he or she logs off and then logs on to the site again later? Ideally the beginning and ending of data collection is clear and there are obvious ways for a participant to opt out of the study at any point.

Another issue is the debriefing of participants. Just as it is impossible to know who precisely is participating in a project, it is also impossible to know if the appropriate person received an e-mail or Internet post containing the debriefing message. Internet research can make it difficult to interact one on one with participants to answer questions and alleviate concerns. The more sensitive the topic of the project the more attention debriefing must be given.

The use of the Internet in research is an area that IRBs are dealing with at an increasing rate. The nature of the Internet, the fact that millions of people have access to it, the information provided on it, and the relative anonymity of its users create challenges for researchers as they try to carry out meaningful research while protecting their participants.

Ethical Dilemmas

Although the APA ethical guidelines aid researchers in their decisions about how and when to conduct a research project, they are only guidelines, not laws. Researchers can stray from them with legal impunity. For example, although confidentiality of information is a primary concern, a researcher who learns from a participant that he or she plans to commit a serious crime may feel morally entitled—and in some cases may be legally required—to breach confidentiality and report this information to the appropriate authorities. In fact, evidence supplied during the course of a research project can be subpoenaed by a court. Furthermore, these ethical guidelines were developed to be applicable to a broad array of research procedures and to reflect the ethical beliefs of a great number of psychologists. As such, they do not address ethical questions that some people find especially important. For example, when is it acceptable to observe behavior and when is observation a violation of privacy? Is it ever acceptable to use deception in research, or do such practices demonstrate disrespect for human dignity?

Privacy. **Privacy** refers to an invisible physical or psychological buffer zone or boundary around a person (Sieber & Stanley, 1988). Not uncommonly, research is often designed to access information within those boundaries; examples include studies on sexual behaviors, child-rearing practices, and personal relationships. In some cases, the researcher can ask permission to gain this information. When participants voluntarily complete a questionnaire on their buying habits or religious beliefs they have agreed to share this private information. In other cases, researchers may observe people who are unaware that they are being watched. For example, in one investigation, men were observed by means of a periscope to study the effect of invasion of personal space on their rate of urination. In the condition in which the participant's personal space was invaded, a confederate in a public restroom would urinate in the urinal next to the participant. In the condition without invasion, the confederate was not present (Middlemist, Knowles, & Matter, 1976). Obviously, in this study there was no opportunity to gain informed consent from the participants. If you were a member of an IRB reviewing a proposal for this study, what would your decision be? Would you allow the study to be conducted as

described, or would you suggest some modifications or perhaps simply deny permission for it to be undertaken? (For a critique of the ethical decisions behind this study, see Koocher, 1977; for the authors' response, see Middlemist, Knowles, & Matter, 1977.)

Deception. In a now-famous study of obedience by Stanley Milgram (1963, 1977), participants were led to believe that they were inflicting dangerous levels of electrical shock to a second participant whenever the second participant failed to answer a question correctly. In reality, the shock machine was inoperable, and the second participant was a confederate who only pretended to be shocked. Approximately half of the participants continued to give shocks as instructed by the experimenter until the maximum shock level was reached. Milgram was criticized by colleagues, the press, and the general public for deceiving his participants and causing them to experience the stress associated with a distasteful truth about themselves. However, during immediate debriefings and during one-year follow-up interviews with his participants, Milgram reported that only about 1% of the people wished that they had not participated in the study and that most of the participants were very glad that they had.

The positive reaction of Milgram's participants to being deceived in psychological research appears not to be unusual. Pihl, Zacchia, and Zeichner (1981) interviewed people who had participated in research involving deception, shock, and alcohol. Of these participants, 19% reported being bothered by some part of the study. Of those, 4% were bothered by the deception; most were bothered by the consumption of alcohol and the speed with which it was consumed. In another investigation, 464 participants were asked their opinions of the research projects in which they had been involved (Smith & Richardson, 1983). Participants who had experienced deception in research projects reported greater educational benefits and enjoyment of those experiences than did participants who had not experienced deception.

Those who study participants' reactions to research suspect that debriefing is an important step in making participants feel positively toward an experience that involved deception. In a replication of Milgram's obedience study, only 4% of debriefed individuals wished that they had not participated in the study, but approximately 50% of those who had not been debriefed wished they had not participated (Ring, Wallston, & Corey, 1970).

In some research, however, debriefing itself may be unethical. In research where participants act cruelly or prejudicially, it may be better not to point out their behavior in a debriefing. For example, imagine that a person on crutches stumbles in front of you and drops some books and, for whatever reason, you choose not to assist the person. It may be more damaging to learn that your behavior was observed and recorded than it would be to simply go on your way without realizing you were part of a research project.

Perhaps deception in research is more of a problem for researchers and ethicists than for the participants of the investigations. And perhaps that is how it should be, for the goal of ethical treatment of research participants is that they not be discomforted by the procedures of the investigations. Maybe the evidence that participants are not distressed by the deception they face in research suggests that researchers have been successful at minimizing the negative effects of deception.

This discussion should not be construed as an argument in favor of the use of deception in research. Ideally, deception should be avoided; some would say that its use is never justified. However, considering that roughly 44% of psychological research with human participants in the past has involved deception (Leavitt, 1991), we should not expect that the use of deception will stop in the near future. It is important, though, that those who oppose deception in research remain vocal, for they help to ensure that researchers make a diligent effort to minimize the negative effects of deception on participants in psychological research.

CONCEPT QUESTION 2.1

How strictly do you define deception? Is deception used when a participant is misled about the purpose of a study—for instance, if the participant is told that its purpose is to investigate how well a small child likes a toy but it is really to assess the interactions between a mother and a child? Is deception used when a participant is not given full information about the purpose of a project—for example, if the participant is told that a study's purpose is to investigate natural language usage while actually it is to identify the use of swear words in conversation?

Ethical Treatment of Animal Participants

Historically, the results of animal research have played a central role in the development of psychology. Ivan Pavlov's research on classical conditioning, Edward Thorndike's instrumental-conditioning research, and B. F. Skinner's operant-conditioning research provided the foundations for our current understanding of animal and human learning. During the early 1980s, psychological research with animals as participants accounted for approximately 7% of all research published by the APA (Miller, 1985). Brink and his colleagues (1995) found that, at last count, animal research accounted for 14% of the articles published in the *Canadian Journal of Psychology.*

Although quite specific requirements and regulations protect the welfare of animal research participants (Animal Welfare Act, 2008), animal-rights supporters have been quite vocal and active in recent years. Often, they try to make public what is perceived as—and sometimes is—the mistreatment of animals in unnecessary or poorly conducted research. Some

members of animal-rights groups feel justified in breaking into laboratories to destroy equipment and data and to "liberate" animals. In 2002, James Jarboe of the Federal Bureau of Investigation's counterterrorism office reported that the Earth Liberation Front and Animal Liberation Front organizations had committed more than 600 criminal acts since 1996, with an estimated cost of $43 million in damages (Schabner, 2002).

Animal-rights supporters express a range of views about the value of animal research. Some only want to make certain that the animals are treated humanely and that no unnecessary research is conducted. Others will not be satisfied until there is a total ban on animal research (Erikson, 1990). In response to such challenges, many researchers have catalogued the advances and benefits made as a direct result of animal research. In 1985, Neal Miller asserted that the results of animal research in psychology were important to advances in psychotherapy; behavioral medicine; rehabilitation of neuromuscular disorders; understanding and alleviation of the effects of stress and of constant pain; drug treatment for anxiety, psychosis, and Parkinson's disease; knowledge about drug addiction and relapse; treatment of premature infants in incubators; understanding of the relationship between aging and memory loss; and the treatment of anorexia nervosa. With increased overlap between psychological, biological, and neurological research, the influence of animal research on recent advances in science and medicine is unlikely to have decreased.

Animal-rights activism has encouraged scientists to work with animals in a humane manner and to develop alternative methods that do not require the use of animals (Erikson, 1990). Organizations like the National Institute of Environmental Health Sciences (2000) have developed panels to encourage the development and approval of alternative testing methods, such as developing tests like Corrositex, which uses a synthetic skin to show the effects of corrosive chemicals. Partly as a reaction to public concern for the ethical treatment of animal participants, the APA (1981, 1996) developed a set of guidelines for animal researchers to use in their research. These guidelines, the **APA Guidelines for Ethical Conduct in the Care and Use of Animals**, are continually reviewed and revised.

In summary, the guidelines require that the animals be treated humanely; that treatments involving pain, stress, or privation be used only when absolutely necessary; and that surgical procedures be performed using anesthetics and techniques to avoid infection and minimize pain. The personnel that interact with the animals must be well-trained and must be supervised by a psychologist who is trained and experienced in the care of laboratory animals. And, of course, the animals must be treated in accordance with local, state (or provincial), and federal laws. For more information, see the APA's website: http://www.apa.org/science/leadership/care/guidelines.aspx.

The U.S. Department of Agriculture is responsible for regulating and inspecting animal laboratory facilities. In addition to inspections, the Animal Welfare Act of 1990 requires institutions to establish institutional animal care and use committees. These committees are similar to IRBs for human research and must review proposals for animal research at the institution (Erikson, 1990).

In reaching their decisions, these committees may consult the *Guide for the Care and Use of Laboratory Animals,* published by the National Research Council (2010). This guidebook is based on information from across the sciences and supplies information and recommendations about all aspects of laboratory animal care. Among the information in the book are guidelines regarding the environmental needs of numerous species. For instance, rats weighing between 100 and 200 grams should have a cage 7 inches high with 23 square inches of floor area. In addition, the laboratory should be kept at 64° to 79°F with a relative humidity between 30% and 70%. Information of this sort can be very useful to animal care and use committees, as well as researchers, as they meet their goal of assuring humane housing and treatment of animals.

Animal research has played an important historical role in the development of psychology as a discipline and continues to contribute to psychological science and human betterment. Not all psychologists, however, are in favor of animal research; the debate continues within our own discipline. (For instance, see Baldwin, 1993 and Bowd & Shapiro, 1993 for opposing views.) Only time will tell what role animal research will play in the future of psychology.

Ethics and the Reporting of Research Results

Another important area of ethical concern for researchers is how the results of a research project are presented. Basically, what a reader wishes to know is that the article represents a research project that actually occurred, that it occurred in the manner described, and that the results were accurately reproduced in the article. Unfortunately, some individuals take shortcuts in the research process or attempt to present research results in a manner that more closely fits their original expectations than the reality of the situation.

Scientific misconduct garners much publicity and discussion, especially when it involves fraud in government-funded research. Stephen Breuning, a once-respected research psychologist and former authority on the treatment of mental retardation with tranquilizers and stimulants, pled guilty in 1988 to two counts of fraud. He was charged with taking federal grant money for research and falsifying results (Bales, 1988). In another case, research linked to Columbia University and published in the *Journal of Reproductive Medicine* suggested a relationship between prayer and pregnancy. It was investigated for possible scientific misconduct, primarily because one of the coauthors turned out to be a convicted con-man (Gershman, 2004).

Scientific misconduct is not a new phenomenon. Isaac Newton is said to have purposely adjusted his data to make a rival look worse, and Gregor Mendel is suspected of having tampered with his data on inherited characteristics since some of his results are suspiciously perfect (Roman, 1988). Freud has also come under suspicion of having distorted facts to better fit his theory (Raymond, 1991). In psychology, there have been widely publicized accusations of scientific misconduct against Sir Cyril Burt, who investigated intelligence and heredity in the early twentieth century (Roman, 1988). After his death, critics suggested that Burt not only fabricated data, but also invented participants and research assistants. Burt's defenders responded that some of the charges against him were totally unfounded (at least one of the supposedly imaginary research assistants actually did exist) and that, at worst, Burt was somewhat sloppy with his statistics (Eysenck, 1977; Jensen, 1983; but see also McAskie, 1979). We will probably never know for sure whether Burt's results are error-filled as a result of unintentional mistakes or purposeful misconduct.

Scientific misconduct can occur in a number of ways. A researcher can fabricate data, as is alleged of Breuning and Burt. Or a researcher can alter data from actual studies, as Newton and Freud are suspected of doing. There is general agreement that altering and fabricating data are serious breaches of ethics, but gray areas emerge when discussing the proper way to make research findings public. Some researchers will publish many articles from one large set of data; they break the project into what is sometimes called the "least publishable unit." This practice has been portrayed as an inappropriate way for researchers to gain prestige and a waste of journal space that could be used to present new research. Others argue that it is a legitimate response to the limitations that journals impose on the number of pages per article. Also, tenure and promotion in the academic world is often dependent on publishing research articles; thus, a researcher's job may depend on publishing multiple papers on one topic.

Another bone of contention in psychology is that some researchers present results to the popular press before they are published in the professional press. Problems can arise because the popular press does not submit the research for quality review by a panel of professionals prior to publication. Also, the popular press does not usually understand the research thoroughly and can misrepresent it to the public. The counterargument is that the review process is too slow and that the public has a right to know about potential research breakthroughs as soon as possible (Grisso et al., 1991).

Authorship and the order of authorships can also be a point of contention in psychology. Quite often a research paper has more than one author. According to the APA, the order of authorship in psychology is determined by the relative contributions made by the authors. If a student did most of the thinking, organizing, and writing, the student should be first author, even if his or her professor is a bigwig in the research field. Similarly, a person who has added little or nothing to the research project perhaps should not be listed as an author. A better known researcher might agree to be given (and accept) an authorship to give the paper greater cachet, or research assistants might be given authorships even though they barely understood the project and contributed nothing to the conceptual development of the paper. Many would argue that these individuals do not deserve authorships. On the other hand, others would argue that what little contribution these individuals made was still valuable and worthy of authorship, that the project would not have been done without their assistance (in the case of the research assistants) or their consultations (in the case of the senior researcher). It should be noted that while true for psychology, the order of authorships is not an area of concern in all disciplines. In mathematics, for example, authors are usually listed alphabetically.

The APA (2002) has developed a set of ethical standards for reporting and publishing scientific information. Despite some well-publicized cases, there is no evidence to suggest that scientific misconduct is on the rise. In general, researchers are conscientious and honest; they present research as it was done and present results as they occurred. Unfortunately, it is the rare case of misconduct that the public usually hears about.

Ethics and the Sponsorship of Research

Research can be very expensive, and it is not uncommon for researchers to receive grants from either the government or private industry to fund their projects. However, funding by an outside source brings up another area in which an individual's sense of ethics can be compromised.

An organization that funds a project may expect to apply the results of that research toward their own interests. For example, NASA funds research on motion sickness so that it can apply the results to the motion sickness experienced by some astronauts. Because it is sometimes difficult to foresee how the results may be used, the APA suggests that researchers familiarize themselves with an organization's mission and how the organization has used the results of previous research (APA, 1982). When conducting research for organizations, researchers may feel pressure to produce particular results, as in this example:

> I design, analyze and write up research reports that identify the advantages of one medium over the other media. Yet with large expenditures for the research, I feel constrained to report *something*. But there is a limit to how many unpleasant findings I come up with. Finally, I have to find some truthful positives or I start looking for another job. (Pope & Vetter, 1992, p. 403)

A last ethical issue that researchers should be aware of is that knowledge is a double-edged sword. For every new piece of information that can be used for good ends, we also gain knowledge that can be used for bad ends. For example, information on how to undermine stereotyping also

provides information on how to instill it. If we know how to make material easier to read and more comprehensible, we can also use that understanding to purposely make material difficult and opaque. Knowledge of animal behavior can be used to teach a dog to sit or to attack.

We tend to believe that misuse of scientific information could only occur in science fiction. Yet, there are some who believe that one instance occurred during the early twentieth century. Henry Goddard, a psychologist, used the newly developed intelligence test to assess the intelligence of Jews, Italians, Poles, and Russians. The testing was done in English, regardless of the language spoken by the immigrant. Some scholars have suggested that these data and data on the intelligence-test scores of Army draftees (Brigham, 1923) were instrumental in convincing Congress to enact this country's strictest immigration law, the Immigration Act of 1924 (Sieber & Stanley, 1988; but see also Snyderman & Herrnstein, 1983, who dispute the link between IQ testing and the Immigration Act of 1924).

There are no guidelines for how to deal with the dilemma that knowledge can be used to help and to hinder. Each individual must make his or her own decision about researching an area despite the possible consequences.

Summary

Research in psychology can be a rewarding endeavor for the researcher, the participants, the consumers of the research, and the beneficiaries of advances in science, but only when that research is conducted and reported in an ethical manner.

Psychological researchers are guided in their ethical decision making by laws and the APA guidelines for the ethical treatment of human and animal research participants. But ultimately, it is the researcher's conscience that determines whether the research is conducted and reported ethically.

Given the thousands of colleges, universities, and other institutions in the United States and around the world at which psychological and other research is conducted, it is encouraging that so few complaints of unethical treatment are made. By and large, scientists respect the dignity of their participants and their disciplines.

Important Terms and Concepts

American Psychological Association (APA)
anonymous
APA ethical principles in the conduct of research
APA Guidelines for Ethical Conduct in the Care and Use of Animals
confederate
confidentiality
debriefing
deception
free consent
informed consent form
institutional review boards (IRBs)
minimal risk
privacy
risk
scientific misconduct

Exercises

1. Define informed consent and free consent and describe a situation in which informed consent might be given but free consent might be impossible to obtain.
2. Consider a situation in which the researcher is studying the relationship between personality types and tendencies toward violence. The participants are told that the study is about something else entirely, but during the course of the study they are provoked by a confederate posing as another research participant regarding an issue they feel strongly about until the participant reacts strongly, perhaps even violently.
   a. From the researcher's perspective, why might this be considered an acceptable, even important, study to conduct?
   b. From an IRB's perspective, what concerns might they have about the study?
   c. From the participant's perspective, why might he or she feel good or bad about having participated in this study?

For each of the following questions, explore your own feelings about the situations described and the issues addressed. There are no right or wrong answers to ethical questions. Don't focus on what you think you should say, but rather try to discern your own attitudes. You may wish to share your answers with others—if you do, the diversity of opinions that you hear may surprise you.

3. You are a member of an IRB reviewing the following proposal. A researcher would like to determine how much of a person's casual conversation is composed of slang and figurative expressions. The results of this research would add to the body of knowledge of language comprehension and would also aid those teaching and learning English as a foreign language. To collect data on this topic, the researcher would like permission to record conversations at restaurants without the participants' knowledge. The participants would all be strangers to the researcher, the conversations would be coded for slang and figurative expressions only, and then the tapes would be destroyed. The participants would never know that they had been involved in this study.
   a. What questions would you ask the researcher?
   b. What alternative procedures might you suggest?
   c. Would you require changes in the proposal? If so, what would they be?
   d. What APA ethical principles are, or are in danger of, being violated by this project?
   e. Would you allow this project to be conducted? Why or why not?
4. With advances in medicine, more people are surviving closed-head injuries and strokes. These individuals suffer brain damage as a result of some external or internal trauma. In order to study the effect of a drug that

might benefit these individuals, research using animals is proposed. You are on the institutional animal care and use committee for the drug company that is proposing this research. An unpleasant aspect of the research is that the animals—in this case, cats—must suffer brain damage for the drug to be tested. Brain damage would be induced under a general anesthesia; a small predetermined part of the brain would be destroyed surgically.

a. As a member of the animal use committee, what questions would you ask the researcher? Would you allow this research to be conducted? If not, why not? If so, would you ask the researcher for any modifications or additions to the procedure?

b. Consider your own personal feelings about animal research. Do you feel the type of research described here is necessary? Would you feel comfortable about conducting this type of research? Would your feelings be different if the animals involved were rats instead of cats? If so, why? If not, why not?

5. An acquaintance approaches you about conducting a survey to assess racist attitudes in your community. The organization that this individual represents agrees that you may publish the results under your name, but also intends to use the results in its own advertisements and literature.

a. Considering your own personal views, what information would you wish to know about this organization?

b. You discover that the organization's philosophies are in agreement with your own, but they have distorted research results in the past to fit their own needs. Given this information, would you still be willing to conduct their research? Why, why not, or with what conditions?

6. A researcher is considering research on college friendships and if they are reciprocal, i.e., does each person like the other equally? He is considering asking participants about their ten best friends and how much they care for each of them. He hasn't decided yet if he will conduct this research in person, via a survey, or over the Internet.

a. What ethical concerns might an IRB have?

b. Would using the Internet make the data gathering more or less secure than conducting the research in person? Than via a written survey? What factors might affect that security?

Answers to Concept Questions and Odd-Numbered Exercises

Note: There will often be more than one correct answer for each of these questions. Consult with your instructor about your own answers.

Concept Question 2.1

No single answer is correct for this question. For some students the definition of deception will be very clearly defined, for others there will be a large gray area between truth and deception. Some might find it unacceptable to "lie" to the mother about the purpose of the study or to suggest that the purpose is to study the child's reaction to the toy while the mother/child interaction is the true focus. Others will find this to be a perfectly acceptable situation. Still others might find it acceptable only if the mother was told the truth immediately after participating.

Similarly, students may vary in their opinion of the situation in which general terms are used to describe a more specific focus (the participants are told they are studying natural language usage while the investigators are particularly interested in swearing). Students who are more sensitive to the use of swear words might find this to be an inappropriate situation. It could be interesting to see if they would feel the same way if the study was actually focused on something more innocuous, such as the use of idioms.

Exercises

1. Informed consent is agreement to participate in a study after learning all the relevant information about the potential risks and benefits. Free consent is agreeing to participate without any expectation that participation will affect the person's situation in any manner. Students in a psychology class may give informed consent to participate in a study being conducted by their professor, but they might not be giving free consent if they think participating will help their grades.

3. One possible set of answers is as follows.

a. Would the conversations be video- or audio-recorded? Will the researcher ever see the participants? How many people will listen to the recordings? What happens if someone who is not a stranger to the researcher sits at the table?

b. Could conversations be audio-recorded in a laboratory setting where participants have given their informed consent?

c. To assure anonymity, the researcher must not be able to see the participants.

d. Sections 8.02 and 8.03.

e. I would probably allow this study because the participants are only at minimal risk; anyone could eavesdrop in a restaurant.

5. a. I would need to know if the organization's views are aligned with mine. I would not want to help an organization that is actively working against a cause I believe in. However, others might feel that conducting the research and publishing the results would be an effective way of countering the organization's arguments and perspective.

b. I probably would not conduct their research, because I wouldn't want my name associated with their reputation for distorting results, but again, others might be eager to counter the organization head on.