CHAPTER 1

The Atomic Structure
of Interpersonal Perception

People make judgments about others all the time. Patients wonder how knowledgeable their doctors are, children wonder how angry their parents are, supervisors wonder how conscientious their workers are, lovers wonder how jealous their romantic partners are, and teachers wonder how intelligent their students are. People have strong opinions about those whom they know and love. Furthermore, people also have views about people they have just met and hardly know, as well as about celebrities and public figures. These judgments are usually thought of as conscious, as when people "check out" or "size up" somebody. However, in 1999, the pioneering work of James Uleman from New York University demonstrated that judgments of others are often made outside consciousness; people are completely unaware that they are constantly making these judgments. For instance, right now you are making all sorts of judgments about my personality. I hope that they are positive!

These judgments are thought to be unitary. Dave might think of Beyoncé as talented, and that is all there is to it. However, more than 30 years of research on person perception has shown that the single judgment actually consists of several components. Only by separating the judgment into pieces or components can there be a more thorough understanding of how people make sense of other people and themselves. Just as a detailed understanding of the physical world requires breaking physical matter into molecules and then atoms and then protons, neutrons, and electrons, the

perception of another person needs to be broken up into pieces in order to have a detailed understanding of interpersonal perception. Failing to decompose interpersonal perception in this way leads to incomplete, inefficient, and sometimes even mistaken conclusions.

The Decomposition

Take the perception that Dave thinks Beyoncé is talented. What are the components of this perception? Dave is the perceiver, and Beyoncé is the target. Throughout this book, the discussion focuses on a perceiver's impression of a target. To define the components, the class of perceivers to which Dave belongs must be defined, as well as the class of targets to which Beyoncé belongs. By *class* is meant a stated category that defines the set of perceivers or targets. Class might be defined as people in general, but typically it is more restrictive. For the example, Dave is a member of the class of music fans, and Beyoncé is a member of the class of singers. Very often perceivers and targets are members of the same class, as when members of fraternities, sports teams, and work groups make judgments of one another. Once the classes of perceivers and targets are defined, the three components of interpersonal perception can be introduced.

The first component reflects the contribution of the perceiver, or the *perceiver effect.* This represents the average response of the perceiver from a given class of perceivers (i.e., fans) about the class of targets (i.e., singers) after removing the average overall response of that class of perceivers about the class of targets. Therefore, for this example, Dave's perceiver effect would represent how much Dave's average or typical judgment of singer talent differs from the average judgment made by all the other fans. For instance, Dave may tend to see all singers as more talented than the average fan does, whereas Rory may see all singers as less talented than the average fan does.

The second component reflects the contribution of the target or the *target effect,* which is how the given target (i.e., Beyoncé) is viewed on average by fans in general. It represents the average response of all perceivers to a given target after removing the average response of all perceivers of that class of targets. In the example, it would represent the average judgment across fans of Beyoncé's talent compared with the talent of the average singer. For instance, fans might see Beyoncé as more talented than the average singer, whereas, to use a dated example, Tiny Tim is seen as less talented (than the average singer).

The third component[1] captures the particular combination of the perceiver with the target, the *relationship effect,* which represents the perceiver's unique response to the target. For example, it would represent

Dave's unique assessment of Beyoncé's talent. The term *unique* implies that the relationship effect is what remains after the perceiver effect, the target effect, and the average response are removed. Dave's unique assessment of Beyoncé's talent would be his perception of Beyoncé's talent after removing his assessment of singer talent and after removing others' assessments of Beyoncé's talent.

In summary, Dave's perception of Beyoncé's talent can be viewed as the sum of three components:

Dave's perceiver effect (how talented Dave thinks singers are),

Beyoncé's target effect (how perceivers in general see Beyoncé's talent), and

Dave's relationship effect for Beyoncé (how particularly talented Dave sees Beyoncé).

Consider another example: a sorority, with each member judging how friendly their sorority sisters are. Note that for this example the perceivers and targets are members of the same class. Consider Kim's judgment of Khloé. The perceiver effect would be the average rating given by Kim to all her sorority sisters minus the average of all sorority sisters' ratings of each other. The target effect would be the average rating that all sorority sisters give Khloé minus the average of all sorority sisters' ratings of each other. The relationship effect would be the unique impression that Kim has of Khloé, minus Kim's perceiver effect, Khloé's target effect, and the group average.

An equation can be written that has the impression equaling the three components plus the group average. That equation is part of an elaborate statistical model called the *Social Relations Model,* or SRM, and so the components are typically called *SRM components.* As the goal of this book is not to be too technical, the gory statistical details of the SRM are not given here. If you are curious to see some of the gore, see Appendix B in my 1994 book *Interpersonal Perception: A Social Relations Analysis.* In addition, Appendix A of this book provides the details about the model and its estimation, and that appendix extensively discusses the different designs that can be used to estimate the model. Moreover, my former student Thomas Malloy's 2018 book, *Social Relations Modeling of Behavior in Dyads and Groups,* describes many different applications of the SRM.

The importance of a component is assessed by how much it varies. Consider the target effect for a study of honesty. It is confusing that *agreement* that perceivers have about targets implies *variability* in the target effects, but with some reflection, it all makes sense. If some people have very large target effects (e.g., are generally seen by perceivers as very honest) and

others have very small target effects (e.g., are generally seen by others as not very honest), then this variability between targets would indicate that the target effect is important. However, if perceivers viewed all targets as equally honest, the target effect for honesty would not be very meaningful or interesting. In a parallel fashion, how much the perceiver effect and the relationship effect vary provides an index of the importance of those components. Thus a central question in interpersonal perception is the amount of variation in the components of perception.

Why go through all the bother of defining components? Is it just some sort of statistical exercise? In some sense, the complete answer to that question requires reading this entire book. Here I outline three examples of the utility of defining components.

The first example involves self-enhancement. On the face of it, it is an easy matter to define self-enhancement: Does a perceiver see him- or herself as better than other people? For example, does Kim think she is smarter than other people? This seems like a simple question to answer, but an analysis in 2004 by Virginia Kwan, now at Arizona State University, and her colleagues reveals that the question is not as straightforward as might be first thought. There are two different ways to define self-enhancement: (1) Kim might think that she is more intelligent than *she thinks* others are and (2) Kim might think that she is more intelligent than *others think* she is. Using the SRM components, the first definition (more intelligent than Kim thinks others are) computes self-enhancement by removing Kim's perceiver effect from her self-rating, whereas the second way (more intelligent than others think Kim is) removes Kim's target effect from her self-rating. Which of these two ways of defining and measuring self-enhancement is correct? Following the analysis of Virginia Kwan and colleagues in 2004, the answer is that both are right, in that each removes a meaningful component. At the same time, both are wrong, in the sense that each ignores the other. The conceptually appropriate way to measure self-enhancement is to remove both the perceiver effect and the target effect from Kim's self-rating. Details on the Kwan conceptualization are presented in Chapter 7. For now, the example demonstrates the usefulness of thinking in terms of components.

The second example illustrating the utility of the SRM components concerns the measurement of reciprocity of attraction. One of the first empirical studies to show the utility of components was conducted by myself and William Nasby in 1980, the year John Lennon was shot to death. We were interested in this question: If I like you, do you like me? Using a nursery rhyme and the ideas of Elaine Hatfield Walster and Ellen Berscheid in 1978, Nasby and I marshalled considerable theoretical rationale for reciprocity of attraction. Yet when we examined the empirical evidence,

we found little support. Although the construct of reciprocity made sense theoretically, there was not much empirical evidence to support the idea. Nasby and I used SRM components to argue that there is not just one reciprocity correlation but two. The first is the usual sort of reciprocity between two people that we termed the *relationship correlation:* If I particularly like you, do you particularly like me? The second refers to persons and concerns the perceiver–target correlation: If I generally like others, do others generally like me? This second correlation might be restated more colloquially: Are likers liked? When we performed an SRM analysis, we found that the relationship correlation was indeed substantial, in accordance with theory, whereas the perceiver–target correlation was quite variable and on average was near zero. Thus the evidence indicates that there is reciprocity of attraction but that it exists at the level of the relationship and that perceiver and target effects need to be removed. The details are presented in Chapter 5 of this book, but for now, it illustrates the point that the SRM components must be considered to garner a full understanding of reciprocity.

The third example illustrating the utility of the SRM components shows how the SRM components relate differently to another variable. In 2018, Thomas Lösch and Katrin Rentzsch studied academic popularity and how it relates to personality in adolescents. Academic popularity is measured as follows: To what extent does Englebert say that he would like to do his homework with Frieda when he needed help? The perceiver effect of academic popularity, called *Academic Preference* in the study, would measure Englebert's tendency to say he needs or does not need help in general from others. The target effect, called *Academic Popularity,* would measure the tendency for perceivers to say that Frieda is someone with whom they would like to do their homework. Lösch and Rentzsch found that people high on Academic Preference, the perceiver effect, were more extraverted and less neurotic than those low on Academic Preference; those high on Extraversion would work with most anyone, and those high on Neuroticism did not want to work with anyone. Alternatively, those high on Academic Popularity, the target effect, were more likely to be Conscientious and Agreeable than those who were low. Students wanted to work with students who were hardworking and nice. By breaking a perception of a target's academic popularity into components of Academic Preference and Academic Popularity (i.e., perceiver and target effects), Lösch and Rentzsch were able to understand its different correlates.

A key aspect of components of perception, as is illustrated by these examples, is the concept of levels. The SRM components are at different levels of analysis. The first level involves groups or sets of people. The second level involves individuals; both the perceiver effect and target effect are at the individual level. The third level involves dyads or pairs; the relationship

effect is at the dyadic level. Beyond these three components, there are two types of reciprocity, one for individuals and one for dyads. The SRM is a multilevel model, and it was conceptualized as such before the term *multilevel modeling* was coined and multilevel software existed.

In the earlier sorority example, the perceivers and targets are members of the same class. This is quite typical in most interpersonal perception studies when coworkers, team members, or close friends are all asked to make judgments of each other. The design in which the perceivers and targets are members of the same class and all make judgments of each other is called a *round-robin design*. Likely, the reader has heard of round-robin tennis or football (or what Americans call soccer) tournaments, in which each person or team plays every other person or team. Interestingly, the term *round robin* comes from medieval times. When nobles signed a petition that was critical of their king, the king would see which noble first signed the petition, confiscate that person's property, and then very likely have him drawn and quartered. Eventually, petitioners got the idea to sign their names in a circle, so that the king would be unable to determine the ringleader. The convention was to draw a picture of a robin in the center of the circle, and hence the name *round robin*.

What Sorts of Perceptions?

Most of this book's focus is on the perceptions that a perceiver has of a target, which are sometimes called *impressions*. For example, does Jack think that Jill is clumsy? This is the prototypical type of person perception. However, there are two other important types of interpersonal perceptions beyond impressions. One is self-perception, which was previously discussed in the example about self-enhancement. In self-perception, the perceiver and target are the very same person. The other is *metaperception*, in which a perceiver tries "to get into the other person's head" and guess that person's perception. Metaperception is the perception of a perception. Some readers may be familiar with the terms *metacognition*, a cognition about a cognition, and *metamemory*, memory of a memory. The term *meta-* means "about (its own category)." Therefore, a metajoke is a joke about jokes and a meta-analysis is an analysis of analyses. (I am not sure what is "meta" about Metamucil.)

There are two key types of metaperception, which can be easily illustrated through example. Say Jack is trying to guess Jill's perception of someone. That "someone" can be Jack himself or might be a third person—for example, Dame Dob (the woman in verse two of the nursery rhyme who patched Jack's head with vinegar and brown paper). The focus in this book is metaperception of the perceiver: Jack's presumption of Jill's perception of

him. Only occasionally, third-party metaperceptions are examined: Jack's perception of Jill's perception of Dame Dob.

Perception of What?

Now that the "who" and the "whom" of person perception have been defined, the "what" of perception needs to be discussed. This book's major focus is on personality traits. A simple reason for this emphasis is that most interpersonal perception researchers study traits, but that raises the question: Why do researchers study traits?

When people are asked to describe another person, the bulk of their descriptions can be classified as traits. For instance, in 1986, Bernadette Park found that when college students were asked to describe one of their classmates, 65% of their descriptions could be classified as traits, whereas only 23% were behaviors. In addition, as perceivers became better acquainted with the targets, they used even more traits and fewer behaviors as descriptors. Additionally, in 1994, Bernadette Park and her colleagues found that when they asked students to rate classmates' traits, these ratings captured much of the same information as their verbal, open-ended descriptions.

It might seem strange that the focus is on traits and not on behavior. When a perceiver views a target, a trait is never seen, only behaviors. If Jack sees Jill punch Mike, Jack does not see Jill's aggressiveness; he sees only her aggressive behavior. In the jargon of social psychology, perceivers need to make a *dispositional attribution* to go from behaviors (punching someone) to a trait inference (aggressiveness). A central research topic in person perception during the 1980s and 1990s was the process of how perceivers make trait attributions. Researchers concluded that perceivers are generally inclined to see traits, that is, to make dispositional attributions, something called the *fundamental error of attribution*. That is, typically when people see a behavior (Jill punches Mike), they make a trait attribution (Jill is aggressive).

Perceivers use traits to guide their own behavior: With whom should I study, whom do I date, and whom do I trust with my dog when I am on vacation? Most traits have a strong evaluative component that is used to guide action, telling us to approach the person or avoid the person.[2]

Thus, from the point of view of perceivers, traits are important. It can also be asked whether they are important from the point of view of the target: To what extent are traits important causal determinants of a person's behavior? Social psychologists are fond of citing classic studies such as the Milgram experiment and the Zimbardo prison study to demonstrate that behavior is determined by the situation, and some have gone so far as to argue that traits have little or no validity in predicting behavior.

However, research evidence supports the view that traits are worth studying, and the first piece of evidence is that traits do predict behavior. David Funder and Daniel Ozer made this point in 1983. (David Funder is my doppelgänger: We both grew up in the Sacramento, California, suburbs, we were both assistant professors at Harvard University, and we both have devoted our research careers to the study of interpersonal perception.) They compared the average effect of personality with the effect of situations (e.g., obedience in the classic Milgram study) and found that the effects were comparable. Perhaps you might feel that Funder and Ozer, as personality psychologists, had "a dog in the fight" and that their analysis might be colored by their views. However, in 2003, social psychologists F. D. Richard and his colleagues conducted a much more systematic meta-analysis of 32 meta-analyses of personality effects (their study is a meta-analysis of meta-analyses, or a meta-meta-analysis). As was found in the Funder and Ozer analysis, Richard and colleagues found that the effects of personality are comparable to the effects of situations. There is then good reason to think that traits are an important predictor of behavior.

Another source of evidence for the importance of traits is the fact that they are relatively stable across the lifespan. In 2016, Ivana Anusic and Ulrich Schimmack examined the stability of personality across 243 different measures. They estimated the stability of personality over 10 years to be quite high, with a temporal stability correlation of .83. This finding can be interpreted as follows: If someone is Agreeable when he or she is 25 years old, there is about a 91.5% chance[3] that he or she would still be Agreeable at 35 years old. Anusic and Schimmack found that personality was much more stable than life satisfaction, which for 429 studies had a correlation of .65 over a 10-year period, which is about an 82.5% chance of being satisfied 10 years later.

It makes sense to use traits, but there is a humongous number of traits. In 1937, Gordon Allport came up with over 1,713 "common" traits. In 1968, Norman Anderson found 555 traits. More recently, in 1990, Lewis Goldberg discovered 1,431 traits. There sure are a whole lot of traits! There are excessively many to handle, and several trait inventories have been developed to create a smaller number of megatraits, in essence a basket of traits. Two trait inventories are the Sixteen Personality Factor Questionnaire, or 16PF, which surprisingly has 16 dimensions and was developed in 1946 (the year of my birth!) by Raymond Cattell (who also founded his own religion named Beyondism) and the Personality Research Form, or PRF, developed in 1974 by Douglas Jackson that has 22 dimensions.

Contemporary researchers argue for one to eight general personality factors. In 2008, J. Philippe Rushton and Paul Irwing claimed that there is just one general trait that underlies all traits. (Rushton is known for carefully documenting the differences in penis size between blacks, Asians, and

whites.) Currently, a one-factor theory of personality is not given much serious attention.

Many researchers have proposed a two-factor theory of personality. In 1979, Jerry Wiggins coined the term *interpersonal circumplex,* which has two factors of Dominance and Friendliness. The person who originally proposed the circumplex model in 1957 was none other than Timothy Leary, of "turn on, tune in, and drop out" fame (some of his ashes were sent on a rocket into outer space along with the ashes of Gene Roddenberry, the creator of *Star Trek*). Other similar formulations have emerged over the years. David Bakan called the factors Agency and Communion in 1966. Amy Cuddy (of power-posing fame), Susan Fiske (I consider myself privileged to have served on her dissertation committee), and Peter Glick termed them Competence and Warmth in 2008. John Digman labeled them Alpha and Beta in 1997, and, fortunately, Colin DeYoung renamed them Stability and Plasticity in 2006. In this book, I refer to the two-factor theory of personality as the *Big Two,* and I call the factors *Dominance* and *Friendliness,* Jerry Wiggins's terms.

Currently the most prevalent formulation of personality is the Big Five, which is not a basketball conference. There are two major versions of the Big Five, one by Lewis Goldberg in 1990 and another by Paul Costa and Neil McCrae in 1985. A brief description of the Big Five follows, and the reader is advised to take careful note of the differences between the Goldberg and the Costa and McCrae formulations.

- *Extraversion* measures the extent to which the person seeks out others for social interaction and wants to be the "center of attention." Examples of traits indicating high levels of Extraversion are being outgoing, having a sense of humor, and being active; examples indicating low levels are shyness and being reserved, quiet, and passive.
- *Agreeableness* measures the extent to which the person is positive in interactions with others. Examples of traits indicating high levels of Agreeableness are being warm, nice, happy, and accommodating; examples indicating low levels are being negative, argumentative, and sad.
- *Conscientiousness* measures the extent to which the person conforms to conventional norms. The trait measures the extent to which the person acts in a way that the person's parents would want him or her to act. Examples of traits indicating high levels of conscientiousness are conventionality, organization, promptness, and being hardworking; examples indicating low levels are laziness, disorganization, and tardiness.
- *Neuroticism* measures the extent to which the person has mental health issues, mainly feelings of anxiety and depression. Examples

of traits indicating high levels of neuroticism are sadness, anxiety, and being easily upset; examples indicating low levels are happiness, adjustment, and stability. This is the only Big Five factor for which something bad is indicated by a higher score. In the Costa and McCrae formulation, *Neuroticism* is the term used, whereas in the Goldberg formulation, this factor is called *Emotional Stability,* and higher scores mean more Emotional Stability.

- *Openness* measures the extent to which a person is imaginative and creative and seeks out new experiences. Examples of traits indicating high levels of Openness are being adventurous, imaginative, and creative; examples indicating low levels are being dull, pedestrian, and cautious. In the Goldberg formulation, this factor is different and is called *Culture,* referring more to intelligence and sophistication than to openness to new experiences.

If the Big Five is overlaid onto the Big Two, the Dominance factor corresponds to Extraversion and Openness, and the Friendliness factor corresponds to a combination of the Agreeableness, Conscientiousness, and Neuroticism (or Emotional Stability) factors. The Costa and McCrae formulation is used much more than the Goldberg formulation, but I have often used the Goldberg formulation in my own work. The Costa–McCrae Big Five is sometimes referred to as either OCEAN (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) or CANOE (Conscientiousness, Agreeableness, Neuroticism, Openness, and Extraversion).

In a 2001 chapter that I very much enjoyed writing, my daughter Deirdre and I asked people to rate the personalities of Homer and Marge Simpson, as well as other *Simpsons* characters, using the Big Five on a 1–10 scale. Figure 1.1 presents the Big Five profiles we found for Homer and Marge Simpson. Note especially the large difference between Homer and Marge on Conscientiousness. Marge is very conscientious, whereas Homer is not. Participants also saw Homer as more extraverted, open, and neurotic than Marge, whereas they saw Marge as more agreeable than Homer.

It is important to understand that each of the Big Five is not a single unitary dimension but rather an umbrella of a set of dimensions. For example, Brent Roberts and colleagues in 2005 demonstrated that Conscientiousness consists of six different traits: order, virtue, traditionalism, self-control, responsibility, and industriousness. For instance, I am very hardworking and so rate high on industriousness but very disorganized and so rate low on order.

Several alternative formulations are very closely related to the Big Five: the six HEXACO factors, the four factors of the scientifically questionable Myers–Briggs, and the seven factors of the Hogan Personality Inventory. Others have argued that the number of traits depends on the culture, and
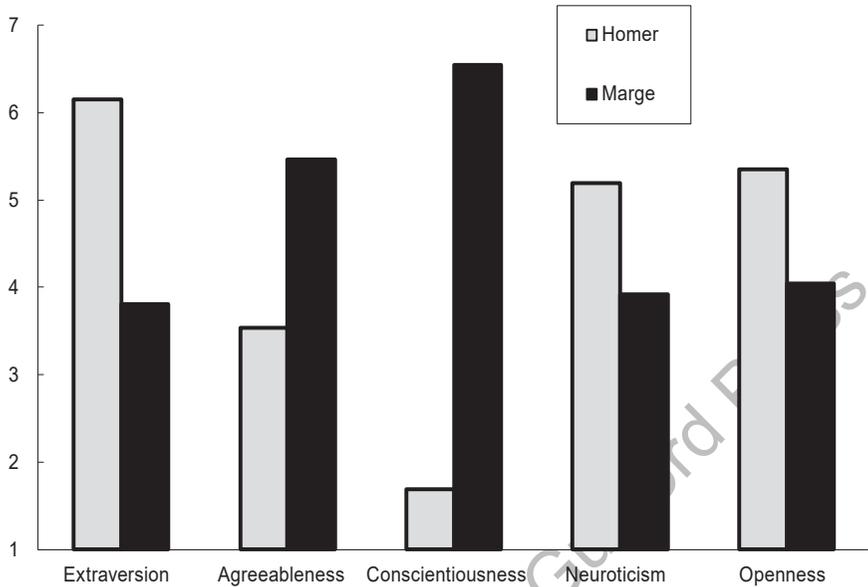
FIGURE 1.1. Ratings of Homer and Marge Simpson using the Big Five. Values taken from Table 1 of the 2006 study by Kenny and Kenny.

the Chinese have a Big Six and the Spanish have a Big Seven. Trying to determine the exact number of factors is akin to the alleged philosophical exercise of trying to figure out the number of angels than can dance on the head of a pin. For me, it just makes things simpler to use the Big Five or the Big Two because they are most commonly used in studies of interpersonal perception. However, my use of the Big Five or Big Two in this book does not mean that I endorse the belief that there are five or two fundamental factors of personality.

The Context of Perception

The study of interpersonal perceptions can take place in many different contexts. Some of the contexts discussed in this book are classrooms, research laboratories, churches, dog parks, the workplace, posts on Twitter, and people's bedrooms. Unlike in other areas of psychology, it is relatively common for studies of interpersonal perception to take place outside of the research laboratory.

The issue of context has several facets, the first of which is the extent to which the perceiver and target interact. Some studies involve no interaction,

as when the perceiver views only a picture or video of the target. Alternatively, the perceiver may view only the target's Facebook page or the target's office. Studies without interaction are not fully interpersonal, in that questions of reciprocity and meta-accuracy, to be described later in this chapter, cannot be addressed. In other situations, there is relatively little interaction between the persons, as when each person is placed in a circle and asked by a moderator to answer a set of questions in turn. More typically, the perceiver and target have an interaction history, which might be as short as a few minutes or as long as a lifetime, as in the case of twins. When persons interact, those interactions can be face-to-face or computer mediated.

A second and closely related contextual issue is how familiar the perceiver is with the target. In some cases, the perceiver might just observe the target, a condition that has been called *zero acquaintance*. This level of familiarity, sometimes called *first impressions,* is discussed extensively in Chapter 3. In this book, some studies are called *brief-acquaintance* studies. Most of these are laboratory studies in which perceivers have known the target for at most an hour. Other studies are called *long-term acquaintance* studies, and in these studies, the perceivers have known the target for an extended time, in some cases years. These studies include friendship groups, classroom work teams that meet many times throughout the semester, residents in the same dormitory, and families.

A third contextual issue is whether, when participants interact, they interact in dyads (i.e., one on one) or as an entire group. For example, if Alice, Betty, Cheryl, and Dora came to the laboratory, they might interact one on one, with Alice first interacting with Betty while Cheryl interacts with Dora, and then Alice interacting with Cheryl while Betty interacts with Dora, and finally Alice interacting with Dora while Betty interacts with Cheryl. Alternatively, they might all interact together in one four-person group.

The final contextual issue is that of *ingroups* and *outgroups*. Groups of which the person is also a member are called *ingroups*. When the perceiver and target are in different groups, the target's group is called the *outgroup*. As discussed in Chapter 2, the outgroup might even be members of another species.

Statistical Issues

Returning to the components of interpersonal perception, the statistical analysis of components presents some special, somewhat complicated statistical issues. No doubt, this section is the one that many readers would prefer to skip, but I promise to keep things relatively nontechnical. The hope is that the preceding discussion has convinced the reader that a complete

analysis of interpersonal perceptions requires a decomposition into components of perceiver, target, and relationship. One obvious question is how important a given component is. Within the SRM, the importance of a component is assessed by how much it varies. Consider judgments of intelligence. The target component would be important if it varied considerably, such that some targets are judged as very intelligent and others as not so intelligent. Very often in this book, there are going to be statements about the proportion of total variance due to a component. For instance, it might be said that the target accounts for 30% of the total variance, where the total variance is defined as perceiver plus target plus relationship variance. For instance, as discussed in Chapter 5, about 35% of the total variance in judgments of physical attractiveness is due to target.

Components are also correlated. For a single variable, measures of reciprocity involve the correlation of one component of the variable with another component of the variable. For instance, for attraction, the perceiver effect (how much a person likes others) might be correlated with the target effect (how much the person is liked); this perceiver–target reciprocity correlation was discussed earlier. Components from two different variables might be correlated, and these correlations are called *multivariate correlations*. For instance, the target effect for attraction might be correlated with the target effect for Agreeableness: If someone is generally liked by others, is that person also seen as Agreeable by others? Finally, perceiver and target effects might be correlated with an individual-difference variable. For instance, the perceiver effect in judgments of intelligence might be correlated with gender: Do males or females generally see others as intelligent?

In computing correlations, there is the important but opaque concept of *correction for attenuation*. The idea is that correlation refers to many perceivers, targets, or measures, and not just to those few perceivers, targets, or measures that are included in the particular study. Generally, when presenting correlations, I present those that are corrected for attenuation. This correction provides a forecast of what the correlation would be if there were many, not a few, perceivers, targets, or measures. Disattenuated correlations are larger than regular correlations and can even be perfect correlations of +1 or –1. When correlations are not corrected, I tell the reader, as they are very much like objects in a rearview mirror: The disattenuated correlations would be bigger than they appear to be.

Basic Questions in Interpersonal Perception

The research area of interpersonal perception has been around a long time, and it has attracted the attention not just of psychologists but also of sociologists and communication researchers. For me, the most important figure

in this field was British psychoanalyst R. D. Laing. It was my reading of Laing's work in the late 1960s that drew me to the field of interpersonal perception. Even for a Brit (actually he was Scottish), he was, as they say, an "odd duck." His father, David Park MacNair Laing, punished Laing by locking him up in a closet for several hours. As an adult, Laing was such a committed vegetarian and so much of a lover of all living things that he hated to mow his lawn. He was also self-diagnosed as an alcoholic and a depressive. My favorite story about him is what he did when he was a young doctor making the rounds in a psychiatric hospital with a group of interns. He saw a naked female patient with schizophrenia who was moaning and rocking in the corner of her room. Laing spontaneously removed his clothes, sat next to the woman, and started moaning and rocking with her. An hour or so later, for the first time in quite a period, the patient started talking to Laing. He died at the age of 61 of a heart attack while playing tennis.

One of the main contributions made by Laing was to list a set of key questions of interpersonal perception. Here, I present a modified list of questions that I originally presented in my 1994 book. (In the last chapter of the present book, I develop a longer and more comprehensive list.) To help the reader, Table 1.1 contains the nine questions and a brief explanation of terms. Consider three women, Kim, Khloé, and Kourtney, and their perceptions of each other's Friendliness.

The first three questions refer to the SRM components: perceiver, target, and relationship. The first question is *assimilation*. Does a perceiver see two targets the same way? For instance, does Kim see both Khloé and Kourtney as being friendly? Assimilation implies variance in the perceiver effect. The second question is *consensus*. Is a target seen the same way by different perceivers? For instance, is Kim seen as friendly by Khloé and Kourtney? Consensus implies variance in the target effect. The third question is *uniqueness*. To what extent is the perception due to the unique perceiver–target relationship, not due to who the perceiver is nor who the target is? For instance, does Kim see Khloé in a way different from how she sees others and different from how others see Khloé? Uniqueness implies the presence of relationship variance. Answers to all three of these questions involve computing the variance of the relevant SRM component.

The fourth question is *reciprocity*. In dyads, if Jack sees Jill one way, does she see him that same way? Are the perceptions of the two people mirror images of each other? That is, if Kim sees Khloé as friendly, does Khloé see Kim as friendly? Reciprocity is particularly relevant for attraction: If Kim likes Khloé, does Khloé like Kim? As was discussed earlier in the chapter, there are two types of reciprocity, one for individuals (correlation between perceiver and target effects) and another for dyads (correlation of relationship effects).

TABLE 1.1. The Nine Basic Questions of Interpersonal Perceptions

Term	Definition	Example
Assimilation	The extent to which a perceiver views two targets in the same way.	Does Kim see Khloé and Kourtney in the same way?
Consensus	The extent to which two perceivers view the same target in the same way.	Is Kim seen in the same way by Khloé and Kourtney?
Uniqueness	The extent to which a perceiver views a target differently from how the perceiver views others and how others view the target.	Does Kim see Khloé in a way different from how she sees others and different from how others see Khloé?
Reciprocity	The extent to which two people view each other in the same way.	Do Kim and Khloé see each other in the same way?
Target accuracy	The extent to which a perception matches the truth.	Is Kim's view of Khloé correct?
Assumed similarity	The extent to which a perceiver views the self in the same way as the perceiver views others.	Does Kim view others as she views herself?
Self–other agreement	The extent to which a target is viewed by others in the same way as the target views him- or herself.	Do others view Kim as she views herself?
Assumed reciprocity	The extent to which a person believes that how he or she views the target is how that target views him or her.	Does Kim think that others view her as she views them?
Meta-accuracy	The extent to which a person knows how others view him or her.	Does Kim know how others view her?

The fifth question is *target accuracy*. Are perceptions of other people valid? For example, if Kim sees Khloé as friendly, is Khloé in fact actually friendly? The validity of perceiver, target, and relationship effects can each be examined.

The next two questions involve self-perceptions. The sixth question is *assumed similarity*. If Kim sees herself as friendly, does she see others as friendly? The question examines the association between self-perception and the perceiver effect. The seventh question is *self–other agreement*. If Kim sees herself as friendly, do others see her as friendly? The question examines the association between self-perception and the target effect.

The last two questions involve metaperceptions: how a person thinks another person sees him or her. The eighth question is *assumed reciprocity*. If Kim thinks that Khloé thinks that Kim is friendly, does Kim also think that Khloé is friendly? Assumed reciprocity can be measured for perceiver, target, and relationship effects. The ninth and last question is *meta-accuracy*. If Kim thinks that Khloé thinks that Kim is friendly, does Khloé in fact think that Kim is friendly, or, in other words, can Kim read Khloé's mind? The meta-accuracy of perceiver, target, and relationship effects can be separately examined.

Other questions are possible. One type of question relates metaperceptions to self-perception. If Khloé sees herself a certain way, to what extent does she think that others see her that same way?[4] Another possible question is the accuracy of self-perceptions or self-accuracy: Are self-perceptions valid?

The Organization of the Book

The goal of this book is to answer these basic questions of interpersonal perception, plus several others. For each question, the hope is to provide a definitive answer. Very often, the answer varies by the dimension of the Big Five and by the context of the research, and those variations are also discussed.

The next four chapters focus on the three SRM components. In Chapter 2, the focus is on the perceiver effect, which embodies a person's view of the typical target. The question addressed is called *assimilation,* or the extent to which perceivers see targets in the same way. In the chapter, the perceiver effect is shown to reflect the positive or negative feelings that perceivers have about a particular class of targets. Also examined is the consistency of the perceiver effect across different classes of targets and research, suggesting surprising consistency across people's perceptions of dogs and other people. The focus of Chapter 3 is first impressions, and it examines the extent to which first impressions are shared (i.e., consensus) and whether those shared perceptions are accurate (i.e., target accuracy). A key

concept in Chapter 3 is stereotypes, a term that has a very different meaning in social psychological research than it does in everyday life. One of the questions addressed is whether perceivers can determine a target's sexual orientation based on a subliminal perception. Chapter 4 examines consensus beyond first impressions and focuses on the level of consensus and how it changes as a function of increasing acquaintance. This chapter introduces the PERSON model, a theoretical and quantitative model of interpersonal perception. This model, though very complicated and abstract, is helpful in understanding the results of interpersonal perception research and is used in subsequent chapters. Chapter 5 examines uniqueness and reciprocity. Much of the focus there is on attraction, and the findings indicate that attraction is both unique (no accounting for taste) and reciprocal. Interesting differences between platonic and romantic attraction are found. The chapter also summarizes the relative amounts of assimilation, consensus, and uniqueness in the perception and liking of others.

Chapter 6 examines perhaps the most interesting and important question in the field of interpersonal perception: target accuracy. The difficult question of how to measure the truth is discussed, and the different types of accuracy are introduced. Among the topics discussed are the relative accuracy of the target effect and the relationship effect, the overall level of accuracy, the extent to which accuracy increases with acquaintance, and the extent to which perceivers are overly confident of their judgments. A key concept is the extent to which stereotypes have some degree of validity, a kernel of truth, and how that validity or lack thereof affects the relationship between acquaintance and accuracy.

Chapter 7 examines what is likely the most important perception, self-perception. First discussed is self–other agreement, or the association between the target effect and self-perception. Then follows a discussion of assumed similarity, or the relationship of the perceiver effect with self-perception. The next topic is the measurement of self-enhancement, or the tendency to see ourselves as better or as worse than others. Perhaps rather surprisingly, self-enhancement can be viewed as a person's "relationship" with him- or herself. The final topic in this chapter is the relative accuracy of self- versus other-perceptions and the surprising finding that impressions of others are more valid than self-perceptions.

Chapter 8 examines metaperceptions, which are the perceptions that perceivers have of other persons' perceptions of themselves. The research evidence conclusively shows that the dominant component is the perceiver effect, or the tendency to think that others view them favorably or unfavorably. Moreover, this perceiver effect in metaperception is very highly associated with self-perceptions: If Kim sees herself as friendly, she thinks that others also see her as friendly. Also discussed in Chapter 8 is the basic question of assumed reciprocity.

Chapter 9 examines individual differences in the accuracy of knowing other people's personalities: Are some people good perceivers of others' personalities, are some targets easier to judge, and are people in some relationships better judges? Besides individual differences in judging personality, evidence about individual differences for lie detection and emotion recognition is reviewed. In that chapter, the Social Accuracy Model is introduced as a very sophisticated but very comprehensive way to measure individual differences in the accuracy of knowing targets.

Chapter 10 begins with a review of the major discoveries of the book, followed by discussion of several topics not covered in the prior chapters. They include analyses of emotions, trust, leadership, and behaviors, both naughty and nice. The SRM is extended to consider a third level of analysis, the group. The chapter presents a new and general typology of basic questions of interpersonal perception, the revised Laing typology. This chapter concludes with a brief summary of the history of research on interpersonal perception.

For each of the questions addressed, I try to give an answer that is based on multiple studies. In some cases, especially where there is a detailed exposition, I present just the summary value and refer to the source that gives the individual studies. Sometimes I may go through and give the results from individual studies. I avoid giving *p* values or confidence intervals, but because the results cross several studies, it is very likely that the phenomenon would replicate. When a conclusion is based on a single study, I sometimes do mention whether the value is not statistically significant, and so if nothing is said, it is safe to assume that the value is statistically significant.

Philosophical Musings

Within the SRM, when an interpersonal perception is measured, one person is the perceiver and the other is the target. However, in general within the SRM, when dyadic measurement is obtained, one member of the dyad is denoted as the *actor* and the other as the *partner*. For instance, if there is a measurement of John striking Bill, John would be the actor and Bill would be the partner. In this case, the designation of actor and partner seems obvious, but there are instances in which it is not so simple. Consider that a study of dyadic interactions and surprises are coded, for example, John surprises Bill. If this is viewed as "John surprises Bill," John would be the actor, and Bill would be the partner. Alternatively, if this is viewed as "Bill is surprised by John," Bill would be the actor, and John would be the partner. Both ways of seeing the variable of "surprise" are acceptable, but they flip actor and partner.

Traditionally in Western culture, behaviors are seen as emerging from a person in the presence of an observer. Alternatively, behavior can be seen as drawn out of a person by a purposeful agent. Viewing behavior in this second way flips actor and partner. In my opinion, there is not one preferred way to designate actor and partner. Rather, the researcher needs to be clear how actor and partner are being defined in the study.

The perception of people is essentially different from the perception of objects. When discussing objects, my favorite example had always been a chair, but now that Clint Eastwood famously addressed a chair at the 2012 Republican National Convention in the United States, maybe that is no longer a good example, and so I will use a sofa. The perception of an object like a sofa is fundamentally different from the perception of a person in at least four ways. First, interpersonal perception is two-sided: Jack perceives Jill, and Jill perceives Jack. However, Jack might perceive the sofa, but the sofa does not perceive Jack. Second, Jack might wonder what Jill thinks of him, but Jack is not going to wonder what the sofa thinks of him. Third, Jack perceives himself, whereas the sofa cannot. Fourth, the sofa is pretty much the same every day, but Jill is always changing. The perception of people is profoundly different from the perception of objects but different in some very interesting and challenging ways. These differences make the study of the perception of people versus objects much more complicated, but fortunately, there are tools such as the SRM to assist researchers.

Practical Suggestions

When people interact, they view their partners' behavior holistically and not in terms of components. Consider the case in which Yanny tells Laurel that she does not like her. It might be beneficial for Laurel to consider SRM components. She might want to view it as a target effect: No one likes her. Alternatively and likely more therapeutically, she might want to think of it in terms of either a perceiver effect—Yanny is a hateful person who likes very few people—or a relationship effect—Yanny does not like her, but others do like her. Thinking in terms of components can often lead to a more therapeutic way of understanding others.

Concluding Comments

In this first chapter, the three SRM components of perceiver, target, and relationship have been introduced as the basic elements of interpersonal perception, much like the atom's protons, neutrons, and electrons. The examples of measuring reciprocity of attraction, self-enhancement, and

academic preference and popularity have given the reader a sense of the possible benefits of decomposition. The book examines not only the perception of others but also self-perceptions and metaperceptions. These perceptions are primarily trait perceptions that are organized using the Big Five, but attraction is also discussed. The context of perception matters, especially the acquaintance between the perceiver and the target. Finally, this chapter has outlined the basic questions of interpersonal perception and the organization of this book.

My goal is to try to take complicated results based on very complicated concepts and state them as clearly and simply as possible. The SRM has immense power in that it allows scholars to leverage a few explanatory principles to address a vast array of fascinating research questions. As described in this chapter, SRM components are analogous to the three fundamental parts of the atom. However, modern physics has gone well beyond those three particles, and there is what has been called a "particle soup" of hundreds of particles. The SRM too goes beyond the initial three components of perceiver, target, and relationship to address new and exciting questions. For instance, here are some of the questions that emerge from a consideration of the perceiver effect or assimilation:

1. What is the overall level of assimilation?
2. Is there more or less assimilation for attraction than for traits?
3. Which Big Five factor has the most assimilation and which the least?
4. As perceivers get to know the target, does assimilation increase?
5. Is there more assimilation of outgroup versus ingroup members?
6. If a perceiver initially sees others favorably, does he or she continue to see others favorably?

These are just some of the questions about assimilation that are asked and answered. So as not to get bogged down in the details of where the numbers come from, I have created Appendix B, which states exactly how the numbers reported in the book were determined.

An additional complication is that I introduce many new terms that might initially be confusing. Just in this first chapter, the reader has already been exposed to a whole host of new terms such as *perceiver effect* and *meta-accuracy*. I have included a glossary that can be used to look up the definitions of those terms.

It may seem that the text is cluttered with many studies and the names of researchers who conducted those studies. I do this for three reasons. First, I want to credit the scientists for their ideas and findings. I give their first names, and sometimes I provide an interesting fact about the

researcher. The References section at the end of the book has the complete citation. I trust, even when there are two papers written by the same author(s) in the same year, the reader will be able to figure out to which paper I am referring. Second, I want to justify the conclusions drawn by going over the evidence on which I based the conclusion. Third, I want to give the reader a source from which more can be learned. The reader is going to have to work hard to follow me and slog through all the names and numbers presented, but this hard work is worth it, as the conclusions are fascinating and sometimes not at all what would be expected. The journey together will be demanding, but along the way, much will be learned that is interesting, exciting, and sometimes completely unexpected. I am delighted that you are willing to join me in this adventure.

ADDITIONAL READINGS

Back, M. D., & Kenny, D. A. (2010). The Social Relations Model: How to understand dyadic processes. *Social and Personality Psychology Compass, 4,* 855–870.—A largely verbal, nonquantitative description of the SRM.

Kenny, D. A. (1994). *Interpersonal perception: A social relations analysis.* New York: Guilford Press.—A technical discussion of the SRM; see especially Chapter 2 and Appendix B.

Kenny, D. A., West, T. V., Malloy, T., & Albright, L. (2006). Componential analysis of interpersonal perception data. *Personality and Social Psychology Review, 10,* 282–294.—An article that explains why a componential analysis of interpersonal perception is needed; discusses the reciprocity and self-enhancement examples in far greater detail.

NOTES

1. A fourth component, the group component, can also be defined. Typically, the variance explained by this component is small, and so most SRM studies ignore it. The group component is discussed in Chapter 10 of this book.

2. As shown by Taeyun Jung and myself in 2005, not surprisingly, perceivers prefer others whom they view more positively on positive traits (e.g., more friendly, honest, and intelligent). Perhaps more surprisingly, they do not most prefer someone who is extremely positive on the trait. Rather, people evaluate others most favorably when they perceive their traits as positive but not too positive. Similar results were also reported by Peter Borkenau and colleagues in 2009.

3. Here and elsewhere in this book, I use a slight modification of the binomial effect size display (BESD) created by Robert Rosenthal and Donald Rubin in 1982 to help interpret correlation coefficients. The BESD equals $.5 + r/2$, where r is the

correlation coefficient. The simple modification is to turn the proportion into a percentage by multiplying by 100 to yield 100(.5 + *r*/2) or 50(1 + *r*). This modified BESD measure presumes that the two variables have just two levels and a 50:50 split. Obviously, the assumptions of the variables being dichotomies with a 50:50 split are usually not the case, which makes this measure totally hypothetical. Thus, when correlations are presented in terms of percentage differences in the text, they should be viewed as only rough approximations.

4. In Chapter 10, this question is called *assumed understanding.*