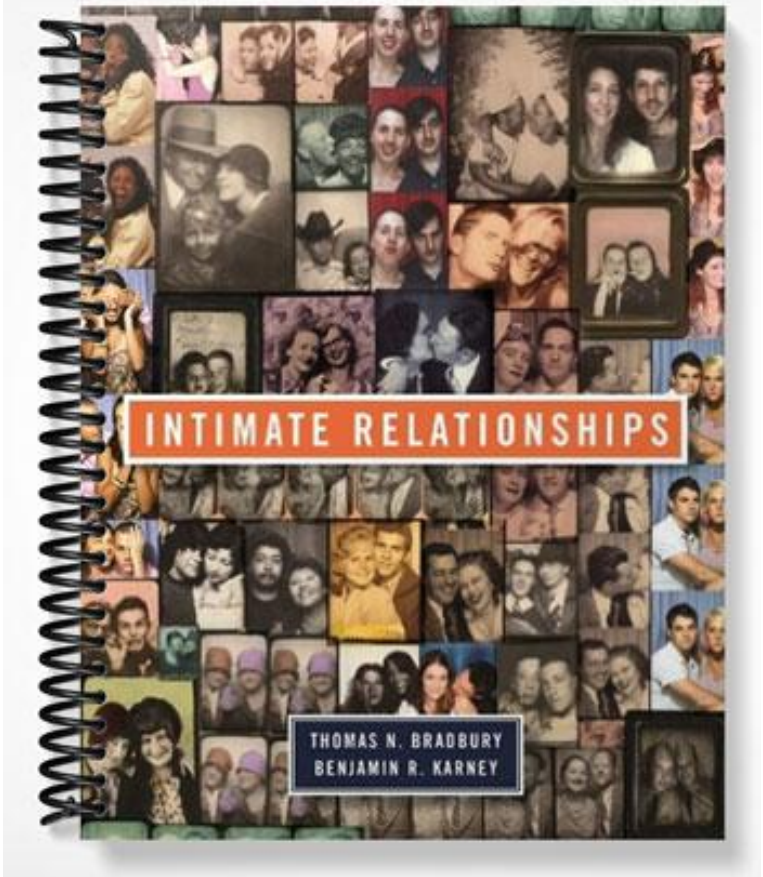
SOLUTIONS MANUAL



CHAPTER 2: Tools for Studying Intimate Relationships

CHAPTER OBJECTIVES

At the end of this chapter, students will be able to:

- discuss the range of methods and approaches used in the scientific study of intimate relationships
- understand the advantages and disadvantages of different approaches for examining different kinds of questions
- decide for themselves which claims about intimate relationships should be accepted and which should be rejected

CHAPTER OUTLINES

The Advice Peddlers

The scope and variety of questions about relationships is matched only by the variety of advice about relationships. The authors make the case that advice peddlers often present contradictory findings about the same relationship phenomena. I like to introduce this topic by using the Zimmerman et al. article (2001). Zimmerman and her colleagues present a thematic analysis of John Gray's original book *Men Are from Mars, Women Are from Venus*. The authors compare Gray's ideas about what makes relationships difficult and what is supposed to make them work to empirically validated family therapy research findings. Even if they have not read the book, most students are well-acquainted with Gray's series of books and their basic premise that men and women are so different we might as well say they are alien to one another. In my experience, a number of students believe this to be true! The article provides several excerpts from Gray's book that I use to humorously debunk some of these myths using reputable research published in peer-reviewed journals.

I begin a discussion of the article by asking students why I might assign them to read it. What are Gray's themes and what are their impressions of them? Gray's points are that men and women are very different, differences are instinctual, and that couples (I add that he is talking about heterosexual couples) must accept their differences in order to

be successful. However, Zimmerman and her colleagues (2001) are able to cite a number of peer-reviewed empirically validated studies that suggest the opposite: Between-group differences are minimal, shared power is more successful, and sustained intimacy requires equitable power distribution.

This clear discrepancy between a popular (and widely read!) author and what research tells us about relationships begs the question: Why do people buy Gray's books? This can generate an insightful discussion with your students about how we like our own viewpoints validated; Gray's promotion of the status quo doesn't threaten our own ideas or require us to make any changes.

The other source for classroom discussion in Zimmerman et al.'s piece is their recounting of Gray's story of the Knight and the Princess. What do students think the message about men or to men is in the story? About or to women? The allegory clearly communicates the ideas that men are the ones who leave, are the problem solvers, and are the heroes who rescue damsels in distress. Women are the keepers of the home (or castle as the case may be), need men in order to be rescued, should put men's needs above their own, and must at all costs protect fragile male egos. I use this discussion as a way for students to explore their own views about relationships while giving them the resources to see what couple research says about these issues. What follows is a discussion of Gray's credentials to be a "relationship expert" based on their newfound knowledge of research.

As you can see in the Zimmerman et al. article, it is necessary to evaluate published claims to determine which statements about love are true, which are incomplete, and which are just plain wrong. Relationship science provides a system of tools for evaluating claims about how relationships work and determining which claims are true for most people and which are not. We study relationship using the same set of procedures as do most other disciplines, the **scientific method.** The scientific method is when information is gathered and evaluated systematically and carefully, in order to find evidence to support assertions about a given topic. No one method or technique provides all the answers and I use examples of erroneous assumptions of years past to highlight the ways we reject claims that no longer fit our observations. For example, as recently as 40 years ago the only legitimate family form was a two-parent household, preferably where

the mother did not work outside the home and was primarily in charge of raising the children; any other family form was pathologized.

Asking and Answering Questions

I spent considerable time in the previous chapter acknowledging the questions that preoccupy both my students and my clients. Those questions fall into three broad categories: description, prediction, and explanation. Descriptive questions are a critical first step in research because they help identify what relationships are like, which can help us then identify the nature and scope of a problem. The authors remark that this is often an overlooked step because we all consider ourselves experts in relationships. Again, this is where I capitalize on student experience. I ask how many of them have given relationship advice to a friend or family member. How many of them have asked relationship advice from a friend or family member? Why do we think we are qualified to give advice and why do we trust the opinions of others about our relationship? Because nearly all of us have at least some experience in intimate relationships, or at the very least, have observed them through movies, music, or other types of media.

In a somewhat similar vein, discussion with students about the aspects of relationships that they would like to predict or explain is useful to illustrate the different goals of these three types of questions. For example, Weinberger, Hofstein, and Whitbourne (2008) attempt to predict divorce likelihood using an Eriksonian definition of intimacy: willingness to make a commitment, ability to connect at a deep level, and ability to communicate inner thoughts and feelings. Though low intimacy scores in young adulthood did not predict divorce later in life, the authors' attempt at prediction helps us understand that divorce prediction relies on relational processes more than individual characteristics. In another example, Drapeau and her colleagues (2009) ask the children of divorced parents to explain their experiences to derive themes. Using these two examples of recent literature on divorce, we can see that Weinberger and her associates' goal of prediction leads to different methodology and variables than Drapeau and her colleagues' goal of explanation of the experience of divorce

The authors of these two studies clearly started with an idea of what they were looking for guided by their **theories** about divorce. A theory is the general explanation of

a phenomenon that directs our attention to a particular question, which in turn identifies particular **variables** based on the lens we use to view the phenomenon in question. A good theory is **falsifiable**. In other words, its predictions can be tested and either confirmed or disconfirmed through systematic observation. The specific predictions suggested by a theory about how different variables are related to one another are the **hypotheses** to be studied. Both theory and hypotheses are only useful if they can be tested systematically in order to confirm or disconfirm them. I refer back to students' questions from the first class in order to generate discussion about both theory and hypotheses. What "theory" drives the question they asked? For some, it may be the theory that men and women are different, prompting questions such as, "Why is it that men don't ever want to talk about the relationship?" For these questions, the hypotheses would be that women spend more time discussing relational attributes and processes than do men. For other students it may be the theory that there is one true love for each person prompting questions such as "How do I know that s/he is the *right* one?" Based on the understanding of the theory behind them, what are the specific hypotheses associated with students' questions?

For many students, the second I say theory or research methods their fear of dry lecture and complicated statistics takes over and their eyes glaze. I find students are most able to learn the information when they have connected to it. As mentioned in Chapter 1, whenever possible I try to link student experience with the topic at hand. To do so, help students realize all of the ways they theorize and hypothesize everyday. For example, what stories do they come up with while people-watching over a cup of coffee or at a bus stop? Often students don't realize that these stories are actually theories. What are the specific, testable hypotheses based on these theories?"

Choosing a Measurement Strategy

Relationships pose a number of challenges to research, not the least of which is the intangible nature of most of the aspects of relationships. These intangible, abstract ideas are called **psychological constructs** and cannot be directly measured. Therefore, relationship scientists rely on **operationalization**— the translation of an abstract construct into concrete terms in order to test predictions about that construct.

Operationalization is necessary as it provides a way for social scientists to put quantities and values on constructs such as love, commitment, and attraction. Because we can't measure our variables directly and must rely on the operationalization of constructs, then it is paramount that we have **construct validity**. Construct validity reflects the degree to which the signifier represents the construct; high construct validity means that the aspect being measured is a good representation of the construct of interest.

The most commonly used form of data in relationship science is **self-report** data. This type of data is when partners' own accounts of their behaviors, attitudes, and experiences are used as the information in a particular research project. In many instances, self-report data takes the form of directly asking participants about a particular phenomenon. One example of individuals reporting on themselves is Simpson and Gangestad's (1991) study about **sociosexuality—**the degree of willingness to have sex outside of a committed relationship. Simpson and Gangestad (1991) simply asked participants to report on the number of partners they had had and their views on sex without love in order to assess their sociosexuality.

There are many aspects of relationships that people don't think about directly, either because they aren't able to have objectivity about them, their thinking is unconscious, or sometimes because it is not socially acceptable to answer honestly. In these cases, self-report data takes the form of asking about specific information the researchers think indicate the construct (ex. Marital Locus of Control).

Researchers can choose from either **fixed-response scales** or **open-ended questions** in order to gather data to test their theory or research their questions. Fixed response scales present the same range of choices to each participant. This type of questioning lends itself well to making comparisons across individuals, because you can be certain that the question was posed in exactly the same manner with exactly the same options. In contrast, open-ended questions allow participants to respond with whatever type of answer comes to them. These types of questions are particularly useful in generating hypotheses when little is known about a particular phenomena or the area has not been researched before. Open-ended questions are often used to obtain data that is rich in detail for **qualitative research,** which is aimed at gaining a description of an experience for a population or a subset of a population.

I use charts and tables to condense chapter information or visually present a comparison. Table 2.1, Pros and Cons of Types of Data, represents the chapter material on the relative merits and drawbacks of self-report data as well as observational data discussed later in Chapter 2.

The text provides the fairly common assumption that President Clinton lied about a sexual relationship with Monica Lewinsky as an example of misinterpretation of the construct (listed as a con in Table 2.1). He stated that he "did not have sexual relations with that woman," and the majority of college students seem to believe his behavior did not constitute sex as they defined it based on Sanders and Reinisch (1999). Interestingly, Pitts and Rahmen (2001) found almost exactly the same results a few years later in a comparison of UK and U.S. college students.

Unfortunately, the definition of sex isn't the only thing relationship scientists debate. They often debate how best to measure some of the central constructs to studying relationships such as relationship satisfaction. One way is with an **omnibus measure,** which taps a wide range of content and asks about everything that could possibly be related to relationship satisfaction. However, omnibus measures don't allow comparisons about specific aspects of relationships, yet measures of specific aspects often suffer from an **item-overlap problem,** which occurs whenever questionnaires that are measuring related or similar constructs contain questions about similar topics.

A suggested solution to the problem of item overlap is the use of **global measures**. Global measures ask partners to evaluate their relationship as a whole instead of asking about specific features or elements of the relationship. The advantage is that researchers can use separate questionnaires about specific elements of relationships to examine how overall satisfaction with the relationship may be related to those specific aspects of the relationship.

The cons associated with self-report data as well as the inherent problems with both omnibus and global measures can be resolved by using **observational measures**. Observational measures aren't subject to problems with recall or self-serving biases because we can watch partners' actual behaviors in relationships. However, this type of data gathering is not without its own potential problems and complexities. One such complexity is the role of the observer. For example, partners are able to provide

observational data on each other, yet their observations are influenced by their level of overall relationship satisfaction or current feelings about the relationship, called **sentiment override**. When partners are used as the source of observational measures, the results amount to self-report data with all of its associated pitfalls. Having observers who are independent of the relationship who have been trained to report on couples and their behaviors solves this problem.

Once the issue of who will be observing is settled, we are still left with the question of *what* to observe. While the research question will guide what aspect of relationships should be observed, researchers will determine the specific behaviors, language, or interactional sequences to be observed. The specific behaviors the researcher decides to observe should be those behaviors that best represent the construct the researcher is trying to study. In other words, deciding what specific behaviors to observe is a process of operationalization.

The next logical step in answering our questions about relationships is where these observations should occur. Most researchers believe that they can obtain the most accurate data when they observe participants in their natural setting. The problem with this **home-based observation** is that it requires either trained observers intruding into the couples home or the couple disrupting their normal schedules and routines by setting up recording equipment in their homes. The alternative is to conduct the research as **laboratory-based observation,** which eliminates potential confounding factors but increases the likelihood that the couple will not respond as they would in their day-to-day lives.

The biggest challenge with observational data is the extent to which different observers agree that a specified behavior has or has not occurred, or whether or not the observations are reliable. **Reliability** is less of an issue when researchers are observing concrete behaviors that are easily distinguished. Yet, it is much more likely that researchers will need to discern affective states of the participants, interactional patterns, and other constructs that require interpretation on the part of the observer, making highly reliable observations difficult.

The advantages and disadvantages of observational measures are presented in Instructors's Manual Table 2.1, Pros and Cons of Types of Data**,** below. Although

observational measures provide a way to directly assess relationship variables, **reactivity** can lead to low construct validity and erroneous conclusions. The good news is that researchers have found several ways to combat reactivity. One way is to hide cameras in the hopes that participants are able to forget they are being observed. Another strategy for reducing the effects of reactivity is to record couples over a longer period of time. Again, the idea is that couples will forget they are being observed, or they will not be able to maintain behaviors or interactions that are not authentic over a longer period of time. Lastly, researchers can measure physiological or emotional processes that are not in the participants' control. For example, facial expressions, blood pressure, and other processes may fluctuate too quickly to be consciously controlled.

Clearly there are benefits and drawbacks to both self-report and observational data, so how do researchers attempt to ensure that their data is both valid and reliable? In part, this is influenced by the psychological constructs the researcher is trying to understand. However, the best research uses a **multiple-method approach**, which operationalizes relevant constructs in different ways to minimize the effects of the limitations of each measurement strategy so that the phenomenon of interest can emerge. The multiple-method approach blends the best aspects of each method of gathering data so that when the results from these different sources of data converge, the researchers can be more confident in their conclusions.

Table 2.1: Pros and Cons of Types of Data

	Pros	**Cons**
Self-Report Measures	No specialized equipment needed (often pen and paper will do)	Phrasing of questions or the available responses can influence choice of responses
	Some relationship constructs cannot be measured by any way except self-report	Sometimes participants don't know the answer—but they will give you one anyway! (Possible low construct validity)
	High construct validity (when used appropriately)	Recall— participants don't remember so they guess, or the

		current state of relationship influences recall (again possible low construct validity)
		Interpretation of the construct (ex. definition of sex or definition of virginity)
		Social desirability effect—participants give answer they think will make them look good
Observational Measures	Directly assess relationship behaviors	Time-consuming and labor intensive— observers must be found, trained, and compensated
	Don't rely on recall	Expensive recording equipment needed
	Relatively objective	Reactivity—the act of observing may change participants' behavior (low construct validity)

Designing the Study

This section of the chapter summarizes the different types of designs available to relationship researchers, which are neatly summarized in Table 2.6, Summary of Research Designs, in the text. Although the table provides a concise way to compare different research designs, clearly more is needed to understand the differences.

Correlational research studies the naturally occurring associations between variables and answers descriptive questions. Boiled down to its essence, it asks are changes in X related to changes in Y? **Positive correlations** indicate a relationship between two variables such that when levels of X are high, levels of Y are high as well. Whereas, a **negative correlation** indicates that when levels of X or Y are high, the other is low. One of the most common applications of correlational research in relationships is looking at how gender (X) is related to a relationship variable (Y). For example, are there gender differences in communication skills?

The example of gender differences research highlights an advantage of correlational design—its application to variables, such as gender, that cannot be manipulated. Unfortunately, this also means that correlational research can only support these three possibilities:

1) X may cause Y
2) Y may cause X
3) some other influence, a third variable, may cause both X and Y

Notice then, that we cannot make statements that support **causation**. In other words, the nature of correlational research allows us to demonstrate a relationship between X and Y but does not allow us to say that one caused the other. In fact, the example of the high correlation between murder and ice cream sales has been used in introductory psychology and research methods classes for decades and clearly demonstrates that sometimes there is a relationship between two variables that is caused by an unknown.

Correlational research is a general category under which both **cross-sectional** and **longitudinal** research fall. Cross-sectional research captures a picture of the relationship between two variables at one point in time. In contrast, longitudinal research can address two types of questions: descriptive questions and also how the phenomenon may change over time. The ability to study change over time has several advantages. We can describe the changes that can occur, but also we can predict changes that may occur based on different courses of events or trajectories.

The text provides several examples of methods used in longitudinal research, each geared toward the type of question the researcher is asking and an appropriate time interval in order to observe change. The **daily diary approach** asks participants to keep a daily log about a specific area of their relationship. For example, the text cites Thompson and Bolger's (1999) study of how the daily fluctuation of one partner's mood affects the other partner's subjective assessment of relationship satisfaction. In contrast, the **experience sampling** approach gathers data throughout the day in order to come up with a composite picture of participants' daily experience.

The advantages of correlational studies noted above apply to both cross-sectional and longitudinal designs, however, longitudinal research has the added disadvantage of

taking a great deal of time, expense, and participant attrition, or loss of participants due to reduced interest, moving away, or death. For example, if you were to follow couples from the time they marry until they either divorce or die, you would spend the better part of your career on one study from which approximately 30 percent of your original sample will have been lost. **Attritional bias**, or the propensity to lose participants, lowers the validity of the study. Often participants who drop out are the ones we need to study as they are experiencing the most change!

While attrition isn't a problem for cross-sectional methods, these methods are susceptible to a history effect—the possibility that the groups you are comparing are different to begin with due to different generation, cultural times, or social and political events. For example, Box 2.2, Spotlight on . . . , The Case of the Disappearing Curve, in the text uses the marital satisfaction U-shaped curve. The curve was developed using couples who had been married a short time, those in mid-marriage, and those who had been married for a long time. In reflecting on the reasons why the curve exists, those couples who experience low satisfaction eventually divorce and therefore are not represented in the longer married data, skewing the results such that it appears couples who have been married longer have higher levels of satisfaction. Longitudinal designs limit history effects, because researchers are studying the same participants over time.

Although not covered in the text, I introduce students to the cohort sequential design. This design combines the advantages of a longitudinal study with that of a cross-sectional study. In this manner researchers can rule out history influences by combining the two approaches. In cohort-sequential designs, researchers select different ages and follow each over time. For example, you may select groups of married individuals who are in their twenties, thirties, and forties and examine their relationship satisfaction over the next 10 years. You will have data that spans 30 years, but you need only to conduct the study for 10 years. You will reduce the time and money the study costs as well as reduce the history effects, while maintaining the ability to examine change over time.

Experimental designs resolve the problem of causation noted for correlational studies by manipulating one element of a phenomenon to determine its effects on the rest of the phenomenon. In any experiment, we identify a **dependent variable,** or the phenomenon the researchers want to understand, usually a central part of the research

question itself. The hypotheses usually reflect the **independent variable,** or the possible cause for the effect that researchers are studying.

The text employs Dion et al.'s (1972) study about the relationship between physical attractiveness and the judgments we make about a person. The dependent variables, or the phenomenon of interest, were the subjects' assessments about personalities, careers, marital satisfaction, and so forth of the person in a picture. The researchers hypothesized that the physical attractivenss of the person in the picture would effect the judgments made, therefore the independent variable was the level of attractiveness of the person in the picture.

In order to be certain that the changes in assessments (DV) were due to the level of physical attractiveness of the person in the picture (IV), Dion and his colleagues (1999) needed to **control** (i.e., keep constant) all of the other variables that could effect the assessments participants made during the study. Though difficult, researchers can control for potentially extraneous variables that might affect the outcome they are observing. However, researchers cannot control the participants themselves. Each person brings to the study their own set of biases and perspectives that may affect the data collected. Therefore, **random assignment,** or making sure that each participant has an equal chance of being assigned to any condition of the experiment, is one way to reduce the effect of participant biases. Random assignment attempts to ensure that participants in each group are roughly similar to one another, thereby reducing the impact of personal biases.

Being able to make causal statements due to careful control of confounding variables and manipulation of the independent variable is one of the most important advantages to this design. Unfortunately, the ability to make causal statements sometimes allows researchers to overestimate their ability to predict what happens in the "real world" by distorting the behavior of those variables in an experimental condition. What this means is that sometimes we control for so many potential confounds that the resulting situation is unrealistic and unlikely to be encountered. **External validity** is the term researchers use to reflect the ability to generalize results to other situations.

The final limitation to experimental designs is its limited application to intimate partner research questions. Often the types of variables we are interested in cannot be manipulated, therefore we are unable to do true experimental research (see Table 2.5, The

Elements of a True Experiment, in text). For example, we may be interested in learning how an affair changes the level of trust or commitment in a relationship. It would be unethical to randomly assign couples to a condition that requires them to have an affair. Furthermore, this would have little external validity because these couples would not necessarily represent the group of couples that are most likely to have an affair.

Also not discussed in your text are quasi-experimental designs that look like experimental designs but lack random assignment. In quasi-experimental designs, researchers assign existing groups to particular conditions, which is particularly helpful to those of us who study intimate relationships because couples already come in existing groups: cohabiting, married, experienced intimate partner violence, adult children of divorce, etc. Let's take the example of whether a couple is cohabiting or are married. We can assign a group of cohabiting couples and a group of married couples to the control condition as well as to the experimental condition. While there are some differences between people who choose to cohabit and those who choose to marry, the dependent variable is able to be measured without assigning people to a relationship status group, and we are able to make comparisons as well as potentially predict how marrieds vs. cohabitants will react.

In **archival research,** researchers do not need to do any data collection at all, which reduces the need to consider things like random assignment. Archival research examines existing data that have already been gathered. The text provides the examples of longitudinal personality research, yearbook photos, and personal ads as examples of sources of archival data. Other particularly relevant examples are marriage licenses and divorce decrees, both of which are public record. These data can be used to evaluate whether age at marriage is related to divorce likelihood.

The data used in archival research was gathered by someone else for a different purpose. As a result, researchers need to conduct a **content analysis** to transform the data into quantifiable units for comparison. Content analysis is similar to coding data in observational analysis where actions are converted into numbers. In addition, this presents the challenges of deciding what information is valuable to include and assessing reliability between coders.

Archival designs are fairly inexpensive and time-efficient because the data has

already been collected. For the same reason, archival data is not susceptible to reactivity. However, archival designs can suffer from poor data collection practices. Any subsequent use of this data in archival designs will likewise suffer from the limitations of the original study. For example, if the original study was cross-sectional, the archival design must be as well. Lastly, and perhaps most importantly, archival designs are limited to the data that was collected in the original study, which means that researchers are limited to the questions that were asked and the way that they were asked. This can significantly limit researchers' ability to use archival data if the questions are poorly worded, do not cover the scope or nature of the variables the new researcher wishes to study, or are incomplete.

Retrospective designs are also not mentioned in the text, but are similar to archival in some respects. Retrospective designs go backward vs. forward in time, but researchers are not reliant on formerly collected data. These types of studies ask people to remember events from earlier in their relationship. For example, what first attracted you to your partner? While this allows us to understand how relationships develop, there are a few potential disadvantages associated with this design. First, people do not have perfect memories and can unwittingly provide unreliable data. For some couples, their first attraction to their partner may have been 30 to 40 years ago, and it may be hard to recall. Similarly, events since the time in question may color memories. For example, if you are unhappy with your spouse, it may be hard to remember what positive interactions may have happened early in the relationship, because your relationship story may have become problem saturated.

As this section and Table 2.6, Summary of Research Designs, in the textbook make clear, each design has its advantages and disadvantages. The critical element in deciding which is the most appropriate design is the question being asked. Descriptive questions call for cross-sectional studies, longitudinal studies answer questions about change or predicting change, and experimental studies allow causal statements.

Choosing Who Gets Studied

Inherent in all of the examples above illustrating questions, settings, and designs are the people providing the information. A **sample** of participants is the group of persons who represent the larger population that you would like to draw conclusions about. Often one

of the considerations in selecting a sample is external validity, or generalizability of the information you gain. One way of ensuring a high degree of external validity is through collecting a **representative sample**, which is a group of individuals who correspond to the larger population in terms of demographics and other variables. But who is representative? For the purposes of obtaining a representative sample in order to preserve external validity, a study is threatened only by differences between the sample and the relevant population on dimensions that could potentially affect the study results. Though not a relationship example, I often inform students that our baselines for many health-related indicators such as blood pressure and heart rate are based on single white males (Kinney et al., 1981). By addressing the underrepresentation of women in biomedical research, Dresser (1992) highlights the skewed nature of our understanding and how this can significantly affect our understanding of health. This information may be used to start a discussion of who might be excluded in research samples, why they might be underrepresented, and how this might alter the results that are observed.

Due to the difficulty in recruiting, it's much more likely that studies of relationships use a **convenience sample** rather than a representative sample. Convenience samples are often comprised of college students primarily because this method of sampling uses participants that are easy to find. It makes sense that college students are recruited for relationship studies since the bulk of research occurs on campuses, and the emerging adult developmental stage is about relationship formation. This is a good opportunity to ask students how many of them have participated in a research study as part of a class or for extra credit. What was the study? How do their own biases or demographics potentially affect the outcome? For example, the students in my department are typically middle to upper class, from the Bible Belt, and with a female to male ratio of 15 to1. Given these demographics, a discussion of how using them as a convenience sample might skew results is helpful in emphasizing the potential disadvantages of convenience sampling.

Table 2.2: Comparison of the Benefits and Disadvantages of Sampling Methods.

Convenience Sampling		Representative Sampling	
Benefits	Disadvantages	Benefits	Disadvantages
Easier to obtain (convenient!)	Limited range of conclusions	Able to control for population variables	Expensive
Data collection goes more quickly	Volunteers may vary from "real" subjects	Can make statements that are applicable to general population	Difficult to obtain
Cost effective	May have other motivations for participation (less reliable data; i.e. extra credit for class)	Can test general principles	Require lots of personnel to obtain
Can get detailed information			Limited range of information from each participant

Drawing Conclusions

The next step in conducting research is the, "so what?" or what conclusions can we draw and how do they contribute to understanding relationships? In drawing conclusions, researchers hope that their specific predictions are true. Unfortunately, researchers cannot study every single person on every single aspect of his/her relationship; therefore they can never really prove their predictions work for everyone. Researchers direct their energies to attempting to disconfirm their **null hypothesis**, or the hypothesis that there is no effect. The example the text gives is a particularly salient one: Students who take a relationships course have more satisfying relationships later on. The null hypothesis would be that students who take an intimate relationships class have the same relationship outcomes as everyone else. Therefore, if one researcher is able to reject the null, then an effect exists.

Due to the fact that no two groups are *exactly identical*, researchers rely on **statistical analyses** to determine if the differences between two groups are large enough such that they would be unlikely to occur if the null hypothesis were true. The goal of statistical analyses is to determine the probability of obtaining a particular result, given a particular set of conditions. Effects large enough to occur less than 5 percent of the time (or less than once every 20 times) if the null hypothesis were true are called **statistically significant effects.** Before moving on to the importance of replication, I like to draw the distinction between statistically significant effects and practically significant effects. In relationship research, sometimes we see results that meet the criteria for statistical significance, however, the observable behaviors between two groups may not be apparent.

In order to reduce the likelihood that published results are the 1-in-20 chance of getting a statistically significant effect even if the null hypothesis is true, relationship scientists rely on replication. That is, they conduct the same or similar studies several times in order to reduce the likelihood that their results are the accidental. Another tool for increasing the likelihood that the results were not obtained by chance is **meta-analysis**. Meta-analysis is a set of statistical techniques designed to combine results across studies and reveal the overall effects observed by a body of scientific research. Meta-analysis is powerful because results that are consistent across a greater number and wider variety of studies often use multiple measures, different participants, and so forth to justify stronger conclusions.

A number of unique complexities exist in intimate relationship research that aren't fully covered in the text. First, most analyses rely on the assumption that sources of data are independent from one another. Is this true in relationship science? Of course not, because partners' data are related to one another, called pair interdependent data. Another complexity is finding the appropriate level of analysis. For example, if we are interested in looking at how an individual's depression affects the couples satisfaction (Denton & Burwell, 2006), then we have individual data and couple data. Similar issues occur when we are interested in an individual's perceptions about relationships based on family of origin experiences. Lastly, there are several sources of influence. Each partner

and the interactions of the two mean that the relationship does not equal the sum of its parts and that we need to consider the interactions between partners as a variable as well.

Ethical Issues

As I addressed earlier in this chapter, participants in research are subject to reactivity, or changing their behavior because they are being studied. In addition to reactivity, research participants can reflect on their experience of being studied and have thoughts and feelings about it that may alter their behavior after their participation in the study is finished. Therefore, all research on human beings requires sensitivity to the participants' feelings but especially the study of intimate relationships that are intensely personal and private.

Ethical issues are typically complex, requiring an understanding of all shades of gray. However, ethical considerations in research requires that researchers conduct research that meets the highest standards of scientific rigor, to ask nontrivial questions, and to utilize the data they collect to the fullest possible extent. Additionally, researchers have an ethical imperative to protect their participants from harm. Because of the intensely personal and private nature of many relationship research studies, researchers have the ethical responsibility to keep identifying information and specific details **confidential** in order to make sure that persons other than those associated with the research study do not have access to the information. Often researchers take this one step further by keeping the data **anonymous** through assigned ID numbers so connections between the data and the person are limited.

Also, participation in research can call attention to negative aspects of participants' relationships, therefore they should be made aware of this potential in the **informed consent**. Informed consent means that participants were told about the research procedures, know what to expect, and have signed a form indicating that they agree to participate. The consent form guarantees all participants the right to confidentiality and anonymity as well as the right to refuse to answer any question and to withdraw from the research at any time.

Is it ethical to conduct research on couples with the knowledge that between 3 and 5 percent of relationship research participants have reported an adverse affect on their

relationship after the study? Yes, when we consider that the alternative is much worse, having no knowledge about what makes relationships work and the understanding of the link between relationship health and overall well-being. It is science's ethical imperative to gain knowledge that can benefit humanity while also protecting participants from harm. One way that researchers have dealt with the potential negative effects on couples' relationships is to provide referrals to therapy services or have on-site help.

Conclusion

Though not formalized, we do research on relationships every day and likely hear the results of others' research every day. So while students may not use the information in this chapter to develop a program of research in academia, I always encourage them to use their knowledge to be critical consumers of information as well as to apply the results of well-thought out research to their own lives.

DISCUSSION QUESTIONS

1. What type of relationship research do you look for? What types of articles or headlines about relationships capture your attention? Why are these so compelling?

2. What are some of the ways you determine whether or not to believe the results that are reported in a newspaper synopsis of a research study? A magazine article? A journal article? A website?

3. Do you think that college students' opinion about the definition of sex has changed? Do you think the definition of sex would change if you asked people in their thirties instead of college students? People in their fifties and sixties? If so, why do you think the definition changes depending on what age group you ask?

4. As I noted above, some students have the preconceived notion that theory and research methods are either beyond them, boring, or dry. Therefore, I generally review the followings steps in the research process and then ask students to do a small group activity where they think through these steps using a relationship topic that is of interest to them.

After they have worked through these steps, we reconvene as a large group to discuss their process and what they decided.

a. Develop a research question
b. Obtain a sample
c. Choose a design
d. Select a setting
e. Consider nature of the data
f. Take into account ethical considerations
g. Interpret and integrate the results

5. What might be examples of independent sources of data and interdependent sources of data? How might we reduce the impact of interdependent sources of data?

6. What types of research with couples might affect their perspectives about their partner or the relationship itself? How might it affect these couples in the long run?

RECOMMENDED READING AND WEB RESOURCES

Reading Resources

Angarne-Lindberg, T, Wadsby M., & Bertero, C. (2009). Young adults' experience of divorce: Disappointment and contentment. *Journal of Divorce & Remarriage, 50(3),* 172–184. The authors investigate young adults' perceptions of their parents' divorce that occurred 15 years earlier. Their goal is to explain the experience of divorce retrospectively and draw conclusions about why some children of divorce develop difficulties whereas others do not.

Drapeau, S., Gange, M., Saint-Jacques, M., Lepine, R., & Ivers, H. (2009). Post-separation conflict trajectories: A longitudinal study. *Marriage and Family Review, 45 (4),* 353–373. Used in this chapter as an example of research that seeks to explain rather than predict. Drapeau and her associates investigate the experience of divorce for children.

Dressser, R. (1992). Wanted: Single, white male for medical research. *The Hastings Center Report, 22 (1),* 24–30. Dresser points out that the exclusion of women (i.e.,

lack of representative sampling) in medical research leads to significant gaps in our understanding of diseases, disease prevention, and potential treatments.

Kinney, E. L., Trautmann, J., Gold, J. A., Vessel, E. S., & Zelis, R. (1981). Underrepresentation of Women in New Drug Trials: Ramifications and Remedies. *Annals of Internal Medicine.* 95(4):495–499. Original work that documents the underrepresentation of women in biomedical research.

Pitts, M., & Rahmen, Q. (2001). Which behaviors constitute "Having Sex" among university student in the United Kingdom? *Archives of Sexual Behavior, 30(2),* 169–176. The authors compare the attitudes of university students in both the UK and the United States about the definition of sex. In addition, comparisons between the men and women in the sample are drawn.

Weinberger, M., Hofstein, Y., & Whitbourne, S. K. (2008). Intimacy in young adulthood as a predictor of divorce in midlife. *Personal Relationships, 15(4),* 551–557. Using an Eriksonian operationalization of intimacy, the study explored young adults' level of intimacy as a predictor of divorce in midlife.

Zimmerman, T. S., Haddock, S. A., & McGeorge, C.R.(2001). Mars and Venus: Unequal Planets. *Journal of Marital and Family Therapy, 27 (1),* 55–68. The authors present a thematic analysis of Gray's book in comparison to empirically validated family therapy research findings.

Web Resources

International Association for Relationship Research. www.iarr.org. This website provides links to the journals *Personal Relationships* and *Journal of Social and Personal Relationships* as well as current and past copies of the organizations' newsletters. In addition, the site provides information about upcoming conferences, workshops, and other potential resources for current research on intimate relationships.

The Gottman Institute. www.gottman.com. This website provides information to couples and families but also contains a link to The Relationship Research Institute, which lists current research projects and upcoming workshops.

GUIDE TO USING THE *INTIMATE RELATIONSHIPS* DVD

Tools and Methods (5:32)

The researchers interviewed for this chapter explain their research, the types of data they use, the settings used for their studies, and some of the complexities associated with intimate relationship research. This series of interviews lends itself to a classroom discussion about the content and process of intimate relationship research. A good place to start is looking at what elements of relationships can be manipulated or what some examples of independent variables are. For example, Dr. Aron notes that researchers can't manipulate love or ask participants to fall in love with others, though he has tried. On the other hand, what are other examples of relationship elements that we can't manipulate?

What are some of the complexities of studying relationships? Some of these include those mentioned in the chapter: difficulty keeping track of participants and the need to utilize multiple methods in order to capture a realistic picture of participant experiences. When we examine relationships we are picking apart ideas that are deeply held and long standing. In addition, they are culturally relevant and culturally defined. The socially sanctioned forms of relationships evolve and change over time. The definitions of what it means to be in an intimate relationship change over time. For example, I often ask students how many terms there are for "dating," because dating itself is almost non-existant. Yet there are myriad terms for this stage in relationship formation that are constantly being defined by the current generation.

Lastly, a number of other questions can generate classroom discussion about intimate relationship research. How do you use data? What types of data are represented by the studies discussed on the video? What research paradigms are represented? What do the choices about the studies say about the researchers' theory or perspective? Where do the studies take place? What role do statistics play in creating the picture of how relationships work?