1 Reading Research on Relationships

Anyone wanting to read a book on relationships already brings a lot of expertise from the many relationships in your life – for example, with caregivers, perhaps siblings, and friendships. You may have been in romances, some of which did and some of which did not work out as you planned. We all know a lot about relationships from these common experiences; in particular we know that they are good when they work and bad when they do not.

Nevertheless, we may not know *why* they work or what can prevent them going wrong. How do relationships start? What makes them develop? How can they go wrong? What about sex? And loneliness? And enemies? And alliances? Is it true that similarity is essential for relationships or do opposites attract?

In addressing some of these matters we can look inside ourselves for things that appear to be true from our own experience. Alternatively, we can ask other people and compare notes, or we can interrogate "common sense" or our cultural belief system as enshrined in magazine quizzes, for example ("Ten ways to improve your friendships", "Does he really care? Twelve key signs", "Divorce the easy way: pitfalls to avoid", "15 tips for livening up your sex life", "Six sophisticated options for a fab first date"). We've all read them, or at least we have friends of cousins of ours who have told us about them!

The trouble is that our own intuitions, our friends' advice, and the comments in magazines might be wrong. After all, the "experts" in magazines merely fifty years ago were just famous people who were willing to let everyone know their opinions. More recently the experts have been people with some credentials, like good therapists or famously insightful observers who have written books. Nowadays the advice in magazines tends to rely on the ideas of people with PhDs and some of them even do research that is of high quality. But why should we believe *them*?

The ultimate answer to questions like these will be found through research that strips away the personal opinions of gurus and common sense and finds out what is actually true in the population at large. Anyone can do research. You set out with a question and you look into it. You then come up with an answer that is based on research. The more carefully you do the research the more confident you might be of the value of your answer.

The problem is that research – good research, that is – is not only challenging to do but quite rare; common sense opinions are much more frequently the basis for beliefs about relationships. There are huge numbers of ways to do research badly and for you to become confident in the answers that you rely upon, you must be sure that the research was asking the right questions, was well done, informative, conducted in a sensible and reasonable way, and was interpreted correctly.

As you learn to read and understand research and to comprehend what it tells you and what it does not, you, as a reader interested in questions about relationships, need to know how to avoid being misled by glib research. You need to understand what questions to ask about a research report, study design, interpretation of a set of results, and so on, so that you can confidently trust the conclusions that are offered for you.

One goal of this book, then, is to show you some of the ways in which that set of critical reading skills can be acquired as part of your learning about the nature of relationships. As we introduce new topics in the study of relationships, we will also show you how the research was done on that topic and we will teach you some ways to examine that research critically and carefully. We will also show you how the research developed across time, starting with a classic report and moving along to more recent work. Thus we focus in fostering readers' critical skills in such areas as recognizing themes from different theoretical positions, noting how research develops, and observing the "course corrections" that are made in ideas during the evolution of scientific inquiry.

The skills that you will acquire as you are led through this material by our editorial comments will therefore not be restricted to only a greater understanding of the topics that have been researched but will develop your detailed understanding of how to *evaluate* such research. This skill should be generalizable: you will learn not only how to do specific critical assessment of the papers that we have selected for you here, but also the broader skills that will be useful when you read other papers and reports in the future, whether about relationships or any other topics. You will develop the ability to comment on reports that you see in the media, or to add wise observations to comments made by friends and colleagues about relationship issues. You might even be able to apply your expertise in the workplace later on, as you think about ways to solve relationship problems at work!

Start with an interesting question

The thing that guides all of your research is a question that interests you. The first step in any research then depends on you being able to identify and formulate a sensible question in a way that can be researched. The question "Does similarity make relationships work?", for example, is an interesting question, but it is so broad and general that you cannot really begin to study

it until you have decided what sort of similarity you mean and how you are going to measure it. Not only that, but you also have to decide what you mean by "work": how will you base your decisions about whether similarity is effective, what will you compare its effects with, and how much "better" does it have to work before you will conclude that it is "what makes relationships work"? And what kind of relationships anyway? Marriage? Friendship? Child–parent relationships? Work relationships? Customer–business relationships? What? And how many studies are you going to do before you decide you have gathered enough evidence to answer the question? On what sorts of people should you try your question? Does age or sex of the people matter? Might only some sorts of similarity work for only some ages of people in only some kinds of relationships …?

Don't worry! These sorts of thoughts come to mind pretty easily as soon as you start to look further into any general question that you want to research. As soon as some of these things come to your mind you have already begun researching, because a very large part of any research is simply thinking carefully about the central question and the terms within the question. And another encouraging thing is that you are not alone in coming to grips with this.

Next step: the history

If you want to know the answer to some question – let's say, the question of whether opposites attract – it may just happen that you are the first person ever in the history of the world to ask it. More likely someone else thought of it first. (Sorry! That's life.) In that case, to save yourself all the trouble of doing a lot of experiments and research yourself, you should always start by finding out what previous thinkers have suggested and what other researchers have done. You might find some good ideas there or you might find that you have a better idea than they had and that you can develop their research more thoroughly as a result. It is always worth finding out first, though, so research begins with a germ of an idea, an interesting question, and then a search through the archives of previous research.

One thing that you will learn from this book, then, is how the development of research occurs as a result of examination of previous research activity by other scholars and its later refinements by researchers. One researcher might start the ball rolling by asking the simple question "Do opposites attract?" and would then be faced with the first issue that researchers must deal with: "How can I make that question researchable?" In technical terms, this is the issue of **operationalizing** a key concept. A researcher could do a study on this particular question by looking at whether, for example, a short person tends to partner a tall one. In this case we would say that the researcher had ***operationalized*** the notion of oppositeness (or complementarity) through the construct of "comparisons of height" and that is not the only way to operationalize oppositeness or complementarity. Someone may come along later and say it is not height that

matters so much as "personality", and they do a study on whether a dominant person tends to partner a submissive one. They operationalize the construct of complementarity through the assessment of matching of personality. Someone may then come along later and say it is not personality, in terms of broad traits like dominance, that matters in determining whether opposites attract but rather it is a matter of whether the two people have complementary styles in solving arguments. So that person goes off and does a study on that. By observing and learning about such reactions to and developments from previous research we reach a clearer understanding, at least in the ideal case, of the broad question that we sought to understand. We also observe that the operationalization of the key construct can be different in different studies, making comparison between them more complicated, and this is one of the first things that an intelligent consumer of research looks at: the operationalization of the key constructs.

As you read the coming chapters, then, think carefully about, take notes, and reserve for class discussion, the matter of how the researchers operationalized the key constructs. Careful attention to this issue in itself makes you a more subtle reader of research and will significantly enhance your understanding of what a piece of research tells you, if anything. Also, as you read, you need to be evaluating how the researchers have done their review of the topic. The first part of a journal article is the review of the history of the topic, a place where the authors establish the warrant for their own work by explaining why people find this topic interesting, what they have done about it, and what questions remain to be understood. As you read this part of an article, you need to be thinking generally about whether the position sounds persuasive, interesting, insightful, enlightening, leading to something you want to know the answer to, and so forth. Do not assume that this review is the only way that the topic can be reviewed. What might the authors have left out? Do they have some sort of axe to grind? Does it feel as if they have represented the other research well? (In many cases you will not really know, but you can take a guess.) Above all, do not be afraid to register and note your criticisms of their arguments if you have any.

After you have formed an idea about how the key constructs have been operationalized, you probably have a reasonable idea of what to study and how it can be investigated. At this point, then, comes the Big Issue: is it all a matter of specific prediction of what will be found in the research or just "take it as it comes and see whatever you get"? Is it "I wonder if it will rain tomorrow. Let's see." or is it more specified, such as "Tomorrow we will have showers and thunderstorms"?

Sometimes we might just be interested in finding something out that we simply do not know, for example whether people who go out for a pizza have better dates than people who go out to the movies, but we aren't really sure which way it will turn out because there are no solidly based theoretical reasons for assuming that one rather than the other causes better dates. In that case we pose a general ***Research Question (RQ)***: Do pizzas make dates go better than movies dates? Whatever our research finds, it should add something to

our general understanding: we didn't know anything about the relative effects of pizzas and movies before the research, but after it we'll know some basic facts.

On other occasions we might have a reason for believing that things will turn out a particular way, and this idea might be solidly based on theory. For example, we might think that couples who talk about their conflictive issues by listening carefully to one another and reflecting back the other person's remarks might have a better chance of solving their conflicts than do people who do not listen to one another (Acitelli et al., 1997). In this case we state a ***hypothesis*** and it is ***directional***, that is to say, it specifically predicts the way that we expect things to work out: couples who listen will be more satisfied than couples who do not listen. If things do not come out exactly that way, then our research will have shown that the theory on which we based our hypothesis is not supported by our research.

Most of the research that you will read in the rest of this book will be of the second approach. There has been enough previous research on key questions in relationships that we know the basic facts and figures – the pieces of the jigsaw – and we are now trying to understand how the pieces fit together exactly. Therefore, most of the research articles will present a clear hypothesis and will report the results of testing it. Once in a while the studies add a new question and state it as RQ because the authors of the paper do not know what to expect or predict, but most of the time the reports are designed specifically to test the value of theoretical assumptions and so will state the hypothesis clearly and test it directly.

Whether the test is a good one is, of course, something you will be learning to assess. Again in reading research you should not feel shy about critique. Even published research can have oversights or omissions that can be spotted if you read thoughtfully.

Some basic issues in design and analysis

Given the above, the next thing that you (as an intelligent consumer of research) need to think about is at another level of expertise. You need to assess the quality of the design and execution of the study that was intended to test the hypothesis that was stated. So how do you go about doing that?

Usually any study of events in the world presents us with a combination of two things that seem to be relevant to one another. For example, we see people dressing up and going to parties and we later see them coming out in pairs that are different from the groupings that went in. We might also observe that people kiss more in public at night than in the daytime, especially on the way out of parties. Having observed the combination of events we then need to decide whether one element *causes* the other. Do parties cause kissing? Do parties cause people to pair up differently from the groupings that went into them? Does similarity cause attraction? Do pizzas cause dates to be enjoyable?

We all want to know what causes things to happen and unfortunately we cannot always tell that merely from observing that two things usually happen together. For example, from the observation that people on first dates often go to the movies we cannot assume that movies cause people to go on first dates. On the other hand, from the fact that people go red when they are embarrassed, we might deduce a workable hypothesis that embarrassment somehow causes redness and we might then devote some research to find out how that causal linkage works exactly.

When a researcher can show that two things go together but does a study that cannot help us to say which causes which, then we talk of a ***correlational study***, or a ***correlational relationship***. For example, if we find that similarity and liking go together we can only say that they are correlated, until we can definitely show that similarity causes liking, instead of liking causing similarity (which is actually quite a reasonable idea: the more you like someone, the more you might try to be like them). [But see Chapter 2 for a clever way in which one researcher was able to determine the direction of causality in this relationship.] What is "the ***direction of causality***"? This means the way in which the relationship between the two things works, e.g., that we can say that A causes B and not the other way about. The search for ***causal relationships*** as distinct from correlational relationships is what lies at the heart of research. We all want to be able to say that Thing One causes Thing Two to behave in the way that it does.

We have been writing about "things" causing other "things" to happen and it is time that we introduced the more formal term "***variables***". Research in relationships is about variables; that is to say, it is about things that occur in the real world in many different strengths and forms, such as attraction, height, physical beauty, satisfaction, love, and so on. When a scientist finds a variable and can relate its behavior to another variable then you see bliss. A scientist likes to be able to say "Variable A causes Variable B to act in a specific way". Many of the studies that are reported in the rest of this book are devoted to assessing the effects of a given variable on another variable, for instance the effects of conflict on happiness or the effects of social skill on loneliness. In that simple statement you have two sorts of variables. In research the ***independent variable*** is Variable A, the variable that has an effect, whereas Variable B is the ***dependent variable***, the variable that is affected by the other one.

OK, so you now have the idea that research is about the effects of an **independent variable** on a **dependent variable** and that we are, by and large, looking for causal relationships. [Not all research is like this, as we shall see, but we will introduce different methods as we go along, rather than do it all here.] So what is next? Well, you have to test the idea on real people. Very often researchers pick on a group of people who happen to be around, and who look like reasonable specimens of the parts of the human race that are relevant to the testing of the hypothesis. Such a convenient group of people chosen for study is usually known as a ***convenience sample***. There are many cases where that set of people is a fair choice (for example, if you want to find

out how people respond to witnessing an accident, you have to use the people who saw it happen) but in cases where the researcher wants to say something that is true of "all Americans" or "all humans" or "all men" or "all conservatives", it is necessary that the sample is a reasonable representation of the whole group that the researcher wants to understand. Obviously the most accurate way of finding the answer would be to ask all Americans, all humans, all men … the relevant question but that would not be practical, so researchers just pick on a small sample of people they can actually work with. Thus the **sample** – the group of people who are to be used for the study – has to be **representative** and they will be representative if they are not systematically picked with some special feature (not all of them should be redheads, or left-handed, or dwarfs) since those features are not representative of all people at large. Researchers usually take a lot of trouble to ensure that their sample is **randomly selected**, meaning that they take steps to ensure that no particular biases are systematically built into the sample: it is not mostly left-handers or all sports-players or 90% Republicans or only 18-year-olds, if such features would fail to represent the broad group of people you seek to understand. If you want to understand what makes marriages successful, then you would not want a sample that consisted of unmarried 18-year-olds; if you want to understand how first dates work well, you probably would not want to have a sample that consisted only of parents of 10-year-old children, if you want to understand "romance" then your sample should not just consist of heterosexuals … and so on; you get the picture.

Having decided on the kind of sample to be used, another issue for investigators is to decide on a ***between-subjects design*** or a ***within-subjects design***. In a within-subjects design, each subject (that is, each individual in the sample) is exposed to two or more experimental conditions during the experiment. For example, the subject might go on a date to a pizza parlor and then go on another date to a movie, rating both experiences so that the researcher can compare everyone's reactions. Since the same person experiences both conditions of the experiment, this sort of design controls for initial differences between the subjects, since each subject is, as it were, his or her own comparison group. There are, however, some problems with a within-subjects design, such as the effects of the *order* in which experimental conditions are experienced; the person might be tired of dating after the first condition (pizza date) and so might be less interested in the movie date anyway, for instance. Can you think of other problems with this sort of design?

The second sort of design – ***between-subjects design*** – assigns different subjects to different conditions and so the data of different subjects in the different conditions are ultimately what is compared. In such a design the effects of order (or of experience or learning or fatigue – did you get all of those limitations of the within-subjects design?) are eliminated. However, there is a cost, namely that the groups might actually have started out different from one another independently of the conditions experienced in the experiment. Therefore, each design has its limitations that must be dealt with and you should learn to bear them in mind as you read the reports in the rest of the chapters.

We'll illustrate these things more fully as the chapters progress – that, after all, is one purpose of this book – and we have already oriented you broadly to some of the main concepts that will be elaborated as you learn more. One final set of things that we will fill out in more detail, but which you need to understand broadly, before you launch yourself at the research wholesale, concerns the ways in which researchers make decisions about the meaning of their results.

Yes, this stage is about statistics, but do not fear. Statistics are really all about *logic* and so they simply do the same sort of things that we have been talking about already: they give you ways to understand the underlying logic of findings from research and they give you logical ways to make decisions about the meanings of those results. Researchers look for several things in the logic of their statistics and we'll introduce two here: ***variance*** and ***probability***.

When you collect lots of data it tends not to be all the same, whether it is people's shoe sizes, political preferences, or annual income. In short the data varies or contains ***variance***. Some subjects will rate the pizza date 7 out of 10 on a 10-point scale, some will rate it 3/10 on that scale, some 10/10, and so on. That variance in scores and ratings is what you work with at this stage of research. The researcher's job is to work out what bits of the variance come about by chance or "error" and how much because of something more interesting. How much of the differences in rating of the pizza date came from the fact that subjects didn't really care or rushed the questionnaire, or couldn't find a meaningful difference between a 3/10 and a 4/10 on the scale – a sort of "what the heck" response. If people didn't find the task meaningful then their scores will vary unsystematically, by chance, as a result of "error". If the differences are meaningful, then the variance will be systematically representative of that fact. People who rated the event 3/10 *really* didn't enjoy it as much as those who rated it 5/10.

Researchers approach this matter of variance with two goals in mind; first to be able to explain the variance in a way consistent with their hypotheses – which basically tells us that the researcher really does have a good handle on what makes the data turn out the way it did. Second, they want to be able to explain – or pin down – as much of the variance as they can. If they can explain a higher proportion of the variance using their hypothesis than they can by using some other hypothesis then they go home smiling.

This raises the second topic we will introduce here: ***probability***. How do you know that your hypothesis works better than another hypothesis, or better than chance? To make these judgments, the statistical tests are held up against ***probability***. In short, researchers ask themselves: how likely is it that the results I got would happen just by pure coincidence? This is the point where researchers talk about (statistical) "significance". A significant result is one that happens *very* rarely just by chance. For example, if a study works with an independent variable and comes up with a result in the dependent variable that you would expect to come across only five times in a 100 by pure chance, then you might be persuaded that the study must have shown that the independent variable really does affect the dependent variable. Logic says

that if you alter something and you have the predicted effect that would otherwise only happen extremely rarely, then you have shown that the alteration of the Independent Variable had the predicted effect on the Dependent Variable. In the reports that you read in the rest of this book, such a result will tend to be represented by a report that "the results were significant at the ***p < 0.05* level**". What this means is that the results would have happened less than five in 100 times by pure chance (the results have a chance probability of less than 0.05, which is 5/100). So when you see a report of the form "$p < 0.05$" (or $p < 0.01$ or $p < 0.001$) it is a shorthand way of saying "this result would happen only five times out of 100 (or 1/100 or 1/1000) by pure chance". In the research that you will read, such a result is regarded as sufficient grounds for believing that the independent variable really does affect the dependent variable, and that the research has shown this to be the case. For this reason, researchers will talk of a result of $p < 0.05$ as "significant", meaning that it meets the established minimum criterion for demonstrating a relationship. Note that this does not mean the researchers have "proven" that their explanation is correct; there is still a risk that their result may be due to chance alone. It is safer to say that the hypothesis was supported or confirmed and not to say anything at all about "proof". [Watch out for this one when you read newspaper reports about scientific research!]

Note that $p < 0.05$ is an absolute criterion for significance as accepted in the social sciences. Thus a result either does or does not reach criterion. You can't have a result that nearly makes it; just like in tennis the ball is in or the ball is out; "nearly in" is the same as "out". Unfortunately you will find, even in the papers reprinted in this book, some cases where the researcher falls victim to the strong tendency for all humans to believe that we are right, and so when our results don't quite make it to the criterion, many weaker souls will try to observe that "there is a trend towards significance". However, the $p < 0.05$ criterion is not a correlation coefficient but a black-and-white in-or-out criterion. When you read papers that say this sort of thing, become very skeptical. The researchers are publicly violating their own profession's rules for assessing results, so make sure you write that down in your critiques of such articles.

Although this has been only a brief introduction, it provides enough of a grounding that you can now begin to read some research and not be out of your depth, even though the papers you will read were written for professional researchers. As we go along, you will find that you are getting the hang of it and can understand why the authors say some of the things that they do. But do not let your guard down! They might be saying things that you can criticize on various grounds and you should not hold back.

One more word about the editing of this book. In the last several decades there have been many studies of the influence of sex and gender on relational life and several of the chapters here will present evidence about this. We have been very careful to use the word "sex" when we are talking about the distinction between men and women, biological males and biological females, boys and girls. We use the word "gender" to refer to social roles or to the products of socialization that result in people having masculine or feminine traits.

Masculine traits are most often found in men, feminine traits most often found in women, but there is no necessary consequence here.

Why does this comment matter? Many earlier researchers tended to write about gender when they really measured only sex. Several studies report "gender differences" when the writers never studied that at all; they just used a question about the subjects' sex (men or women) and then reported the results as if they were about gender. This is a serious and misleading error. It would be like measuring a car's speed and assuming that the result told us about the comfortableness of the ride. The two might be connected but you cannot infer one straightforwardly from the other.

Accordingly in all articles here that make this mistake, we have edited all instances of the words to be consistent with the above. If the writers assessed only sex then that is what their article now says; we have changed it from the original. If they properly assessed gender then that is what the article reports and we have left the original as it stood.

Do not be shy about making notes as you read this material. We'll guide you through it and focus you on some key points that occur to us, but as you become increasingly expert in this critique, you should always be confident in your own thoughts and reactions. As your judgments become more sophisticated, so also will your critiques about whether the research is good or could be improved, and you may even go on to think of ways to advance it in the future.

How to use this book

Now let's start to look at some of the questions that researchers have asked about relationships and the ways in which they have tackled them. We will introduce new details that will help you to assess their research as we go along. In addition, each chapter will tackle a different question about relationships and so will magnify your grasp of the sorts of research that are done on a particular topic. Each chapter will introduce more terms and more approaches to research so that, in parallel with learning about new relationship questions, you will also learn more about the techniques and skills that you need to evaluate that research.

We hope it is obvious from the above that the book has a number of pedagogical purposes and will introduce you to two things specifically: topics in relationship research (as many as we can fit in, but not exhaustively!) and also, in the course of doing that, make you more sophisticated readers of research by introducing you to different techniques in research with the pros and cons of using them. This parallel development – different substantive topics in relationship research – is intended to make you more critical readers and to increase your learning about the topics as well as your critical abilities in understanding whether the writers are justified in drawing any conclusions that they draw.

The book is composed in such a way that we will raise issues for you to consider about a particular topic (such as jealousy or love or conflict) and we will then steer you to think about those issues as you read the primary research articles that were done about the topics. Our pedagogical goal is to foster your abilities to select the right questions to ask as you read these articles, and then at the end of the articles we will take you back to those issues and see if you agreed with us about what was right and wrong with the article, what questions it settled and what ones still remain. As you go through the book you will get better at this and the task will correspondingly get a little more challenging each time as your learning grows and as you can begin to raise the bar that you can jump, as it were.

In parallel with this growth in your education about the topics themselves and in your critical skills in approaching the topics, we will also challenge you to think about the methods that were used in the various studies, gradually increasing the sophistication of the level at which you understand the methods of research. In each chapter we will raise methodological issues and discuss them with you; we will then move along to the next study that dealt with a topic in a different or more advanced way. To help you along the way, key topics and terms are defined and described in full during the text and are printed in **bold type** throughout the book. A quick reminder about the meaning of these terms can be found in the Glossary at the end of the book. In this way your learning about critique of research will develop another strand.

Finally we will round out each chapter by drawing the threads of the articles together and helping you to see which questions remain to be looked at by future research. By such a means we intend to emphasize the continuing development of research and the importance of critical evaluation of even the most recent work, since that is what researchers do themselves.

By giving the book this basic structure we are able to teach a number of things at once and by selecting articles that offer a wide range of theories and methods we can help educate you about the methodological and theoretical styles and issues that make up the complex array of research that is done. Each chapter assumes the terms and methods that were described in the preceding chapters and so a further sort of progression in your understanding and ability to "consume" research is provided by this structure.

Research can be exciting; reading research can be exciting; the structure of this book and of each of the chapters within it is intended to help you to learn why we believe that research on relationships is so important and how a critical understanding of it can help you to greater insight about your own relationships.