Chapter 8: Ethics 1

In 1998 a medical journal called The Lancet published an article of interest to many psychologists. The researchers claimed to have shown a statistical relationship between receiving the combined measles, mumps, and rubella (MMR) vaccine and the development of autism—suggesting furthermore that the vaccine might even cause autism. One result of this report was that many parents decided not to have their children vaccinated, which of course put them at higher risk for measles, mumps, and rubella. However, follow-up studies by other researchers consistently failed to find a statistical relationship between the MMR vaccine and autism—and it is widely accepted now in the scientific community that there is no relationship. In addition, several more serious problems with the original research were uncovered. Among them were that the lead researcher stood to gain financially from his conclusions because he had patented a competing measles vaccine. He had also used biased methods to select and test his research participants and had used unapproved and medically unnecessary procedures on them. In 2010 *The Lancet* retracted the article, and the lead researcher’s right to practice medicine was revoked (Burns, 2010).

In this chapter we explore the ethics of scientific research in psychology. We begin with a general framework for thinking about the ethics of scientific research in psychology. Then we look at some specific ethical codes for biomedical and behavioral researchers —focusing on the Ethics Code of the American Psychological Association. Finally, we consider some practical tips for conducting ethical research in psychology.

**Ethics** is the branch of philosophy that is concerned with morality—what it means to behave morally and how people can achieve that goal. It can also refer to a set of principles and practices that provide moral guidance in a particular field. There is an ethics of business, medicine, teaching, and of course, scientific research. As the opening example illustrates, many kinds of ethical issues can arise in scientific research, especially when it involves human participants. For this reason, it is useful to begin with a general framework for thinking through these issues.

## Learning Objectives

* Describe a simple framework for thinking about ethical issues in psychological research.
* Give examples of several ethical issues that arise in psychological research—including ones that affect research participants, the scientific community, and society more generally.
* Describe the history of ethics codes for scientific research with human participants.
* Describe several strategies for identifying and minimizing risks and deception in psychological research.
* Understand informed consent and debriefing procedures, administering a consent form.
* APA ethics code for reference: https://www.apa.org/ethics/code

The basics of ethical research are all founded on the simple idea of treating research participants with fairness and respect. They should be participating voluntarily in the research protocol with as much information about what is expected of them as can be made available. For most, basic scientific studies in psychological science, these guidelines will maintain compliance with the spirit of best practices in research ethics.

# Essential Tension between Ethics and Science

Science is intended to reflect a gain in knowledge for the benefit of humanity. As described in the APA Ethics Code: “Psychologists are committed to increasing scientific and professional knowledge of behavior and people's understanding of themselves and others and to the use of such knowledge to improve the condition of individuals, organizations, and society.” In experimental research, we observe or measure people’s behavior in controlled or manipulated conditions to carry out this gain of knowledge. However, subjecting people to controlled conditions and measuring their responses is fundamentally not really a nice thing to do to them. When participants are unaware of experimental conditions, there is at least a minimal aspect of **deception** in the research protocol, a “lie” of omission, and some protocols use considerably more deception. When we observe or measure participants’ behavior, we are at some level invading their **privacy**. The **manipulation** of experimental conditions may very well put participants in a challenging situation not directly of their own choice. We consider these impositions both **costs** of doing research and also acknowledge the **risk** of negative consequences created by the research protocol.

The research process therefore cannot be carried out without some cost imposed on our research participants. It is therefore necessary to always consider the costs and benefits of each specific research study and ensure that the value of carrying out the research exceeds the costs imposed on the participants. The regulatory framework for this process is centered around the **Institutional Review Board (IRB)** that reviews and provides oversight of research processes. For research with human participants, there is almost always a process of obtaining **informed consent** from participants before they engage with the research protocol.

The regulatory framework in place to ensure that scientific work maintains appropriate ethical balance between risks and rewards applies to all kinds of research done at a university or research institution. The same review and evaluation process applies to all medical research, human research, animal research, community research, epidemiological, economic, and public health studies. The majority of psychological science research actually bears fairly little risk or cost to participants, meeting a technical consideration termed **minimal risk**. However, the review and evaluation processes follow a common procedure across all types of research, which is often a surprise to beginning researchers in psychology. Practically it means that the oversight paperwork process involves a lot of questions that do not appear to directly apply to simple psychological experiments. The rationale for this approach is based on the historical occurrences of unethical research that highlight the potential problem that scientists in the past have made substantial mistakes in understanding and applying a proper understanding of the risk and costs being imposed on participants. As a consequence, the IRB, as an oversight committee, is required to evaluate the potential risks of all research studies from basic principles and not simply trust that the lead researcher on a project will carry out the research ethically.

# **Moral Principles**

Current practice guiding ethical approaches to research are based on a short set of core principles. Five basic guidelines are listed in the APA guidance on ethics:

1. Beneficence and Nonmaleficence
2. Fidelity and Responsibility
3. Integrity
4. Justice
5. Respect for People’s Rights and Dignity

These reflect an extension of a core set of three principles from The Belmont Report, a major milestone in the development of a common standard for ethical research (see below). The Belmont Report emphasized three core principles: Beneficence, Justice, and Respect for Persons. The goal of starting with simple, intuitive principles is to emphasize that ethics arises from basic social expectations and customs. Most basic ethical questions are fairly straightforward and standard procedures effectively minimize risk of any costs while obtaining the benefits of new scientific knowledge. Later we will touch on more complex questions in research areas where substantial costs must be considered in the context of potentially important findings.

**Respect** for people is a core and standard idea: be as nice as possible to your participants. They are participating in your research study, which is of benefit to you, and you should reciprocate that generosity. Even if participants are compensated for participation, they have to trust you not to impose extreme or unfair conditions on them that are disproportionate to their expectations.

**Beneficence** reflects the fact that science should be done with the intention of increasing societal benefit. An implication of this idea is that our research studies should be designed to be internally valid and with the intention to publicize findings to the broader scientific community. Poorly designed research is actually unethical in that you are imposing some costs on your participants (even when these are minimal) but if no inferences can be drawn from the results because of design error, the research fails to meet the standard of beneficence.

The idea of **justice** in ethical research reflects the idea that science should benefit all humanity. The need to include this as a core element of our moral principles for ethical research is sadly due to the history of human experience being dominated by assumptions based on an in-group of people being more important or valuable than out-groups, an “us” versus “them” mentality. Segmenting humanity into groups in which some are more valuable is the core principle of racism (and sexism, classism, and other forms of minority oppression), which unfortunately substantially influenced some historical scientific research. Modern ideas of treating all humans equally have not always been reflected in research, which showed evidence of the cultural expectations of that time, e.g., when racism was more prevalent and/or accepted. To improve on this, we always consider the question of justice and the equity issues implied in research – does the proposed work aim to benefit all humanity?

The ideas of **fidelity** and **integrity** in the APA code reflect the dangers associated with the impact of unethical scientific claims on public policy, understanding and trust. We will return to discuss these ideas in more depth in Chapter 19 in the context of **Responsible Conduct of Research** as a component of ethical research.

## Weighing Risks Against Benefits

We start our understanding of ethical research with these principles and then we need to understand that the risks (costs) of research involve transgressing against these. As noted above, the frequent need for at least some deception is a minor violation of the concept of respect for persons. The goal of the starting principles is to guide the analysis of all of the negative aspects of a research study, i.e., the risks or costs, and then to consider these in balance with the scientific gains that can be obtained by carrying out the research.

Scientific research in psychology can be ethical only if its risks are outweighed by its benefits. Among the risks to research participants are that a treatment might fail to help or even be harmful, a procedure might result in physical or psychological harm, and their right to privacy might be violated. Among the potential benefits are receiving a helpful treatment, learning about psychology, experiencing the satisfaction of contributing to scientific knowledge, and receiving money or course credit for participating. Scientific research can have risks and benefits to the scientific community and to society too (Rosenthal, 1994). A risk to science is that if a research question is uninteresting or a study is poorly designed, then the time, money, and effort spent on that research could have been spent on more productive research. A risk to society is that research results could be misunderstood or misapplied with harmful consequences. The research that mistakenly linked the measles, mumps, and rubella (MMR) vaccine to autism resulted in both of these kinds of harm. Of course, the benefits of scientific research to science and society are that it advances scientific knowledge and can contribute to the welfare of society.

It is not necessarily easy to weigh the risks of research against its benefits because the risks and benefits may not be directly comparable. For example, it is common for the risks of a study to be primarily to the research participants but the benefits primarily for science or society. Consider, for example, Stanley Milgram’s original study on obedience to authority (Milgram, 1963; see below). The participants were told that they were taking part in a study on the effects of punishment on learning and were instructed to give electric shocks to another participant each time that participant responded incorrectly on a learning task. With each incorrect response, the shock became stronger—eventually causing the other participant (who was in the next room) to protest, complain about his heart, scream in pain, and finally fall silent and stop responding. If the first participant hesitated or expressed concern, the researcher said that he must continue. In reality, the other participant was a confederate of the researcher—a helper who pretended to be a real participant—and the protests, complaints, and screams that the real participant heard were an audio recording that was activated when he flipped the switch to administer the “shocks.” The surprising result of this study was that most of the real participants continued to administer the shocks right through the confederate’s protests, complaints, and screams. Although this is considered one of the most important results in psychology—with implications for understanding events like the Holocaust or the mistreatment of prisoners by US soldiers at Abu Ghraib—it came at the cost of producing severe psychological stress in the research participants.

This research was done at a time when the long-term implications of post-traumatic stress disorder (PTSD) were not as well understood as they are now. Although this study was not governed by systematic oversight as modern research is, the idea that the basis of the research could be explained to the participants after the study with an expectation that there would be no long-term effects might have been seen as justifying the scientific benefit. However, the modern understanding of the potential risk of unintentionally creating a long-lasting psychiatric challenge in research participants would clearly indicate that this project cannot be carried out ethically. This highlights one of the very difficult aspects of scientific ethics in that the risk/reward balance depends on current scientific understanding and this can change as science progresses. In addition, we occasionally discover interesting scientific questions that are difficult or impossible to address ethically.

## Was It Worth It?

Much of the debate over the ethics of Milgram’s obedience study concerns the question of whether the resulting scientific knowledge was worth the harm caused to the research participants. To get a better sense of the harm, consider Milgram’s (1963) own description of it.

In a large number of cases, the degree of tension reached extremes that are rarely seen in sociopsychological laboratory studies. Subjects were observed to sweat, tremble, stutter, bite their lips, groan, and dig their fingernails into their flesh.…Fourteen of the 40 subjects showed definite signs of nervous laughter and smiling. The laughter seemed entirely out of place, even bizarre. Full-blown uncontrollable seizures [of laughter] were observed for three subjects. On one occasion we observed a seizure so violently convulsive that it was necessary to call a halt to the experiment (p. 375).

Milgram also noted that another observer reported that within 20 minutes one participant “was reduced to a twitching, stuttering wreck, who was rapidly approaching the point of nervous collapse” (p. 377)

To Milgram’s credit, he went to great lengths to debrief his participants—including returning their mental states to normal—and to show that most of them thought the research was valuable and they were glad to have participated.

## Seeking Justice

Researchers must conduct their research in a just manner. They should treat their participants fairly, for example, by giving them adequate compensation for their participation and making sure that benefits and risks are distributed across all participants. For example, in a study of a new and potentially beneficial psychotherapy, some participants might receive the psychotherapy while others serve as a control group that receives no treatment. If the psychotherapy turns out to be effective, it would be fair to offer it to participants in the control group when the study ends.

At a broader societal level, members of some groups have historically faced more than their fair share of the risks of scientific research, including people who are institutionalized, are disabled, or belong to racial or ethnic minorities. A particularly tragic example is the Tuskegee syphilis study conducted by the US Public Health Service from 1932 to 1972 (Reverby, 2009). The participants in this study were poor African American men in the vicinity of Tuskegee, Alabama, who were told that they were being treated for “bad blood.” Although they were given some free medical care, they were not treated for their syphilis. Instead, they were observed to see how the disease developed in untreated patients. Even after the use of penicillin became the standard treatment for syphilis in the 1940s, these men continued to be denied treatment without being given an opportunity to leave the study. The study was eventually discontinued only after details were made known to the general public by journalists and activists. It is now widely recognized that researchers need to consider issues of justice and fairness at the societal level.

## **“They Were Betrayed”**

In 1997—65 years after the Tuskegee Syphilis Study began and 25 years after it ended—President Bill Clinton formally apologized on behalf of the US government to those who were affected. Here is an excerpt from the apology:

So today America does remember the hundreds of men used in research without their knowledge and consent. We remember them and their family members. Men who were poor and African American, without resources and with few alternatives, they believed they had found hope when they were offered free medical care by the United States Public Health Service. They were betrayed.

Read the full text of the apology at <http://www.cdc.gov/tuskegee/clintonp.htm>.

## Historical Overview

In this section, we begin with a brief historical overview of such ethics codes and then look closely at the one that is most relevant to psychological research—that of the American Psychological Association (APA). One of the earliest ethics codes was the Nuremberg Code—a set of 10 principles written in 1947 in conjunction with the trials of Nazi physicians accused of shockingly cruel research on concentration camp prisoners during World War II. It provided a standard against which to compare the behavior of the men on trial—many of whom were eventually convicted and either imprisoned or sentenced to death. The Nuremberg Code was particularly clear about the importance of carefully weighing risks against benefits and the need for informed consent. The Declaration of Helsinki is a similar ethics code that was created by the World Medical Council in 1964. Among the standards that it added to the Nuremberg Code was that research with human participants should be based on a written protocol—a detailed description of the research—that is reviewed by an independent committee. The Declaration of Helsinki has been revised several times, most recently in 2004.

In the United States, concerns about the Tuskegee study and others led to the publication in 1978 of a set of federal guidelines called the Belmont Report. The Belmont Report explicitly recognized the principle of seeking justice, including the importance of conducting research in a way that distributes risks and benefits fairly across different groups at the societal level. It also recognized the importance of respect for persons, which acknowledges individuals’ autonomy and protection for those with diminished autonomy (e.g., prisoners, children), and translates to the need for informed consent. Finally, it recognized the principle of beneficence, which underscores the importance of maximizing the benefits of research while minimizing harms to participants and society. The Belmont Report became the basis of a set of laws—the Federal Policy for the Protection of Human Subjects—that apply to research conducted, supported, or regulated by the federal government. An extremely important part of these regulations is that universities, hospitals, and other institutions that receive support from the federal government must establish an institutional review board (IRB)—a committee that is responsible for reviewing research protocols for potential ethical problems. An IRB must consist of at least five people with varying backgrounds, including members of different professions, scientists and nonscientists, men and women, and at least one person not otherwise affiliated with the institution. The IRB helps to make sure that the risks of the proposed research are minimized, the benefits outweigh the risks, the research is carried out in a fair manner, and the informed consent procedure is adequate.

<https://www.hhs.gov/ohrp/international/ethical-codes-and-research-standards/index.html>

## APA Ethics Code

The APA’s Ethical Principles of Psychologists and Code of Conduct (also known as the APA Ethics Code) was first published in 1953 and has been revised several times since then, most recently in 2010. It includes about 150 specific ethical standards that psychologists and their students are expected to follow. Much of the APA Ethics Code concerns the clinical practice of psychology—advertising one’s services, setting and collecting fees, having personal relationships with clients, and so on. For our purposes, the most relevant part is Standard 8: Research and Publication and this serves as a good overall reference description of the key issues. https://www.apa.org/ethics/code

## Evolution of ethical practice

The idea that the standards for ethical practice change over time is sometimes viewed with surprise by researchers engaging systematically with research ethics training for the first time. On reflection, this should not be surprising. Not only to societal and cultural expectations about ethics and morality change over time, but technology changes and with it, new issues with respect to concerns such as privacy become relevant. Widespread access to communication over the internet has opened up new possibilities for research, but also raised additional questions about privacy and standard assurances related to informed consent, e.g., how confidently can we establish the identity of participants who are solely interacted with via the internet.

A minor example of this evolution over time is the preference for the word ‘participant’ for humans who engage in research. Older publications and writing will generally refer to participants as ‘subjects’ but in modern parlance, subjects are used exclusively for nonhuman animals. This was done acknowledging that the idea of being ‘subject’ to experimenter control might be considered objectionable and to focus more directly on the need for humans in research to be participating voluntarily.

A more significant example has to do with an understanding of how to handle difficult questions of participant privacy. In general, we attempt to fully respect everything about participation in a research study and to maintain privacy of all information about participants. Research might be based on asking participants about personal, high-risk or even illegal behavior. This kind of research is handled specifically with minimizing the risk to the participants in mind. However, more recently the question of how to handle accidental awareness of potential issues separate from the research protocol, specifically, concern over mistreatment of minors participating in research. Most IRB’s have decided that the need to report these concerns outweighs the maintenance of privacy and much developmental psychology research uses a “mandated reporting” guideline where any such concerns are reported to oversight agencies.

## Who provides regulatory oversight?

All research universities and major research institutions all maintain an Office for the protection of human research participants. The Institutional Review Board is generally housed within this department. Smaller universities or hospitals engaging in research will sometimes contract with external consulting firms to provide regulatory oversight if there is insufficient local need for a whole department.

The office for research oversight consists of specially trained research staff who help manage protocols, submissions for review and any issues that arise related to compliance with ethical practice or adverse events during research procedures. The staff also support researchers who lead research protocols, but they do not participate directly as IRB panel members (large universities will also tend to have several panels with differing specializations). IRB members are mainly faculty from other departments or research domains who can evaluate proposed research protocols to verify compliance with best practices in ethical research. In addition, most IRB’s have participation from community members outside the university to provide the perspective of a layperson who has not directly led research projects. These IRB members are the ones charged with applying current research rules. The department staff participate in a broader national (or international) conversation about the current understanding of best practices and how these change with new laws passed, recent court cases or the introduction of novel technologies in research.

# Ethical Research in Practice

In a formal research process, all researchers involved in data collection or analysis must meet institutional training requirements for procedures and polices related to human participant research. A very common training tool is provided by CITI, which is an external online training platform that can certify training completion with the researcher’s host institution. Everybody in the research process including faculty, laboratory staff, graduate and undergraduate student researchers all must meet the institutional training requirements.

Once training is certified, the researchers prepare a description of the research protocol, recruiting process and informed consent procedures to the IRB for review. The initial assessment of the IRB staff is to determine (a) does the research protocol qualify as “human participants research” and (b) what level of risk is associated with the proposal. All the experimental research described so far in this text qualifies as human participants research (protocols that do not qualify will be discussed briefly in Chapter 19) as they reflect systematic data collection from humans with an intent to disseminate the findings.

 The levels of possible risk inherent in the research protocol is designated as one of three levels. Exempt research is the lowest level or risk and includes research on the effectiveness of normal educational activities, the use of standard psychological measures and surveys of a nonsensitive nature that are administered in a way that maintains confidentiality, and research using existing data from public sources. It is called exempt because once approved, it is exempt from regular, continuous review. A common heuristic for identifying exempt research is “would it be reasonably expected to be asked of students in a class?” and if so, typically reflects so little risk that the research does not require additional ongoing review from the IRB. It should be noted that only the IRB can designate a protocol as exempt. This decision cannot be made by the lead researcher even if it seems obvious the protocol should be exempt.

Expedited research poses a somewhat higher risk than exempt, but still exposes participants to risks that are no greater than minimal risk (those encountered by healthy people in daily life or during routine physical or psychological examinations). Expedited review is done by one member of the IRB or by a separate committee under the authority of the IRB that can only approve minimal risk research (many departments of psychology have such separate committees). Much psychological research is either exempt or expedited in the risk level. Research that involves deception or some significant privacy risk (e.g., asking sensitive personal questions) is typically expedited and most other protocols are designated exempt.

Finally, research that does not qualify for exempt or expedited review is greater than minimal risk research must be reviewed by the full board of IRB members. This level is common in a wide range of medical research procedures that may embed substantial risk to the participants that needs to be thoroughly evaluated and carefully monitored after approval.

The IRB review designates the risk level and review process for the research protocol and may result in suggestions or requests from the IRB panel to adjust research procedures to improve the risk/reward balance. The review process then considers the process and documentation for obtaining informed consent from research participants.

## Informed Consent

**Informed consent** means obtaining and documenting people’s agreement to participate in a study, having informed them of everything that might reasonably be expected to affect their decision. This includes details of the procedure, the risks and benefits of the research, the fact that they have the right to decline to participate or to withdraw from the study, the consequences of doing so, and any legal limits to confidentiality.

Although the process of obtaining informed consent often involves having participants read and sign a consent form, it is important to understand that this is not all it is. Although having participants read and sign a consent form might be enough when they are competent adults with the necessary ability and motivation, many participants do not actually read consent forms or read them but do not understand them. For example, participants often mistake consent forms for legal documents and mistakenly believe that by signing them they give up their right to sue the researcher (Mann, 1994). Even with competent adults, therefore, it is good practice to tell participants about the risks and benefits, demonstrate the procedure, ask them if they have questions, and remind them of their right to withdraw at any time—in addition to having them read and sign a consent form.

Consent forms have a specific list of required sections that address typical questions about what is asked of participants, what compensation they will receive for participation and any risks they might bear from being in the study. Most IRB’s will provide a consent form template that should be followed in preparing a consent form for a research study that will include detailed instructions on form and content. It is generally necessary to follow a provided template to ensure that the proposal’s consent form meets standards and criteria for the institution’s guidelines.

## Recruiting participants

Researchers must also provide information on methods of recruiting participants into the study. These are typically flyers, ads or emails sent to potentially interested participants. The review of recruiting materials is primarily aimed to ensure that participants are all **volunteers** who chose to engage in the research and there is no question of **coercion** to participate. Examples of unethical coercion include threats of loss of employment, access to medical care or other benefit to participants who choose not to participate. Nobody should ever feel forced or threatened into research participation and detailed procedures are used to ensure that any hint of coercion in recruiting are avoided.

Participants are also free to decline to continue participation at any time during the research protocol if they feel uncomfortable for any reason. Consequences for partial participation should be specified on the consent form together with explicit reassurance that there is no penalty for withdrawing at any time during the protocol.

## Vulnerable populations

Special guidelines govern research on designated “vulnerable populations” which generally reflect participants who may not easily be able to establish voluntary participation in research. For example, children cannot legally attest to their participation and require a parent or guardian to sign the consent form for them. The same issue occurs in neuropsychological studies with cognitively impaired older adults, requiring a guardian signature or co-signature on the consent form. Research with vulnerable populations very commonly full board review to assess all procedural details and ensure absolute compliance with best practices.

The same idea also applies to research on incarcerated prisoners but for different reasons. Because prisoners have lost their freedom to a controlled environment, it is not expected that they can confidently assert a decision to participate or decline to participate in research. For this reason, a special set of different rules governs research with prisoners with the key requirement being that the research aims to benefit this population in a direct way (not by general benefit to society). Concerns about implicit pressure making it difficult to decline participation in research are also the reason why personnel within the laboratory conducting the research are explicitly proscribed from participating, even in minimal risk studies.

## Waiver of consent

Note also that there are situations in which informed consent is either not necessary or cannot be easily obtained within the structure of the research protocol. These include situations in which the research is not expected to cause any harm and the procedure is straightforward or the study is conducted in the context of people’s ordinary activities. For example, if you wanted to sit outside a public building and observe whether people hold the door open for people behind them, you would not need to obtain their informed consent. Similarly, if a college instructor wanted to compare two legitimate teaching methods across two sections of his research methods course, he would not need to obtain informed consent from his students.

Research that might qualify for a waiver of consent must explicitly request approval for this alternate process. The request will need to be supported by an explanation of the rationale for not collecting informed consent and processes to manage any negative outcomes during the research process.

## Privacy

A very common risk to be aware of in psychological risk, is a risk to participant’s privacy. Research that directly assesses personal information like sexual behavior clearly carries a risk to privacy but the extent of this concern is actually substantially broader. The general guideline on privacy is that all data from research participants is kept private to only research staff and publication reports only average data that obscures any individual performance. Further, the very fact that participants were engaged in a research project is also kept confidential. In medical research, the reason for this is clear as the study may be on treatment of a disease or syndrome that the participant might not wish to have publicly disclosed. In psychological research, an example of participation privacy risk are studies on topics such as implicit racial bias which might document unexpected levels of bias in undergraduate populations. As a participant, you might prefer not to be known to have been one of the participants in the study. Although these risks are fairly rare, the standard best practice approach is to maintain full privacy and confidentiality for all participants at all times. This poses some technical challenges for data sharing across labs that we will come back to (Chapter 19).

## Deception

Deception of participants in psychological research can take a variety of forms: misinforming participants about the purpose of a study, using confederates, using phony equipment like Milgram’s shock generator, and presenting participants with false feedback about their performance (e.g., telling them they did poorly on a test when they actually did well). Deception also includes not informing participants of the full design or true purpose of the research even if they are not actively misinformed (Sieber, Iannuzzo, & Rodriguez, 1995). For example, a study on incidental learning—learning without conscious effort—might involve having participants read through a list of words in preparation for a “memory test” later. Although participants are likely to assume that the memory test will require them to recall the words, it might instead require them to recall the contents of the room or the appearance of the research assistant.

Some researchers have argued that deception of research participants is rarely if ever ethically justified. Among their arguments are that it prevents participants from giving truly informed consent, fails to respect their dignity as human beings, has the potential to upset them, makes them distrustful and therefore less honest in their responding, and damages the reputation of researchers in the field (Baumrind, 1985).

Note, however, that the APA Ethics Code takes a more moderate approach—allowing deception when the benefits of the study outweigh the risks, participants cannot reasonably be expected to be harmed, the research question cannot be answered without the use of deception, and participants are informed about the deception as soon as possible. This approach acknowledges that not all forms of deception are equally bad. Compare, for example, Milgram’s study in which he deceived his participants in several significant ways that resulted in their experiencing severe psychological stress with an incidental learning study in which a “memory test” turns out to be slightly different from what participants were expecting. It also acknowledges that some scientifically and socially important research questions can be difficult or impossible to answer without deceiving participants. Knowing that a study concerns the extent to which they obey authority, act aggressively toward a peer, or help a stranger is likely to change the way people behave so that the results no longer generalize to the real world.

## Debriefing

Debriefing is the process of informing research participants as soon as possible of the purpose of the study, revealing any deception, and correcting any other misconceptions they might have as a result of participating. Debriefing also involves minimizing harm that might have occurred. For example, an experiment on the effects of being in a sad mood on memory might involve inducing a sad mood in participants by having them think sad thoughts, watch a sad video, and/or listen to sad music. Debriefing would be the time to return participants’ moods to normal by having them think happy thoughts, watch a happy video, or listen to happy music.

The debriefing process plays an important role in studies that use deception as part of the experimental methodology. In cases with significant deception, researchers may use a secondary consent form to be completed after the research protocol. These obviously do not protect participants about their participation beforehand, but allow them to express their concern by refusing to allow their data to be included in research. Times that a participant refuses to sign a consent form at debriefing would be considered an **adverse event** that is required to be tracked and reported to the IRB.

## Nonhuman Animal Subjects

While our course is about experimental psychology with human participants, a small amount of research within psychological departments involves the use of nonhuman animal subjects. In some cases, this work is carried out under the domain of the neighboring discipline of “neuroscience,” which is a scientific domain often operating within or overlapping with psychological science. There are specific and highly detailed procedures for laboratory work with nonhuman animal subjects that apply to that area of research. The core ethical approach is based on the same underlying idea of balancing the risks with the benefits of the science obtained. Obviously, these procedures are subject to the same ongoing evolution as ethical standards for human research and always aim to maintain the same awareness of current scientific understandings (e.g., of the experience of pain in animals). These guidelines are organized and administered by specialized committees trained in animal welfare and operating as an Institutional Animal Care and Use Committee (IACUC). All researchers working with animals complete training on these ethical issues to ensure that these scientific studies are carried out with attention to appropriate practice.

## Know and Accept Your Ethical Responsibilities

In this section, we look at some practical advice for conducting ethical research in psychology. Again, it is important to remember that ethical issues arise well before you begin to collect data and continue to arise through publication and beyond.

As the American Psychological Association (APA) Ethics Code notes in its introduction, “Lack of awareness or misunderstanding of an ethical standard is not itself a defense to a charge of unethical conduct.” This is why the very first thing that you must do as a new researcher is to know and accept your ethical responsibilities. Ultimately, you as the researcher must take responsibility for the ethics of the research you conduct.

As you design your study, you must identify and minimize risks to participants. Start by listing all the risks, including risks of physical and psychological harm and violations of confidentiality. Remember that it is easy for researchers to see risks as less serious than participants do or even to overlook them completely. For example, one student researcher wanted to test people’s sensitivity to violent images by showing them gruesome photographs of crime and accident scenes. Because she was an emergency medical technician, however, she greatly underestimated how disturbing these images were to most people. Remember too that some risks might apply only to some participants. For example, while most people would have no problem completing a survey about their fear of various crimes, those who have been a victim of one of those crimes might become upset. It is often important to seek input from a variety of people, including your research collaborators, more experienced researchers, and even from nonresearchers who might be better able to take the perspective of a participant. Once you have identified the risks, you can often reduce or eliminate many of them.

Research protocols should always be designed to take active steps to maintain confidentiality of participants. You should keep signed consent forms separately from any data that you collect and in such a way that no individual’s name can be linked to their data. In addition, beyond people’s sex and age, you should only collect personal information that you actually need to answer your research question. Be aware also that certain data collection procedures can lead to unintentional violations of confidentiality. When participants respond to an oral survey in a shopping mall or complete a questionnaire in a classroom setting, it is possible that their responses will be overheard or seen by others. If the responses are personal, it is better to administer the survey or questionnaire individually in private or to use other techniques to prevent the unintentional sharing of personal information.

Because of the risks associated with deception, use of this technique should be sparing and infrequent. Deception can take a variety of forms, not all of which involve actively misleading participants and may be minor, i.e., the conditions of the IV. Best practice is to be as complete as possible in the description of the protocol on the informed consent form. Anything minor that cannot be included because it would weaken the validity of the study should be revealed and discussed in the debriefing stage.

## Follow Through

Your concern with ethics should not end when your study receives institutional approval. It now becomes important to stick to the protocol you submitted or to seek additional approval for anything other than a minor change. During the research, you should monitor your participants for unanticipated reactions and seek feedback from them during debriefing. One criticism of Milgram’s study is that although he did not know ahead of time that his participants would have such severe negative reactions, he certainly knew after he had tested the first several participants and should have made adjustments at that point (Baumrind, 1985).

Severe negative reactions to research protocols are known as adverse events and should be reported to the IRB. It may similarly be necessary to track the number of participants who elect not to participate after reading the informed consent form, or who chose to withdraw after starting to participate. These events may indicate that the research protocol bears more risk than the initial review indicated, and this may in turn require adjustments to the research protocol.

Sometimes mistakes are made in carrying out the procedures associated with the research project. These are technically termed **protocol violations** and might reflect mistakes or misunderstandings in obtaining informed consent or accurately informing participants about research requirements. Protocol violations should always be reported to the research oversight staff associated with the IRB or office of research protection. Researchers might hesitate to report mistakes for fear of consequences up to and including having the research lab (or even department) shut down entirely, preventing all future research from continuing. However, these events should always be reported promptly and thoroughly as the consequences of minor mistakes are rarely substantial. A typical response process to an error would be to document the error, identify and correct any harm and document improvement in procedures or training to prevent future errors. In general, the IRB strongly prefers hearing about procedural errors from researchers as early as possible. When a problem is raised to them from a participant who has concerns about a negative experience in research (or worse, legal representation), this situation is almost always a much worse problem and requires much more substantial corrective action.

# Key Takeaways

* A wide variety of ethical issues arise in psychological research. Thinking them through requires considering how each of four moral principles (weighing risks against benefits, acting responsibly and with integrity, seeking justice, and respecting people’s rights and dignity) applies to each of three groups of people (research participants, science, and society).
* Ethical conflict in psychological research is unavoidable. Researchers must think through the ethical issues raised by their research, minimize the risks, weigh the risks against the benefits, be able to explain their ethical decisions, seek feedback about these decisions from others, and ultimately take responsibility for them.
* There are several written ethics codes for research with human participants that provide specific guidance on the ethical issues that arise most frequently. These codes include the Nuremberg Code, the Declaration of Helsinki, the Belmont Report, and the Federal Policy for the Protection of Human Subjects.
* The APA Ethics Code is the most important ethics code for researchers in psychology. It includes many standards that are relevant mainly to clinical practice, but Standard 8 concerns informed consent, deception, debriefing, the use of nonhuman animal subjects, and scholarly integrity in research.
* Research conducted at universities, hospitals, and other institutions that receive support from the federal government must be reviewed by an institutional review board (IRB)—a committee at the institution that reviews research protocols to make sure they conform to ethical standards.
* Informed consent is the process of obtaining and documenting people’s agreement to participate in a study, having informed them of everything that might reasonably be expected to affect their decision. Although it often involves having them read and sign a consent form, it is not equivalent to reading and signing a consent form.
* Although some researchers argue that deception of research participants is never ethically justified, the APA Ethics Code allows for its use when the benefits of using it outweigh the risks, participants cannot reasonably be expected to be harmed, there is no way to conduct the study without deception, and participants are informed of the deception as soon as possible.
* It is your responsibility as a researcher to know and accept your ethical responsibilities.
* You can take several concrete steps to minimize risks and deception in your research. These include making changes to your research design, prescreening to identify and eliminate high-risk participants, and providing participants with as much information as possible during informed consent and debriefing.
* Your ethical responsibilities continue beyond IRB approval. You need to monitor participants’ reactions, be alert for potential violations of confidentiality, and maintain scholarly integrity through the publication process.

## Exercises

* Practice: Imagine a study testing the effectiveness of a new drug for treating obsessive-compulsive disorder. Give a hypothetical example of an ethical issue from each cell of Table 3.1 “A Framework for Thinking About Ethical Issues in Scientific Research” that could arise in this research.
* Discussion: It has been argued that researchers are not ethically responsible for the misinterpretation or misuse of their research by others. Do you agree? Why or why not?
* Practice: Read the Nuremberg Code, the Belmont Report, and Standard 8 of the APA Ethics Code. List five specific similarities and five specific differences among them.
* Discussion: In a study on the effects of disgust on moral judgment, participants were asked to judge the morality of disgusting acts, including people eating a dead pet and passionate kissing between a brother and sister (Haidt, Koller, & Dias, 1993). If you were on the IRB that reviewed this protocol, what concerns would you have with it? Refer to the appropriate sections of the APA Ethics Code.
* Discussion: How could you conduct a study on the extent to which people obey authority in a way that minimizes risks and deception as much as possible? (Note: Such a study would not have to look at all like Milgram’s.)
* Practice: Find a study in a professional journal and create a consent form for that study. Use a standard informed consent template as a guide.