CHAPTER 3

Critical Thinking in Cross-Cultural Psychology

What luck for rulers that men do not think.

ADOLF HITLER (1889–1945)—GERMAN NAZI LEADER

It’s good to be open-minded, but not so open that your brains fall out.

JACOB NEEDLEMAN—CONTEMPORARY AMERICAN WRITER

Only two things are infinite, the universe and human stupidity, and I’m not sure about the former.

ALBERT EINSTEIN (1879–1955)—GERMAN SWISS AMERICAN PHYSICIST
T
his story could have been told in New Orleans. Or maybe in New York. Or perhaps in Tokyo, Cape Town, or Buenos Aires. A woman walks into a doctor's office complaining that she's a zombie. The doctor, trying his best to convince her otherwise, says, "You're walking and talking, aren't you?" "Zombies walk and talk," replies the patient. "Well, you're breathing, too." "Yes, but zombies breathe." "Okay, what don't zombies do? Do they bleed?" "No, of course not," says the patient. The doctor replies, "Good. Then I'm going to stick this needle into your arm and we'll see if your idea is right or wrong." So he plunges the needle deep into the woman's arm, and, sure enough, blood starts to pour out of the wound. The woman is aghast. In utter dismay, she turns to the doctor and says, "My God, I was wrong . . . Zombies do bleed."

What is the moral of this story? Compelling facts are quite often not compelling enough. What matters more is our interpretation of these facts. One of the most significant characteristics of our thinking is the way in which we become personally invested in—and then tightly cling to—our beliefs and interpretations. This tendency, called the belief perseverance effect, can frequently lead us to freely distort, minimize, or even ignore any facts that run contrary to our reality.

Thinking is one of the most essential of all human characteristics. It is intrinsic to almost everything we do. But do we ever think about thinking? How often do we subject our thinking process to critical analysis?

Educators rightfully profess that learning how to think critically is one of the most vital and indispensable components of learning; yet, specific tools for critical thinking are rarely, if ever, provided to us. Thus, although we may be convinced of the value of critical thinking, we are left not knowing quite what to do about it.

Herein lies the theme of this chapter, whose express purpose is to improve your thinking skills, to teach you to think critically, to help you think about thinking—in a word, to promote metathinking in cross-cultural psychology. Metathinking is not a magical, mystical, or mysterious abstraction. It is not an unattainable gift that is miraculously bestowed on the intellectual elite. Rather, it is a skill (or more accurately, a series of skills) that can be successfully taught and learned (see Levy, 1997). The thought principles or metathoughts (literally, "thoughts about thought") contained in this chapter are cognitive tools that provide the user with specific strategies for inquiry and problem solving in cross-cultural psychology. In this way, they serve as potent antidotes to thinking, which is often prone to be biased, simplistic, rigid, lazy, or just plain sloppy.

For the purposes of this book (portions of which were adapted from Levy, 1997), each metathought is illustrated primarily from the theory and application of contemporary cross-cultural psychology. Keep in mind, however, that these principles transcend the confines of any specific topic and can be utilized in a diverse array of fields, ranging from philosophy and theology to law, political science, history, sociology, anthropology, journalism, business, medicine, sports, the arts—in fact, in all areas of education and learning.

Description is always from someone's point of view.
RHODA KESLER UNGER (1939–) —AMERICAN PSYCHOLOGIST
The Evaluative Bias of Language: To Describe Is to Prescribe

Language serves many functions. Certainly one of its most common and most important purposes is to help us describe various phenomena, such as events, situations, and people: “What is it?” Another purpose is to evaluate these same phenomena: “Is it good or bad?” Typically, we consider descriptions to be objective, whereas we consider evaluations to be subjective.

However, is the distinction between objective description and subjective evaluation a clear one? The answer, in the vast majority of cases, is no. Why? Because words both describe and evaluate. Whenever we attempt to describe something or someone, the words we use are almost invariably value laden, in that they reflect our own personal likes and dislikes. Thus, our use of any particular term serves not only to describe, but also to prescribe what is desirable or undesirable to us.

<table>
<thead>
<tr>
<th>TABLE 3.1</th>
<th>The Same Person as Described from Two Different Perspectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Jenny’s Value System</td>
<td>From Lee’s Value System</td>
</tr>
<tr>
<td>old</td>
<td>mature</td>
</tr>
<tr>
<td>naïve</td>
<td>idealistic</td>
</tr>
<tr>
<td>reckless</td>
<td>brave</td>
</tr>
<tr>
<td>manipulative</td>
<td>persuasive</td>
</tr>
<tr>
<td>spineless</td>
<td>cooperative</td>
</tr>
<tr>
<td>childish</td>
<td>childlike</td>
</tr>
<tr>
<td>weird</td>
<td>interesting</td>
</tr>
<tr>
<td>obsessed</td>
<td>committed</td>
</tr>
<tr>
<td>anal retentive</td>
<td>tidy</td>
</tr>
<tr>
<td>dependent</td>
<td>loyal</td>
</tr>
<tr>
<td>codependent</td>
<td>empathic</td>
</tr>
<tr>
<td>narcissistic</td>
<td>high self-esteem</td>
</tr>
<tr>
<td>lunatic</td>
<td>visionary</td>
</tr>
<tr>
<td>psychotic</td>
<td>creative</td>
</tr>
<tr>
<td>bum</td>
<td>vocationally disadvantaged</td>
</tr>
<tr>
<td>sociopath</td>
<td>morally challenged</td>
</tr>
<tr>
<td>dead</td>
<td>ontologically impaired</td>
</tr>
</tbody>
</table>
This problem is not so prevalent in describing objects as compared with people. Let us take, as an illustration, the terms cold and hot. For material substances, both terms refer literally to temperature: “That liquid is very cold,” or “That liquid is very hot.” When we use these same terms to describe an individual, however, they take on a distinctly evaluative connotation: “That person is very cold,” or “That person is very hot.”

Our best attempts to remain neutral are constrained by the limits of language. When it comes to describing people (for example, in conducting research) it is nearly impossible to find words that are devoid of evaluative connotation. Incredible as it may seem, we simply do not have neutral adjectives to describe personality characteristics, whether of an individual or an entire group. And even if such words did exist, we still would be very likely to utilize the ones that reflect our own personal preferences.

The evaluative bias of language is illustrated in Table 3.1 and the accompanying exercise. Let us say that two different observers (Jenny and Lee), each with a different set of values, are asked to describe the same person, event, or group. Notice how the words they use reveal their own subjective points of view.

### EXERCISE 3.1

**The Interdependence of Values, Perceptions, and Language**

Ready to try some on your own? Remember that you are to select words that reveal Lee’s personal attitudes and values, that are consistently more “positive” than Jenny’s. (Some suggestions appear in Appendix 1 on page 343.)

<table>
<thead>
<tr>
<th>Jenny</th>
<th>Lee</th>
<th>Jenny</th>
<th>Lee</th>
</tr>
</thead>
<tbody>
<tr>
<td>problem</td>
<td>abnormal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>failure</td>
<td>ethnocentrism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>terrorist</td>
<td>chauvinism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hostage</td>
<td>cultural impurity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>murder</td>
<td>discrimination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>genocide</td>
<td>reverse discrimination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>brainwashed</td>
<td>child abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>handicapped</td>
<td>child neglect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>disabled</td>
<td>handout</td>
<td></td>
<td></td>
</tr>
<tr>
<td>primitive</td>
<td>kleptomanic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This metathought also underscores the reciprocal influence of attitudes and language. That is, not only do our beliefs, values, and perceptions affect our use of language, but our use of language in turn influences our beliefs, values, and perceptions (see **bidirectional causation**). For example, by referring to a person or group as sick, we are more inclined to perceive them as sick, which in turn leads us to label them sick, which prompts us to assume that they are sick, and so forth.
The bidirectional relationship between attitudes and language has direct relevance to the use (and misuse) of “politically correct” terminology. Consider the ways in which names applied to various ethnic groups have changed as a function of different social and historical contexts. What values might be related to, for example, the use of Indian versus Native American? Iranian versus Persian? Oriental versus Asian? Colored versus Black versus Negro versus Afro-American versus African American? Why is person of color “in,” while colored person is “out”? Similarly, what do the terms pro-choice and pro-life not so subtly imply about the moral stance of anybody who happens to have a different point of view? In these cases and countless more, we see how values both shape and are shaped by our use of language.

Antidotes

1. Remember that descriptions, especially concerning personality characteristics, can never be entirely objective, impartial, or neutral.
2. Become aware of your own personal values and biases, and how these influence the language that you use.
3. Avoid presenting your value judgments as objective reflections of truth.
4. Recognize how other people’s use of language reveals their own values and biases.

Differentiating Dichotomous Variables and Continuous Variables: Black and White, or Shades of Gray?

Some phenomena in the world may be divided (or bifurcated) into two mutually exclusive or contradictory categories. These types of phenomena are dichotomous variables. For example, when you flip a coin, it must turn up either heads or tails—there is no middle ground. Similarly, a woman cannot be “a little bit,” “somewhat,” or “moderately” pregnant—she is either pregnant or not pregnant. Here are some other examples:

- A light switch is either on or off.
- An individual was born in Rwanda or he wasn’t.
- A person is either male or female (with some rare exceptions).

Other phenomena, by contrast, consist of a theoretically infinite number of points lying between two polar opposites. These types of phenomena are continuous variables. For example, between the extremes of black and white there exists a middle ground comprised of innumerable shades of gray.
The problem is that we often confuse these two types of variables. Specifically, people have a natural tendency to dichotomize variables that, more accurately, should be conceptualized as continuous. In particular, most person-related phenomena are frequently presumed to fit into one of two discrete types (either category A or category B), rather than as lying along a continuum (somewhere between end point A and end point B). In the vast majority of cases, however, continuous variables are more accurate and therefore more meaningful representations of the phenomena we are attempting to describe and explain.

With particular respect to cross-cultural psychology, the potential pitfall of false dichotomization is illustrated by the concepts of individualism and collectivism (see Chapter 1). What are some examples of continuous variables that frequently are assumed to be, or treated as if they were, dichotomous?

- normal–abnormal
- mental health–mental illness
- introverted–extroverted
- biased–unbiased
- competitive–cooperative
- autonomous–dependent
- functional–dysfunctional
- adaptive–maladaptive

**EXERCISE 3.2**

**Identifying Dichotomous Versus Continuous Variables**

The following exercise will give you some practice at differentiating dichotomous and continuous phenomena. For each of the terms below, indicate those that refer to dichotomous phenomena (D) and those that refer to continuous phenomena (C). (Answers appear in Appendix 2 on page 343.)

- feminine–masculine: ______
- married–single: ______
- conscious–unconscious: ______
- prejudiced–unprejudiced: ______
- slavery–freedom: ______
- racist–nonracist: ______
- homosexual–heterosexual: ______
- licensed–unlicensed: ______
- integration–segregation: ______
- alcoholic beverage–nonalcoholic beverage: ______
- sexist–nonsexist: ______

- perfect–imperfect: ______
- young–old: ______
- present–absent: ______
- rich–poor: ______
- liberal–conservative: ______
- airborne–grounded: ______
- responsible–not responsible: ______
- acculturated–unacculturated: ______
- mailed–unmailed: ______
- democracy–dictatorship: ______

- guilty verdict–not guilty verdict: ______
The Similarity–Uniqueness Paradox: All Phenomena Are Both Similar and Different

heterogeneous– tolerance–intolerance: ______
homogeneous: ______
materialistic–spiritualistic: ______
successful basketball shot– unsuccessful shot ______
traditionalist–reformist: ______
power on–power off: ______
addicted–not addicted: ______
subjective–objective: ______
similar–different: ______
politically correct– ______
dead–alive: ______
politically incorrect: ______

Antidotes

1. Learn to differentiate between variables that are dichotomous and those that are continuous.
2. Remember that most person-related phenomena—such as traits, attitudes, and beliefs—lie along a continuum.
3. When making cross-cultural comparisons, try to avoid artificial or false dichotomies (Hermans & Kempen, 1998).

In order to generalize about fruit, it is perfectly appropriate to combine apples and oranges.

ROBYN M. DAWES—CONTEMPORARY AMERICAN PSYCHOLOGIST

Everyone and anyone is much more simply human than otherwise, more like everyone else than different.

HARRY STACK SULLIVAN (1892–1949) AMERICAN PSYCHIATRIST

The Similarity–Uniqueness Paradox: All Phenomena Are Both Similar and Different

By way of introducing this metathought, let us examine the following problem: Which of the following four words does not belong with the other three?

A. Canadian  B. Italian  C. Cuban  D. Hindu

The correct answer to this question is D, because Hindu is the only term that represents a religion rather than a nationality. But wait, the correct answer is B, because none of the others is European. Then again, the correct answer is C, because this is the only group with a communist government. Is that it? Not quite. The correct answer is A, because Canadian is the only word on the list that contains an even number of letters.

So which is it? Can it be that all four answers are correct? If so, how can every term be both similar to and different from the others? The solution to this apparent paradox lies in the cognitive schema or perceptual set with which one initially approaches the problem. More specifically, it is a function of the particular dimensions or variables on which one has evaluated the response options.

As you can see, determining the similarities and differences between any set of events—two cultures, for example—is dependent on the perspectives from which you choose to view
them. In this way, phenomena can be seen as both unique from and, at the same time, similar to other phenomena.

Let us examine briefly the interlocking processes of comparing and contrasting phenomena. First, how do we determine the degree to which phenomena are similar? To begin with, any two phenomena in the cosmos share at least one fundamental commonality: namely, they are both phenomena. With this as a starting point, they may subsequently be compared along a virtually infinite array of dimensions, ranging from the broadest of universal properties to the minutest of mundane details.

For instance, when you compare two groups of people you can focus on physical features (height, weight, hair and eye color, health, strength, attractiveness), demographic characteristics (age, ethnicity, nationality, culture, religion, income, occupation), social context (competitive, cooperative, structured, ambiguous, restrictive, permissive), personality attributes (intelligence, motivation, maturity, creativity, psychological problems, attitudes, values, beliefs, goals), personal tastes (in art, music, food, clothing, wallpaper), and so on.

**EXERCISE 3.3**

**Exploring Similarities and Differences**

The following exercise will give you some practice at comparing, contrasting, and identifying points of distinction from a diverse array of sociocultural phenomena. First, browse through the list below and select three word pairs that, for whatever reason, capture your interest. Then, utilizing any dimensions or sorting variables that might be helpful, for each pair answer the questions: (1) “How are they similar?” and (2) “How are they different?”

- God and Satan
- heaven and hell
- religion and art
- religion and science
- religion and mythology
- religion and psychotherapy
- religion and slavery
- religion and freedom
- Judaism and Christianity
- Catholicism and Protestantism
- Buddhism and Hinduism
- the Bible and the Koran
- the Bible and the Constitution
- religious leaders and political leaders
- religious conversion and cult indoctrination
- television evangelists and infomercial salesman
- men and women
- homosexuality and heterosexuality
- Western philosophy and Eastern philosophy
- Jewish Americans and African Americans
- Native American tribes and African tribes
- Spanish culture and Mexican culture
- Japanese art and Chinese art
- Israeli music and Arabic music
- Italian food and French food
- racism and sexism
- ignorance-based racism and hostility-based racism
- racial inequality in 1950 and racial inequality in 2000
- White supremacists and Black nationalists
- prejudice against women and prejudice against teenagers
- affirmative action and discrimination
- discrimination and reverse discrimination
What is the purpose of this exercise? First, it illustrates that any two phenomena, no matter how seemingly disparate at first glance, always share at least some similarities. Second, phenomena invariably are differentiated by various points of critical distinction, which, in essence, define the boundaries delineating one phenomenon from another. Third, by utilizing this method of comparing and contrasting phenomena, you probably gained new insights and discovered some fresh perspectives into these relationships that you heretofore might not have considered. Fourth, given the fact that any two events are similar and different, it is crucial to take them both into account in your assessment of the phenomena.

Keep these principles in mind whenever you are faced with the task of comparing and contrasting sociocultural phenomena. You are likely to be more than just a little surprised each time you realize that the dimensions or variables you select for purposes of evaluation ultimately will determine just how “similar” or “unique” the phenomena turn out to be.

Antidotes

1. When comparing and contrasting any two phenomena ask yourself, “In what ways are they similar?” and “In what ways are they different?”

2. Before beginning your evaluation, ask yourself, “What is the purpose of this analysis?” Asking this question will help you to choose the most appropriate and relevant dimensions and sorting variables.

3. Carefully and judiciously select the dimensions on which you will evaluate various phenomena. Recognize that the dimensions you select will ultimately determine the degree of “similarity” or “uniqueness” displayed between the two phenomena.

4. Despite what may appear to be an overwhelming number of similarities between two events, always search for and take into account their differences; conversely, regardless of what may seem to be a total absence of commonalities between two events, search for and take into account their similarities.

5. Do not allow yourself to be swayed by individuals who maintain that “These events are exactly the same,” or “You can’t compare these events because they have absolutely nothing in common.”

---

*A good circus should have a little something for everybody.*
*Attributed to P.T. Barnum*

*There’s a sucker born every minute.*
*P.T. Barnum (1810–1891)—American Showman*
The Barnum Effect: “One-Size-Fits-All” Descriptions

A Barnum statement is a personality description about a particular individual or group that is true of practically all human beings; in other words, it is a general statement that has “a little something for everybody.” The Barnum effect refers to people’s willingness to accept the validity of such overly inclusive and generic appraisals.

Barnum statements pervade the popular media, from broadcast to print, in the form of self-help primers, astrological forecasts, psychic hotlines, biorhythm and numerology readings, and interpretations of dreams, palms, or favorite colors. To find them, you need look no further than the contents of your most recent fortune cookie. (See Levy, 1993, for a satirical essay on this topic, “The One-Size-Fits-All Psychological Profile.”)

These statements are frequently used in our everyday descriptions of both individuals and specific sociocultural groups with whom we interact. For instance, we may confidently announce, “Immigrants have self-esteem issues.” (Who doesn’t?) Or “Chinese are sensitive to criticism.” (Who isn’t?) Or “Women do not want to be rejected.” (Who does?)

The variations on this theme are virtually infinite. To list but a few: “He has a streak of prejudice in him.” “She has some sensitive spots about her cultural background.” “Hindus search for meaning of life.” “Caucasians favor members of their own group.” “Italians enjoy food.” “Minorities just want their rights.” “Republicans care about family values.” “Homosexuals are concerned with sex.” (See Appendix 3 on page 344 for an extended list of Barnum statements related to sociocultural groups.)

When subjects in the experiments were led to believe that the bogus personality description was prepared especially for them, and when it was generally favorable, they nearly always rated the description as either “good” or “excellent” (Dickson & Kelly, 1985). In fact, when given a choice between a fake Barnum description and an authentic personality description based on an established test, people tended to choose the phony description as being more accurate (see Snyder et al., 1977, for a review of research in this area).

A CASE IN POINT

“Your Personality”

A number of researchers have presented subjects with Barnum-like personality descriptions, such as those below (Forer, 1949).

“You have a strong need for other people to like and admire you. You have a tendency to be critical of yourself. . . . At times you have serious doubts as to whether you have made the right decision or done the right thing. You prefer a certain amount of change and variety and become dissatisfied when hemmed in by restrictions and limitations. You pride yourself on being an independent thinker and do not accept other opinions without satisfactory proof. You have found it unwise to be too frank in revealing yourself to others. At times you are extraverted, affable, sociable; at other times you are introverted, wary, and reserved. Some of your aspirations tend to be pretty unrealistic.”
EXERCISE 3.4

“De-Barnumizing” Barnum Statements

Begin this exercise by selecting a few Barnum descriptions. Then, “de-Barnumize” each statement by incorporating any potentially useful qualifiers, modifiers, or adverbs. To get you started, here are two examples:

Barnum statement: Roberto is sensitive to criticism.
De-Barnumized statement: Roberto is particularly sensitive to criticism.

Barnum statement: Native Americans have an appreciation for nature.
De-Barnumized statement: Compared to modern, industrialized societies, Native Americans display a greater appreciation for nature.

Now try one of your own:

Barnum statement: _________________________________________________
De-Barnumized statement: ___________________________________________
________________________________________________________________

Antidotes

1. Learn to differentiate Barnum statements from person- and group-specific descriptions and interpretations.

2. Be aware of the limited utility inherent in Barnum statements. Specifically, remember that although Barnum statements have validity about people in general, they fail to reveal anything distinctive about any given individual or sociocultural group.

3. Whenever feasible and appropriate, make it a point to reduce the Barnum effect by qualifying personality descriptions and interpretations in terms of their magnitude or degree.

No two people look at one individual from the same point of view. For instance, I have a girlfriend. To me, she’s the most remarkable, the most wonderful person in the world. That’s to me. But to my wife...

JACKIE MASON (1937–) —AMERICAN COMEDIAN

A monkey, in his mother’s eye, is a gazelle.

ARABIC SAYING

Two-thirds of what we see is behind our eyes.

CHINESE PROVERB

The Assimilation Bias: Viewing the World through Schema-Colored Glasses

One of the most fundamental and pervasive of all human psychological activities is the propensity to categorize. People appear to possess an innate drive to classify, organize, systematize, group, subgroup, and otherwise structure the world around them.
We categorize everything from persons, objects, places, and events, to concepts, experiences, feelings, and memories. The phenomenon is omnipresent, the breadth is enormous, and almost nothing is immune: gender and race, religions and occupations, cultures and nations, subatomic particles and celestial constellations, time and space.

We can conceptualize all such categories as mental representations, or schemas. A schema is a cognitive structure that organizes our knowledge, beliefs, and past experiences, thereby providing a framework for understanding new events and future experiences (see Cantor & Mischel, 1979; Fiske & Taylor, 1991; Levy et al., 1988; Piaget, 1952; Taylor et al., 1994). Put another way, schemas (or schemata) are general expectations or preconceptions about a wide range of phenomena. In the cross-cultural domain, these include perceptual sets about people based on their age, gender, race, religion, vocation, socioeconomic status, political affiliation, social role, or any other characteristic. In fact, we may view stereotypes as equivalent to group schemas (Hamilton, 1979, 1981). (See Chapter 10 on Social Cognition.)

What function do schemas serve? First and foremost, they enable us to process the plethora of stimuli we continually encounter in a relatively rapid, efficient, and effortless manner. In other words, schemas reduce our cognitive processing load. Whenever we are faced with new information, we quickly and automatically compare it to our preexisting schemas, which greatly simplifies the task of organizing and understanding our experiences.

What happens when we come across information that is discrepant from our preconceptions? Put another way, what do we do when there is a clash between the data and our schemas? The Swiss psychologist Jean Piaget (1954, 1970) identified two complementary processes that we utilize in such situations: accommodation and assimilation. According to Piaget, both of these responses are integral components of cognitive development, and constitute the means by which we adapt to our environment and construct our reality (see Chapter 8 on development).

Accommodation refers to the process wherein we modify our schema to fit the data. In other words, we change our preexisting beliefs so that they make room for (that is, “accommodate”) new information. Assimilation, by contrast, means to modify the data to fit our schema. Here, we incorporate new information into our preexisting beliefs—even if it means distorting the information itself.

The conduct of scientific investigation involves the processes of both assimilation and accommodation. Specifically, psychologists use theories to help them make sense out of an overwhelming array of seemingly disjointed, frequently bewildering, sometimes incoherent, and all-too-often ambiguous events. In other words, they assimilate observed phenomena into their conceptual schemas. And so long as the data and the theory “fit” each other, assimilation effectively and successfully serves its purpose. Suppose, however, that a particular observation disconfirms or contradicts the scientist’s expectations; that is to say, the new datum does not fit the old theory. Now what? In the pursuit of knowledge, good scientists put aside their pride, their stubbornness, and their egos and they alter their theory to accommodate the facts.

Do people in general make appropriate use of assimilation and accommodation? The answer, by and large, is no. Time and time again the discrepancies between data and schemas typically are resolved more in the direction of assimilation than accommodation. In other words, we are inclined to make the data fit the schema, rather than the other way around.

Because schematic processing occurs automatically and relatively unconsciously, it is very resistant to change—even when it is fraught with errors. We tend to overlook, misconstrue, or outright reject valid information when it is not consistent with our schemas. In a
The Assimilation Bias: Viewing the World through Schema-Colored Glasses

word, a fundamental and pervasive liability of schematic processing can be seen as a problem of assimilation.

This bias manifests itself in a wide variety of forms and contexts. Specifically, it leads us to rely excessively on vivid but not necessarily appropriate information, to fill in gaps in our knowledge with schema-consistent but erroneous information, to conduct biased searches for evidence, to recall or misinterpret information about past events so that it validates our schemas, to unwittingly elicit the very events that we expect to find, and to engage in and perpetuate sociocultural stereotyping.

In sum, schemas bias our perceptions of reality to make them consistent with what we already believe. As such, the assimilation bias represents a significant obstacle to clear thinking and effective problem solving. In viewing the world through “schema-colored glasses,” we subject virtually all the incoming information to varying degrees of distortion, misinterpretation, and invalidation.

A vivid case in point is provided by Robyn Dawes (1994), who tells of an incident involving flagrant gender bias in decision making. The dean of a major medical school, perplexed as to why his institution was unsuccessful in its attempts to recruit female students, asked a colleague of Dawes to investigate the problem. What emerged was striking. One of the interviewers had been rating applicants with respect to their “emotional maturity,” “seriousness of interest in medicine,” and “neuroticism.” As it turned out, the vast majority of females did not receive positive evaluations on any of his criteria. Specifically, whenever the woman was not married, he judged her to be “immature.” When she was married, he concluded that she was “not sufficiently interested in medicine.” And when she was divorced? “Neurotic,” of course. No win. No escape. No admittance.

EXERCISE 3.5

Changing the View with Different Lenses

The following exercise will give you some practice at viewing the same phenomenon through different sociocultural lenses. Select one of the perspectives from the list below (or of your own choosing) and write a few statements as to how that individual might perceive, explain, or react to a teenager from Oregon who engages in body piercing. Then, “switch lenses” by viewing the same teenager from a different perspective.

parental figure(s) • Zulu tribal chief • midwestern farmer • Hollywood casting agent • Marine drill sergeant • Holocaust survivor • New Age philosopher • inner-city gang member • psychiatrist • cultural anthropologist • vocational counselor • fashion designer • rap artist • priest • shaman • underground photographer • pimp • yuppie • sexual sadomasochist

Antidotes

1. Do not underestimate the extent to which your prior beliefs, knowledge, and expectancies (schemata) can affect your current experience, impressions, and perceptions.
2. Try to become as aware as possible of schemata that are important to you; awareness of schemata increases your ability to modify them.

3. Experiment with temporarily lowering or altering your “perceptual filters” or “schema-colored glasses” by attempting to understand someone else’s subjective (phenomenological) perceptions and experience.

4. Learn to differentiate your use of assimilation versus accommodation, particularly when you are faced with a discrepancy between your beliefs (schemas) and the information (data). Beware of the general tendency to assimilate rather than to accommodate.

5. Prod yourself to accommodate when, out of habit, reflex, or just sheer laziness, you would typically be inclined to automatically assimilate.

“All that glitters is not gold.

ANONYMOUS

“If my theory of relativity is proven successful, Germany will claim me as a German and France will declare that I am a citizen of the world. Should my theory prove untrue, France will say that I am a German and Germany will declare that I am a Jew.”

ALBERT EINSTEIN (1879–1955)—GERMAN SWISS AMERICAN PHYSICIST

The Representativeness Bias: Fits and Misfits of Categorization

In everyday life, we are frequently called on to make rapid judgments in circumstances that do not lend themselves to thoroughness or accuracy. Consider the following scenarios:

• At a job interview, you have a limited amount of time to figure out how to create the right impression.

• In a counseling setting, you might be assigned the task of expeditiously evaluating an individual from a cultural group about which you know very little.

• While traveling in a foreign country, you are approached by a group of strangers, and you need to quickly determine their intentions.

An ideal strategy for making decisions in these situations (and countless others like them) would involve the opportunity to conduct a comprehensive and systematic analysis of the problem, collect relevant data, test various hypotheses, draw appropriate inferences, thoroughly evaluate the pluses and minuses of all possible outcomes, and arrive at the optimum conclusions before having to take final action.

Well, so much for the ideal. For obvious reasons, such a strategy is impractical in most real-life circumstances. We simply do not have the time, information, or resources (not to mention incentive) that would enable us to solve most problems in this manner. Nevertheless, we proceed to make decisions and give answers in the face of varying degrees of uncertainty.

Cognitive psychologists Amos Tversky and Daniel Kahneman (1974) theorized that people use a variety of mental shortcuts, or heuristics, that reduce complex and time-consuming tasks to more simple, manageable, practical, and efficient problem-solving strategies. We
all have a repertoire of such shortcuts that we tend to use automatically, without necessarily considering their accuracy or validity in each situation.

Unfortunately, these shortcuts are double-edged swords. On one hand, they permit highly efficient information processing and rapid solutions to the problem. In other words, they help us to make quick “seat-of-the-pants” decisions. However, they do so at the expense of thoroughness and precision. In essence, we trade off accuracy for speed. Thus, the price we pay for their efficiency can be bad judgments.

Tversky and Kahneman (1973, 1982) identified a number of such shortcuts, the most basic of which they termed the **representativeness heuristic**. Essentially, this involves judging the likelihood that something belongs to (that is, “represents”) a particular category. Stated slightly more formally, representativeness is a method of estimating the probability that Instance A is a member of Category B.

We use the representativeness heuristic to identify phenomena in our environment by intuitively comparing the phenomenon (be it people, objects, events, research data, or ideologies) to our mental representation, prototype, or schema of the relevant category. In so doing, we are attempting to ascertain if there is a “match” on the basis of whether the phenomenon’s features are similar to the essential features of the category. If there is a match, we conclude that we have successfully identified the phenomenon; if not, we continue our cognitive search.

One of the most common uses of the representativeness heuristic involves judging whether a person belongs to a specific group based on how similar he or she is to “typical” member of that group. In this way, we may conclude, for example, that Ted (A) is Jewish because he looks like your prototype of a Jewish person (B). Or that Jane (A) is a lesbian because she behaves like your stereotype of a lesbian (B). In like manner, we use the representativeness heuristic for identifying everything from ideological categories (religious, philosophical, political) to causal explanations (random, unintentional, malevolent). As you can readily see, this simple act is fundamental to all subsequent inferences and behaviors: Before any other cognitive task can be addressed, we first must answer the question, “What is it?”

Although in most instances the representativeness heuristic yields quick and relatively accurate results, it sometimes produces systematic errors in information processing. This effect, which we refer to as the **representativeness bias**, can occur as a result of numerous factors. Some of these include our reliance on inaccurate or faulty prototypes, our failure to take into account pertinent statistical data (such as base rates, sample size, and chance probability), or our inclination to allow our motivational needs to bias our cognitive search and subsequent evaluations.

---

**EXERCISE 3.6**

**Examining Sociocultural Schemas and Stereotypes**

As an exercise in identifying and exploring the nature and content of your own cognitive schemata, select three specific instances drawn from various sociocultural categories (such as ethnic background, occupation, religion, socioeconomic status, or political affiliation). You can choose from the following list or come up with any other examples that might be more relevant to your own life experience.
First, note the initial thoughts, impressions, or images that come to mind regarding the category. Next, rate (on a scale from 1 to 5) the degree to which your schema for that category is specific (well defined, vivid, clear) versus broad (diverse, loose, vague). Then describe in detail the particular content (i.e., your personal perceptions) of each schema. Now try to determine and describe the schema’s etiology (origin) and development. Last, try to recall (or imagine) an occasion where you came across an instance that clearly was inconsistent with (i.e., did not “fit”) your schema. How did (might) you respond? What happened (might happen) to the schema itself?

Social Schema #1: ____________________________
Distinctness of Schema: Specific 1 2 3 4 5 Broad
Content: _______________________________________________________________________
____________________________________________________________________________
Etiology and development: _______________________________________________________________________
____________________________________________________________________________
Your response to schema-inconsistent event: ____________________________________________
____________________________________________________________________________

Before concluding this metathought, two final points deserve mention. Despite the problems, pitfalls, and liabilities associated with the use of cognitive heuristics, we persist in relying on them as an integral component of our decision-making processes. Why? One of the main reasons is that, on the whole, they provide us with more right answers than wrong ones. Moreover, even in those circumstances in which they are incorrect, the results typically are inconsequential.

One significant exception, however, can occur in relation to our usage of prototype categories about particular groups of people, based on, for example, their race, gender, culture, nationality, religion, sexual orientation, or even psychological diagnosis. When viewed in this context, such group-related schemata are equivalent to stereotypes. Thus, when heuristics such as representativeness are utilized with respect to these categories, extreme caution is advised. As history has repeatedly demonstrated, stereotyping can have far-reaching and potentially harmful social consequences, not the least of which include prejudice, bigotry, and discrimination—outcomes that are far from inconsequential.

Antidotes

1. In situations in which you are likely to utilize the representativeness heuristic, make a conscious effort to consider the possibility that the prototype in question might be inaccurate, biased, or incomplete.
2. Take into account relevant statistical information, such as base rates, samples sizes, and chance probability.

3. Beware of the natural tendency to overestimate the degree of similarity between phenomena and categories.

4. Recognize that your personal attitudes about people and group prototypes can bias your comparisons and subsequent judgments.

> When a dog bites a man, that is not news. But when a man bites a dog, that is news.

**JOHN B. BOGART (1836–1920)—AMERICAN JOURNALIST**

> One picture is worth a thousand words.

**ANONYMOUS**

The Availability Bias: The Persuasive Power of Vivid Events

As a means of introducing this metathought, let us begin with a brief quiz. Give your best estimates for the following questions:

1. What are the odds of sustaining a fatal accident traveling by car as compared with traveling by commercial airplane?

2. Which racial group comprises the largest proportion of Americans living in poverty: blacks, whites, or Hispanics?

3. Which age group is at highest risk for committing suicide: teens, middle age, or elderly?

4. Which country has a higher suicide rate: Sri Lanka or the United States?

Setting aside for the moment the actual answers to these questions, spend a few moments considering the cognitive processes you utilized in reaching your conclusions. How, specifically, did you go about arriving at your estimates for each question? Did you notice any similarities in the mental strategies you employed?

If you are like most people in this way, your estimates probably were determined primarily on the basis of how easily or quickly specific instances of each question came to mind. And what types of instances are likely to stand out in memory? In general, the most powerful impressions are created by events that are particularly vivid, dramatic, important, personally relevant, or otherwise salient to us. We also are prone to more quickly think of instances that are simply easy to imagine.

Unfortunately, however, the problem in relying on the ease with which events can be retrieved from memory for determining their likelihood is that our perceptions cannot necessarily be counted on as an accurate reflection of reality. Specifically, this strategy leads us to overestimate their actual occurrence, frequency, or distribution in the world.

Did you inadvertently succumb to this bias in answering any of the questions posed above? Let us examine each one in turn.

1. Few events are more disturbing than the graphic sights and sounds of a catastrophic airplane crash. Even a mere glimpse of these horrific images on the eleven o’clock
news is likely to stamp in our minds a potent and indelible impression. Such tragic accidents, therefore, become easily accessible and readily available in our memory. As a consequence, many people erroneously jump to the conclusion that they are at greater risk when traveling by commercial airplane than by car. Yet, mile for mile, Americans are nearly 100 times more likely to die in an automobile accident than in a commercial plane accident (Greenwald, 1986; Rich, 1999).

2. Nearly half of all poor individuals in the United States are white, approximately one-quarter are black, and just under one-quarter are Hispanic. Why might people be inclined to overestimate the proportions of racial minorities? In addition to the salience of their skin color, these groups do, in fact, display disproportionately higher rates of economic hardship. Specifically, almost 30 percent of Hispanics and blacks in the United States are living below the poverty level, whereas less than 10 percent of white Americans are poor (U.S. Bureau of the Census, 2002).

3. Although the overall national suicide rate in the elderly (65 and over) has dropped significantly over the past 60 years, this group still displays the highest proportion of self-inflicted deaths in the United States. This fact is likely to come as a surprise to many people who would identify teens as the age group at greatest risk. What might account for this misperception? There are at least three possible factors. First, whenever a teenager takes his or her own life, the event is particularly salient to us. We find it shocking, disturbing, and especially tragic that a young person, full of future potential, would choose irrevocably to end it all. Second, when it comes to suicide attempts, at least two-thirds of individuals who try (but fail) to kill themselves are under the age of 35 (Hawton, 1992). Here again, the salience even of “unsuccessful” suicide attempts by younger people can exert a disproportionate impact on our impressions and distort our perceptions. Third, the actual rate of “successful” suicides among teenagers (and even children) has, in fact, risen dramatically over the past several decades (Berman & Jobes, 1992). Looking across cultures, the increase in adolescent suicide is not unique to the United States, but appears in 23 out of 29 countries that have been studied (Lester, 1988). This trend also may lead us to overestimate the occurrence of suicide in younger age groups. Now consider suicides committed by the elderly. In general, they do not draw as much attention. They do not capture our focus. They do not startle us as particularly newsworthy. The net effect? “Out of sight, out of mind.”

4. The suicide rate in the United States is 15 cases per 100,000 people. The suicide rate in Sri Lanka is 47 per 100,000—more than three times the U.S. rate. Still, many people believe that suicide rates are substantially higher in the United States than in other countries. What is the reason for this misperception? Among several reasons is the attention paid by the American media to various stories involving suicide, especially among celebrities. It is also assumed by some people that Western industrial countries “should” have higher suicide rates than the rest of the world because of factors such as high stress and lack of emotional support systems. Although these assumptions are not illogical, they are only assumptions. They cannot explain the complicated picture of suicide and its causes across the world.
The specific cognitive strategy demonstrated in the above examples has been termed the availability heuristic (Tversky & Kahneman, 1973) because it refers to the process of drawing on instances that are easily accessible or “available” from our memory. This heuristic helps us to answer questions concerning the frequency (“How many are there?”), incidence (“How often does something happen?”), or likelihood (“What are the odds that something will occur?”) of particular events.

If examples are readily available in memory, we tend to assume that such events occur rather frequently. For instance, if you have no trouble bringing to mind examples of X (Southern hospitality, for instance), you are likely to judge that it is common. By contrast, if it takes you awhile to think of illustrations of Y (Germans sense of humor, for example), you are prone to conclude that it is uncommon. In sum, when an event has easily retrieved instances, it will seem more prevalent than an equally frequent category that has less easily retrieved instances.

As is the case with the representativeness heuristic, very little cognitive work is needed to utilize the availability heuristic. Further, under many circumstances, the availability heuristic provides us with accurate and dependable estimates. After all, if examples easily come to mind, it usually is because there are many of them.

Unfortunately, however, there are many biasing factors that can affect the availability of events in our memory without reflecting their actual occurrence. Problems arise when this strategy is used, for instance, to estimate the frequency or likelihood of rare, though highly vivid, events as compared with those that are more typical, commonplace, or mundane in nature. When our use of the availability heuristic results in systematic errors in making such judgments, we may refer to this as the availability bias.

Perhaps the single most important factor underlying the availability bias is our propensity to underuse, discount, or even ignore relevant base-rate information (that is, data about the actual frequency of events in a particular group) and other abstract statistical facts in favor of more salient and concrete, but usually less reliable, anecdotal evidence. As a consequence, personal testimonials, graphic case studies, dramatic stories, colorful tales, intriguing narratives, eye-catching illustrations, vibrant images, extraordinary occurrences, and bizarre events all are liable to slant, skew, or otherwise distort our judgments.

With respect to sociocultural issues, a significant problem resulting from the availability bias concerns our proclivity to overgeneralize from a few vivid examples, or sometimes even just a single vivid instance. This error is responsible, at least in part, for the phenomenon of stereotyping (see Chapter 10).

In general, how do we formulate our beliefs about particular groups of people, whether racial, cultural, national, religious, political, occupational, or any other category? We typically base our impressions on observations of specific members of the group. But which members? By and large, our attention is drawn to the most conspicuous, prominent, or salient individuals. We then are prone to overgeneralize from these few extreme examples to the group as a whole, the result of which is a role schema or stereotype. In this way, the availability bias leads us to perpetuate vivid but false beliefs about the characteristics of a wide variety of groups in our society.

The moral? We tend to be more persuaded by an ounce of anecdotal evidence than by a pound of reliable statistics. Although vivid and dramatic events can make for appetizing fiction, they are ultimately unsatisfying to those with a taste for reality.
Chapter 3  Critical Thinking in Cross-Cultural Psychology

Antidotes

1. When estimating the frequency or probability of an event, remind yourself not to reach a conclusion based solely on the ease or speed with which relevant instances can be retrieved from your memory.

2. Take anecdotal evidence not with a grain but with several large shakers of salt. Although personal testimonies and vivid cases may be very persuasive, they are not inherently trustworthy indicators of fact.

3. Make a conscious effort, whenever feasible, to seek out and utilize base-rate information and other pertinent statistical data.

4. Remember that the best basis for drawing valid generalizations is from a representative sample of relevant cases.

Don’t call a man honest just because he never had the chance to steal.
—YIDDISH PROVERB

You never see a Rolls Royce with a bumper sticker that reads, “Shit Happens.”
—GEORGE CARLIN (1937—)

The Fundamental Attribution Error: Underestimating the Impact of External Influences

How do we explain the causes of people’s behavior? We typically attribute their actions either to their personality or to their circumstances. Put another way, we make dispositional attributions or situational attributions. Dispositional attributions involve assigning the causes of behavior to people’s personality traits, characteristics, or attitudes, that is, to “internal” influences. Situational attributions, in contrast, involve assigning the causes of behavior to people’s circumstances, surroundings, or environment, that is, to “external” influences (see Chapter 10).

In reality, of course, behavior is due to combinations of many factors, both internal and external, that vary in the degree to which they are responsible for causing a person’s actions. However, in arriving at causal attributions, we have a tendency to overestimate people’s dispositions and to underestimate their situations. In other words, we are prone to weigh internal determinants too heavily, and external determinants too lightly. We are thus likely to explain the behavior of others as resulting predominantly from their personality, whereas we often minimize (or even ignore) the importance of the particular context or situation. This mistake is so prevalent, in fact, that the social psychologist Lee Ross (1977) termed it the fundamental attribution error.

What are some illustrations of this attributional bias? If a person does not make eye contact when talking to you, you might presume that the individual is “untrustworthy,” “shy,” or “sneaky.” If someone brings you a gift for no apparent reason, you might conclude that the person is “thoughtful,” “generous,” or perhaps even “manipulative.” Notice how these attributions essentially disregard any external or situational factors that might be responsible for producing these behaviors. Consider, for instance, the potential influence of their cultural traditions and societal rules of interpersonal communication.
To take another example, consider the dilemma of the homeless. Some people are prone to explain a homeless person’s condition in terms of personality factors, such as laziness, moral weakness, drug abuse, or mental illness. These attributions, however, fail to take into account the situational factors that can (and do) perpetuate homelessness, such as a lack of affordable housing, job scarcity, discrimination, and an unstable economy.

This same principle applies to our attributions about a diverse array of other specific subgroups within our society. How do we explain differences between, for instance, men and women? We explain them, by and large, in terms of inherent dispositions. We may thus conclude that men are “innately” more competitive, or “it’s in their nature” for women to be more cooperative, while overlooking societal expectations, constraints, and sanctions that shape gender-role behavior. Along these same lines, can you think of situational factors that might have led one particular group toward athletic achievement and another toward academic achievement? Small business ownership? Underground crime? Overrepresentation in positions of upper management? Underrepresentation in the military? Having many children? Poor test performance? Eating disorders? Violence? Apathy? All told, we are liable to ignore such sources of external influence that could account for intergroup differences in behavior.

**EXERCISE 3.7**

**Exploring the Effects of Social Context**

This exercise serves to underscore the enormous, yet typically unnoticed, power of the social situation in influencing our feelings, attitudes, and behavior. Imagine yourself in the following scenarios and how you might respond to the simple question, “So, how are you doing?” For each situation, indicate not only what you might say, but also provide a brief description of your probable thoughts, demeanor, and the emotional tone of your response.

At a job interview: _________________________________________________
At a class reunion: _________________________________________________
At a funeral: ______________________________________________________
With your parents: _________________________________________________
With your best friend: _______________________________________________
With a total stranger: ________________________________________________
With someone who is hearing impaired: _______________________________
With someone who is wheelchair bound: ______________________________
With someone who is physically very attractive: _________________________
With someone who is physically very unattractive: _______________________
In a group of nuns: _________________________________________________
In a group of rabbis: ________________________________________________
In a group of white supremacists: ____________________________________
In a group of black supremacists: ____________________________________
In a foreign country where you do not speak the language: ___________________
When approached by a homeless child: _________________________________
When approached by a homeless adult: ________________________________
When approached by a police officer: _________________________________
When approached by a prostitute: ________________________________
When approached by a group of Hispanic youths: ______________
When approached by a group of Hispanic tourists: _____________________
When approached by a group of Japanese tourists: ____________________
When approached by a group of people singing and dancing in orange robes and offering you free incense: ________________________

In looking over your answers, observe that all the variability in your responses is attributable to the situations themselves, since both you and the initial question were fixed and held constant. One final point deserves mention. Can you determine which of these responses reflects the “real” you? Notice that this question is, in itself, virtually unanswerable without also taking into account the context of the situation.

What is responsible for this attributional error? Social psychologists have identified two principal sources: cognitive biases and motivational biases.

Cognitive biases refer to systematic mistakes that derive from limits that are inherent in our capacity to process information. Because we are not capable of perceiving everything in our environment, our focus is automatically drawn to the most prominent or “eye catching”—that is, perceptually salient—stimuli. This can lead us to formulate biased and inaccurate causal attributions (Taylor & Fiske, 1975). Specifically, we are prone to equate the most perceptually salient stimuli with the most causally influential stimuli.

In contrast, motivational biases refer to systematic mistakes that derive from our efforts to satisfy our own personal needs, such as the desire for self-esteem, power, or control. Simply put, motivational biases serve the function of making us feel better, even if they do so at the expense of distorting, obscuring, or falsifying reality.

Are we motivated to prefer one type of causal attribution over another? It would appear so. In the case of Western cultures in particular, we are socialized from early childhood to believe that people can control their destiny and are the masters of their fate. As such, society generally condones dispositional attributions, while it discourages situational attributions. In this way, we can fool ourselves into overestimating the degree of control that we actually do have, while underestimating the impact of external factors that lie beyond our control. We are prone, therefore, to exaggerate our perceptions of controllability.

One very unfortunate consequence of this motivational bias is that people who are harmed by forces that are truly out of their control may be held more responsible for their circumstances than they should be. In other words, our illusion of control may lead us to blame people for the bad things that happen to them.
Why does this occur? Melvin Lerner (1970) theorized that we have great difficulty accepting the unfairness and injustices of life. Further, we have a strong need to believe that we live in a “just world” in which good is rewarded and bad is punished. This belief leads us to conclude that people get what they deserve and deserve what they get: “What goes around, comes around.”

Instances of such attributions abound:

- **Rape victims must have behaved seductively.**
- **Homosexuals must have brought AIDS on themselves.**
- **People with physical disabilities must have done something wrong.**
- **People in poor countries must have been responsible for what is happening to them economically.**
- **Victims of persecution must be guilty of something, or they wouldn’t be persecuted.**

What compels people to make such attributions? Once again, we do it, in all likelihood, to preserve our illusion of control. It is psychologically more comforting to blame others for the disasters that befall them, rather than face the cold reality that we live in an unjust world in which such events can happen at random. After all, if negative events are uncontrollable, they could just as easily happen to us. In other words, by assigning dispositional attributions, we hope to experience a greater sense of control over our destiny. Further, it provides a justification for our indifference to (or even oppression of) society’s victims: If people themselves are responsible for their own plight, there is no need for the rest of us to help them. (In fact, they probably deserve it.)

**Antidotes**

1. Do not underestimate the power of external, situational determinants of behavior.
2. Remember that at any given time, how people behave depends both on what they bring to the situation (“who” they are) as well as on the situation itself (“where” they are).
3. Keep in mind that this attributional error can become reversed, depending on the perceiver’s point of view. Specifically, although people are prone to underestimate the impact of others’ situations, they tend to overestimate the impact of their own situations.
4. Be sure to take into account both cognitive and motivational biases that are responsible for producing these attributional errors.

---

Respect a man, and he will do the more.
*Anonymous*

To believe a thing impossible is to make it so.
*French Proverb*
The Self-Fulfilling Prophecy: When Expectations Create Reality

The attitudes and beliefs that we hold toward other people can—with or without our intent—actually produce the very behaviors that we expect to find. In other words, a perceiver’s assumptions about another person may lead that person to adopt those expected attributes. This phenomenon is known as the self-fulfilling prophecy.

In what is probably the most famous—and still controversial—study of the self-fulfilling prophecy, Robert Rosenthal and Lenore Jacobson (1968) informed teachers at a San Francisco elementary school that on the basis of a reliable psychological test, some of the pupils in their classroom would show dramatic spurts in academic performance during the upcoming school year. In reality, there was no such test, and the children designated as “intellectual bloomers” were chosen at random. Nevertheless, when the children’s performance was assessed several months later, those students who had been earmarked as “bloomers” did, indeed, show an improvement in their schoolwork; even more remarkably, their IQ scores had increased. The teachers thus unwittingly created the very behaviors that they expected.

The self-fulfilling prophecy has been demonstrated with a diverse array of both positive and negative perceiver expectancies, including hostility (Snyder & Swann, 1978), extraversion (see Snyder, 1984), gender stereotypes (Skrypek & Snyder, 1982), racial stereotypes (Word et al., 1974), and even stereotypes concerning physical attractiveness (Snyder et al., 1977). These studies underscore how prejudice of any kind can set in motion a self-perpetuating and ever-escalating vicious cycle of adverse repercussions (see Bidirectional Causation), in which the self-fulfilling prophecy serves to influence not only how the prejudiced person behaves toward the victim, but also how the victim may then behave in a way that confirms the person’s initial prejudices.

Not only are we seldom aware of the extent to which our expectations can influence the behavior of others, but we probably are even less aware of how the expectations of others are capable of influencing our behavior. It is thus important to remember that our actions are shaped not only by our own attitudes, but also by the expectations of those with whom we interact. Put another way, we are continually cultivating the constructions of each other’s social realities.

Given the ubiquity of the self-fulfilling prophecy, we would do well to consider its potential impact in all of our social interactions. In an ethnic minority community, for instance, what do you suppose might occur if a police officer were to expect neighborhood residents to be hostile and dishonest? Resistant? Helpless? Paranoid?

In like manner, what if a resident expects police officers to be hostile and dishonest? Unfair? Callous? Abusive? The police and community can ultimately end up creating a reciprocally reinforcing projection system that supports their respective initial expectations, much of which may be occurring outside of their direct awareness.

EXERCISE 3.8

Exploring Manifestations of the Self-Fulfilling Prophecy

As an exercise, select two scenarios—either hypothetical or factual—involving the self-fulfilling prophecy. In making your selections, consider a variety of topics (e.g., stereotyping,
prejudice, child rearing, testing, competition), settings (e.g., research, classroom, workplace, religious), and societal or governmental policies, programs, and laws (e.g., welfare, unemployment, affirmative action, desegregation, immigration, bilingual education, sexual harrassment, mandatory retirement). Then for each scenario, present your thoughts as to how Person A’s expectations might influence his or her behavior toward Person B. Last, discuss how Person A’s actions could cause Person B to behave in accordance with Person A’s prior expectations. In other words, identify some of the specific factors or events that you believe are capable of transforming Person A’s initial expectations into the reality of Person B’s subsequent attitudes and behavior.

Scenario: ________________________

Effects of Person A’s expectations on behavior toward Person B:

________________________________________________________________
________________________________________________________________

Effects of Person A’s behavior on Person B’s subsequent actions:

________________________________________________________________
________________________________________________________________

Antidotes

1. In all of your social interactions, remember that expectations can, in themselves, create their own reality.
2. Make a conscious effort to become aware of your own expectancies and the ways in which they may lead you to induce those very behaviors in others.
3. Do not forget that your own behavior is not immune to the influence of the self-fulfilling prophecy. Specifically, keep in mind that your behavior can be shaped by the expectations other people have of you.
4. In conducting research, initiate safeguards to reduce the potential impact of expectancy effects. This may be accomplished by, for example, keeping the experimenters unaware of (i.e., “blind” to) the specific purpose, goals, or hypotheses of the study.

ROGERS’ LAW: As soon as the stewardess serves the coffee, the airliner encounters turbulence.

DAVIS’ EXPLANATION OF ROGERS’ LAW: Serving coffee on aircraft causes turbulence.
ARTHUR BLOCH (1948—) —AUTHOR

Correlation Does Not Prove Causation: Confusing “What” with “Why”

A correlation is a statement about the relationship or association between two (or more) variables. Correlations thus enable us to make predictions from one variable or event to another.
That is, if two events are correlated (or “coappear”), then the presence of one event provides us with information about the other event. A correlation does not, however, necessarily establish a causal relationship between the variables. In other words, causation cannot be proven simply by virtue of a correlation or coappearance.

As an example, let us consider the correlation between creativity and psychological disorders (see, for example, Andreason & Canter, 1974; Andreason & Powers, 1975; Jamison, 1993). Great painter Vincent Van Gough, Russian novelist Fyodor Dostoevski, and American writer Ernest Hemingway all suffered from emotional disorders that seriously disrupted their lives. More recently, popular American comedians John Belushi and Chris Farley developed serious (and ultimately fatal) drug addictions. Based on these observations, what may we conclude? That psychological disorders cause creativity? Perhaps. But maybe creativity causes psychological disorders. Then again, isn’t it possible that creativity and psychological disorders reciprocally affect each other? To complicate matters further, what about the possibility that some other variable, such as a genetic predisposition, causes both creativity and psychological disorders?

Put another way, given a correlation between A and B: Does A cause B? Does B cause A? Do A and B cause each other? Does C cause A and B? Could there be some combination of these causal relationships? Unfortunately, a correlation alone does not (in fact, cannot) provide us with the definitive answers to these questions. The following are some examples of correlated variables about which people frequently (but erroneously) may infer causality.

**Example 1:** Research indicates that watching violent television programs appears to be mildly but positively correlated with aggressive behavior. This correlation does not, however, prove that TV violence causes aggressiveness. Perhaps aggressive people prefer to watch violent TV programs. Maybe aggressiveness and TV violence, in a “vicious cycle,” feed off each other (see Bidirectional Causation). Or consider the possibility that family conflict causes both aggressive behavior and the watching of TV violence.

**Example 2:** Do you know that there is more aggression in hot meteorological conditions than in cold ones? For example, rates of homicide and rape are generally higher in warmer than in colder climates (Anderson, 1987). Why? It would be absurd, of course, to propose that the weather is affected by violent crimes. It certainly is much more likely that meteorological conditions somehow affect violent behavior. However, we do not know if other factors, such as poverty, density of population, or government policies affect incidents of homicide and rape.

**Example 3:** Suppose that certain ethnic minority groups display disproportionately higher rates of delinquency, academic failure, teenage pregnancy, drug abuse, criminality, or psychopathology. In other words, let us assume a relationship exists between group membership (e.g., Hispanic Americans) and the incidence and severity of these problems. What could account for this trend? One of the most commonly overlooked but critical factors is socioeconomic status. Specifically, poverty appears to be a much stronger predictor for such behaviors than is ethnicity itself. Now, what if (as happens to be the case) such groups are, on average, located at a lower rung on the socioeconomic ladder? We could be inclined erroneously to focus on skin color...
and ethnic identity, while underestimating the effect of economic circumstances (see the Fundamental Attribution Error).

**Example 4:** Similarly, let us examine the debate regarding racial (specifically black versus white) differences in IQ scores. In their controversial book, *The Bell Curve* (1994), Richard Herrnstein and Charles Murray propose that such correlations can be explained primarily in terms of differential genetic inheritance (see also Jensen, 1973; Rushton, 1994, 1995). Needless to say, this conclusion cannot be accepted without taking into account factors such as the roles of socioeconomic status, access to quality schooling, parental role modeling, family structure, peer influence, cultural norms, as well as both personal and societal expectations (see the Self-Fulfilling Prophecy).

Consider also correlations between incidents of homelessness and mental illness, teen pregnancy and welfare benefits, poor grades in school and legal troubles, ethnicity and alcohol consumption, gender roles and mass media. In all of these instances (and countless more), beware of concluding causation based solely on correlation or coappearance. Further, when a correlation is observed, be sure to examine all plausible pathways and directions of causation.

One particular type of faulty reasoning, the **post hoc error**, refers to the mistaken logic that because Event B follows Event A, then B must have been caused by A. This error, also known as **parataxic reasoning** (Sullivan, 1954), may be seen as a kind of “magical thinking,” because events that occur close together in time are construed as causally linked. As it turns out, most superstitions are based on parataxic reasoning. For example, if a football coach does not shave before a game, and his team then wins, he might assume that not shaving somehow caused the success. As a result, he may adopt this superstitious behavior for future games.

---

**EXERCISE 3.9**

**Exploring Correlation and Causation**

To give you some practice at applying these principles, try to identify some of the possible causal relationships, pathways, and explanations that could account for each of the correlations presented below.

**Example**

“Eveningness” and optimism appear to be negatively correlated (Levy, 1985); that is, people who are “evening types” tend to be more pessimistic than “morning types.” Why might this be true?

1. Optimism may cause “morningness.”
2. Morningness may cause optimism.
3. Optimism and morningness may affect each other.
4. Satisfying job may cause both optimism and morningness.

**Exercise A**

Many societies believe that the most effective way to control or deter aggression is through the use of punishment, including the death penalty. The preponderance of research evidence,
however, shows a positive correlation between murder rates and the number of executions, rather than the negative relationship predicted by deterrence theories (see Segall et al., 1997). Assuming this correlation is valid, how might it be explained?

1. ________________________________________________________________
2. ________________________________________________________________
3. ________________________________________________________________
4. ________________________________________________________________

Exercise B

Suppose you read an article reporting a negative correlation between religiosity and depression (that is, the less religious, the more depressed). What factors could account for this relationship?

1. ________________________________________________________________
2. ________________________________________________________________
3. ________________________________________________________________
4. ________________________________________________________________

As these examples illustrate, although correlations may provide us with accurate—and frequently very useful—information regarding “what” relationships exist, they cannot be counted on to answer the question “why?” Even in those circumstances in which a correlation strongly implies causation, it does not prove causation.

Antidotes

1. Remember that a correlation or coappearance is not, in itself, proof of causation.
2. Keep in mind that correlations enable us to make predictions from one event to another; they do not, however, provide explanations as to why the events are related.
3. When a correlation is observed, consider all possible pathways and directions of causation. For example, if Event A and Event B are correlated, does A cause B? Does B cause A? Do A and B cause each other? Does C cause A and B?

The ancestor of every action is a thought.
Ralph Waldo Emerson (1803–1882)—American poet and philosopher

Thought is the child of Action.
Benjamin Disraeli (1804–1881)—English statesman and novelist

Complex problems have simple, easy-to-understand wrong answers.
Arthur Bloch (1948—)—Author
Bidirectional Causation and Multiple Causation: Causal Loops and Compound Pathways

Bidirectional Causation

Although we typically tend to think of causal relationships as being unidirectional (Event A causes Event B), frequently they are bidirectional (Event A causes Event B and Event B causes Event A). In other words, variables can, and frequently do, affect each other. This relationship also may be referred to as a causal loop or, depending on our subjective evaluation of the particular situation, either a “healthy spiral” (if we happen to like it) or a “vicious cycle” (if we do not). (In this regard, see in this chapter the Evaluative Bias of Language.)

As an illustration of this principle, let us look at the widely debated psychological question, “Does thought cause emotion, or does emotion cause thought? Which comes first? Which is the cause and which is the effect?” (see Berscheid, 1982; Mandler, 1975; Weiner, 1980; Zajonc, 1980). When viewed as a bidirectional relationship, however, the argument may be moot: clearly, thoughts and feelings affect each other.

Consider also the bidirectional relationship between psychological disturbance and one’s social environment. Specifically, it is probable that cold, rejecting, and hostile parents can cause emotional and behavioral problems in their children. At the same time, do not ignore the possibility (even the likelihood) that children with emotional and behavioral problems also might cause their parents to become cold, rejecting, and hostile.

Bidirectional relationships are as interesting as they are plentiful:

- self-esteem and popularity
- motivation and encouragement
- curiosity and knowledge
- respect and responsibility
- frustration and helplessness
- apathy and powerlessness
- criticism and defensiveness
- paranoia and secrecy
- education and opportunity
- opportunity and success
- understanding and communication
- money and power
- poverty and failure
- race relations and news coverage
- alienation and segregation
- discrimination and defiance
- violence and prejudice
- war and defeat
- war and victory
EXERCISE 3.10

Identifying and Disentangling Causal Loops

As an exercise, consider the bidirectional relationship between unemployment (Event A) and delinquency (Event B).

• First, describe some ways that unemployment (A) might result in delinquency (B).
• Next, describe some ways that delinquency (B) can lead to unemployment (A).
• Is it possible to determine which is (or was) the “initial” cause? If so, how?
• Under what circumstances might it be important to identify which was the initial cause?
• Under what circumstances might it be unimportant to identify which was the initial cause?

For some more practice, select another bidirectional relationship (either from the list above or an original example from your own experience).

As you can see, “cause” and “effect” are relative terms: a cause in one instance becomes an effect in another. From this perspective, asking the question, “Which comes first?” although interesting, may be unnecessary, irrelevant, or even unanswerable. Thus, when faced with such chicken-and-egg questions, remember that your answer may depend entirely on where you happen to enter the causal loop.

Multiple Causation

Immigrants to the United States and Canada from the Indian subcontinent display higher rates of coronary heart disease than the population of the countries to which they moved (Bahl et al., 2001). What is the cause?

Actually, the form of this question is somewhat misleading in its implication that there is a single cause. In point of fact, any effect may be, and usually is, the result of not just one but several causes, which are operating concurrently. Virtually every significant behavior has many determinants, and any single explanation is inevitably an oversimplification. Thus, in this case, we would need to consider a wide range of possible factors (e.g., genetic, dietary, stress, family norms, and cultural traditions), all of which could, to varying degrees, be involved.


Now, try replacing each or with and. Depression thus may be seen as caused by a variety of factors, including early childhood trauma, and a vital loss, and a perceived failure, and unrealistic expectations, and a faulty belief system, and internalized anger, and learned helplessness, and a biochemical predisposition, and a lack of opportunity.
The Naturalistic Fallacy: Blurring the Line between “Is” and “Should”

EXERCISE 3.11

Exploring Compound Pathways

Applying the same principle, consider the multiple determinants of homophobia. List as many possible factors as you can think of (suggested answers appear in Appendix 4 on page 345). Do the same with some other topic related to cross-cultural psychology. (You might browse through the index of this book for some ideas.)

In sum, every time you are faced with a question, issue, or problem that is presented in terms of “either/or,” stop for a moment. Now, try replacing either/or with both/and. For example, the statement, “Prejudice is caused by either ignorance or hatred,” becomes “Prejudice is caused by both ignorance and hatred” (and probably many other factors as well). Then ask yourself, “Is this new formulation useful?” In a great number of situations, you are very likely to find that it is.

Antidotes

1. Do not assume a priori that the causal link between two variables is a unidirectional “one-way street.”
2. When investigating directions of causation, consider the possibility that the variables are linked in a causal loop, that is, each might be both a cause and an effect of the other.
3. Remember that in a case of bidirectional causation, which variable appears to be the “cause” and which variable appears to be the “effect” may depend entirely on the point at which you happen to enter the causal loop.
4. In attempting to explain why an event occurred, do not limit your search to one cause. Instead, explore multiple plausible causes, all of which may be responsible for producing the effect.
5. When faced with an either/or question, always consider the possibility that the answer might be both/and.

Empirical principles are wholly unsuited to serve as the foundation for moral laws.

IMMANUEL KANT (1724–1804)—GERMAN PHILOSOPHER

It is of fundamental importance not to make the positivist mistake of assuming that, because a group are “in formation,” this means they are necessarily “on course.”

R.D. LAING (1927–1989)—SCOTTISH PSYCHIATRIST

The Naturalistic Fallacy: Blurring the Line between “Is” and “Should”

One very important way in which our personal values can bias our thinking is when we equate our description of what is with our prescription of what ought to be. This occurs, for
instance, whenever we define what is good in terms of what is observable. This error in thinking is called the **naturalistic fallacy**.

Examine the following statements: “What’s typical is normal; what’s normal is good. What’s not typical is abnormal; what’s abnormal is bad.” Notice how, in each case, a description of what exists becomes converted into a prescription of what we like or dislike.

As the Scottish philosopher David Hume pointed out over 200 years ago, values, ethics, and morality are based not on logic or reason, but on the sentiments and public opinions of a particular society. Thus, no description of human behavior, however accurate, can ever ordain what is “right” or “wrong” behavior. It makes no difference whether we are studying cultural customs, religious convictions, political beliefs, educational practices, recreational activities, sexual proclivities, or table manners. If most people do something, that does not make it right; if most people do not, that does not make it wrong.

Of course, the converse is also true: If most people do something, that does not make it wrong; if most people do not, that does not make it right. In other words, there is no need to idealize someone just because he or she is different from the crowd. Likewise, we need not condemn someone solely for doing what others do. The point is that, in any case, we must be careful not to confuse objective description with subjective value judgment.

Let us briefly elaborate on these four variants of the naturalistic fallacy.

1. **common = good** The error here is to equate what is average, conventional, or popular with what is right. What are some of the assumptions underlying this perspective? “Everybody does it, so it must be okay.” “The majority knows best.” “All those people just can’t be wrong.” To take a concrete example: “Because the vast majority of people in a particular country approve of physical punishment of children, this opinion must be the right one.”

2. **uncommon = bad** On the flip side of the same coin, that which departs from the norm is presumed to be wrong. Whether judging deviant behavior, unpopular beliefs, unusual customs, or unconventional appearances, the verdict is inevitable—if it’s different, it’s condemned. Example: “Since only a small minority of the world’s population is homosexual, homosexuality must be wrong.”

3. **common = bad** In this scenario, an individual rejects something solely because the majority accepts it, separate and apart from its own merits or drawbacks. On what basis? “The masses are always wrong.” “If most people do it, it can’t be good.” “Since society is a flock of mindless sheep, anything they stand for is bound to be immoral.” Example: “The establishment believes in marriage, therefore I certainly do not.”

4. **uncommon = good** Along the same lines, any deviation from what is normal is deemed, per se, to be desirable, irrespective of its inherent value. Why? “Anything that’s different is better than what’s average.” “If it’s unusual, it’s good.” “Anybody who has the courage to rebel against conventional thinking must have something important to contribute.” Example: “I would rather have people look at me as strange than not notice me at all.”

To view this phenomenon in a cross-cultural perspective, consider some of the practices that, in the past, have been widely accepted as correct: human sacrifice, slavery, child labor,
public execution, denial of religious freedom, involuntary medical treatment, and the burning of books, heretics, and witches. By today’s standards, it may seem painfully clear to most of us that these practices were morally wrong. Yet what are the chances that future generations will dismiss—perhaps even mock—much of what we currently take for granted as right? (Can you foresee any in particular?)

**EXERCISE 3.12**

*Exploring Manifestations of the Naturalistic Fallacy*

As an exercise, try to think of specific examples that represent each of the categories below. (To help get you started, look through the following list of topics: gender roles, racial segregation, civil disobedience, affirmative action, birth control, child rearing, war, psychopathology, artistic expression, fashion, music, advertising, illegal immigration, personal hygiene.)

<table>
<thead>
<tr>
<th>Common, therefore good:</th>
<th>Uncommon, therefore bad:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common, therefore bad:</td>
<td>Uncommon, therefore good:</td>
</tr>
</tbody>
</table>

T. H. Huxley once noted that “the cosmic process has no sort of relation to moral ends” (cited in Miner & Rawson, 1994). His assertion notwithstanding, our view of nature itself is subject to the naturalistic fallacy. This happens when we equate what is “natural” with what is “right.” Or when we proclaim that “things are as they should be.” Or presume that whatever occurs in nature is good because nature is, in itself, good. How could it not be good? After all, just consider snow-capped mountains, golden sunsets, fragrant flowers, the miracle of birth, the instinct to survive, indeed life itself. From herbal remedies to organic pesticides, if it is from nature, then it is inherently good.

There is only one small wrinkle. Perhaps, not surprisingly, we are less inclined to cite examples from nature that we do not happen to like. What about birth defects and leprosy? Or drought and famine? Earthquakes and monsoons? Strychnine and oleander? Are these phenomena any less a part of nature? Are they somehow “unnatural”? In essence, nature is held to a double standard: we embrace the “good” parts and ignore, dismiss, or rationalize away the “bad” parts. But we cannot have it both ways. Nature is, morally speaking, just nature. The values we impart to it are a different matter.

Even social scientists are not immune to committing this error. A case in point is the field of evolutionary psychology, which asserts that behavior, like anatomy and physiology, is largely the product of genetic inheritance. Proponents of this approach, basing their theories on the Darwinian principles of natural selection and adaptation for reproductive success, offer evolutionary explanations for a diverse array of human behaviors, including aggression, intelligence, morality, prejudice, territoriality, xenophobia, mating, sexual preference, and infidelity (see Barkow et al., 1992; Futuyma, 1979; Symons, 1979; Wright, 1994).
For instance, according to these theorists, men are genetically predisposed to seek out a variety of nubile young females as sex partners. Women, in contrast, naturally prefer fewer, monogamous relationships with wealthy and powerful men. Further, evolution determines that men, compared with women, inherit a greater proclivity to kill their spouses over sexual infidelity.

For the sake of argument, let us set aside the numerous criticisms of evolutionary psychology (e.g., Holcomb, 1996; Schlinger, 1996) and assume that these theories are valid. Where does that leave us? What are the implications? That sexual double standards are “natural” and therefore acceptable? Would this justify promiscuity, adultery, deceit, and betrayal? Are greed, materialism, racial segregation, and war to be sanctioned? Could we really criticize or condemn someone for infidelity? How can we hold people accountable for spousal abuse, statutory rape, or murder? After all, it’s “in their nature.”

Clearly, even if evolution does influence what we do, that does not inherently make it morally good, desirable, or correct. Put another way, what is “true” isn’t necessarily “right.” It would be erroneous, for example, to condone acts of violence solely on the grounds that aggression is an intrinsic product of our genetic inheritance. It is one thing to explain human conduct; it is quite another to excuse it. Maybe our behavior is, in part, attributable to the pro-
cess of natural selection. Then again, perhaps, to borrow a line from the movie *The African Queen*, “nature is what we were put on earth to overcome.”

**Antidotes**

1. Do not make the mistake of equating statistical frequency with moral value. Thus, if most people do something, that does not intrinsically make it right; if most people do not, that does not therefore make it wrong. In like manner, if most people do something, that does not make it wrong; if they do not, that does not make it right.

2. Learn to differentiate objective descriptions from subjective prescriptions. Specifically, do not confuse one’s description of what “is” or “isn’t” with one’s prescription of what “should” or “shouldn’t” be.

---

**To be positive: To be mistaken at the top of one’s voice.**

*Ambrose Bierce* (1842–1914)—American journalist and poet

**The great tragedy of Science—the slaying of a beautiful hypothesis by an ugly fact.**

*T.H. Huxley* (1825–1895)—English biologist and writer

---

The Belief Perseverance Effect: “Don’t Confuse Me with the Facts!”

In our attempts to understand the world around us and to navigate our way through life, we adopt a wide variety of beliefs, the content of which ranges from the mundane (the best brand of detergent, the most flattering hairstyle) to the profound (the meaning of life, the existence of God). One of the most significant characteristics of our beliefs is the degree to which we become personally invested in them. The attachment may be so strong that our beliefs feel as if they are a vital and indispensable component of our very identity.

What happens, then, when our beliefs are challenged by new facts (such as research data)? Particularly those beliefs that we happen to like? Or those that we regard as important? Or those that we have come to accept as truths?

If we were to respond to such challenges in a purely rational manner, we would simply detach our personal feelings from the dispute, evaluate the substance of the challenge as objectively and dispassionately as possible, and then, if appropriate, modify our beliefs accordingly. We would, in other words, accommodate the new information by modifying our preexisting schemas (see the Assimilation Bias).

But we are not always so rational. In fact, sometimes we are not rational at all. Specifically, when our beliefs are being challenged, we are prone to feel that we personally are being challenged. When our beliefs are criticized, we feel criticized. When our beliefs are attacked, we feel attacked. Our first impulse, therefore, typically is to protect our beliefs, as if to protect ourselves. As such, we tend to cling to our beliefs, sometimes even in the face of contrary evidence. This bias in thinking is called the **belief perseverance effect** (see Lord et al., 1979).

When we engage in belief perseverance, we usually respond to such challenges by discounting, denying, or simply ignoring any information that runs counter to our beliefs. That is, we treat potentially disconfirming evidence or arguments as if they did not really exist. For
example, suppose a friend of yours adamantly maintains that “rape is an act of violence, not of sex.” In response, you point out that it isn’t an “either/or” question; rape can be, and is, an act of both violence and sex. You explain further that the particular means of the assault differentiates rape from other types of violent acts (see the Similarity–Uniqueness Paradox). We would not call it “rape” if, for instance, a person were knifed in the back. Rape, in contrast, is a violent act specifically involving the sex organs. As such, it need not necessarily even entail the assailant’s sexual pleasure or sexual gratification to be considered a sexual act. “In other words,” you conclude, “rape is an act of sexual violence.” Your friend pauses a moment, apparently mulling it over, and then replies, “Oh, I see what you mean. That makes a lot of sense. But I still think that rape is an act of violence, not of sex.”

Our beliefs can be so intractable, in fact, that they stubbornly persevere even when we acknowledge that the evidence supporting them is erroneous. This was evidenced in a re-

### Table 3.2 Illustrations of the Belief Perseverance Effect

**Employer:** New Yorkers always do a better job. I’ve known it since my youth.

**Employee:** But our new sales rep from Los Angeles outsold every New Yorker in the department.

**Employer:** Yeah, but if we had given the same region to a New Yorker, we would have made twice the profit.

**Minority Group Leader:** I am absolutely certain that there’s a government plot against us.

**Interviewer:** Now, hold on. Do you have any evidence that there’s a plot against you?

**Minority Group Leader:** No, but do you have any evidence that there isn’t?

**Religious Person:** All atheists, at their core, are profoundly depressed due to a lack of belief in God.

**Atheist:** I don’t believe in God, and I am not depressed.

**Religious Person:** Then you might not realize it, but you actually do believe in God. Or maybe you are depressed but just aren’t aware of it.

**Sociopolitical Theorist:** Jews control the media.

**Reporter:** But the vast majority of people who head the networks and newspapers aren’t Jewish.

**Sociopolitical Theorist:** Exactly my point. All that proves is how clever they are in creating the appearance that they do not have any power. They have so much control that they’ve been able to dupe you into believing that they do not have any control.

**Female Group Therapy Member:** All men really want is sex and nothing else.

**Male Group Therapy Member:** I’m a man, and that’s not all I want.

**Female Group Therapy Member:** Well, then either you’re lying to me, or you’re lying to yourself, or you’re not really a man.
The Belief Perseverance Effect: “Don’t Confuse Me with the Facts!”

A search study in which subjects were administered a personality test purportedly showed them to be especially “socially sensitive” (Ross et al., 1975). Subjects were subsequently informed that the test actually was fake, and therefore provided invalid results. Even with this knowledge, however, subjects still persisted in believing that they were socially sensitive. Other studies have corroborated the general conclusion that it requires much more compelling evidence to change our beliefs than it did to create them in the first place (Ross & Lepper, 1980).

Can we engage in belief perseverance without rejecting contradictory information? What if we are not able, or even choose not, to discount, deny, or ignore potentially disconfirming evidence? Is there any way that we can continue to cling to our cherished beliefs and still emerge victorious? The answer, as you probably have already anticipated, is yes. Like the martial arts expert who masterfully redirects and transforms his opponent’s force to his own advantage, we simply find a way to bend, twist, or reframe the information so that it actually supports our original belief.

Let us now turn to a sampling of variations on this very robust theme (Table 3.2). Of particular interest, note how the participants in these brief scenarios are able to support their positions by employing a creative assortment of flaws in thinking, including tautologous logic, misattributions of intentionality based on consequences, confusing feelings with truth, and errors in deductive and inductive reasoning. (These examples were drawn directly from our own experiences in a variety of settings, including classrooms, workshops, therapy sessions, media broadcasts, and waiting in line at a movie theater.)

EXERCISE 3.13

The Perseverance of Sociocultural Beliefs

As an exercise in further examining the various manifestations of belief perseverance, try completing the following scenarios on your own:

**Person A:** All Scots are cheap.
**Person B:** My parents are from Scotland, and they’re not cheap.
**Person A:** __________________________

**Person A:** Aryans are the master race.
**Person B:** Then how come they lost World War II? Especially to “inferior” races?
**Person A:** __________________________

**Person A:** I’m antiabortion because I believe in the ultimate sanctity of life.
**Person B:** But you’re in favor of the death penalty.
**Person A:** __________________________

**Person A:** The terrorist is insane.
**Person B:** But he claims to be completely responsible for his actions.
**Person A:** __________________________

**Person A:** You’re a racist.
**Person B:** No, I’m not.
**Person A:** __________________________
Person A: The only reason she got the job is because she’s an ethnic minority.
Person B: ________________________________________________________
Person A: ________________________________________________________

Person A: The only reason she didn’t get the job is because she’s an ethnic minority.
Person B: ________________________________________________________
Person A: ________________________________________________________

Person A: Racial discrimination in America is worse now than it was 50 years ago.
Person B: ________________________________________________________
Person A: ________________________________________________________

Person A: Immigrants coming to this country are just looking for a “free ride.”
Person B: ________________________________________________________
Person A: ________________________________________________________

Person A: Homosexuality is a mental illness, just like any other mental illness.
Person B: ________________________________________________________
Person A: ________________________________________________________

Person A: The Holocaust didn’t really happen.
Person B: ________________________________________________________
Person A: ________________________________________________________

Person A: God is on our side.
Person B: ________________________________________________________
Person A: ________________________________________________________

Antidotes
1. Keep an open mind to different, and especially challenging, points of view.
2. Remind yourself (and others as well) to think carefully about how you evaluate evidence and to closely monitor your biases as you formulate your conclusions.
3. Make it a point to actively counterargue your preexisting beliefs. That is, ask yourself directly in what ways your beliefs might be wrong. One specific method of doing so is to consider the opposite.
4. When faced with a discrepancy between your beliefs and the facts, resist the natural tendency to assume that your beliefs are right, and the facts must somehow be wrong.

Conclusions: “To Metathink or Not to Metathink?”

Last, let us turn to an evaluation of this chapter’s principal content: the metathoughts themselves. In a sense, metathoughts may be seen as cognitive schemas. As such, they provide the same benefits—and, of course, are subject to the same liabilities— inherent in all schematic processing (see the Assimilation Bias). More specifically, in terms of advantages, they can
• significantly reduce or eliminate a wide variety of systematic biases, errors, and mistakes in thinking related to cultural and cross-cultural phenomena;
• improve the clarity of thinking and the accuracy of solutions;
• open pathways to new perspectives and alternative points of view;
• promote and facilitate innovative and creative approaches to problem solving;
• serve as a foundation for identifying other as-yet-unidentified cognitive errors (that is, new metathoughts), as well as their antidotes.

As for disadvantages, their use
• requires more time and effort (particularly at first) to analyze theories and facts;
• involves greater complexity at the cost of simplicity;
• is likely to result in increased ambiguity;
• can sometimes leave you feeling frustrated or confused;
• may be impractical or inappropriate in some situations.

In sum, like all other choices, the acceptance or rejection of these ideas entails costs as well as benefits. Thus, once you have made the effort to study, understand, and apply these metathought principles in cross-cultural psychology and your own life, take stock of their pluses and minuses. By weighing them out in this manner, you will be able to make much more informed choices as to your particular course of action. Either way, the decisions ultimately are yours.

Thomas Szasz once remarked, “I do not have the answer to every one of life’s problems. I only know a stupid answer when I see one” (quoted in J. Miller, 1983). In like manner, the metathoughts will not necessarily provide you with the best solutions to all of the questions that you will ask or that will be asked of you. Nevertheless, cultivating your skills of critical thinking in cross-cultural psychology certainly will, at the very least, enable you more easily and consistently to identify and discard “the stupid ones,” thereby freeing your time, energy, and resources for more productive endeavors.
problem is that people have a tendency to dichotomize variables that, more accurately, should be conceptualized as continuous.

• All phenomena are both similar to and different from each other, depending on the dimensions or sorting variables that have been selected for purposes of evaluation, comparison, and contrast. No phenomenon is totally identical or totally unique in relation to other phenomena.

• Barnum statements are “one-size-fits-all” descriptions that are true of practically all human beings, but that do not provide distinctive information about a particular group or person. Thus, the problem with Barnum statements is not that they are wrong; rather, because they are so generic, universal, and elastic, they are of little value.

• The assimilation bias represents a significant obstacle to clear thinking and effective problem solving. In viewing the world through “schema-colored glasses,” we subject virtually all the incoming information to varying degrees of distortion, misinterpretation, and invalidation.

• To identify any given phenomenon, we automatically and intuitively compare it with our mental representation, prototype, or schema of the relevant category. Errors due to the representativeness bias can occur as a result of faulty prototypes, failure to consider relevant statistical data, or motivational biases.

• We utilize the availability heuristic whenever we attempt to assess the frequency or likelihood of an event on the basis of how quickly or easily instances come to mind. Thus, vivid examples, dramatic events, graphic case studies, and personal testimonies, in contrast to statistical information, are likely to exert a disproportionate impact on our judgments. In this way, anecdotes may be more persuasive than factual data.

• In arriving at causal attributions to explain people’s behavior, we have a tendency to underestimate the impact of their internal personality traits (dispositions) and to underestimate the impact of their environmental circumstances (situations). This fundamental attribution error appears to be due to cognitive biases and motivational biases.

• The assumptions, attitudes, and beliefs that we hold toward other people can, with or without our intent, actually produce the very behaviors that we expect to find. Similarly, our own behavior may inadvertently be shaped by other people’s expectancies of us. In sum, with the self-fulfilling prophecy, expectations can generate their own reality.

• Correlations may provide us with accurate and useful information regarding “what” relationships exist, but they cannot be counted on to answer the question, “why?” Even in those circumstances in which a correlation strongly implies causation, it does not prove causation.

• In contrast to unidirectional causation, when Event A causes Event B, in bidirectional causation Event A and Event B are linked in a circular or causal loop, in which each is both a cause and an effect of the other. In such instances, the pathway of causation is a “two-way street.” Further, any given event can be, and typically is, the result of numerous causes.

• The frequency of an event does not inherently determine its moral value or worth. What is common, typical, or normal is not necessarily good; what is uncommon, atypical, or abnormal is not necessarily bad. Conversely, what is common is not necessarily bad, and what is uncommon is not necessarily good.

• We have a tendency to stubbornly cling to our beliefs, sometimes even in the face of disconfirming evidence. Thus, when these beliefs are challenged, we feel impelled to protect them, almost as if we were protecting ourselves. One consequence of this belief perseverance effect is that it generally requires much more compelling evidence to change our beliefs than it did to create them in the first place.
**KEY TERMS**

**Antidote**  A remedy to prevent or counteract an adverse effect.

**Assimilation Bias**  The propensity to resolve discrepancies between preexisting schemas and new information in the direction of assimilation rather than accommodation, even at the expense of distorting the information itself.

**Availability Bias**  Any condition in which the availability heuristic produces systematic errors in thinking or information processing, typically due to highly vivid although rare events.

**Availability Heuristic**  A cognitive strategy for quickly estimating the frequency, incidence, or probability of a given event based on the ease with which such instances are retrievable from memory.

**Barnum Effect**  A phenomenon that refers to people’s willingness to accept uncritically the validity of Barnum statements.

**Barnum Statement**  Any generic “one-size-fits-all” description or interpretation about a particular individual that is true of practically all human beings.

**Belief Perseverance Effect**  The tendency to cling stubbornly to one’s beliefs, even in the face of contradictory or disconfirming evidence.

**Bias**  A prejudicial inclination or predisposition that inhibits, deters, or prevents impartial judgment.

**Bidirectional Causation**  A mutual, reciprocal relationship between two variables wherein each is both a cause and an effect of the other.

**Cognitive Bias**  Any systematic error in attribution that derives from limits that are inherent in people’s cognitive abilities to process information.

**Continuous Variable**  Any variable that lies along a dimension, range, or spectrum, rather than in a discrete category, that can theoretically take on an infinite number of values and is expressed in terms of quantity, magnitude, or degree.

**Critical Thinking**  An active and systematic cognitive strategy to examine, evaluate, and understand events, solve problems, and make decisions on the basis of sound reasoning and valid evidence. More specifically, critical thinking involves maintaining an attitude that is both open minded and skeptical; recognizing the distinction between facts and theories; striving for factual accuracy and logical consistency; objectively gathering, weighing, and synthesizing information; forming reasonable inferences, judgments, and conclusions; identifying and questioning underlying assumptions and beliefs; discerning hidden or implicit values; perceiving similarities and differences between phenomena; understanding causal relationships; reducing logical flaws and personal biases, such as avoiding oversimplifications and overgeneralizations; developing a tolerance for uncertainty and ambiguity; exploring alternative perspectives and explanations; and searching for creative solutions.

**Dichotomous Variable**  Any variable that can be placed into either of two discrete and mutually exclusive categories.

**Fundamental Attribution Error**  A bias in attempting to determine the causes of people’s behavior that involves overestimating the influence of their personality traits, while underestimating the influence of their particular situations; that is, overutilizing internal attributions and underutilizing external attributions.

**Heuristic**  A mental shortcut or rule-of-thumb strategy for problem solving that reduces complex information and time-consuming tasks to more simple, rapid, and efficient judgmental operations, particularly in reaching decisions under conditions of uncertainty.

**Metathinking**  The act of thinking about thinking; engaging in a critical analysis and evaluation of the thinking process.

**Metathoughts**  Literally, thoughts about thought, which involve principles of critical thinking.

**Motivational Bias**  Any systematic error in attribution that derives from people’s efforts to
satisfy their own personal needs, such as the desire for self-esteem, power, or prestige. 

**Naturalistic Fallacy**  An error in thinking whereby the individual confuses or equates objective descriptions with subjective value judgments, in particular, by defining what is morally good or bad solely in terms of what is statistically frequent or infrequent.

**Parataxic Reasoning**  A kind of “magical thinking,” frequently responsible for superstitious behaviors, in which events that occur close together in time are erroneously construed to be causally linked.

**Post Hoc Error**  A shortened form of *post hoc, ergo propter hoc* (“after this, therefore because of this”), referring to the logical error that because Event B follows Event A, then B must have been caused by A.

**Representativeness Bias**  Any condition in which the representativeness heuristic produces systematic errors in thinking or information processing.

**Representativeness Heuristic**  A cognitive strategy for quickly estimating the probability that a given instance is a member of a particular category.

**Schema**  A cognitive structure or representation that organizes one’s knowledge, beliefs, and past experiences, thereby providing a framework for understanding new events and future experiences; a general expectation or preconception about a wide range of phenomena.

**Self-Fulfilling Prophecy**  A phenomenon wherein people’s attitudes, beliefs, or assumptions about another person (or persons) can, with or without their intent, actually produce the very behaviors that they had initially expected to find.

**Unidirectional Causation**  A relationship between two variables wherein one is the cause and the other is the effect.