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SUMMARY
Every morning on my way to work, I walk by the same beautiful tree. Some of these mornings are bitterly cold. On these winter days, I realize that I can do something that the tree cannot. I can move. I can walk inside a building, put on a coat, or bring along a cup of hot coffee. The tree, however, just stands there day after day. So, I worry about that tree.

I worry because the tree cannot take action and do what is necessary to protect itself—from the cold, from a chainsaw, or from bark-eating beetles. I also worry about the environment that surrounds that tree. I am happy to see it supported by warm weather and a soft rain, while I fret when the wind blows hard and nutriments are scarce.

My desire and capacity to move are incredible assets. Move is the theme of this book. Indeed, the words motivation, emotion, and motive are all derived from the Latin verb movere, which means “to move.” This book is about all the forces that generate and sustain move. It is a story about how the motivational and emotional assets we all possess help us move forward toward optimal functioning and greater well-being.

WHAT IS MOTIVATION? WHY IS IT IMPORTANT?

What is motivation? One reason to read this book is, of course, to find an answer to this question. But as a way of beginning the journey, pause for a moment and generate your own answer, however preliminary, however tentative, however personal and private. Perhaps scribble your definition on a notepad or in the margins of this book.

Later in the chapter, the book offers a formal definition for both motivation (page 8) and emotion (page 9). To get us started, however, consider a simple definition: Motivation is wanting (Baumeister, 2016). Motivation is a condition inside us that desires a change—a change in the self or a change in the environment. The appeal of this simple definition is that it identifies the active ingredient (i.e., wanting change) within any motivational state—I want to change my behavior, change my thoughts, change the way I feel, change my self-concept, change my surrounding environment, change the quality of my relationships, and so forth.

Why is motivation important? Why is it important to know and to understand what people want? While there are many reasons why motivation study is important and worthwhile, consider two key reasons.

First, learning about motivation is a very interesting thing to do. Few topics spark and entertain the imagination so well. Anything that tells us about what we want and desire, why we want what we want, and how we can improve our lives is going to be interesting. And anything that tells us about what other people want, why they want what they want, and how we can improve their lives is going to be interesting. To give us these insights, we can turn to theories of motivation to learn about topics such as human nature, goal setting, strivings for achievement and power, desires for biological sex and psychological intimacy, and emotions like fear, anger, and compassion. These theories explain how to boost engagement, change behavior, develop talent, be creative, grow interests, develop competencies, and set goals and make plans.

Second, learning about motivation is a valuable, useful, and deeply worthwhile thing to do. Learning about motivation can be an extremely practical and worthwhile undertaking. It can be quite useful to know where motivation comes from, why it sometimes changes and why it other times does not, under what conditions it increases or decreases, what aspects of motivation can and cannot be changed, and whether some types of motivation are more beneficial than are other types. Knowing such things, we can apply our knowledge to situations such as trying to motivate employees, coach athletes, counsel clients, raise children, engage students, or change our own ways of thinking, feeling, and behaving. Understanding motivation and emotion offers a reliable pathway to gain valued outcomes, such as greater effort, improved performance, a sense of purpose, personal growth, and enhanced well-being. To the extent that a study of motivation and emotion can tell us how we can improve our lives and the lives of others, the journey will be time well spent.
Studying motivation and emotion is an opportunity to gain both theoretical understanding and practical know-how. As a case in point, consider exercise. Think about it for a moment: Why would anyone want to exercise? Can you explain this? Can you explain where the motivation to exercise comes from? Do you understand why people might be more willing to exercise under some conditions yet less willing to do so under other conditions? Can you explain why one person might be more willing to exercise than another? Can you explain why the same person sometimes wants to exercise but other times does not want to exercise? To help answer such questions, 13 different motivation-based reasons to exercise appear in Table 1.1. For some reasons, the person just exercises spontaneously (e.g., good mood). For other reasons, the motivation has more purpose to it (e.g., health benefits). And for still other reasons, the motivation reflects something unique about the person (e.g., pursuit of a standard of excellence).

And we need to consider not only the motivation to exercise (approach) but also the motivation not to exercise (avoidance). What if exercising makes us feel anxious or stressed? What if exercise makes us feel incompetent and embarrassed? What if we feel tired, or what if we just do not feel like putting forth all that effort? What if time spent exercising takes us away from other things we like to do, such as watching television, reading a book, or logging on to Facebook?

And there are of course many different ways to exercise, assuming one actually has sufficient motivation to do so. So, we need to ask: Why run laps around a track? Why jump up and down during an aerobics class? Why climb stairs on a machine that does not really go anywhere? Or, why pass by the elevator or escalator to walk up seven flights of stairs? Why run when you know your lungs will collapse for want of air? Why jump and stretch when you know your muscles will rip

<table>
<thead>
<tr>
<th>Why Exercise?</th>
<th>Motivation</th>
<th>Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fun, enjoyment</td>
<td><strong>Intrinsic motivation</strong></td>
<td>Children exercise spontaneously—they run and jump and chase, and they do so simply for the sheer fun of it.</td>
</tr>
<tr>
<td>Personal challenge</td>
<td>Flow</td>
<td>Athletes get “in the zone” when their sport optimally challenges their skills.</td>
</tr>
<tr>
<td>Forced to do so</td>
<td><strong>External regulation</strong></td>
<td>Athletes exercise because their coach tells them to do so.</td>
</tr>
<tr>
<td>Accomplish a goal</td>
<td>Goal</td>
<td>Runners strive to run a mile in six minutes or less.</td>
</tr>
<tr>
<td>Health benefits</td>
<td>Value</td>
<td>People exercise to lose weight or to strengthen the heart.</td>
</tr>
<tr>
<td>Inspiration</td>
<td><strong>Possible self</strong></td>
<td>People watch others exercise and become inspired to do the same.</td>
</tr>
<tr>
<td>Pursuit of a standard of excellence</td>
<td><strong>Achievement strivings</strong></td>
<td>Snow skiers race to the bottom of the mountain trying to beat their previous best time.</td>
</tr>
<tr>
<td>Satisfaction from a job well done</td>
<td>Competence</td>
<td>As exercisers make progress, they feel more competent, more effective.</td>
</tr>
<tr>
<td>An emotional kick</td>
<td><strong>Opponent process</strong></td>
<td>Vigorous jogging can produce a runner’s high (a euphoric rebound to the pain).</td>
</tr>
<tr>
<td>Good mood</td>
<td><strong>Positive affect</strong></td>
<td>Beautiful weather can induce a good mood such that people exercise spontaneously, as they skip along without even knowing why.</td>
</tr>
<tr>
<td>Alleviate guilt</td>
<td><strong>Introjection</strong></td>
<td>People exercise because they think that is what they should or ought to do to please others or to relieve their own sense of guilt.</td>
</tr>
<tr>
<td>Relieve stress, depression</td>
<td><strong>Personal control</strong></td>
<td>After a stressful day, people go to the gym, which they see as a structured and controllable environment.</td>
</tr>
<tr>
<td>Hang out with friends</td>
<td><strong>Relatedness</strong></td>
<td>Exercise is often a social event, a time to enjoy hanging out with friends.</td>
</tr>
</tbody>
</table>
and tear? Why take an hour out of the day when you just do not feel like it or when your schedule simply will not allow it? Why exercise when life offers so many other interesting things to do? Why indeed?

These questions ask about exercise, but they could just as easily ask about the motivation underlying any activity. If you play the piano, why? If you are fluent in a second language, why did you go through all the effort to learn that foreign language? If you spent the afternoon working hard to learn something new or to develop a talent, then why?

**MOTIVATIONAL SCIENCE**

The study of motivation and emotion is a behavioral science. The term science signals that answers to motivational questions require objective, data-based, empirical evidence gained from well-conducted and peer-reviewed research findings. Motivational science does not accept quotes from famous basketball coaches as definitive answers, however inspirational and attention-getting those quotes may be. Instead, motivational science embraces empirical methods, as it emphasizes testable hypotheses, operational definitions of its constructs, observational methods, and objective statistical analyses to evaluate the scientific merit of its hypotheses. Such research seeks to construct theories about how motivational processes work.

The ongoing processes of putting one’s ideas about motivation to empirical test is a crucial process to realizing the title of this book (i.e., *Understanding Motivation and Emotion*), because the motivational concepts one uses need to be chosen carefully, and they need to be continually evaluated against new findings. Inadequate concepts—as determined by a lack of supportive empirical evidence—are best tossed aside, useful concepts need to be improved upon, and new explanatory concepts need to be discovered.

A theory is an intellectual framework that organizes a vast amount of knowledge about a phenomenon so that the phenomenon can be better described, understood, and explained (Fiske, 2004). The study of motivation and emotion exists to answer the *Why?* questions of behavior, thought, and feeling, such as Why did she do that? and Why does she feel that way? To quote Bernard and Lac (2013, p. 574):

> without an answer to why, we are left only with the description of behavior, and description without explanation is ultimately unsatisfying.

To understand the nature of something such as achievement motivation and to explain how it works, a theory of achievement motivation needs to do two things. First, it needs to identify the relations that exist among naturally occurring, observable phenomena. For instance, a theory needs to identify what causes the phenomenon and also what the phenomenon itself causes. A theory of achievement motivation, for instance, will identify variables such as optimal challenge, independent work, and rapid performance feedback as the naturally occurring causes for achievement strivings, and it will identify variables such as effort, persistence, and career choices (e.g., entrepreneurship) as its naturally occurring consequences. Second, it needs to explain why those relations exist. For instance, why does a challenge (e.g., Can you do this?) lead some people strive for achievement while it leads other people to experience only anxiety and avoidance? If you can identify the antecedents and consequences to a motivational or an emotional phenomenon, then your understanding will be clearer, more sophisticated, and more helpful. You will be well positioned (well informed) when it comes time to improve your life or the life of a loved one.

Figure 1.1 illustrates the function and utility of a good theory (Trope, 2004). A theory cuts through the complexity and noise of reality to represent how a phenomenon generally works (“Representation” in Figure 1.1). Once formed, theories generate predictions (i.e., hypotheses) about where a motivational state comes from, what it leads to (e.g., behavioral change), and how, when, and under what conditions it might change.
How a theory conceptualizes the phenomenon may or may not be correct or complete. So, researchers use the theory to generate testable hypotheses. A hypothesis is a prediction about what should happen if the theory is correct. For instance, one hypothesis about achievement motivation might be that people who set goals and receive rapid performance feedback (e.g., entrepreneurs) should experience greater achievement strivings at work than do people who have service-oriented jobs (e.g., nursing; Jenkins, 1987). With a hypothesis in hand, a research study is carried out to collect the data necessary to evaluate the accuracy of the hypothesis. If the findings support the theory’s hypothesis, researchers then gain confidence in the validity of the theory.

If the findings fail to support the theory, however, researchers lose confidence in the theory and either revise it or go in search of a better theory (i.e., a better explanation).

After a theory has been sufficiently, rigorously, and objectively validated, it becomes useful. A validated theory serves as a practical tool to recommend applications that can improve people's lives (“Application” in Figure 1.1). A validated theory can inform interventions and applications in real-world settings. With a valid theory in hand, the motivation scientist can translate discovered knowledge into useful applications in schools, workplaces, and society and, therefore, promote in people more effective functioning and enhanced well-being.

Overall, by proposing and testing their theories, researchers develop a deep understanding of motivation and emotion (i.e., gain theoretical knowledge), and by refining and applying their theories, researchers develop workable solutions to life’s motivational problems (i.e., gain practical know-how).

TWO PERENNIAL QUESTIONS

The study of motivation revolves around providing the best possible answers to two fundamental questions: (1) What causes behavior? and (2) Why does behavior vary in its intensity?

What Causes Behavior?

Motivation’s first fundamental question is, What causes behavior? Or, stated in terms of a Why? question: Why did she do that? We see people behave, but we cannot see the underlying cause or causes that generated their behavior. We watch people show great effort and persistence
It is helpful to expand this one general question into five specific questions:

- Why does behavior start?
- Once begun, why is behavior sustained over time?
- Why is behavior directed toward some goals yet away from others?
- Why does behavior change its direction?
- Why does behavior stop?

In the study of motivation, it is not enough to ask why a person practices a sport, why a child reads books, or why an adolescent refuses to sing in the choir. To gain a sophisticated understanding

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**BOX 1  Why We Do What We Do**

**Question:** Why is this information important?

**Answer:** To gain the capacity to explain why people do what they do.

Explaining motivation—why people do what they do—is not easy. People have no shortage of possible motivation theories (“He did that because …”), but the problem is that many of these intuitive theories are not really helpful.

When I talk to people in everyday life, when I ask students about their own motivation theories during the first week of class, and when I read the advice people give online and during television talk shows, the most popular theories people embrace are:

- Self-esteem and praise
- Incentives and rewards

At the top of the list of people’s theories of motivation is “boost self-esteem.” The view on self-esteem sounds something like, “Find a way to make people feel good about themselves, and then good things will start to happen.” “Praise them, compliment them, and give them some affirmation that they are worthy as a person and that brighter days are ahead.” The problem with this strategy is that it is wrong. It is wrong because there is practically no empirical evidence to support it (Baumeister, Campbell, Krueger, & Vohs, 2003). Educational psychologists, for instance, routinely find that increases in students’ self-esteem do not produce subsequent increases in their academic achievement (Marsh & Craven, 2006). A former president of the American Psychological Association (APA) went so far as to conclude that “there are almost no findings that self-esteem causes anything at all” (Seligman, quoted in Azar, 1994, p. 4).

There is value in a healthy dose of self-esteem. The problem is that self-esteem is not a causal variable. Instead, it is an effect—a reflection of how our lives are going. It is a barometer of well-being. When life is going well, self-esteem rises; when life is going poorly, self-esteem falls. This is very different from saying that self-esteem causes life to go well. The logical flaw in thinking about self-esteem as a source of motivation is the act of putting the proverbial cart before the horse. Self-esteem is a cart, not a horse.

Next on people’s list of theories of motivation is “provide incentives and offer rewards.” This view sounds something like, “When people are unmotivated, offer them an incentive to get them going.” The problem with this strategy is twofold. First, incentives and rewards need to be given carefully, because removing them tends to damage the person’s preexisting motivation to engage in that same task without the promise of reward (Deci, Koestner, & Ryan, 1999). For instance, in school, do you only read the course textbook right before the exam? Have years and years of tests squashed your natural curiosity and early love of reading?

Second, if you think about it, the person offering the incentive actually ignores or bypasses an understanding of the person’s motivation and instead seeks only compliance. Instead of offering a reward to compensate for low motivation, wouldn’t it make a lot of sense if authors would just write a really interesting and “must read” textbook in the first place?

What we will do on each page of this book is look inside the person to identify those internal processes that energize, direct, and sustain behavior. When we do this, we will discover theories of motivation that are much more effective than the big two of “boost self-esteem” and “offer incentives.”
of why people do what they do, we must ask further why athletes begin to practice in the first place. What was the reason (or reasons) why this athlete or this group of athletes first started to participate in this particular sport? What energizes their effort hour after hour, day after day, season after season? Why do these athletes practice one particular sport rather than another? Why are they practicing now rather than, say, hanging out with their friends? When they do practice, why do these athletes quit for the day, or quit during their lifetimes? These same questions can be asked of children as they read books: Why begin? Why continue past the first page? Past the first chapter? Why pick that particular book? Why stop reading? Will their reading continue in the years to come?

For a more personal example, let me ask, Why did you begin to read this book today? Will you continue reading to the end of this chapter? Will you continue reading until the end of the book? If you do stop before the end, then why will you stop? After reading, what will you do next? Why? The discussion in Box 1 expands on the quest to explain why we do what we do.

**Why Does Behavior Vary in Its Intensity?**

Motivation’s second fundamental question is, Why does behavior vary in its intensity? Other ways of asking this same question would be to ask, Why is desire strong and resilient at one time yet weak and fragile at another time? and Why does the same person choose to do different things at different times?

Behavior varies in its intensity, and its intensity varies both within the individual and among different individuals. The idea that motivation can vary within the individual means that a person can be actively engaged at one time, yet that same person can be passive and listless at another time. The idea that motivation can vary among individuals means that, even in the same situation, some people can be actively engaged while others are passive and listless.

Within the individual, motivation varies. When motivation varies, behavior also varies. Some days an employee works rapidly and diligently; other days the work is lethargic. One day a student shows enthusiasm and strives for excellence; yet the next day, the same student is listless, does only the minimal amount of work, and avoids being challenged academically. Why the same person shows strong and persistent motivation at one time yet weak and unenthusiastic motivation at another time needs to be explained. Why does the worker perform so well on Monday but not so well on Tuesday? Why do children say they are not hungry in the morning, yet the same children complain of urgent hunger in the afternoon? So the second essential problem in a motivational analysis of behavior is to understand why a person’s behavior varies in its intensity from one moment to the next, from one day to the next, and from one year to the next.

Among different people, motivation varies. We all share many of the same basic motivations and emotions (e.g., hunger, anger), but people do clearly differ in what motivates them. Some motives are relatively strong for one person yet relatively weak for another. Why is one person a sensation seeker, who continually seeks out strong sources of stimulation such as riding a motorcycle, whereas another person is a sensation avoider, who finds such strong stimulation more of an irritant than a source of excitement? In a contest, why do some people strive diligently to win, whereas others care little about winning and strive more to make friends? Some people seem so easy to anger, whereas others rarely get upset. For those motives in which wide individual differences exist, motivation study investigates how such differences arise (antecedents) and what implications they hold (consequences). So another motivational problem to solve is to recognize that individuals differ in what motivates them and to explain why this is so.

**SUBJECT MATTER**

To explain why people do what they do, we need to explain what gives behavior its energy, direction, and endurance. It is some motive that energizes the athlete, it is some motive that directs the student’s
behavior toward one goal rather than another, and it is some motive that keeps the artist painting month after month after month. The study of motivation concerns those internal processes that give behavior its energy, direction, and persistence. Energy implies that behavior has strength—that it is relatively strong, intense, and hardy or resilient. Direction implies that behavior has purpose—that it is aimed or guided toward some particular goal or outcome. Persistence implies that behavior has endurance—that it sustains itself over time and across different situations.

As shown in Figure 1.2, motives are internal experiences—needs, cognitions, and emotions. They are the direct and proximal causes of motivated action. External events and social contexts are important too, because they act as antecedents to motives. Using a movie metaphor, internal motives are the stars while external events are the supporting characters.

Internal Motives

A motive is an internal process that energizes, directs, and sustains behavior. It is therefore a general term to identify the common ground shared by needs, cognitions, and emotions. The difference between a general motive versus a specific need, cognition, or emotion is simply the level of analysis. Needs, cognitions, and emotions are just three specific types of motives (see Figure 1.2).

Needs

*Needs* are conditions within the individual that are essential and necessary for the maintenance of life and for the nurturance of growth and well-being. Hunger and thirst exemplify two biological needs that arise from the body’s requirement for food and water. These are required nutriments for the maintenance of life. Competence and belongingness exemplify two psychological needs that arise from the self’s requirement for environmental mastery and warm interpersonal relationships. These are required nutriments for growth and well-being. Needs serve the organism, and they do so by (1) generating wants, desires, and strivings that motivate whatever behaviors are necessary for the maintenance of life and the promotion of growth and well-being and (2) generating a deep sense of need satisfaction from doing so. Part I discusses specific types of needs: physiological (Chapter 4), psychological (Chapter 6), and implicit (Chapter 7).

Cognitions

*Cognitions* refer to mental events, such as thoughts, beliefs, expectations, plans, goals, strategies, appraisals, attributions, and the self-concept. Cognitive sources of motivation involve the person’s ways of thinking. For instance, as students, athletes, or salespersons engage in a task, they have
in mind some plan or goal, they harbor expectations that they will cope well, they have ways of appraising or interpreting what is happening around them, and they have an understanding of who they are striving to become. Part II discusses specific cognitive sources of motivation: plans and goals (Chapter 8), mindsets (Chapter 9), beliefs and expectations (Chapter 10), and the self (Chapter 11).

**Emotions**

*Emotions* are complex but coordinated feeling-arousal–purposive–expressive reactions to the significant events in our lives (e.g., an opportunity, a threat, a loss; Izard, 1993). Emotions generate brief, attention-getting bursts of emergency-like adaptive behavior. That is, given a significant life event, emotions rapidly and rather automatically generate and synchronize four interrelated aspects of experience into a unified whole:

- **Feelings**: Subjective, verbal descriptions of emotional experience.
- **Arousal**: Bodily mobilization to cope with situational demands.
- **Purpose**: Motivational urge to accomplish something specific at that moment.
- **Expression**: Nonverbal communication of our emotional experience to others.

By generating and synchronizing these four aspects of experience into a coherent whole, emotions allow us to react adaptively to the important events in our lives, such as life’s challenges to our survival and well-being. For instance, upon encountering a threatening event, we rapidly and rather automatically feel afraid, our heart rate increases, an urge to escape arises, and the corners of our lips are drawn backward in such a way that others can recognize and respond to our fear experience. Other emotions, such as anger and joy, show a similar coherent pattern that organizes our feelings, arousal, function, and expression in ways that allow us to prepare for and to cope successfully with a different set of circumstances. Part III discusses the nature of emotion (Chapter 12), its different aspects (Chapter 13), and individual emotions (Chapter 14).

**Emotions as Motivational States**

In thinking about the subject matter of motivation and emotion, the reader might be a bit perplexed that emotions are conceived here as motivational states—that is, emotions are a subset of motivation. Emotions certainly can be studied on their own. But emotions do clearly also serve an adaptive role for individuals (Keltner & Haidt, 1999; Zeelenberg, Nelissen, Breugelmans, & Pieters, 2008). Each emotion featured in this book serves a distinct motivational function (e.g., fear from a potential threat motivates the person to escape and to search for a safe place). That is, people have three major mechanisms to generate adaptive motivational states—needs, cognitions, and emotions, and these three types of internal motives serve as the core subject matter of contemporary motivation study.

**External Events and Social Contexts**

External events are environmental, social, and cultural offerings that affect a person’s internal motives. Environmental events include specific attractive stimuli such as money and events such as being praised. Environmental events can also be unattractive stimuli such as a foul odor or being yelled at. Social contexts include general situations, such as a classroom or workplace climate, a parenting style, or the culture at large.

It is tempting to think that external events are themselves direct sources of motivation. For instance, if someone says, “I’ll give you $20 if you touch your nose,” then it seems rather obvious that the $20 bill is directly responsible for your sudden urge to touch your nose. But the motivational power of incentives and rewards ($20) is actually traceable to the dopamine discharge that occurs
in your subcortical brain when you expect the delivery of a valued reward (Schultz, Tremblay, & Hollerman, 2000), as will be explained in Chapter 3. So, it is actually the dopamine discharge and the cognitive expectation of a forthcoming benefit (internal processes), not the extrinsic reward itself, that energizes, directs, and sustains behavior (nose touching). That is, if the dopamine discharge did not occur, then energetic goal-directed behavior would not occur whenever such a $20 offer came our way. Precisely how environmental events and social or cultural contexts add to and inform a motivational analysis of behavior will be explained in Chapter 5.

Motivation versus Influence

One reason to read a book on motivation might be to learn the techniques necessary to get other people to do what you want them to do. For instance, parents might want to know how to get children to clean their room, and workplace managers might want tips in how to persuade employees to make more sales. In these examples, what people want is not motivation per se but, rather, influence.

Influence is the social process in which one requests that the other change his or her behavior or thought (attitude, opinion) (Hogg, 2010). This interpersonal process occurs under various names such as persuasion, compliance, conformity, obedience, and leadership. Motivation, however, is a private, internal process. What motivation does is endow the person with the energy and direction needed to engage in and to cope with the environment in an open-ended, adaptive, problem-solving sort of way.

When you motivate someone, you energize and direct their behavior, engagement, and coping. People are motivated when their behavior is strong, purposive, and resilient. When you influence people, you get them to do what you want them to do. The study of motivation is, therefore, not about manipulating people; rather, it is about understanding the conditions under which people can energize and direct (i.e., motivate) their own behavior—and then offering those conditions in a supportive way (Deci, 1995).

EXPRESSIONS OF MOTIVATION

Watch someone for a few minutes, and then ask yourself if this person is motivated or not. If so, then ask yourself what types of motivation the person has. For instance, as you watch two people—say, two teenagers playing a tennis match—how do you know that one person is more motivated than the other? How do you know whether the two players have the same type of motivation, or two different types of motivation?

Motivation is a private and unobservable (internal) experience. You cannot see another person’s motivation. That is, as you walk down the street, you cannot look at the passersby and actually see their thirst, the goals they strive for, or extent of their achievement motivation. Instead, we observe what is public and measurable to infer such motivations.

Below are the five telltale ways that you can know (or measure) motivation when you see it—behavior, engagement, psychophysiology, brain activations, and self-report.

Behavior

Seven aspects of behavior express the presence, intensity, and quality of motivation (Atkinson & Birch, 1970, 1978; Bolles, 1975; Ekman & Friesen, 1975): effort, persistence, latency, choice, probability of response, facial expressions, and bodily gestures. These aspects of behavior are listed and defined in Table 1.2. When behavior shows intense effort, long persistence, short latency, high probability of occurrence, facial or gestural expressiveness or when the individual pursues one specific goal-object in lieu of another, such is the evidence to infer the presence of a relatively intense motive. When behavior shows lackadaisical effort, fragile persistence, long latency, low probability
Table 1.2  Seven Behavioral Expressions of Motivation and Emotion

<table>
<thead>
<tr>
<th>Expression</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort</td>
<td>Exertion put forth during a task. Percentage of total capacity used.</td>
</tr>
<tr>
<td>Persistence</td>
<td>Time between when a behavior first starts until it ends.</td>
</tr>
<tr>
<td>Latency</td>
<td>Duration of time a person waits to get started on a task upon first being given an opportunity to do so.</td>
</tr>
<tr>
<td>Choice</td>
<td>When presented with two or more courses of action, preferring one course of action over the other.</td>
</tr>
<tr>
<td>Probability of response</td>
<td>Number (or percentage) of occasions that the person enacts a particular goal-directed response given the total number of opportunities to do so.</td>
</tr>
<tr>
<td>Facial expressions</td>
<td>Facial movements, such as wrinkling the nose, raising the upper lip, and lowering the brow (e.g., a disgusted facial expression).</td>
</tr>
<tr>
<td>Bodily gestures</td>
<td>Bodily gestures, such as leaning forward, changing posture, and intentionally moving the legs, arms, and hands (e.g., a clenched fist).</td>
</tr>
</tbody>
</table>

Engagement refers to how actively involved a person is in a task (Christenson, Reschly, & Wylie, 2012). As shown in Figure 1.3, engagement is a multidimensional construct that consists of the four distinct, yet intercorrelated and mutually supportive, aspects of behavior, emotion, cognition, and agency (Christenson, Reschly, & Wylie, 2012; Fredricks, Blumenfeld, & Paris, 2004; Reeve, 2013; Skinner, Kindermann, Connell, & Wellborn, 2009). Behavioral engagement refers to how effortfully involved a person is during the activity in terms of effort and persistence, and it is synonymous with

![Figure 1.3  Four Interrelated Aspects of Engagement](image-url)
the behaviors listed in Table 1.2. Emotional engagement refers to the presence of positive emotions during task involvement, such as interest, and to the absence of negative emotions, such as anxiety. Cognitive engagement refers to how strategically the person attempts to process information and to learn in terms of employing sophisticated rather than superficial learning strategies. Agentic engagement refers to the extent of the person’s proactive and constructive contribution into the flow of the activity in terms of asking questions, expressing preferences, and letting others know what one wants and needs. For one example, to infer the underlying motivation of the student who sits next to you during class, observe his or her effort and persistence (behavioral engagement), interest and enjoyment (emotional engagement), deep processing and strategic learning (cognitive engagement), and input and contribution into the flow of the class (agentic engagement). These are the reliable telltale signs of the presence, intensity, and quality of that person’s underlying class-specific motivation.

Psychophysiology

As people engage in various activities, the nervous and endocrine systems manufacture and release various chemical substances (e.g., neurotransmitters, hormones) that provide the biological underpinnings of motivational and emotional states (Andreassi, 2007). The term psychophysiology refers to the process by which psychological states (motivation, emotion) produce downstream changes in one’s physiology. Psychophysiology is the study of the interaction between bodily and mental states.

In the course of a public speech, for example, speakers manufacture and release into the bloodstream various hormones such as epinephrine (adrenaline) and cortisol, and these hormonal changes produce changes throughout the body (e.g., increased heart rate, blood pressure, respiration rate, and sweating) that can be picked up by blood tests, saliva tests, and various types of psychophysiological equipment. Using these measures, motivation researchers monitor a person’s hormonal activity, heart rate, blood pressure, respiratory rate, pupil diameter, skin conductance, skeletal muscle activity, and other indicators of physiological functioning, as listed in Table 1.3, to infer the presence, intensity, and quality of underlying motivational and emotional states.

Brain Activations

Brain activations underlie every motivational and emotional state, as will be discussed in Chapter 3. When thirsty, the hypothalamus is active. When we feel disgust, the insular cortex is active. Because each motivation and emotion generates a different pattern of neural activity, researchers can use

<table>
<thead>
<tr>
<th>Table 1.3</th>
<th>Five Psychophysiological Expressions of Motivation and Emotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hormonal activity</td>
<td>Chemicals in saliva or blood, such as cortisol (stress) or catecholamines (fight-or-flight reaction).</td>
</tr>
<tr>
<td>Cardiovascular activity</td>
<td>Contraction and relaxation of the heart and blood vessels (as in response to an attractive incentive or a difficult/challenging task).</td>
</tr>
<tr>
<td>Ocular activity</td>
<td>Eye behavior—pupil size (extent of mental activity), eye blinks (changing cognitive states), and eye movements (reflective thought).</td>
</tr>
<tr>
<td>Electrodermal activity</td>
<td>Electrical changes on the surface of the skin (as in response to a significant or threatening event).</td>
</tr>
<tr>
<td>Skeletal activity</td>
<td>Activity of the musculature, as with facial expressions (specific emotion), bodily gestures, or shifting one’s weight from side to side during a boring hallway conversation (desire to leave).</td>
</tr>
</tbody>
</table>
very sophisticated equipment (e.g., EEG, or electroencephalograph) and machinery (e.g., fMRI, or functional magnetic resonance imaging) to detect, monitor, and measure brain-based neural activity. Thus, by observing a rise in hypothalamic or insular activity, researchers can infer that the person is experiencing a rise in thirst or disgust, respectively. In this sense, changes in brain activations are just like changes in behavior, engagement, and psychophysiology, as they mark the rise and fall and maintenance of motivational states.

**Self-Report**

A fifth and final way to collect the data needed to infer the presence, intensity, and quality of motivation is simply to ask. People can typically self-report their motivation, as in an interview or on a questionnaire. An interviewer might assess anxiety, for instance, by asking how anxious the interviewee feels in particular settings or by asking the interviewee to report anxiety-related symptoms, such as an upset stomach or thoughts of failure. Questionnaires (paper-and-pencil, online) also have several advantages. They are easy to administer, can be given to many people simultaneously, and can target very specific information (Carlsmith, Ellsworth, & Aronson, 1976). But questionnaires also have pitfalls that raise a red flag of caution as to their usefulness. Many researchers lament the lack of correspondence between what people say they do and what they actually do (Quattrone, 1985). Furthermore, there is also a lack of correspondence between how people say they feel and what their psychophysiology indicates that they probably feel (e.g., “Oh, I’m not tired, I’m not hungry, I’m not afraid.”). Hence, what people say their motives are sometimes are not what people’s behavior, engagement, psychophysiology, and brain activations suggest their motives are. What conclusion, for instance, can one draw when a person verbally reports low anger but shows a quick latency to aggress, a rapid acceleration in heart rate, and eyebrows that are drawn tightly downward and together?

Because of such discrepancies, motivation and emotion researchers typically trust and rely on behavioral, engagement, psychophysiological, and brain-based measures of motivation and emotion to a greater degree than they trust and rely on self-report measures. Self-reports can be useful and informative, but they always need to be backed up and verified by the person’s behavior, engagement, psychophysiology, and brain activity.

**FRAMEWORK TO UNDERSTAND MOTIVATION AND EMOTION**

One way to integrate the perennial questions, subject matter, and expressions of motivation is summarized in Figure 1.4. Antecedent conditions affect the person’s underlying motive status, and the rise and fall of the person’s motive status (needs, cognitions, and emotions) expresses itself through a

![Figure 1.4 Framework to Understand Motivation and Emotion](image-url)
pattern of behavioral, engagement, psychophysiological, neural, and subjective (self-report) activity that can then be expected to contribute positively to important life outcomes.

The summary framework (Figure 1.4) illustrates how motivational psychologists answer their perennial questions. That is, the model explains what causes motivation and emotion (antecedent conditions), illustrates the subject matter of motivation study (needs, cognitions, and emotions), articulates how motives express themselves (behavior, engagement, psychophysiology, brain activations, self-report), and explains why the study of motivation and emotion is so important to people’s lives (it contributes positively to important life outcomes).

TEN UNIFYING THEMES

The scientific study of motivation and emotion includes a wide range of assumptions, hypotheses, theories, findings, and domains of application. All of this information can be a bit overwhelming at first. Fortunately, 10 unifying themes can be identified to bring all this information together in a sensible and cohesive way. Those 10 unifying themes are as follows:

- Motivation and emotion benefit adaptation and functioning.
- Motivation and emotion direct attention.
- Motivation and emotion are “intervening variables.”
- Motives vary over time and influence the ongoing stream of behavior.
- Types of motivations exist.
- We are not always consciously aware of the motivational basis of our behavior.
- Motivation study reveals what people want.
- To flourish, motivation needs supportive conditions.
- When trying to motivate others, what is easy to do is rarely what works.
- There is nothing so practical as a good theory.

Motivation and Emotion Benefit Adaptation and Functioning

Circumstances constantly change, as do the environments we live in (at home, school, work). Demands on our time rise and fall, opportunities come and go, threats emerge, and previously supportive relationships turn sour. When faced with a constantly changing stream of opportunities and threats, people need the means to take corrective action. Motivations and emotions serve as the means for such corrective action.

Motivation and emotion change in response to changes in the environment, and this capacity to change allows people to function as complex adaptive systems. For instance, when others treat us unfairly, we often get angry and that anger motivates corrective action to do what it takes to counter the exploitation. Or when a stranger goes out of her way to help us when we really need it, we feel gratitude and that warm glow motivates corrective action to develop a new friendship. Take away the corrective motivational and emotional states, and people would quickly lose a vital resource to adapt, function productively, and maintain well-being.

When motivation depletes, personal adaptation, functioning, and well-being all suffer. People who feel helpless in exerting control over their fates tend to give up quickly when challenged (Peterson, Maier, & Seligman, 1993). Helplessness sours the person’s capacity to cope with life’s challenges. Similarly, people who are bossed around and controlled coercively by others tend to become emotionally flat and numb to their own inner motivational resources (Deci, 1995).
In contrast, when students are excited about school, when workers are confident in their skills, and when athletes set high goals, then their teachers, supervisors, and coaches can rest assured that each of these people is on course to adapt successfully, function optimally, and basically be well. The conclusion is that people with high-quality motivation and emotion generally adapt and thrive, while people with motivational and emotional deficits generally flounder and suffer.

Motivation and Emotion Direct Attention

Environments demand our attention, and they do so in a multitude of ways. Just driving down the road, for instance, we have many things to do—find our destination, avoid hitting other cars, listen and respond to our passengers’ conversation, avoid spilling our coffee, and so forth. Similarly, a college student must simultaneously make good grades, maintain old friendships, eat healthy, balance budgets of money and time, plan for the future, wash clothes, develop artistic talents, keep abreast of world news, and so on. Who is to say whether our attention is allocated in one direction or the other? Much of that “say” comes from our motivational and emotional states. Environmental events and the motivations and emotions they generate have a way of gaining, and even demanding, our attention so that we attend to one aspect of the environment rather than to another (Smith, Cacioppo, Larsen, & Chartrand, 2003).

Motives prepare us for action by directing attention to select some behaviors and courses of action over others, as illustrated in Table 1.4. The table’s four columns list, from left to right, (1) various aspects of the environment that may need attending to or not, (2) a motive typically activated by that environmental event, (3) a motive-appropriate course of adaptive action, and (4) a hypothetical priority given to each course of action as determined by the intensity of its associated motive.

While six courses of action are possible, attention is not allocated equally and this is so for two reasons. First, because the aroused motives vary in strength (as denoted by the number of asterisks in the far-right column), some motivational states are more attention-getting than are others. Second, negative stimuli and environmental events are more attention-getting than are positive stimuli and environmental events (Smith et al., 2003). Hence, because interest, thirst, and rest are not urgent at that particular time (one asterisk), their salience is low and they fail to grab attention and prepare motive-congruent action. The motive to avoid a headache’s pain is highly salient (five asterisks and a negative stimulus) and therefore pain avoidance is a strong candidate to grab attention and channel behavior toward taking an aspirin. Like many motives, pain has an intrinsic ability to grab, hold, and direct our attention (Eccleston & Crombez, 1999). Motives, therefore, capture attention, interrupt what we are doing, take us away from doing other things, prepare us for motive-congruent action, and impose a motive-congruent priority onto our thinking, feeling, and behaving.

Table 1.4 How Motives Influence Behavior for a Student Sitting at a Desk

<table>
<thead>
<tr>
<th>Environmental Event</th>
<th>Aroused Motive</th>
<th>Motive-Relevant Course of Action</th>
<th>Motive’s Urgency Attention-Getting Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book</td>
<td>Interest</td>
<td>Read chapter</td>
<td>*</td>
</tr>
<tr>
<td>Cola</td>
<td>Thirst</td>
<td>Drink beverage</td>
<td>*</td>
</tr>
<tr>
<td>Familiar voices</td>
<td>Affiliation</td>
<td>Talk with friends</td>
<td>****</td>
</tr>
<tr>
<td>Headache</td>
<td>Pain avoidance</td>
<td>Take aspirin</td>
<td>*****</td>
</tr>
<tr>
<td>Lack of sleep</td>
<td>Rest</td>
<td>Lie down, nap</td>
<td>*</td>
</tr>
<tr>
<td>Upcoming competition</td>
<td>Achievement</td>
<td>Practice skill</td>
<td>**</td>
</tr>
</tbody>
</table>

Note: The number of asterisks in column four communicates the intensity of the environmentally activated motive. One asterisk denotes the lowest intensity level, while five asterisks denote the highest.
Motivation and Emotion Are “Intervening Variables”

Motivational and emotional processes arise in response to environmental events and, once aroused, cause behavior and outcomes (as illustrated earlier in Figure 1.4). Motivation and emotion are therefore variables that intervene (or “mediate”) between these causes (antecedents) and effects (outcomes) to explain the why that underlies these cause–effect relations.

Figure 1.5 graphically illustrates what is meant by the claim that motivation and emotion are intervening variables. The left-hand side of Figure 1.5 shows the direct cause–effect relation between what happens in the environment (X) and how well we adapt and function (Z). For instance, you might travel to a new place and then respond with exploration and sightseeing. In the language of Figure 1.5, the new place causes your exploration (X → Z). What motivation and emotion researchers and practitioners do, however, is to ask why you behaved the way you did (i.e., why you explored the new surroundings). The right-hand side of Figure 1.5 presents a different way of thinking about cause–effect relations. Rather than directly effecting outcomes, antecedents cause changes in motivation and emotion (line “a”). And what changes in motivation and emotion do is produce changes in life outcomes (line “b”). For instance, if the new environment led you to experience interest, then that interest (not the new environment itself) is what led to the exploration. Had the new environment led you to experience a different motivation or emotion—say, fear or anxiety—then that anxiety would have led to a different way of behaving, such as doing what is safe and familiar. When the explanatory function of motivational and emotional states are considered, the X → Z direct effect disappears (hence, the line “c” changes from a solid line on the left-hand side of the figure to a dashed line “c’” on the right-hand side).

Motivational and emotional states “intervene” between environmental causes and life-outcome effects to explain why the antecedent affects the outcome. The result is that it is typically more profitable to offer a motivational and emotional explanation for behavior and life outcomes than it is to offer an environmental explanation.

Motives Vary Over Time and Contribute into the Ongoing Stream of Behavior

Motivation and emotion are dynamic processes—always changing, always rising and falling. It is helpful to think of motivation as a constantly flowing river of needs, cognitions, and emotions.

People always harbor a multitude of different motives at any one point in time. Typically, one motive is strongest and most situationally appropriate, while other motives are relatively subordinate (i.e., one motive dominates our attention, while others lie relatively dormant, as in Table 1.4). The strongest motive typically has the greatest influence on our behavior, but each subordinate motive can become dominant as circumstances change and as time passes and can therefore influence and contribute to the ongoing stream of behavior.

As an illustration, consider a typical study session in which a student sits at a desk with book in hand. Our scholar’s goal is to read the book, a relatively strong motive on this occasion because of an upcoming examination. The student reads for an hour, but during this time, curiosity becomes
satisfied, fatigue sets in, and various subordinate motives—such as hunger and affiliation—begin to increase in strength. Perhaps the smell of popcorn from a neighbor’s room makes its way down the hallway, or perhaps a text message from a friend increases the affiliation motive. If the affiliation motive increases in strength to a dominant level, then our scholar’s stream of behavior will shift from studying to affiliating.

An ongoing stream of behavior in which a person spends time reading, hanging out with friends, and snacking appears in Figure 1.6 (based on Atkinson, Bongort, & Price, 1977). The figure plots the rise and fall (changes) in the strength of each of the three motives that produce the observed stream of behavior (i.e., curiosity, affiliation, and hunger). Initially, curiosity is the dominant motive, while the affiliation and hunger motives are subordinate. Hence, the person reads. After some time passes, the affiliation motive increases in strength above curiosity (perhaps because of a friend’s text message). Hence, the behavior stream changes from reading to hanging out with friends. As more time passes, hunger gains relative dominance (perhaps because of the alluring smell of popcorn) and exerts its influence on the stream of behavior. The person spends some time snacking. Overall, Figure 1.6 illustrates that (a) motive strengths change over time; (b) people forever harbor a multitude of motives of various intensities, any one of which might grab attention and participate in the stream of behavior, given appropriate circumstances; and (c) motives are not something a person either does or does not have, but instead, they rise and fall as circumstances change.

Types of Motivations Exist

In many people’s minds, motivation is a unitary concept. Its key feature is its amount, and what matters about motivation is How much? The thinking is that more motivation is better than less motivation. Practitioners (teachers, parents, managers, coaches) therefore ask, “How can I increase motivation in my students, children, workers, or athletes?”

In contrast, motivation theorists emphasize that types of motivations exist (Elliot & Murayama, 2008; Ryan & Deci, 2017) and that human beings are motivationally complex (Vallerand, 1997). For instance, intrinsic motivation is different from extrinsic motivation (Ryan & Deci, 2017), and the motivation to approach is different from the motivation to avoid (Elliot, 1997). Similarly, emotion is not a unitary concept, because types of emotions exist (Izard, 1991). For instance, a person who is intensely angry behaves quite differently from a person who is intensely afraid or is intensely grateful. All three persons are highly emotional and “how much?” matters, but “which type?” (of emotion) is an equally important question to consider, because people who are angry behave very differently than do people who are afraid who, in turn, behave very differently from people who experience gratitude. So a complete motivational and emotional analysis answers both questions—How much? and What type?
Watch as an athlete practices, an employee works, and a doctor cares for a patient, and you will see variations in the intensity of their motivation and emotion. But it is equally important to ask why the athlete practices, why the employee works, and why the doctor provides care. Type of motivation and emotion is important because some types yield a higher quality of experience, more favorable performances, and psychologically healthier outcomes than do other types. For instance, students who learn out of an intrinsic motivation (via interest, curiosity) show more creativity and conceptual learning than do students who learn out of an extrinsic motivation (via stickers, deadlines; Ryan & Deci, 2017). In achievement situations, students whose goal is to approach success (“My goal is to make an A.”) outperform equally able students whose goal is to avoid failure (“My goal is to avoid making less than an A.”) (Elliot, 1999). When people diet, those with autonomous motivation tend to diet successfully because they eat healthier foods, whereas those with controlled motivation tend to diet unsuccessfully because they enact dysfunctional behaviors such as binging (Pelletier, Dion, Slovenic-D’Angelo, & Reid, 2004).

What this theme adds to an understanding of motivation and emotion is that different types of motivation exist and these different types have different antecedents (causes) and different consequences (outcomes). Instead of thinking of motivation as a single unitary phenomenon, it is more scientifically profitable to recognize that human beings have a complex and rather extended motivational repertoire that features many different types of motivations. Hence, a full understanding of the rich fabric of human motivation includes an appreciation for both growth-oriented, approach-based, and flourishing-related motivations and emotions (e.g., interest, curiosity, intrinsic motivation, hope, joy, gratitude, goals, growth mindsets, achievement motivation, sensation-seeking, self-actualization, and so on) as well as defense-oriented, avoidance-based, and suffering-related tendencies (e.g., pain, distress, fear, dissonance, anxiety, tension, pressure, frustration, perfectionism, depression, helplessness, stress, insecurity, and so on) (Bartholomew et al., 2011; Carver, 2006; Elliot, 2006; Vansteenkiste & Ryan, 2013).

We Are Not Always Consciously Aware of the Motivational Basis of Our Behavior

Motives vary in how accessible they are to consciousness and to verbal report. Some motives originate in language structures and the cortical brain (e.g., goals) and are thus readily available to our conscious awareness (e.g., “I have a goal to sell three insurance policies today.”). For these motives, if you ask a person why he or she selected that particular goal, the person can confidently list the rational and logical reasons for doing so. Other motives, however, have their origins in nonlanguage structures and the subcortical brain and are therefore much less available to conscious awareness. Not many people, for instance, say they feel hungry because of low leptin in the bloodstream; not many people say they acted violently because it was so hot; and not many people say they seek power and social status because their parents imposed very high developmental standards on them during their childhood. These are the motives that originate in the unconscious subcortical brain rather than in the language-based cortical brain.

Many experimental findings can be offered to make the point that motives can and do originate in the unconscious. Consider that people who feel good after receiving an unexpected gift are more likely to help a stranger in need than are people in neutral moods (Isen, 1987). People are more sociable on a sunny day than they are on a cloudy day (Kraut & Johnston, 1979). People commit more acts of violence in the summer months than at other times of the year (Anderson, 1989). Major league baseball pitchers, for instance, are more likely to intentionally hit batters on the opposing team when the temperature is hot rather than when the temperature is cold or moderate (Reifman, Larrick, & Fein, 1991). In each of these examples, the person is not consciously aware of why he or she committed the prosocial or antisocial act. Few people, for instance, would say they helped a stranger because of their mood, and fewer would say they committed murder or hurled baseballs at the heads of opponents because of the hot temperature. Still, these are conditions that
cause motivations. The brief lesson is that the motives, cravings, appetites, desires, moods, needs, and emotions that regulate human behavior are not always immediately obvious or consciously accessible. That is, we are not always consciously aware of the motivational basis of our behavior.

**Motivation Study Reveals What People Want**

The study of motivation and emotion reveals what people want and why they want it. It reveals what people need, and it reveals what makes people be happy. It literally reveals the contents of human nature.

The subject matter of motivation and emotion concerns what we all hope for, desire, want, need, and fear. It examines questions such as whether people are essentially good or evil, naturally active or passive, brotherly or aggressive, altruistic or selfish, free to choose or determined by biological and societal demands, and whether people harbor inherent developmental strivings to grow and self-actualize.

Theories of motivation reveal what is common within the strivings of all human beings by identifying the commonalities among people from different cultures, different life experiences, different ages, different historical periods, and different genetic endowments. All of us harbor physiological needs such as hunger, thirst, sex, and pain. All of us inherit biological dispositions such as temperament and neural circuits in the brain for reward and pleasure. We all share a number of basic emotions, and we all feel these emotions under the same conditions. We are all hedonists (approach pleasure, avoid pain), but we seem to want personal growth and optimal experience even more (Seligman & Csikszentmihalyi, 2000).

Theories of motivation also reveal those motivations and emotions that are learned through experience and are socially engineered through cultural forces (and hence outside the realm of human nature). For example, through our unique experiences, exposures to particular role models, and awareness of cultural expectations, we acquire different goals, values, expectations, aspirations, and views of self. These ways of energizing and directing our behavior originate not from inherited human nature but, rather, from internalized environmental, social, and cultural forces. The study of motivation therefore informs us what part of want and desire stem from human nature but also what part of want and desire stem from personal, social, and cultural learning. It reveals what part of motivation and emotion is universal and inherent versus what part is enculturated and acquired.

An even more careful study of motivation and emotion reveals that we do not so much have a single human nature as we have multiple human natures (Ryan, 2013). Part of our nature is to be inherently malevolent, selfish, passive, and tending toward the antisocial, while another part of our nature is to be benevolent, cooperative, active, and tending toward the prosocial. All of us have both natures. Whether we tend toward malevolence or benevolence depends significantly on how supportive versus thwartive are the social contexts and the interpersonal relationships that surround us. When the social environment is nurturing and when our interpersonal relationships are supportive, our benevolent nature arises and regulates our ongoing stream of behavior, but when the social environment is thwarting and when our interpersonal relationships neglect and frustrate us, our malevolent nature arises and regulates our ongoing stream of behavior. Because environments can be both benevolent and hostile, it helps to have a complex human nature to prepare us well for whatever comes our way.

**To Flourish, Motivation Needs Supportive Conditions**

A person’s motivation cannot be separated from the social context in which it is embedded. That is, a child’s motivation is affected by and somewhat dependent on the social context provided by his or her parents. The same could be said for the motivation of athletes affected by coaches, patients affected by physicians, and citizens affected by their culture. These environments can be nurturing
Chapter 1 Introduction

and supportive or they can be neglectful, frustrating, and undermining. Those who are surrounded by social contexts that support and nurture their needs and strivings show greater vitality, experience personal growth, and thrive more than those who are surrounded by social neglect, frustration, and abuse (Keyes, 2007; Ryan & Deci, 2000).

Recognizing the role that social contexts play in people’s motivation and well-being, motivation researchers seek to apply principles of motivation in ways that allow people’s motivation to flourish. Four areas of application are stressed in this book:

- Education
- Work
- Sports and exercise
- Therapy

In education, an understanding of motivation can be applied to promote students’ classroom engagement, to foster the motivation to learn and develop talent, to support the desire to stay in school rather than drop out, and to inform teachers how to provide a motivationally supportive classroom climate.

In work, an understanding of motivation can be applied to improve worker productivity and satisfaction, to help employees set goals, to keep stress at bay, and to structure jobs so that they offer workers optimal levels of challenge, control, variety, and relatedness with their coworkers.

In sports, an understanding of motivation can be applied to identify the reasons youths participate in sports, to design exercise programs that promote lifelong physical activity, to provide coaching that develops skill and talent, and to understand how factors such as interpersonal competition, performance feedback, and goal setting effect performance.

In therapy, an understanding of motivation can be applied to improve mental and emotional well-being, to acquire effective emotion regulation strategies, to foster mature defense mechanisms, and to appreciate how the quality of our interpersonal relationships affect our motivation, emotion, and mental health.

When Trying to Motivate Others, What Is Easy to Do Is Rarely What Works

It is easy to come up with strategies and recommendations about how to motivate self and others. If someone asks you, “How can I motivate my employees to be more creative and to work harder?” I suspect that you can rather quickly offer a seemingly satisfying reply. The problem is that when people’s commonsensical answers (e.g., “offer attractive incentives”) are put to the objective empirical test, those proposed motivational strategies routinely fall short and prove themselves to be ineffective. They also sometimes create serious harm, such as damaging the very motivation the person sought to promote. If you study motivation and emotion long enough, you will come to two conclusions: (1) not all attempts to motivate others and the self are successful and (2) what is easy to do in practice is rarely what is most effective.

The general finding that “what is easy to do is rarely what is effective” leads motivation and emotion researchers to go back to the drawing board to do the tough work to create effective interventions and motivational supports. For instance, teachers tend to have much better success in motivating their students to read when they do the tough work to transform the lesson plan into activities that children find to be interesting, curiosity-provoking, and personally inspiring. Employers tend to have much better success in motivating their employees’ creativity and hard work when they sit down, take the employees’ perspective, and invite them to generate their own heartfelt, self-endorsed work goals. Parents tend to have more success encouraging their children to engage in socially constructive behaviors when they do the hard work to truly understand why their children do not want to be prosocial and when they take the time to explain to their children the otherwise hidden benefits of
engaging in such activities. And, everyone tends to have better success in motivating others when they stop uttering directives and commands and, instead, work patiently and diligently to see the situation from the other person’s point of view, ask the other for input and suggestions, and then pull all that information together to offer some constructive goals and strategies. All of these approaches to motivate and engage others are somewhat difficult to do, but that is what the present book is for. If you will take a moment to glance through the book’s final chapter (Chapter 17), you will find several rather sophisticated and highly successful interventions. It may take 16 more chapters to get to that final chapter on effective interventions, but we will get there.

There Is Nothing So Practical as a Good Theory

Consider how you might answer a motivational question such as, “What causes Joe to study so hard and for so long?” To generate an answer, you might begin with a commonsense analysis (e.g., “Joe studies so hard because he has high self-esteem.”). Additionally, you might recall a similar instance from your personal experience when you studied very hard and then generalize that experience to this particular situation (e.g., “The last time I studied that hard, it was because I had a big test the next day.”). A third strategy might be to find an expert on the topic and ask her (e.g., “My neighbor is a veteran teacher; I’ll ask her why she thinks Joe might be studying so hard.”). These are all fine and informative resources to answer motivational questions, but a truly golden resource is a good theory.

As introduced earlier in Figure 1.1, a theory is a set of variables (e.g., self-efficacy, goals, effort) and the relationships that are assumed to exist among those variables (e.g., strong self-efficacy beliefs encourage people to set goals, and once set, goals encourage high effort). Theories provide a conceptual framework for interpreting behavioral observations, and they function as intellectual bridges to link motivational questions and problems to satisfying answers, solutions, and applications. With a motivation theory in mind, the researcher approaches a question or problem along the lines of, “Well, according to goal-setting theory, the reason Joe studies so hard is because …” As you read through the pages of each chapter and become familiar with each new theory of motivation and emotion, consider its usefulness in answering the motivational questions you care about most.

Table 1.5 introduces 33 motivation and emotion theories that appear in the chapters to come. The theories are listed here for two reasons. First, the list introduces the idea that the heart and soul of a motivational analysis of behavior is its theories. Instead of existing as dry and abstract playthings of scientists, a good theory is a practical, usable tool for solving the problems faced by students, teachers, workers, employers, managers, athletes, coaches, parents, therapists, and clients. To paraphrase Kurt Lewin, there is nothing so practical as a good theory. Theories are useful because they provide empirically validated (evidence-based) guidance in how to understand a phenomenon and how to solve a problem.

Second, the list of theories can serve as a means for monitoring your growing familiarity with contemporary motivation and emotion study. At the present time, you probably recognize very few of the theories listed in the table, but your familiarity will grow week by week. Months from now, you will feel more comfortable with these 33 different theories. If so, then you can be confident that you are developing a sophisticated and complete understanding of motivation and emotion. When you know motivation theories, you know motivation.

SUMMARY

Simply speaking, motivation is wanting. People who are motivated want change—in themselves or in the environment. The term “motivational science” means that answers to motivational questions require objective, data-based, empirical evidence gained from well-conducted and peer-reviewed research findings—findings that are used to develop, evaluate, refine, and apply theories of motivation and emotion.
Table 1.5 Thirty-three Theories in the Study of Motivation and Emotion (with a Supportive Reference Citation)

<table>
<thead>
<tr>
<th>Motivation Theory</th>
<th>Supportive Reference Citation for Further Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement goals</td>
<td>Elliot (1997)</td>
</tr>
<tr>
<td>Arousal</td>
<td>Berlyne (1967)</td>
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<tr>
<td>Attribution</td>
<td>Weiner (1986)</td>
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<tr>
<td>Broaden-and-build</td>
<td>Fredrickson (2009)</td>
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<td>Cognitive dissonance</td>
<td>Harmon-Jones and Mills (1999)</td>
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<tr>
<td>Cognitive evaluation</td>
<td>Deci and Ryan (1985a)</td>
</tr>
<tr>
<td>Differential emotions</td>
<td>Izard (1991)</td>
</tr>
<tr>
<td>Drive</td>
<td>Bolles (1975)</td>
</tr>
<tr>
<td>Dynamics of action</td>
<td>Atkinson and Birch (1978)</td>
</tr>
<tr>
<td>Effectance motivation</td>
<td>Harter (1981)</td>
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<tr>
<td>Ego depletion</td>
<td>Baumeister, Vohs, and Tice (2007)</td>
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<td>Ego development</td>
<td>Loevinger (1976)</td>
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<td>Expectancy × Value</td>
<td>Eccles and Wigfield (2002)</td>
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<td>Facial feedback hypothesis</td>
<td>Laird (1974)</td>
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<td>Flow</td>
<td>Csikszentmihalyi (1990)</td>
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<td>Goal setting</td>
<td>Locke and Latham (2002)</td>
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<td>Implicit motives</td>
<td>Schultheiss and Brunstein (2010)</td>
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<tr>
<td>Interest</td>
<td>Hidi and Renninger (2006)</td>
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<td>Learned helplessness</td>
<td>Peterson, Maier, and Seligman (1993)</td>
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<td>Mindsets</td>
<td>Dweck (2006)</td>
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<td>Motivation intensity</td>
<td>Brehm and Self (1989)</td>
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<td>Opponent process</td>
<td>Solomon (1980)</td>
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<td>Positive affect</td>
<td>Isen (1987)</td>
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<td>Psychodynamics</td>
<td>Westen (1998)</td>
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<td>Reactance</td>
<td>Wortman and Brehm (1975)</td>
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<td>Self-actualization</td>
<td>Rogers (1959)</td>
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<td>Self-concordance</td>
<td>Sheldon and Elliot (1999)</td>
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<td>Self-determination</td>
<td>Ryan and Deci (2017)</td>
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<td>Self-efficacy</td>
<td>Bandura (1997)</td>
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<td>Sensation seeking</td>
<td>Zuckerman (1994)</td>
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<tr>
<td>Stress and coping</td>
<td>Lazarus (1991a)</td>
</tr>
<tr>
<td>Terror management</td>
<td>Greenberg, Solomon, and Pyszczynski (1997)</td>
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</table>

The journey to understand motivation and emotion begins by asking the first perennial question, What causes behavior? This general question invites the more specific questions that constitute the core problems to be solved in motivation study: What starts behavior? How is behavior sustained over time? Why is behavior directed toward some ends but away from others? Why does behavior change its direction? Why does behavior stop? The second perennial question is to ask, Why does behavior vary from situation to situation, from one time to another time, and from person to person? Motivation and emotion exist as scientific disciplines to answer these questions.

Motivation’s subject matter concerns those internal processes that give behavior its energy, direction, and persistence. Energy implies that behavior has strength—that it is relatively strong, intense, and hardy or resilient. Direction implies that behavior has purpose—that it is aimed toward achieving some particular goal or outcome. Persistence implies that behavior has endurance—that it continues over time and sustains itself across different situations. The three internal processes that
give behavior its strength, purpose, and resilience (i.e., its energy, direction, and persistence) are needs, cognitions, and emotions. Needs are conditions within the individual that are essential and necessary for the maintenance of life and for growth and well-being. Cognitions are mental events, such as beliefs, expectations, and the self-concept, that represent ways of thinking. Emotions are complex but coordinated feeling-arousal–purposive–expressive reactions to significant life events, such as threats and challenges to our goals or well-being.

In its presence and in its intensity, motivation and emotion can be expressed in five ways: behavior, engagement, psychophysiology, brain activations, and self-report. Motivation and emotion express themselves publicly through behaviors such as effort, persistence, latency, choice, probability of response, facial expressions, and bodily gestures. Motivation and emotion also express themselves through acts of engagement, and specifically through behavior, emotion, cognition, and agency. Motivation and emotion further express themselves publicly through changes in psychophysiology such as changes in heart rate, blood pressure, respiratory rate, and the discharge of hormones such as epinephrine and cortisol. Motivation and emotion also express themselves through brain activations such as increased activity in particular regions of the cortical and subcortical brain. And motivation and emotion express themselves through self-reports, as people complete questionnaires or interviews that ask them specific questions about their subjective experience. In the study of motivation and emotion, self-reports can be useful and informative, but they also need to be backed up and verified by the person’s behavior, engagement, psychophysiology, and brain activity.

Ten themes run throughout motivation and emotion study. These themes are as follows: (1) motivation and emotion benefit adaptation and functioning; (2) motivation and emotion direct attention; (3) motivation and emotion are “intervening variables”; (4) motives vary over time and influence the ongoing stream of behavior; (5) types of motivations exist; (6) we are not always consciously aware of the motivational basis of our behavior; (7) motivation study reveals what people want; (8) to flourish, motivation needs supportive conditions; (9) when trying to motivate others, what is easy to do is rarely what works; and (10) there is nothing so practical as a good theory. These 10 themes help organize and unify the otherwise diverse assumptions, hypotheses, perspectives, theories, findings, and applications within contemporary motivation and emotion study. One overall framework to illustrate how motivation is a coherent, interesting, and practical field of study appeared in Figure 1.4.