

# 3

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## Ethics

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### OVERVIEW

Ethics is a commitment to follow particular, established behaviors while conducting research. Both ethical attitudes and behaviors are specified in the American Psychological Association's *Ethical Principles of Psychologists and Code of Conduct*, which is discussed in this chapter. Also covered are a brief history of ethics, three historical ethical cases, and research with animal subjects.

### OBJECTIVES

After studying this chapter and working through the exercises, you should be able to:

1. Discuss the historical importance of ethics and moral codes
2. Describe how scientific ethics emerged
3. Describe the function of institutional review boards (IRBs)
4. Identify a researcher's responsibilities to participants as covered by psychology's *Ethics Code*
5. Identify a researcher's responsibilities to psychology as covered by the *Ethics Code*
6. Identify differences in the ethics of research with humans and research with animals
7. Conduct ethical research

## LOST IN THE MALL

Picture this: The year is 1991 and you are taking a cognitive psychology class at the University of Washington. Your teacher emphasizes that memory is sometimes quite mistaken. She adds that some people have a completely false memory of an event but do not realize it. She suggests a class project: You are to go home and attempt to plant a completely false memory into one of your family members. The memory must be for something that never happened.

A few weeks later, Jim, one of your classmates, reports that he has managed to convince (with support from their parents) his 14-year-old brother Chris that he had been lost in a shopping mall when he was 5 years old. Jim told the following story:

It was 1981 or 1982. I remember that Chris was 5. We had gone shopping in the University City shopping mall in Spokane. After some panic, we found Chris being led down the mall by a tall, oldish man (I think he was wearing a flannel shirt). Chris was crying and holding the man's hand. The man explained that he had found Chris walking around crying his eyes out just a few moments before and was trying to help him find his parents. (Loftus, 1993, p. 532)

On several occasions afterward, Jim got Chris to write a sentence or two about being lost. After 2 weeks, Chris told the following story about his "memory of being lost in the mall":

I was with you guys for a second and I think I went over to look at the toy store, the Kay-Bee toy and uh, we got lost and I was looking around and I thought, "Uh-oh. I'm in trouble now." You know. And then I . . . I thought I was never going to see my family again. I was really scared you know. And then this old man, I think he was wearing a blue flannel, came up to me . . . he was kind of old. He was kind of bald on the top . . . he had like a ring of gray hair . . . he had glasses. (Loftus, 1993, p. 532)

Weeks later, Jim and his parents told Chris the truth about his false memory. Chris was quite surprised and, at first, did not believe them. Eventually, however, he came to believe that he had never been lost in a mall. Later, Chris reported that the experience, on the whole, had been pleasant. He was pleased that his story had made national headlines (in *The New York Times*, *The New Yorker*, *Newsweek*, and the *Ladies Home Journal*) and had helped spark subsequent research (Loftus, 1997).

Jim's teacher was Dr. Elizabeth Loftus, a well-known researcher in the psychology of memory. After the class project, Loftus, Jim Coan (Chris's brother), and Jacqueline Pickrell, another of Loftus's students,

planned a formal experiment that involved implanting false memories. They submitted the proposed research to the Human Subjects Committee at the University of Washington, which approved after revising their plan some (Loftus, 1999). Soon thereafter at the 1992 meeting of the American Psychological Association, Loftus reported the classroom findings about the Lost in the Mall research. She referred to Chris and others as pilot subjects (Crook & Dean, 1999b), not as students participating in a classroom exercise.

## PRISON GUARDS AND PRISON INMATES

Let's move to a different time and place. Picture this: It is 1971 at Stanford University and you volunteer to participate in a 2-week prison simulation study for \$15 per day. (Today, the equivalent amount is about \$75.) You and 24 other volunteers are chosen because you have no criminal record, no medical or psychological problems, and no history of drug abuse. For the 2 weeks, you are to serve as either a prisoner or as a guard, a role determined by a coin flip at the beginning of the study. You are slated to serve as a prisoner. On a Sunday afternoon and in full view of your neighbors, the local police come to your home and arrest you, charge you with armed robbery and burglary, advise you of your legal rights, handcuff you, and take you to the city jail with lights flashing and siren blaring (see **Figure 3.1**). You are booked, fingerprinted, blindfolded, and put into a holding cell. From the holding cell you are moved to "prison." The prison is in the basement of the Stanford psychology building. Three rooms have been converted into cells, each of which has three cots and real bars instead of a door. The hall is the prison's "yard" and a small closet serves as the "hole," which is used



**FIGURE 3.1**  
Arrest of a  
"prisoner."

to discipline unruly prisoners. There is a bathroom. The walls are bare and there are no clocks.

You are assigned a number, and you are called by it instead of your name during the study. You are stripped naked and sprayed for lice and bacteria. You wear a smock, rubber sandals, and a cap made from women's nylon hose (to simulate having your head shaved). No underwear is issued. A heavy piece of chain is padlocked to your right ankle. The guards (fellow students, remember) wear khaki uniforms and sunglasses. They carry clubs and whistles and are untrained. You are one of nine prisoners. There are nine guards, three per shift, with three shifts per day. When the guards are not on duty, they are free to go anywhere they please. They, too, are paid \$15 daily.

The first day is uneventful until 2:30 a.m. when the guards conduct a prisoner count, forcing the inmates to stand in the yard. On the morning of the second day, the prisoners riot during the guards' shift change. Prisoners remove their caps, barricade the barred doors with cots, and tear off their identification numbers. The other guards are called in and all nine move against the prisoners using fire extinguishers. The guards lock the leaders of the rebellion in the hole. The prisoners who participated least are placed in a new special privileges cell, given back their cots and uniforms, and fed better food. Twelve hours later, however, the guards move some leaders of the rebellion into the special privileges cell and move some of the others to the regular cells. The action breaks the prisoners' solidarity and intensifies the differences between prisoners and guards.

According to plan, parents and friends visit for 10 minutes on the third day. Before the visit, the guards clean the prison and issue fresh uniforms. All visitors are forced to register and then made to wait 30 minutes. During the visit, a guard is always present. After the visit, the guards hear a rumor about a mass-escape attempt that is to be aided by students on the outside. The guards respond by temporarily moving all prisoners, blindfolded and chained together, to a fifth-floor storage room. The rumor proves false. Over the next 2 days, the guards become more dominant as the prisoners become meeker and more disorganized.

After 5 days, prisoners, guards, staff, and visitors had fallen into the experiment completely. Dr. Phillip Zimbardo, head of the project, reported that he felt more like a warden than like a research psychologist. When his fiancé (also a social psychologist) visited and protested vigorously, he decided it was time to halt the experiment (Zimbardo, 1973). On the sixth day, all of the participants attended two encounter sessions (a two-way debriefing session encompassing information and emotions): one for the prisoners, one for the guards, and one for prisoners and guards together. All of the prisoners were glad that the experiment was over, but most of the guards were not.

## WOULD YOU SHOCK A STRANGER?

Now, let's move to an even earlier time. Picture this: It is the early 1960s and you are a student at Yale University. You volunteer to participate in an experiment on learning and teaching. Another student volunteer arrives at the lab at the same time. Drawing a slip of paper from a hat makes you the “teacher” and him (at that point, Yale did not accept female students) the “learner.” The learner is taken to a nearby room, but you can hear him easily.

As teacher, you sit in front of a wide instrument panel with many switches (Figure 3.2). Your task is to ask the learner questions and if the learner gets the answer wrong, to flip a switch that delivers an electric shock. Each switch is labeled with a voltage; the lowest is 15 volts and the highest is 450 volts. Beneath the switches are warnings that range from “Mild Shock” on the left to “Danger: Severe Shock” on the right. The experimenter senses your concern and tells you not to worry. He gives you the 15-volt shock that is delivered by the first switch. The mild shock is not very painful. The experimenter instructs you to administer a shock to the learner for each incorrect answer, increasing the shock level each time.

The experiment starts and after a few trials, the learner makes his first mistakes. He seems not to mind the pain from the lower-voltage shocks. Later, however, as additional mistakes are made, he begins to complain. When you flip the switch labeled 180 volts, he yells that he can no longer stand the pain. You look at the experimenter nearby, but he says to continue. Reluctantly, you go on. When you flip the switch labeled 270 volts, the learner screams in agony. You look at the experimenter again; he says you must continue. Soon afterward, the learner stops answering your questions. You don't know what to do when the

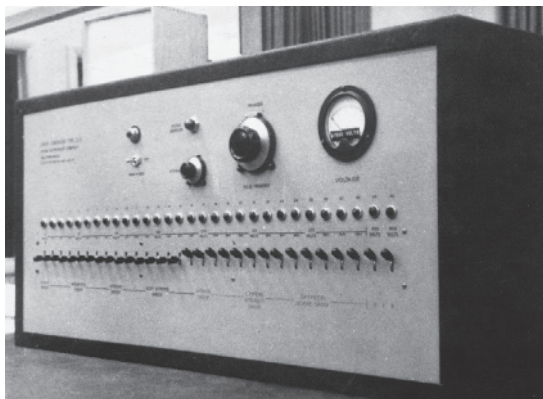


FIGURE 3.2  
Milgram's  
apparatus.

learner doesn't respond. The experimenter tells you to treat no response as an error and to deliver the appropriate shock. Finally, you get to the last switch and pull it. The study is over at last. You feel drained and exhausted. You also feel lucky; except for the luck of the draw, that could have been you in there.



What do you think about the examples above? How would you feel had you been one of the participants in one of those studies? Before you read further, write down some thoughts about each of the studies. Do you think there was anything ethically wrong with the studies? If you do, list the specifics. At the end of the chapter, we ask you to compare your thoughts at that point to the ones you have now (and are about to write down).

## HISTORY OF ETHICS

Questions of right and wrong have accompanied us since our emergence as a species more than one million years ago. Much of our moral and religious training is concerned with answering questions about proper behavior. Both primitive and civilized groups have created a variety of **ethical codes**—written or widely accepted prescriptions of proper behavior and morality—and inculcated them into their children. Systems of laws that govern moral behavior emerged from those ethical codes. Throughout human existence, laws, religions, and other spiritual pathways have focused on thorny questions of morality. Thus, ethics and concern about ethical standards are older than science and psychology by thousands of years. Part of being human is to be concerned with ethical questions and their resolution.

### *In the Know*

*Morality* and *ethics* are nearly synonymous. *The American Heritage Dictionary of the English Language* differentiates between these words as follows. *Morality* relates to personal and sexual behavior according to societal strictures. *Ethics*, on the other hand, is derived from philosophy and attempts to provide objective and idealistic standards for human conduct.

**ethical codes** Written or widely accepted prescriptions of proper behavior and morality.

As civilizations emerged, many ancient peoples transformed their ethical codes into written laws, and some of them survive today. The core of the ancient Hebrew ethical code is the Ten Commandments. Those basic moral rules became the seeds for an extensive set of laws that governed the ancient Hebrews. Indeed, some of those laws such as “Thou shalt not kill”

are incorporated into current civil and criminal law codes. Later, in classical Greece (600–300 BCE), the study of ethics became a branch of philosophy. Socrates attempted to answer questions about morality and virtue but later Greek philosophers disagreed with many of his arguments. Those disagreements led to a flowering of different points of view about ethics. When the Roman world was converted by Christianity, its newer and divinely inspired form of ethics (codified in the Bible) shaped the European worldview for two millennia. In the Middle East, another divinely inspired ethical code arose as Islam swept into existence some 500 years after the emergence of Christianity. The words of Mohammed (570–633 CE) became the Koran, Islam's moral code. Of course, peoples in other parts of the world also created moral codes. In Asia, codes derived from the writings of Confucius (551–479 BCE) survive. Confucius's writings are known as *The Analects* or *The Analects of Confucius*. Much of the practice of any religion consists of learning and living by its particular moral code.

In the 20th century, relativistic thinking challenged older absolutist forms of thinking. In absolutist thinking, moral decisions are based on traditional laws or rules that are usually codified in sacred books. In contrast, relativistic thinking's moral decisions are based on local norms or specific historical contexts. To explore the difference between the two modes, think of the prohibition against killing other humans. An absolutist thinker would ban all killing under all circumstances. However, a relativistic thinker might allow killing under special circumstances. For instance, a convicted murderer might be put to death ethically in some jurisdictions. Or, consider soldiers in a combat zone. Based on their rules of engagement, they may ethically kill enemy combatants, but not enemy civilians. Like many seeming dichotomies, absolutist and relativistic positions turn out instead to be points along a continuum. The advent of relativistic thinking, along with the emergence of nations with large, pluralistic, and diverse citizenries, has made the study of ethics more interesting and more difficult than in the past. When you add the development of high-speed communications networks, including the Internet, you have a world in which ethical choices are both more difficult and more important than ever before. Today, as in the past, ethics is part of everyone's daily life. Now let us turn to ethics in psychological research.

Until about 60 years ago, researchers in psychology were guided by their own personal ethics. No published ethical code existed. Occasionally, there were lapses in ethics. For example, in Watson and Rayner's (1920) study of Little Albert, an infant was classically conditioned to fear a white rat by using a loud sound as an aversive stimulus. Landis (1924) investigated emotion by administering electric shocks to participants without warning or consent. Neither study would be considered ethical today.

Psychology's attention to written codes of ethics began during the Nuremberg trials (1946–1947) that followed World War II. One of those trials, the Doctors' Trial, revealed atrocities committed by Nazi medical



doctors and others (Lifton, 1986). Cohen (no date) summarized some of the horrible violence perpetrated on Jews and other victims of the Holocaust during World War II. Experiments at the Nazi death camps tested humans' response to freezing temperatures, high altitudes, drinking sea water, tuberculosis, and poisons. Many suffered pain and death as a result of these experiments. The Doctors' Trial exposed the depth and scope of the Nazi experiments to a shocked world. Those experiments were so repugnant that recent attempts to use the data have met with nearly universal disapproval. The U.S. Environmental Protection Agency ruled that the data from those studies could not be used in any way (Sun, 1988). After the Nuremberg trials, the psychological community understood that scientific methods alone do not define science; ethics is also part of the definition.

Despite Nazi atrocities and the creation of the **Nuremberg Code**, ethics was not a commonplace concern in psychological research until the last quarter of the 20th century. A strong and persistent concern about ethics emerged in psychology after 1974 because of a changing social climate and the APA's revision of its earlier, informal ethical code (McGaha & Korn, 1995). The most recent document, the *Ethical Principles of Psychologists and Code of Conduct* (American Psychological Association [APA], 2002) is the fourth revision since its publication in 1977. In the sections that follow, we examine the portions of the *Ethics Code* that guide research and publication. The entire *Ethics Code* is reprinted in appendix B. Around that same time, the U.S. Department of Health and Human Services (USHHS) published the Belmont Report, which included recommendations for research with human participants. The three main areas covered by the report were: respect for persons, beneficence, and justice. By 1991, the Belmont recommendations had been codified into U.S. law for USHHS under Title 45 Part 46. In addition, 14 other federal departments share the same regulations under different sections of the *Code of Federal Regulations* (U.S. Department of Health and Human Services [USHHS], 2005). Thus, psychology is not alone in its concern with ethics and research. The U.S. government requires researchers and their institutions to follow formal procedures that ensure ethical research. All scientific and medical disciplines that interact with human participants must conform to certain principles and procedures in conducting research.

Today, many psychologists are concerned with ethics in general and with the ethics of research in particular. The major issues of research ethics are how to conduct research, how to analyze data, and how to report results (Rosenthal, 1994). No statement of ethical principles, scientific or otherwise, covers all possible situations. So, as you conduct and present research, you will have to make ethical decisions. The *Ethics Code* gives you guidance, but it is not a complete list of do's and don'ts. Learn the basic principles and implement the checks and balances built into them so that you will practice scientific integrity and avoid scientific misconduct.

**Nuremberg Code** Ten recommendations about permissible medical research released after the Nuremberg Doctors' Trial.



### *In the Know*

Psychology is not alone in its concern for ethics. Nearly every professional organization has its own code of ethics. Look at the Web page that accompanies this book to find ethics codes published by other professional organizations.

## THE INSTITUTIONAL REVIEW BOARD (IRB)

Formal regulations and processes apply to the planning and conduct of research. All institutions in the United States that receive federal funds and conduct research are required to have an **institutional review board (IRB)**. IRBs meet to review proposed research that is submitted by a researcher. Membership of IRBs includes faculty members with appropriate research expertise, other faculty members, and representatives from outside the institution. Sometimes, students are members too. During its deliberations, the IRB assesses whether participants are truly giving informed consent, anticipates risks and benefits to participants, and reviews how the data will be safeguarded, among other things. IRB review is pervasive. Most journals now require authors to stipulate in writing that the research submitted was approved by an IRB. Most colleges and universities have one or more IRBs, although they are sometimes called human subjects committees, animal subjects committees, institutional animal care and use committees, or other similar names. Depending on your institution's IRB rules, you may have to submit your personal research to an IRB. If you are required to submit your proposal, take heart from the report of Kallgren and Tauber (1996). They found that undergraduates who submitted research proposals to an IRB viewed the experience positively and believed that the process improved their research.

## THE ETHICAL PRINCIPLES OF PSYCHOLOGISTS AND CODE OF CONDUCT (ETHICS CODE)

The *Ethical Principles of Psychologists and Code of Conduct* (APA, 2002) contains 5 general principles and 10 ethical standards. The *Ethics Code* covers most of the situations in which psychologists and student researchers find themselves. The intent of the general principles is “to guide and inspire psychologists toward the very highest ethical standards” (APA, 2002, p. 3). Research is the activity we cover in this textbook. Therapy, education, and assessment are examples of other areas addressed by the *Ethics Code*.

The 5 general principles of the *Ethics Code* are summarized in **Table 3.1**. They provide broad guidelines that apply to all psychologists. Indeed,

**institutional review board (IRB)** Group that reviews research proposals for ethical propriety.

**TABLE 3.1** Five General Principles of The *Ethics Code*

- A. Beneficence and Nonmalificence**—This first principle urges psychologists to do no harm, to be aware of their influence on others, to use their professional positions for good, and to monitor their own physical and mental health so those factors will not negatively affect their work.
- B. Fidelity and Responsibility**—This principle tells psychologists to be aware of their professional and scientific responsibilities, to interact collegially with colleagues, and to donate a portion of their expertise to others *pro bono*.<sup>a</sup>
- C. Integrity**—Psychologists are accurate, honest, and truthful. They keep their promises, and correct any consequences that arise from the ethical use of deception.
- D. Justice**—All people should have access to and enjoy the benefits of psychological research and services. Psychologists should be aware of their own biases and professional limitations.
- E. Respect for People’s Rights and Dignity**—Psychologists value people and their dignity. They respect diversity, people’s right to privacy, confidentiality, and self-determination. They do not condone others who fail to live up to this principle.

<sup>a</sup>For no charge.

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they are broad enough to apply to anyone who works with people. The 10 ethical standards (Table 3.2) provide specific guidelines to psychologists about their activities. Because the standards are specific, they may not apply to every psychologist (or student of psychology).

As you can see from Tables 3.1 and 3.2, the *Ethics Code* addresses many issues. As mentioned, the entire *Ethics Code* is reprinted in appendix B. If you plan to pursue a career in psychology, you should read the entire *Ethics Code*. We begin by examining Ethical Standard 4.01, a standard that applies to all psychologists.

### *Ethical Standard 4.01, Maintaining Confidentiality*

Conducting research and working with people are both a privilege and a serious business. Perhaps the most important thing to learn is the importance of maintaining **confidentiality**—keeping research data about individual participants private. We believe that maintaining confidentiality is so important that we quote Ethical Standard 4.01 in full (APA, 2002, p. 7).

Psychologists have a primary obligation and take reasonable precautions to protect confidential information obtained through or stored in any medium, recognizing that the extent and limits of confidentiality may be regulated by law or established by institutional rules or professional or scientific relationship.

The ethical conduct of research requires researchers to protect the information they obtain from others. In practice, this means that no

#### **confidentiality**

Requirement to keep research data about individual participants private.

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**TABLE 3.2** Ten Ethical Standards of The *Ethics Code*


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1. **Resolving Ethical Issues**—This standard governs general issues related to ethics and the law. It outlines psychologists' responsibility to their organization and the reporting and resolving of ethical complaints.
  2. **Competence**—This standard ensures the competence of psychologists as they pursue their work. It ensures that they work within the boundaries of their expertise, maintain an appropriate level of training, delegate work to others appropriately, and not enter into situations likely to cause personal conflicts.
  3. **Human Relations**—The human relations standard governs psychologists' relationships with others. It mandates that issues of discrimination, harassment, conflicts of interest, and exploitation be avoided. This standard also defines informed consent (as does Standard 8.02).
  4. **Privacy and Confidentiality**—The fourth standard describes how psychologists should communicate information received as part of their work and to whom such communications should be made.
  5. **Advertising and Other Public Statements**—This standard covers how psychologists may represent themselves to the public through statements, publications, media, or by word of mouth.
  6. **Record Keeping and Fees**—The sixth standard deals with situations in which psychologists receive payment for services rendered and how records of such payments must be handled.
  7. **Education and Training**—This standard refers to psychologists who teach. It covers assessment, evaluation, accuracy, privacy, and personal relationships with students.
  8. **Research and Publication**—This standard addresses issues related to research in psychology.
  9. **Assessment**—The assessment standard applies to psychologists who test or assess others; it governs issues such as release of test data, test construction, test interpretation, and test security.
  10. **Therapy**—The last standard governs psychologists who provide therapy. It covers such aspects of therapy as informed consent, sexual intimacy, and termination of therapy.
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information about the participants should be shared with anyone who is not directly associated with the research project. Furthermore, the reporting of results must be done in a manner that does not identify individual participants.

### *Ethical Standard 8, Research and Publication*

As you can see in Table 3.3, Ethical Standard 8 has 15 sections that address specific issues of research and publication. All the topics are important, but they don't apply equally to students in research methods

**TABLE 3.3** Section Headings of Ethical Standard 8, Research and Publication

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8.01	Institutional Approval
8.02	Informed Consent to Research
8.03	Informed Consent for Recording Voices and Images in Research
8.04	Client/Patient, Student, and Subordinate Research Participants
8.05	Dispensing With Informed Consent for Research
8.06	Offering Inducements for Research Participation
8.07	Deception in Research
8.08	Debriefing
8.09	Humane Care and Use of Animals in Research
8.10	Reporting Research Results
8.11	Plagiarism
8.12	Publication Credit
8.13	Duplicate Publication of Data
8.14	Sharing Research Data for Verification
8.15	Reviewers

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courses. We arranged the topics that apply to students into two sections: Responsibilities to Participants and Responsibilities to Psychology.

### *Responsibilities to Participants*

You have a number of ethical responsibilities to the participants in your research. Three important ones are informed consent, deception, and debriefing.

**Informed Consent** The relationship between researchers and participants and the transactions that occur between them during the process of research are governed by **informed consent**. Except for situations in which informed consent may be dispensed with (described below), psychologists *must* inform participants:

1. of the purpose, duration, and procedures of the study;
2. that they may decline to participate or withdraw from the research;
3. of any possible consequences of declining or withdrawing;
4. of any risks, discomfort, or adverse effects related to the research;
5. of any possible benefits related to the research;
6. about limits of confidentiality of the research;

#### **informed consent**

Agreement, usually written, to participate in a study after being informed of the consequences of participation.

7. of any incentives, such as money or grades, for research participation;
8. of their rights and whom to contact for answers to questions about the research.

Table 3.4 shows a sample informed consent form that Dawn Branch used in her project, which was designed to determine if there was a relationship between personality traits and self-inflicted wounds. Informed consent forms like hers are used routinely to document that informed consent was obtained. A research project is unethical if the principles of informed consent are not followed. However, there are occasions when you need not provide informed consent.

**TABLE 3.4** Sample Consent Form

<b>Consent Form</b>	
<p>For this study, the researcher cannot give you information about its purpose until after the study is finished. If you would like, the researcher will e-mail you a description and the results when the study is completed.</p> <p>This survey may ask you personal details about your life. However, there will be no way to link the information you provide to your name. In addition, any information about your participation will be kept confidential.</p> <p>Please complete this survey honestly. If at any time you feel uncomfortable, you are free to withdraw from the study and none of your information will be used in the results. There is no penalty for withdrawing, but you are encouraged to complete the survey for the sake of the study.</p> <p>By signing this form you agree not to discuss this survey with others until the researcher has contacted you. If you discuss this survey with others who complete it at a later date, it may influence their responses. By signing, you are agreeing to complete this survey honestly and accurately.</p> <p>Thank you for participating. If you have any questions please ask one of the researchers or you may contact Dawn Branch by phone (---) or e-mail (address.edu) or Dr. Spatz by phone (---).</p>	
<p>_____</p> <p>Signature</p>	<p>_____</p> <p>Date</p>
<p>_____</p> <p>E-mail address</p>	

**Dispensing With Informed Consent** There are three situations that allow researchers to dispense with informed consent. The first occurs “where research would not reasonably be assumed to create distress or harm” (APA, 2002, p. 11). Dispensing with informed consent is permissible when the research involves:

1. the study of normal activities in a school setting related to teaching practices, curricula, or classroom management.
2. anonymous questionnaires, naturalistic observation, or archival research. (Naturalistic observation and archival research are covered in chapter 10.)
3. jobs or organizations where there is no risk to participants’ employability and their confidentiality is protected.

Even in these situations, participants must not be placed at risk for legal liabilities, financial damages, employability, or reputation. Also, the participant’s confidentiality must be protected. Dispensing with informed consent is also allowed in situations covered by federal law or institutional regulation. Whether or not informed consent is required, participants are always free to withdraw from research participation.

### *In the Know*

An exception to informed consent involves U.S. military personnel. Executive Order 13139 (September 30, 1999) allows the Department of Defense (DoD) to administer “new investigational drugs” to members of the military without their consent. On October, 28, 2004, federal judge Emmett Sullivan ruled that the order did not apply to anthrax vaccines (Judge halts forcing of anthrax shots, 2004). Later, (DoD) filed to resume the vaccine (Files, 2004) and administered it to at least 250 service members. Sullivan later sanctioned resumption of the shots, but only to troops who voluntarily agree (Anthrax vaccinations allowed to resume, 2005). Late in 2006, the U.S. Food and Drug Administration found that the shots were safe and DoD planned to resume inoculating troops going to Iraq, Afghanistan, and South Korea (Baldor, 2006).

**Deception in Research** The standard that covers **deception** has three parts. The first part prohibits deception unless researchers determine that deception is justified by “the study’s significant prospective scientific, educational, or applied value,” *AND* that “effective nondeceptive alternative procedures are not feasible” (APA, 2002, p. 11). The second part of the standard prohibits deception if the research might cause pain or significant

**deception** Deliberately misleading participants about any aspect of the research.

emotional distress. The third part requires psychologists to explain any and all deceptions to participants as early as possible after their participation. This process is called debriefing, and is explained below. Furthermore, participants who so desire may withdraw their data from the study after the deception has been explained to them. To summarize, to use deception researchers must demonstrate two things: the high prospective value of the proposed research and that there is no way to carry out the research without deception.

Of all the standards, deception is the most controversial. The use of deception in psychology has been tracked and analyzed over the years (Dunston & Ross, 1986; Nicks, Korn, & Mainieri, 1997; Sieber, Iannuzzo, & Rodriguez, 1995). These reports reveal an ebb and flow in the percentage of deceptive studies over time. But the frequency of deceptive studies was above 30% in all of the analyses. A similar proportion of today's psychological research probably involves deception. Researchers engaged in a debate over deception that was published in the *American Psychologist* over a period of months (Broeder, 1998; Kimmel, 1998; Korn, 1998; Ortmann & Hertwig, 1998). Ortmann and Hertwig's article was first and they argued for a complete ban on deception in psychological research. The authors who responded, however, argued that *some* deception must remain permissible in psychology. The APA's standard on deception reflects a view similar to those of Broeder (1998), Kimmel (1998), and Korn (1998). The important ethical question in psychological research is not *if* deception should be used but *when* and *how* it should be used.

**Debriefing** **Debriefing** informs participants of the “nature, results, and conclusions of the research” (APA, 2002, p. 12). A debriefing session usually ends with a question such as “Do you have any questions about the study?” which allows researchers to correct misconceptions that participants may have acquired. Debriefing is useful to researchers because it allows them to monitor their studies. Through debriefing, researchers may learn how participants perceive the study and if any procedures did not work.

Debriefing is also an excellent time to explain psychology to nonpsychologists. Nearly all research that uses human participants requires debriefing. However, the second section of the standard allows researchers to delay or withhold debriefing information from participants, but only for scientific or humane reasons. Finally, psychologists who discover after the fact that their research procedures have harmed participants must act to minimize that harm.

**Other Responsibilities to Participants** Other standards that cover your responsibilities to participants include obtaining informed consent before recording data. In cases other than naturalistic observation (see chapter 10), researchers must obtain consent from participants before making audio or visual recordings. When conducting research with students, clients,

**debriefing** Explaining to participants the nature, results, and conclusions of the research they participated in and correcting any misconceptions.



patients or subordinates, researchers must ensure that the participants are not being coerced in any way when they consent to participation. The use of **inducements** is also covered in the *Ethics Code*. Inducements are things that researchers may offer to participants in order to secure participation. Typical inducements include cash, grades, or prizes. Inducements as such are ethical. However, inducements that are “excessive or inappropriate” (APA, 2002, p. 11) are unethical.

### *Responsibilities to Psychology*

**Reporting Research Results** “Psychologists do not fabricate data” (APA, 2002, p. 12). The point? Report the data you get. As we explained in chapter 1, science depends on reliable results. Many scientists consider violations of this standard to be the most heinous of all ethical violations because publishing false data undermines the entire scientific enterprise. The actual data are what must be reported. We provide more information on instances of falsified data reports and some suggestions to reduce their rate in a section that follows titled Scientific Integrity and Scientific Misconduct.

**Plagiarism** **Plagiarism** is using a written or other intellectual work of someone else and claiming it as your own. Plagiarism is a serious ethical breach. One problem in academic institutions is that many students do not know what constitutes plagiarism, nor do faculty always provide a clear definition (Murray, 2002a).

Martin (1994) identifies four types of plagiarism of interest to students: (1) word-for-word plagiarism, (2) paraphrasing plagiarism, (3) plagiarism of secondary sources, and (4) plagiarism of ideas. You can prevent these types of plagiarism in your work by knowing that they are wrong and actively avoiding them. Certainly, plagiarism caused by carelessness or incompetence is curable by skill building. For example, many students do not realize that cutting and pasting from the Web without acknowledging the original author is plagiarism. In response, some instructors use software tools that detect plagiarism from Web sources (Young, 2001).

Why are we so concerned about plagiarism? One reason is that we want to teach correct scientific procedures. Properly acknowledging the work of fellow scientists is important not only as a basic procedural characteristic of science but also as a safeguard for science itself. Science suffers when research results are plagiarized. Healthy science requires that all people trust scientific results. Another reason is to protect the scientists who think up research ideas, conduct studies, and publish data. They are valuable to society. Plagiarizers threaten scientific procedures, public confidence in science, and scientists’ livelihoods. So, learn what plagiarism is and how to avoid it. Cite previous scientific work properly.

**inducements** Cash, grades, prizes, or recognition to encourage or reward research participation.

**plagiarism** The unintentional or intentional use of words or ideas of others without attribution.

Other standards that cover your responsibilities to psychology relate to obtaining institutional approval, practices related to the publication and handling of data, and reviewing others' data for publication. No research can be conducted ethically without prior institutional approval. Ethical research also requires careful and proper handling of results. A careful reading of all of Section 8, Research and Publication, reveals additional responsibilities of researchers. Before you plan and conduct a personal or class research project, you should familiarize yourself with all of the standards in Section 8. The six standards above receive special attention because they affect so many student research projects.

### ***Ethical Standard 8.09, Animal Research***

This standard (Table 3.5) on the ethical conduct of animal research contains seven sections. It and the APA booklet *Guidelines for Ethical Conduct in the Care and Use of Animals* (APA, n.d.) provide guidance for researchers who conduct research with animals. Both publications document researchers' responsibilities.

**TABLE 3.5**APA Standard 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.

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Table 3.5 shows APA's standard 8.09. Note that the standard covers a variety of ethical concerns including legal issues, training of personnel who handle animals, animal care guidelines, pain and stress avoidance or reduction, and termination of animal subjects. The appropriate IRB must approve animal research before it is conducted. In addition, the use of animals for educational purposes such as classroom demonstrations is subject to more stringent requirements than is the use of animals for research purposes. Again, an IRB must approve the use of animals for educational purposes beforehand. Federal, state, and local laws and regulations that apply to animal research must be followed. Thus, there are more requirements (such as required visits from veterinarians and housing standards for particular species) for ethical research with animals than there are with humans.

### *Debate on Ethics*

At a recent professional meeting, your authors debated the ethics of a proposed student project that involved smokers outside campus buildings.



Read Table 3.6 and identify the ethical issues involved. Write them down.

We see three ethical issues here. The first issue concerns secondhand smoke. At School A, the removal of the signs may increase the likelihood that nonsmokers breathe additional secondhand smoke. The experimenters, then, could be responsible for causing distress or harm by removing the existing signs. At School B, of course, the installation of signs could actually reduce the risk of secondhand smoke. A second issue is whether or not the researchers obtained permission to install or remove signs at the two institutions. A third issue is whether or not the IRBs of both institutions approved the research. Did you identify any of these three issues? Did you raise others not mentioned?

## SCIENTIFIC INTEGRITY AND SCIENTIFIC MISCONDUCT

The vast majority of scientists conduct themselves in an ethical manner, follow ethical standards, avoid plagiarism, and are conscientious researchers. Still, scientists make honest mistakes. Bolton (2002) classifies scientific errors into four categories: honest mistakes, unethical behavior, noncompliance, and deliberate deceit. In her classification scheme, only deliberate deceit qualifies as scientific misconduct. Examples of scientific misconduct include falsified results (scientific fraud) and plagiarism. Unfortunately, it is sometimes hard to tell the difference between scientific misconduct

**TABLE 3.6** Smoker Compliance With Newly Moved “No Smoking” Signs

In this field experiment smoker compliance with newly moved or newly installed “No Smoking” signs will be observed. Two buildings on two campuses will be used. On one campus, School A, smokers must not smoke within 25 feet of any campus building. Signs at School A inform smokers of this regulation. On the other campus, School B, smokers may smoke just outside any campus building. There are no signs prohibiting smoking outside the buildings at School B.

In the first part of the experiment, smokers will be observed on each campus to determine their average distance from the building. In the second part, signs will be moved or added on each campus. At School A, the signs prohibiting smoking within 25 feet of any building will be temporarily removed. At School B, new signs prohibiting smoking within 25 feet of any building will be installed. Again, smokers will be observed to determine their average distance from the building. In the final part of the experiment, the signs on each campus will be returned to their original positions (Campus A) or removed (Campus B). The final data collection will measure smokers’ average distance again.

Because data will be collected by naturalistic observation, no informed consent by smokers will be required. On each campus, researchers will remove and add signs as described above.

and honest mistakes. Gould (1989), for instance, distinguishes between scientific fraud and the errors made by honest scientists in the pursuit of new findings. He characterizes good science as a risky business. Many errors committed by scientists are by-products of the creative aspects of science, not fraud.

Although the overall rate of scientific misconduct is low, scientists have increased their efforts to reduce that rate (Shore, 1995). Psychology and the other sciences police themselves with a process known as **peer review**. Peer review means that fellow scientists review the work of their colleagues when it is proposed, submitted for publication or presentation, and when funds are applied for. No external, higher-level mechanism beyond peer review exists. Thus, scientists work under a system of self-regulation to read, edit, and pass judgment on the work of their colleagues. Peer review is a very rare and unusual system of quality control. It depends on honesty and good will among members of the scientific community who cooperate with each other to ensure that science’s published results are reliable and accurate.

In peer review, as in any system devised by human beings, there are those who seek to take advantage of others. Scientists who commit scientific misconduct risk the loss of their jobs, reputations, and access to funds, and they may even be prosecuted. Murray (2002b) maintains that scientific misconduct could be minimized if both institutions and individuals adopted a few basic rules. For institutions, she suggests that educating students about ethics, conducting unannounced audits of research projects, and thoroughly and even-handedly investigating cases of fraud

**peer review** Formal process in which scientists judge colleagues’ work submitted for publication or funding.

would create a climate more conducive to ethical science. For individuals, she suggests that establishing clear rules for data collection and analysis, reviewing data before drafting reports, and explaining data analysis procedures would make unethical science easier to detect. In 1993, the U.S. federal government created the Office of Research Integrity whose principal mission is to prevent scientific misconduct and promote research integrity through investigative oversight and education. Similarly, Keith-Spiegel, Aronson, and Bowman (1994) published a bibliography of instances of scientific misconduct in psychology.

### *In the Know*

The United States Public Health Service (USPHS) project, the Tuskegee Syphilis Study (Thomas & Quinn, 1991), studied 399 syphilis-infected African American men for nearly 40 years instead of 6 months as originally planned. The USPHS prevented the infected men from receiving antibiotic therapy, misinformed them about the nature of the research, and did not allow physicians to inform them of their syphilitic condition. After the study ended, the federal government provided free medical and burial services to all remaining participants and their families. In 1997, President Clinton apologized to the seven surviving participants.

One point you should take from this chapter is that psychological research is not just data collection, analysis, and reporting. Ethics is an essential component of research. Simply using the techniques of research without attending to ethics is not science.

## RETURN TO SHOCKING STRANGERS, THE PRISON, AND THE MALL

Let's return to the three studies described at the beginning of this chapter. By examining them in chronological order, we show how the *Ethics Code* emerged and developed over time.

### *Milgram and Obedience*

Criticism of the ethics of Milgram's (1963) obedience study began shortly after he published his results. The criticism focused on his treatment of the participants (Baumrind, 1964). Baumrind argued that Milgram had caused so much anxiety in his participants that some were permanently harmed. She predicted that future research involving deception would

not be effective because participants would know about Milgram's study and behave differently because of that knowledge. That is, participants would no longer trust psychologists. Milgram (1964) responded by noting that his debriefing procedure, combined with psychiatric referrals where necessary, removed any effects of his anxiety-producing procedure. Furthermore, he pointed out that only a few participants believed that they had been harmed when they were asked after the study was completed. Milgram believed that he was acting properly as a psychologist. All of his actions fell within the normal social role of a research psychologist at the time. Psychology in the 1960s was unaware of the unique relationship between researcher and participant. Later, when researchers realized that participants suspended their normal cautions in research situations, it became the responsibility of researchers to protect their participants. As a result of this realization, ethical standards for research changed. Milgram's research stimulated a concern for how research psychologists and participants should interact. Today's requirement that participants be free to withdraw from a study stems partially from Milgram's obedience studies.

### *Zimbardo and the Stanford Prison Experiment*

When Zimbardo (1973) suspended his famous prison study, he was acting ethically within the new and evolved ethical context created by Milgram's work. IRBs had been established at some universities as a result of earlier studies such as Milgram's. Stanford had an IRB and Zimbardo obtained permission from it to conduct the prison study. Unfortunately, the prison study worked all too well, sucking both participants and researchers into uncertainty as to what was research and what was real life. When Zimbardo began to fear for the welfare of his participants, he cancelled the remainder of the study. Retrospectively, Zimbardo stated that he should have called off the experiment sooner (O'Toole, 1997).

Neither Milgram's nor Zimbardo's studies would be approved by an IRB today. Neither study provided for informed consent, which would be required now. Also, both studies required participants to remain throughout the study and only excused participants after the most vigorous protests on their part. Ethics is a dynamic process and ethical standards will continue to change.

### *Loftus and the Lost in the Mall Studies*

Loftus and Pickrell (1995) deceived their participants about their childhood memories. The researchers believed that deception was necessary and that the potential scientific benefits were important enough to warrant including the deception. Loftus and many others later demonstrated that false memories could be implanted in about 20 to 25% of participants (Loftus, 1997). The University of Washington IRB that reviewed Loftus and Pickrell's proposal approved their plan for deception. Crook and

Dean (1999a, 1999b), however, questioned Loftus's original reports on Chris, the 14-year-old who believed the lost in the mall story told by his brother, Jim. Crook and Dean maintain that Loftus presented the data about Chris as a pilot study and that the pilot study had not received the required approval from an IRB. A **pilot study** is preliminary research designed to evaluate aspects of a planned experiment. Loftus (1999) responded that the original data on Chris resulted from a classroom assignment, and thus was not subject to IRB review. Both Loftus (1999) and her critics (Crook & Dean, 1999a) agree that the definition of what constitutes psychological research in classroom situations is unclear and that guidelines may have to be written to cover those situations.



Look at the notes you made after reading the three examples at the beginning of this chapter. Is your opinion of the ethics of those studies changed? Here are some additional questions to consider.

When does a class assignment become research?

Are today's ethical standards likely to change in the future?

Will concern over ethics make the discovery of new and important results difficult or impossible?

As you have seen, the *Ethics Code* differentiates between teaching and research. A classroom assignment can become research, but the necessary steps must be taken and those may include review by an IRB. Ethical standards will continue to evolve. Researchers will have to monitor those changes. Researchers and IRBs will continue to weigh the benefits of expanding scientific knowledge against the ethical costs of conducting research.

## ETHICS AND YOUR PERSONAL RESEARCH

As we noted near the beginning of this chapter, concern with ethics has been around since the beginning of recorded history and is an issue in everything we do, including research. The inseparability of ethics from research methods is one reason this chapter comes early in this book. Full-fledged psychological researchers have adopted and internalized the basic ethical standards discussed in this chapter. You may be conducting your first research project soon. The seven basic ethical responsibilities that we discussed were confidentiality, informed consent, dispensing with informed consent, deception, debriefing, reporting data, and plagiarism. Practice these ethical responsibilities now as part of your transition to becoming a more fully trained scientist.

**pilot study** A preliminary, abbreviated experiment to evaluate aspects of a planned experiment.



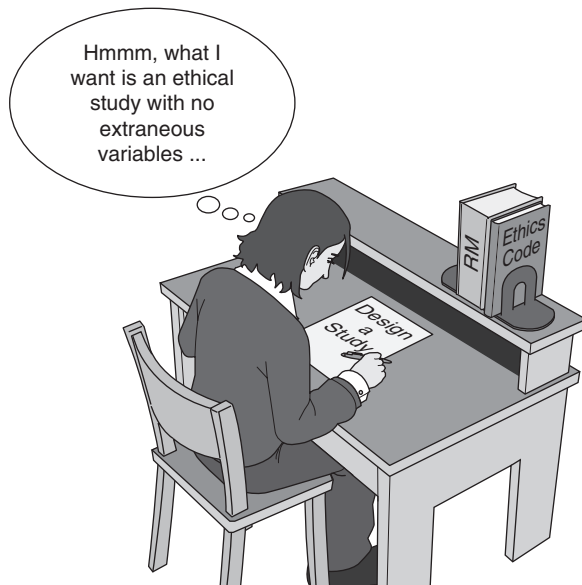


FIGURE 3.3  
First things first.

As you think of potential research projects, discuss them with your classmates. Be sure to include ethical topics and issues in these discussions. As your ideas for research projects become clearer, reread the *Ethics Code* and ask yourself how your project meets the ethical standards. Ask your classmates to assess your project for ethical as well as methodological flaws. In summary, use all of these methods of science including ethics.

The line between ethical and unethical research is not always clear and that line may change over time. Good scientists take risks, but they take them only after carefully considering alternatives and consequences. They know that they should not take risks to answer trivial questions. They also depend on their peers beforehand, using consultations and IRBs as tools to help prevent ethical problems before they occur. In today's scientific research, ethical decisions are woven into the fabric, not stitched on later. Refer to this chapter often as you conduct research and let the *Ethics Code* whisper in your ear always as you plan your research activities (see Figure 3.3).

## Chapter Review

1. Match the researcher with the study.
  1. Zimbardo      a. lost in the mall
  2. Loftus        b. would you shock a stranger?
  3. Milgram       c. Stanford prison experiment

2. In ethics, the \_\_\_\_\_ approach values written laws or rules that are considered universal. The \_\_\_\_\_ approach values local norms or is specific to a particular historical era.
3. The \_\_\_\_\_ Code was established after World War II as a response to Nazi atrocities during the war.
4. The group that judges and may grant approval for a research project is the institution's \_\_\_\_\_, which is abbreviated \_\_\_\_\_.
5. The *Ethical Principles of Psychologists and Code of Conduct* consists of 5 \_\_\_\_\_ and 10 \_\_\_\_\_.
6. Your text arranged the elements of Standard 8 into two responsibilities: those to \_\_\_\_\_ and those to \_\_\_\_\_.
7. Recall from memory at least five ethical responsibilities that you incur when you conduct research.
8. Match the concept with the responsibility.
 

1. confidentiality	a. Explaining the risks and benefits of participating in a research project.
2. debriefing	b. Allowing participants to exit the research situation at any time.
3. plagiarism	c. Informing participants of the nature of the study and its results.
4. reporting results	d. Keeping information and scores of participants secure.
5. informed consent	e. Not modifying data from a study.
6. permitting participants to withdraw	f. Not using another's words or ideas without acknowledgment.
9. The process in which scientists examine other scientists' request for funds or for publication is called \_\_\_\_\_.
10. A proposed study can use \_\_\_\_\_ if there is no alternative procedure and the study causes no pain or psychological harm and might produce important results.

### *Thinking Critically About Research* \_\_\_\_\_

1. For each scenario, identify the responsibility that was not met.
  - a. Alberta shared with her roommate the phone number of one of her participants.

- b. Bertram left the study he participated in without the name of a contact person.
  - c. Conrad put his name on a sign-up sheet that was passed in class. When he arrived to participate, he was told to sit down and fill out the forms at his desk.
  - d. Darla was told to just continue working when she asked to leave during the study.
  - e. For the Introduction section of his paper, Ephram used the same references and organization as those of the research article he based his study on.
  - f. Fred told his friend that a mutual friend of theirs had the lowest motor coordination score of all the participants in his study.
  - g. To ensure that only motivated participants were included, Ginny analyzed only the scores of participants who signed up to receive the results.
2. Why were institutional review boards (IRBs) established?
  3. Why is scientific misconduct a problem to science and psychology?
  4. What was it about Loftus's lost in the mall report that aroused ethics complaints?

### *Answers to Chapter Review* \_\_\_\_\_

1. 1. c; 2. a; 3. b
2. absolutist; relativistic
3. Nuremberg
4. institutional review board; IRB (other answers can be correct here)
5. general principles; ethical standards
6. participants; psychology
7. confidentiality, informed consent, allow participants to withdraw, debriefing, report data correctly, avoid plagiarism, and avoid deception except when permitted and necessary
8. 1. d; 2. c; 3. f; 4. e; 5. a; 6. b
9. peer review
10. deception

### *Answers to Thinking Critically About Research* \_\_\_\_\_

1. a. confidentiality; b. debriefing; c. informed consent; d. freedom to withdraw; e. plagiarism; f. confidentiality; g. reporting results

2. IRBs were established after it became obvious that human participants abandoned their usual cautions when placed in research situations. Researchers, in turn, realized that they had much more power over participants than they had previously believed. IRBs and ethical codes evolved to meet the social dynamics of the research situation.
3. One rogue scientist who publishes false data threatens the entire trustworthiness of science.
4. Loftus reported the results of a classroom exercise, which does not require IRB approval, as pilot research, which does require IRB approval.

### *Know for Sure*

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absolutist thinking, 73	informed consent, dispensing with, 80	peer review, 85
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