

(Bernieri & Rosenthal, 1991; Chartrand & Bargh, 1999). Affectionate nonverbal attunement starts early; watch an infant and a familiar caregiver mimicking each other's expressions. After a few moments of interaction, for example, mothers and their own infants synchronize movement, tempo, and coordination more than the same mothers and infants do with someone else (see Table 3.3; Bernieri, Reznick, & Rosenthal, 1988). Nonverbal coordination indicates attachment at all ages.

Despite its importance, people rarely comment on other people's nonverbal behavior; rarely do they ask, "Why are you standing so far away from me?" or say, "Thank you for squeezing my hand." Instead, they respond nonverbally, for example by moving closer or squeezing back. Meeting nonverbal communication with nonverbal communication is the rule of **nonverbal reciprocity** (DePaulo & Friedman, 1998). This rule holds that feelings are best reciprocated with feelings, because much nonverbal behavior appears automatic, and people learn nonverbal communication before they have words for it. Moreover, nonverbal communication is less direct than verbal communication. Thus, when people are feeling vulnerable, it provides a safer way to communicate attraction or rejection, with less risk of being called to account. In various ways, then, the nonverbal channels facilitate social attachment and belonging as people understand each other.

Summary

Even in situations less dramatic than observing one person threaten another with a shotgun, as in the Ronald Opus story that opened this chapter, nonverbal behavior serves perceivers' core social motives to understand other people, to control or at least influence their responses, and to present self effectively. Nonverbal behavior supplies an emotional understanding of other people, in a medium that people believe to be genuine, even if research indicates that people do lie but are not especially good at nonverbally detecting deception. Following predictable but unwritten rules, people communicate effectively in nonverbal exchanges by using space adroitly to indicate boundaries and by coordinating interaction to indicate attraction. Nonverbal behavior facilitates the understanding of feelings in ordinary personology.

Table 3.3 Ratings of Nonverbal Synchrony between Mothers and Infants

Mother-Child Pair	Minute of Interaction	
	1st	3rd
Actual Pair	5.48	5.97
Switched Pair	5.57	4.70

Higher numbers indicate greater nonverbal coordination.

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ATTRIBUTION OF DISPOSITIONS: UNDERSTANDING TRAITS

In studying nonverbal behavior, researchers examine attribution of emotions, which tend to be short-term. Psychologists use the term **disposition** to mean an individual quality that is relatively stable, for example, a personality trait. Various theories explain how people infer dispositions from others' and their own behavior, but errors and biases surface in the attribution process. In terms of core motives, people try to understand other people, with an eye to having some sense of control over their social environment. In their errors and biases, though, self-enhancement arises.

Heider's Attribution Theory: The Naïve Psychology of Traits

Recall that Fritz Heider founded the study of how ordinary people (nonpsychologists) think about each other. Heider (1958) contributed two central ideas about the benefit of studying how regular folks make sense of each other. First, studying how people think about other people provides meaningful data for scientific analysis.

We shall make use of the unformulated or half-formulated knowledge of interpersonal relations as it is expressed in our everyday language and experience—this source shall be referred to as common-sense or **naïve psychology**. (p. 4, emphasis added)³

This is the same idea as ordinary personology.

Thus, Heider suggested listening to what people say about how they think about people and how they think they think about other people, gathering people's everyday theories. Talking to laypeople can be a source of perfectly good ideas. Heider had a great deal of respect for the ordinary person, despite the fact that he invented the term naïve psychology.

Heider's second major proposal argued that psychologists have to systematize the data from people's everyday experience, making them more precise, coherent, and scientific. Heider's point was that scientific theory and research provide a conceptual framework that reveals common patterns among diverse events. Heider's work painstakingly analyzes ordinary personology, drawing on an impressive range of the then-available science.

The study of common-sense psychology may be of value because of the truths it contains, notwithstanding the fact that many psychologists have mistrusted and even looked down on such unschooled understanding of human behavior. (p. 5)⁴

People know a lot about other people and how to think about other people. They are not always right, but they do it a lot, and they have ideas about how they do it, so psychologists should listen to them.

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The idea of listening to regular folks was a radical contrast to then-current wisdom in the rest of psychology. Behaviorism dominated psychology, and people's thoughts ranked as intellectually useless garbage: **epiphenomena**, events that were irrelevant to the real causal system. Heider, a recent European refugee of World War II, first in Northampton, Massachusetts, and then in Lawrence, Kansas, created a fresh approach, compared to what most psychologists were doing. He took people's own thoughts seriously, this being a time when the rest of psychology was not really interested in people's thoughts either as data or as inspiration.

TRAITS: QUICK AND DIRTY TOOLS FOR UNDERSTANDING People try to understand other people because it is adaptive for prediction and control. How can a person be effective without knowing what causes people to act the way they do? How can one have some sense of prediction and control without understanding causality, using some naïve theory, some hunch about causality? Poor Ronald Opus apparently did not have a good theory of what would cause his mother to maintain his financial support. He thought he had a theory of his father's behavior when angry at his mother, which entailed pointing the shotgun at her, although Ronald's timing was off. Knowing how to get somebody else to do something can be a life and death matter in less peculiar but still dangerous circumstances, such as trying to involve bystanders in one's threatened mugging. Note that understanding logically predates control: One can understand and predict events without being able to control them, another person's suicide being a tragic example. Sometimes, people attempt to understand other people out of simple curiosity or entertainment value, without attempting control. Most often, though, people analyze another person in order to create a sense of contingency between what they do with the person and what they get from the interaction. People have lots of theories about what makes people tick (understanding) and what use it serves (controlling). The ordinary personology of traits describes those everyday theories.

Attribution is specifically a subtopic within naïve psychology and ordinary personology, although a major one. The term **attribution** refers to the process by which people explain why somebody did something. In particular, attribution theories focus on how people infer causality for behavior: Given a behavior, why did the person do what he or she did?

Some professors make use of attribution processes when they teach a class that is initially overenrolled. If they do not have enough seats or teaching assistants to manage the overflow, they might make a lot of discouraging comments (that the course is too hard for nonmajors or first-year students, for instance), trying to be grumpy about it, not because they want to throw specific people out but because they are constrained by the situation to limit the number of people in the class. So given that behavior, students could infer either that the professor is a rigid, grumpy person or that the behavior had something to do with the situation, the role that the person is playing, in trying to cut people out of class. What use is the inference about the professor, to a student? The inference that the professor is a grumpy, irritable, rigid person might make one want to drop the class, because who wants to spend the semester with a grumpy, irritable, rigid person? The inference, on the other hand, that the professor is rude because of his or her role and because of the situation at the beginning of the semester might lead one to give

this person the benefit of the doubt: Maybe the professor will improve once the class gets down to a better size. (Indeed, the fact that the class is overenrolled might make one want to take it even more.) Those two different causal inferences—dispositional or situational—lead to two different kinds of conclusions about what one should do. Again, an understanding of the professor's motivations determines one's own actions.

DISPOSITIONS AND SITUATIONS This example illustrates the two main kinds of causality that social psychologists have studied: One kind reflects **dispositional** causes, such as mood, personality traits, values, intentions. All these factors indicate **internal** causes of behavior. The behavior occurs because the person apparently wants to do it, so it reflects will or intent. As the next sections will show, Heider viewed people as searching for **invariance** in behavior, that is, looking for stability. A dispositional property of a person (or an object) "disposes" it to act in a certain way because of its relatively unchanging underlying properties.

Dispositional causality contrasts with **situational** or external causality. In the previous example, their respective social roles create certain demands on a professor or a student, entailing certain obligations. Whether one likes some of them or not, one buys into them when one occupies the role. A role constrains behavior, along with other situational or external causes such as rules, norms, or laws. Situational causes go beyond physical constraints.

How controllable are psychological constraints? For example, the pressure on my students to make the paper airplane the first day of class does not indicate that they have no personal control. Some are reluctant to do it, but everyone does it, so the evidence for situational causality is strong. When someone puts a gun to a person's head and demands money, handing it over counts as responding to a strong situational cause because virtually everyone would respond in the same way. When it's human nature to respond to an incredibly strong situational pressure, then we consider the cause to be the external situation, even though the person actually could resist. Our convention as ordinary people is to say that the situation caused the behavior, even though the person willingly cooperated with the situation. If everyone would do the same thing under the circumstances, we blame the situation. As Daniel Gilbert (1998) puts it:

Speakers of English have an odd habit and a not so odd habit. The not so odd habit is that they describe behavior that is driven by extraordinary dispositions as having been driven by extraordinary dispositions. The odd habit is that they describe behavior that is driven by ordinary dispositions as having been caused by external agencies. ... When situations appeal to or invoke ordinary dispositions, speakers naturally talk about the resulting actions as having been "caused by the situation." (p. 101)⁵

Odd or not, dispositional and situational attributions are important in a broad range of cases. Consider perceptions of people who are poor. Two broad sets of explanations are available (Kleugel & Smith, 1986). Individual (dispositional) explanations cite a supposed lack of thrift, ability, effort, and morals, whereas structural (situational) explanations cite poor schools, chaotic environments, low wages, exploitation, and lack of jobs.

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Conservative political beliefs correlate with dispositional attributions. That is, individualistic, controllable, blameworthy perceived causes predict anger (Zucker & Weiner, 1993). In this view, people are poor because they are lazy, do not improve themselves, cannot manage money, and abuse drugs or alcohol. Less conservative beliefs correlate with situational attributions: perceiving societal causes, feeling pity, and intending to help. In this view, people are poor because of prejudice and discrimination, inadequate education, exploitation by the rich, and low wages (see Table 3.4). The conservative dispositional attributions imply that poor people have a controllable predisposition to stay poor.

But consider this: While many Americans believe that those who are poor will remain dependent for years on public assistance, research has found that one of three people living below poverty will lift himself or herself out of poverty within twelve months ("Welfare stereotype...", 1996). That does not fit a stable dispositional attribution. Other people often assume that poor people live primarily off of welfare benefits, but studies have found that less than half of poor people actually receive cash benefits from the government. While the poor are assumed to be anti-work, the study found that 50% of the nation's poor are either children ineligible to work or people over 65 years of age, which also does not fit a personality predisposition to be lazy or irresponsible. Moreover, many situational events can force people onto welfare, but these are rarely discussed. A single mother might live in an area without jobs, child care, or affordable transportation, especially in remote rural areas where (contrary to myth) a great many people on welfare actually live.

The point is that if an observer thinks that poor people are lazy, immoral, and unskilled, then that causal explanation suggests certain kinds of solutions, namely, motivate them to work. If the observer thinks people are poor for situational reasons, then that causal explanation suggests other kinds of solutions, namely, improve the situation. Public policy results from people's theories about the dispositional or situational

Table 3.4 Correlations of Conservatism with Beliefs about the Causes of Poverty

Belief	Correlation
Individual causes	.19
Societal causes	-.39
Controllability	.21
Blame	.24
Pity	-.36
Anger	.20
Desire to help	-.30
Approval of welfare	-.37

All correlations are statistically significant.

Source: From Zucker & Weiner, 1993. Copyright © Winston. Adapted with permission.

causes for other people's behavior. Much argument about who is on welfare and why is a causal argument, an argument about attribution. Similar debates occur in attributions for educational outcomes and emotional reactions to people with social stigmas, points to which we will return (Chapter 11). And people tend toward trait-based explanations, toward dispositions, resulting in the inevitably disparaging judgments.

TRAITS AS INVARIANCES Heider's core contributions set the stage for subsequent attribution theories' analysis of how people arrive at trait attributions. As noted, Heider suggested that people look for invariance—stable, enduring qualities—in other people. He described how people observe a variety of behavior and extract the invariance from it. Putting a coin in a bucket, shoveling snow off a sidewalk, reading aloud from a book, and killing a mosquito all may illustrate the single trait of generosity to another person, although they certainly look different. To take a different example, if a person repeatedly turns a car's ignition key, searches frantically for a bicycle, stands on the street with an outstretched thumb, and finally takes off at a flat run, chances are, this variety of behavior all reflects the same invariant intention of urgently needing to get somewhere.

Heider focused on how people perceive other people's capacity and motivation to produce their actions. He described perceived **capacity** as what a person *can* do and perceived **motivation** as what a person will *try* to do. For example, one will not donate money to charity unless one can do so and tries to do so. Capacity reflects the person's ability, compared to environmental forces. One must have the ability (i.e., the cash), and the environment (one's bank, one's parents, one's partner) must not prevent it. Similarly, motivation reflects the combination of *intention*, that is, one's goal (helping a particular organization), and *exertion*, that is, effort (getting around to doing it). Heider described how observers infer capacity and motivation from observing invariances in people's action.

SUMMARY Heider noted that common-sense psychology held insights for scientists to analyze, in considering how people think about the causes of other people's behavior. Dispositions and situations provide two explanations with significant real-world implications. Traits and other dispositions reflect invariance—stable, enduring qualities of the individual—reflected in capacity and motivation. Heider set the stage for two important analyses of dispositional inference, by Jones and by Kelley.

Inferring Traits from Other People's Behaviors

Attribution theory and person perception can be properly understood as emphasizing people's core social motive to understand each other and to have some control. That is, people need to have some sense of prediction about other people's actions (understanding) and about their own impact on those actions (control). Prediction and control explain why attribution theory and ordinary personology address people's basic human concerns. And, although parts may seem a little dry or complex, the basic idea is that people try to understand each other. Using an intuitive and relatively automatic process, people do not think about making attributions; they just do it. People are

experts at understanding other people—at least we all think we are—but we do not actually understand how we do it until we reflect on it. And attribution theory is one way of systematically reflecting on it.

JONES'S CORRESPONDENT INFERENCE THEORY Edward Jones focused on the motivation in Heider's attribution theory, specifically, how people infer other people's intentions from their actions. Having carved out a manageable portion of the entire attribution framework, **correspondent inference theory** (Jones 1979; Jones & Davis, 1965) examined how people decide that an action reflects an intention, that is, how people infer that the action corresponds to an underlying intent.

Jones's theory worked out the information that people use to determine another person's intent. The core of the theory addresses how people make sense of another person's decision to behave in a certain way, given "the number and desirability of the decision's unique consequences" (Gilbert, 1998, p. 96).

Actions have consequences, and some consequences are **unique** (or "**noncommon**," in Jones's original terms). Go back to the Ronald Opus bizarre homicide/suicide: Suppose the medical examiner needs to infer Opus's intent in deciding to jump off his parents' ten-story building, as opposed to other tall buildings. A jump off any tall building could have the common consequence of causing his death. One unique consequence of jumping off his parents' building could have been to inflict his death on them, hoping they would discover his body. From this, then, one might infer his intent.

Given unique consequences, first the examiner has to consider the sheer number of them. If an action has only one unique consequence, compared to alternative choices, that unique consequence is informative as to intent. The single consequence seems to fit the choice of venue for his suicide. Similarly, consider his father's choice to brandish the shotgun at his mother, as compared to other ways of having an argument; this action could have one unique consequence, namely, terrifying her. Alternatively, if the action has multiple unique consequences (protecting himself and dominating her), then the person's intent is ambiguous, because any of the consequences might have been intended. For example, writing a suicide note, by itself, is ambiguous, for it could reveal a plan to communicate from beyond the grave, a cry for help, or the writer's need to mull over his problems. The intent behind a choice with multiple unique effects is less clear than the intent behind a choice with only one major unique effect.

The second element is the **social desirability** of the consequences. If an action, such as going up to the roof, has socially desirable effects (being outside on a nice day), then it reveals little about the person's particular dispositions because most people like nice weather. But if the action has socially undesirable effects (e.g., dying), then the action reveals much about the person's particular dispositions. Jones concentrated on intentions that set the person apart from other people, on average. Thus, the attribution process focuses on extraordinary dispositions, rather than ordinary ones.

The number and desirability of unique effects are illustrated in a classic study (Jones & Harris, 1967). Participants were observers of another person's behavior and its situational constraints. They learned that another student had written an essay for a political science exam (the behavior). As independent variables, (a) the essay either favored or opposed Fidel Castro, and (b) the direction of the argument was either by choice or by assignment.

The first manipulation, perceived choice, can be seen as one way to operationalize the number of unique consequences (although this is not Jones's original interpretation). If the essay's argument results from free choice, then it has only one unique effect, namely, to express one's views. If the essay's argument is written by assignment, then it meets the assignment, and it may or may not express one's views. Writing the assigned argument is less informative because it has multiple possible effects.

The second manipulation, the essay's actual argument (pro or con Castro), operationalizes social desirability, where a pro-Castro essay would be seen as the socially undesirable direction. Thus, the study had two independent variables, perceived choice and social desirability of essay. According to Jones, writing a freely chosen, socially undesirable essay should be most informative about the writer's attitudes. Writing the socially desirable essay, with or without choice, is not especially informative about the writer's attitudes.

The dependent variables were ten items, each implying the writer's true attitude (e.g., whether the writer would agree with statements such as "Cuba has as much right as any other country to choose her own form of government, free from outside interference by the United States"). Because the ten items appeared on 7-point scales, the total score could range from 10 (attributed attitude anti-Castro) to 70 (attributed attitude pro-Castro).

Looking at Table 3.5, notice first the main effect of the essay variable: Writing a pro-Castro essay elicits an attributed attitude that is more pro-Castro (about 52, averaged over the levels of choice), whereas an anti-Castro essay elicits an attributed attitude that is more anti-Castro (about 20, averaged over choice). There is no main effect of the choice variable averaged over essay; the averages are about 38 and 34, not statistically different.

Jones and Harris hypothesized an interaction between the two independent variables, such that participants would make stronger inferences about the essay writers when their essays were written by choice (had one primary, unique consequence) and when they were in the socially undesirable direction. Indeed, participants made more extreme inferences in this combination of circumstances.

Notice that choice interacted with essay also as follows: Remember that choice allows the inference that the person's behavior was internally caused, whereas the

Table 3.5 Attitudes Attributed to Essay Writers

Type of Essay Written	Essay Writer's Situation	
	Choice	No Choice
Pro-Castro (Socially undesirable)	59.62	44.10
Anti-Castro (Socially desirable)	17.38	22.87

Higher numbers indicate attributed attitudes that are more Pro-Castro.

Source: From Jones & Harris, 1967, Study 1. Copyright © Elsevier. Adapted with permission.

no-choice condition locks in an external cause. Choice indeed makes for stronger correspondent inference, in that the direction of the essay makes a bigger difference in the choice condition (59.62 versus 17.38, about 38 points difference) than in the no-choice condition (44.10 versus 22.87, about 21 points difference). That fits the theory, as Jones originally described it, namely, that choice is a prerequisite for inferring intent. It also fits the theory as described here, in that the unique consequence in the no-choice condition is fulfilling the exam requirement, whereas the consequences in the choice condition are both fulfilling the exam requirement and expressing one's opinion, so the attribution is less clear.

A third aspect of the interaction is that the socially undesirable pro-Castro essay makes a stronger correspondent inference: Comparing the 59.62 versus 44.10 in the socially undesirable pro-Castro condition shows a bigger difference than the 17.38 versus 22.87 in the socially desirable anti-Castro condition. A bigger effect of choice for the pro-Castro essay than for the anti-Castro essay occurs because the anti-Castro essay is what everybody would do. Another way to put it is that choice exaggerates the attribution about a socially undesirable response. This shows the interaction of the two independent variables.

The last point concerns what observers actually do overall. Return to the main effect for social desirability, the direction of the essay that is actually written. That's the approximately 52 versus the 20 that constitutes a main effect. Writing a pro essay (regardless of choice) resulted in attributions of a pro-Castro attitude, compared to writing an anti-Castro essay. Notice that it reflects a tendency to assume that people's behavior reflects (corresponds to) an underlying intent. Even when the essay writer had no choice, people assume the essay reflects the person's attitude to some extent. Even in the case where people should not be making an inference, the no-choice condition, they still are. Even when the writer had no choice about the direction of the essay—that is, the instructor required an exam answer in this direction—observers still assume that the essay reflects the person's attitude. Logically, the assigned essay tells nothing about the person's attitude; a later section will come back to this biased judgment.

Whether concerned with inferences about attitudes or personality, Jones termed these dispositional attributions correspondent inferences. A **correspondent inference** reflects people's attribution that somebody's behavior reveals (corresponds to) an underlying disposition, such as a trait, attitude, or intention. As noted, most of the theory concerns principles of correspondence: the number and social desirability of the action's unique (noncommon) effects.

KELLEY'S COVARIATION THEORY Harold Kelley's theory (Kelley, 1967, 1972) and Jones's theory have two important differences and two important similarities (see Table 3.6). First, whereas Jones focused on the covariation (correlation) of actions and their *consequences* as a key to attribution, Kelley's **covariation theory** argued the complementary view, focusing on the covariation (correlation) of actions and their potential *causes* as the key to attribution. Second, Kelley's theory tackles a different domain from the Jones correspondent inference theory, largely because the Jones model accounts for the degree to which *one behavior*, or one choice, reflects somebody's disposition. Kelley's theory accounts for *repeated observations*, multiple encounters with the behavior. Multiple observations enable Kelley's theory to ask about consistency over time: How often has this person behaved this way? For example, in the case of Mr.

Table 3.6 Comparing the Jones and Kelley Attribution Theories: Why Harold Chooses to Live in Los Angeles

	Jones's Theory of Correspondent Inference	Kelley's Theory of Covariation
Differences in Scope		
Focus on	Consequences of behavior (effects of Harold's choice)	Causes of behavior (determinant of Harold's choice)
Explain	Single behavior (a one-time choice)	Pattern of behavior (repeated choices over time) Consistency (Does Harold always choose L.A.?)
Similarities in kinds of information		
What other people do	Social desirability (Is L.A. generally preferred?)	Consensus (Do most people choose L.A.?)
What other entities evoke	Unique (noncommon) effects (What's special about L.A.?)	Distinctiveness (Does only L.A. get chosen?)

Opus, Senior, the report that he habitually (consistently) threatened his wife with a shotgun is more informative than knowing that he did so on one occasion.

The two theories' similarities are often unappreciated (Gilbert, 1998): Kelley proposed that people infer the causes of action by looking at the covariation of behavior and its potential causes, using three principles, two similar to those of Jones. Suppose that we want to know why Harold chooses to live in Los Angeles. Observers first ask about **consensus**, what other people have done. Does everyone else want to live in Los Angeles, or is Harold the only one? Kelley identified consensus, similarly to Jones identifying social desirability. If consensus is high, then the action is socially desirable. If everyone wants to live in Los Angeles, then Harold's behavior reflects something about Los Angeles, whereas if hardly anyone does, then Harold's choice reflects something about Harold's unique preferences.

Observers, second, ask whether the behavior, in this case establishing a home, is distinctively addressed to a particular entity or indiscriminately addressed to various entities. Does Harold choose to live in multiple cities (suppose he is rich), or does he call only Los Angeles his home? The concern with **distinctiveness** is similar to Jones's concern with unique effects; has Harold chosen Los Angeles in particular, or is his choice more indiscriminant? The more distinctive his choice, the more it has something to do with the unique effects of living in Los Angeles; the less discriminating his choice, the more the behavior reflects Harold's disposition to adore all cities in general. The distinctiveness factor resembles Jones's unique effects criterion.

Finally, Kelley identified **consistency** over time as important to attribution. Does Harold choose to live in Los Angeles over a long period of time, or does he move around a lot? If his choice is consistent over time, then it is more likely to reflect something long-term about Harold (an enduring disposition), rather than some temporary circumstances.

One useful way to make sense of these attributional questions—consensus, distinctiveness, and consistency—is to consider the behavior in question (“chooses to live in”) as part of a simple sentence the observer tries to explain. In our previous example, we have been trying to explain why “Harold chooses to live in Los Angeles.” Consensus varies the subject of the verb, Harold: Is it “only Harold” or “many people” who would choose to live in Los Angeles? Distinctiveness information varies the object of the verb, Los Angeles: Does Harold live in “only Los Angeles,” or “many cities”? Consistency varies the implicit adverb “all the time” or “only once.” Combining all three factors, if “only Harold chooses many cities all the time,” then we know that, respectively, consensus is low (“only Harold”), distinctiveness is low (“many cities”), and consistency is high (“all the time”), so Harold is an obsessive urban dweller, which explains his living in any city, and it has nothing to do with Los Angeles. On the other hand, if “everyone wants to live in Los Angeles” (consensus and therefore social desirability is high), and, moreover, this is true of “only Los Angeles” (distinctiveness to the entity is high, or there is only one, unique choice), and it is true consistently, the combination tells us that Harold lives in Los Angeles because Los Angeles is special.

This kind of attributional analysis can be applied to any behavior that occurs by choice. If only Julia arrives in class late, but she does it in all her classes and does it consistently, then she is a tardy person. If, however, everyone in the class arrives late and Julia does so in only this class, and she does it consistently, then there is something about that class that causes her lackadaisical behavior. These two patterns allow unambiguous inferences. Mixtures of these two patterns do not allow clear causal analysis, as when everyone arrives late at this class, but Julia also arrives at all her classes late, so it could be something either about Julia or about this particular class. Her arriving late to this class has two possible causes, so the role of either cause is discounted (diminished) because the other is present; Kelley called this the **discounting principle**, and Jones would have called it a lack of unique effects. If Julia is late to class *despite* the threat of detention, then the **augmenting principle** says her predisposition to be late is especially potent.

Just like Jones, Kelley realized that if a behavior covaried with more than one factor (causes, in Kelley’s case; effects, in Jones’s case), then the attribution was ambiguous. Think back to the methods chapter; the same principle operates in scientific causality. If a researcher does not isolate an independent variable, a potentially causal variable, but confounds it with another (unintended) variable, then the researcher cannot draw any reliable causal inferences from the variable’s effects. Is it any wonder that Kelley’s model evokes the image of people as scientists, albeit naïve (amateur) ones? Overall, Kelley’s contribution, in true Heider fashion, systematizes the principles that people all use intuitively. People can think about the three logical types of information—consistency, distinctiveness, consensus—in order to attribute causality.

An experiment tested Kelley’s theory of the information people use to attribute causes of behavior (McArthur, 1972). Participants read sentences describing people’s responses: John laughs at the comedian, Sue is afraid of the dog, George translates the sentence incorrectly, Bill thinks his teacher is unfair, Ralph trips over Joan’s feet while dancing. Three additional pieces of information followed each sentence: consensus (“Almost everyone...” or “Hardly anyone...”), distinctiveness (this person does or does not respond the same way to “almost every other...” comedian, dog, sentence, teacher, partner’s feet), and consistency (“In the past, ... has almost always...” or “almost

never”). Participants chose among four alternative causes for the initial response: something about the person, stimulus, particular circumstances, or a combination of these factors. Table 3.7 summarizes the basic results, and two of the three types of information operate as hypothesized. Of the three types of information, distinctiveness influenced entity attributions the most, and consistency by far influenced circumstances the most. Contrary to predictions, consensus did not influence person attributions the most. Later studies confirmed this underuse of consensus information, but all three typically have some influence on attributions, supporting the broad outlines of Kelley’s theory.

NORMATIVE MODELS: DO PEOPLE BOTHER THIS MUCH OVER CAUSAL ATTRIBUTION? Perhaps causal attribution seems a complex analysis for everyday use. Do people really bother this much? At least three answers tackle this question. First, research suggests that people can use these three types of information when they are provided, but they probably use consistency the most, distinctiveness moderately, and consensus the least (Kruglanski, 1977; Kruglanski, Hamel, Maides, & Schwartz, 1978). In real-world settings, people may not be as thorough as the Kelley theory implies.

Second, people may in fact do the full Kelley analysis mainly when the outcome truly matters, for example, in explaining their closest relationships. Suppose that Harriet rejects Tom, after a long-term relationship. What is Tom’s first response, apart from feeling hurt? First, Tom checks to be absolutely certain Harriet means it; if Harriet is sure over time, then she is consistent. People always have to have high consistency to make any kind of inference. If the person flip-flops, then one cannot make an inference. (Both the earlier examples have high consistency: Harold chooses to live in Los Angeles for a while, and Julia is late to class every time.) Without consistency, one cannot attribute any causality because the rejection is just a fluke, a random blip.

If Harriet is consistently sure that the relationship is over, Tom then wonders whether this has happened only to him, as an object of Harriet’s rejection. In other words, is this distinctive to him as the rejected entity, or does this person leave everyone? If Harriet has a pattern of rejection, then it is not unique to poor old Tom. Then,

Table 3.7 Which Covariation Information Influences which Causal Attributions

Type of Covariation	Type of Causal Attribution		
	Person	Entity	Circumstances
Consensus information	6.25%	5.17%	.30%
Distinctiveness information	21.72%	12.12%	7.58%
Consistency information	15.76%	5.88%	41.36%

Higher numbers indicate that the type of attribution (column headings) was most influenced by that type of covariation information (row headings). Numbers do not add to 100% because these sources of influence are not exhaustive. Numbers in bold were hypothesized to be largest in their respective columns.

Source: From McArthur, 1972. Copyright © American Psychological Association. Adapted with permission.