

# Beyond Pleasure and Pain

*How Motivation Works*

---

E. TORY HIGGINS

Columbia University

# CONTENTS

---

Preface ix

## **PART ONE Introduction and Background**

1. Motivation Beyond Pleasure and Pain 3
2. What is Motivation? 17
3. Value, Truth, and Control: *Ways of Being Effective* 47

## **PART TWO Ways of Being Effective**

4. Value: *Having Desired Results* 69
5. Truth: *Establishing What's Real* 105
6. Control: *Managing What Happens* 155

## **PART THREE Motivations Working Together**

7. Value–Truth Relations: *Creating Commitment* 197
8. Value–Control Relations: *It's the Fit that Counts* 228
9. Truth–Control Relations: *Going in the Right Direction* 263
10. Value–Truth–Control Relations: *Organization of Motives* 299

## **PART FOUR Implications of Motivations Working Together**

11. Personality and Culture: *Ways of Seeing and Coping With the World* 327

12. Managing Motives Effectively: *Working Backwards From What You Want* 364
13. What is The Good Life? *Well-Being From Being Effective* 385
- Notes 425
- References 467
- Index 525

## Motivation Beyond Pleasure and Pain

Let me begin at the beginning—the Genesis story of Adam and Eve in the Garden of Eden as told in the Bible. I believe that what the story tells us about the motivations of Adam and Eve at genesis is still relevant today for understanding what humans want. The story is as follows:

And out of the ground made the Lord God to grow every tree that is pleasant to the sight, and good for food; the tree of life also in the midst of the garden, and the tree of knowledge of good and evil . . . And the Lord God commanded the man, saying, Of every tree of the garden thou mayest freely eat: But of the tree of the knowledge of good and evil, thou shalt not eat of it: for in the day that thou eatest thereof thou shalt surely die. (Genesis 2: 8–9, 16–17 [King James version])

Adam and Eve were blessed by God in being placed in the Garden of Eden—not only a paradise but *the* original paradise. The story clearly tells us that this was a place of all pleasure and no pain, a place in which grew “every tree that is pleasant to the sight, and good for food.” Moreover, in the midst of the garden was the *tree of life*. This is important because Adam and Eve knew, from God’s command, that they could eat the fruit of every tree in the garden except the *tree of knowledge*. This meant that they had permission to eat the fruit from the

*tree of life*, and thus they could have a life of all pleasure and no pain *forever*. All they had to do was stay in the Garden of Eden and enjoy the fruit of the *tree of life* and the other abundant pleasures in this paradise.

But, as we all know, this is not what Adam and Eve chose to do. They chose instead to eat the forbidden fruit from the *tree of knowledge*. And it is precisely because this fruit was explicitly forbidden by God's command that there is no ambiguity about whether or not Adam and Eve freely chose to eat the fruit from the tree of knowledge. It was not an accident. What could possibly motivate them to make this choice when, by making it, they would "surely die," or at minimum be banished from paradise, losing an everlasting life of pleasure and no pain? If what people really want is to maximize pleasure and minimize pain, Adam and Eve would never have made this choice.

I believe that this story is telling us that there is more to human motivation than maximizing pleasure and minimizing pain. What else is there? The answer lies in why Adam and Eve would want to eat the fruit of the tree of knowledge. It is no accident, I believe, that it is, in fact, the tree of *knowledge*, the tree of *truth*. I believe that a central motivation of humans is to *establish what's real*, to distinguish between truth and falsehood, between reality and fantasy. This motivation for the truth can be as important to humans as life itself.

But this is not the end of what the Genesis story teaches us. The tree of knowledge is not just any knowledge—it is the "*tree of the knowledge of good and evil*." This means that eating the fruit of this tree also satisfies another central human motivation, the motivation to *manage what happens*, the motivation to control our lives. Only when humans have the knowledge of what is good and what is evil can they make *choices* based on competing preferences, choices that distinguish between different options that can vary in their hedonic and moral attributes; only then can they control their lives.

Importantly, Adam and Eve's life in the Garden of Eden has little need for truth or control because everything is provided for them in this paradise; whatever benefits and pleasures they enjoy are not due to their being effective in obtaining them. Thus, Adam and Eve cannot really be effective at having truth or control *unless* they eat from the tree of the knowledge of good and evil. And, significantly, this one tree *combines* the motivation for truth with the motivation for control. It is an example of the importance of *motivations working together* to direct life choices.

What is God's role in all this? It is no coincidence, I believe, that God is represented in the Bible as being both omniscient (possessing all *truth*) and omnipotent (possessing all power or *control*)—the same truth and control found in the tree of the knowledge of good and evil. Some critics have wondered why God would have created such a situation for Adam and Eve given that He would have foreseen their choice (truth) and could have changed their fate (control).

Some Christian theologians have asked, why would God set the conditions that would lead Adam and Eve to make a choice whose consequence was expulsion from paradise? One answer is that God knew the truth about what it meant to be truly human. God understood that, in order to be human, Adam and Eve had to disobey His command and eat from the tree of the knowledge of good and evil. Knowing what humans would really want and would need to choose in order to be truly effective, God set the necessary conditions for Adam and Eve to make their choice and leave the Garden of Eden in order that they could begin to experience a truly *human* life.

This Genesis story captures two major themes of this book. First, to understand human motivation it is necessary to go beyond pleasure and pain and appreciate the significance for human motivation of people wanting to be effective at establishing what's real (truth) and managing what happens (control). Second, it is important to recognize that these motivations do not function in isolation. They work together, and often the relations between and among them tell the story about what motivation is and how it functions. I believe that the significance of these relations among motivations—*how motivations work together*—has received insufficient attention in the literature.

## FOUR EXPERIMENTS ON MOTIVATION

To provide a hint of where this book will take us, let me describe four experiments for you to ponder. For each study, I will begin with a description of the design and procedure—what the different experimental conditions were for the participants. After each study, I will ask you to predict what the results of the study would be or should be if people were motivated to maximize pleasure and minimize pain.

### The “Eating a Worm” Study<sup>1</sup>

The participants in this study were told that they would perform a task and their physiological reactions to it would be measured. In one condition, they were shown three tasks: a neutral task of discriminating the weights of different small objects; a negative, disgusting task of eating a dead worm with a fork; and a negative scary task that involved shocking oneself. Some of the participants were told that they had been assigned to eat the worm and were seated in front of that task. They were read a statement reminding them that they were free, without penalty, to leave the study at any time. Only a few participants chose to leave the study.

While waiting for the worm-eating task to begin, they filled out a questionnaire asking them about the type of person they were, with options that included

“I am a brave person” and “I deserve to suffer.” The experimenter then explained to the participants that a mistake had been made and they would not be eating the dead worm. Now that the worm task was eliminated, the participants were free to choose which of the remaining tasks they wanted to do. They could choose between the weight discrimination task and the shock task that involved giving themselves painful electric shocks.

If people are motivated to maximize pleasure and minimize pain, which task would they choose to do? The answer is obvious—the participants would choose the discrimination task rather than the shock task. Indeed, among those participants who were not originally assigned to the “worm-eating” task, 0% chose the shock task. However, among those participants who were originally assigned to the “worm-eating” task, 50% chose to give themselves painful electric shocks rather than do the weight discrimination. What is going on here? The answer will be given later in this chapter, but first another study to ponder.

### The “Rat Race” Study<sup>2</sup>

During a training phase, rats had to pull either a heavy weight or a light weight to obtain a small amount of food. The rats were equally successful in attaining the food in the two weight conditions. They obtained the food on every trial (100% reinforcement) so that the benefits of their effort were the same in both conditions. But the effort costs were greater for the rats that had to pull the heavier weight to attain the food. Greater effort for the same benefit—welcome to the “rat race.” Then in the test phase, which took place a day after the training phase was finished, the same food was offered, but the weight was removed so the rats could run freely. The value of the food that had been established during the training phase was now measured during this test phase by how fast the rats ran to the food, how fast they ate it, and how much they ate.

If rats, like humans, are motivated to maximize pleasure and minimize pain, which rats would value the food more? The answer is again obvious. Given the benefits/costs or pleasure/pain ratio for attaining the food during training, one would expect that the food would be valued more by the rats who had been trained in the light weight condition because they received the same food benefits with less effort costs. However, the *opposite* was found: the food was valued *more* by the rats that had been trained in the *heavy weight* condition. What is happening here?

### The “Make Learning Fun” Study<sup>3</sup>

Undergraduates were given a paired-associate learning task to work on. In this task, they had to learn the association between a novel nonsense word, such as

“Bleemus,” and its unusual definition, “the act of trying to start one’s car when the engine is already running.” These novel associations, inspired by Sniglets but not quite as funny,<sup>4</sup> were chosen to allow there to be different instructions to the participants. For the “high importance” instructions, the participants were told to be serious while learning the material because the paired associates were definitions of new words being created by linguists. For the “high fun” instructions, the participants were told to have fun while learning the somewhat amusing material. There were also “low fun” instructions (i.e., a forewarning that the task was tedious) and “low importance” instructions (i.e., introducing the task as just a pilot study) that were combined with the “high fun” and “high importance” instructions to create the following four types of instructions about how to learn the material: to learn it as “high importance and low fun,” or as “high importance and high fun,” or as “high fun and low importance,” or as “low fun and low importance.”

If humans are motivated to maximize pleasure and minimize pain, which participants should perform best on this task? Your answer could depend on whether you think high importance, compared to low importance, is relatively positive or relatively negative. Let’s assume for this prediction that high importance (e.g., interesting) is more positive than low importance (e.g., boring). What would you then predict based on the assumption that humans want to maximize pleasure and minimize pain? You would predict that the participants in the “high importance and high fun” condition would perform best. But this is not what the study found: it found that participants who received “high importance and *low fun*” instructions learned the paired associates *better* than those who received “high importance and *high fun*” instructions. That is, adding “high fun” instructions *hurt* performance, and this was true despite the fact that participants did report having more fun under “high fun” instructions than “low fun” instructions. Why did this happen?

### The “Eager vs. Vigilant Decision Making” Study<sup>5</sup>

Undergraduates at Columbia University were given the choice of deciding whether they preferred a Columbia coffee mug or an inexpensive pen. The manner in which they made this decision was manipulated by giving them different instructions prior to making their choice. Half of them were told to think about what they would gain by choosing the mug and what they would gain by choosing the pen—an *eager* manner of choosing that ensures advancement. The other half were told to think about what they would lose by not choosing the mug or what they would lose by not choosing the pen—a *vigilant* manner of choosing that ensures against making mistakes. This manner of making a choice did not influence their choice—almost all of them preferred the Columbia



coffee mug over the pen.<sup>6</sup> After choosing the mug as their preferred option, the participants were given the opportunity to buy it with their own money. A measure taken at the beginning of the experimental session indicated that some of the participants had especially strong concerns with accomplishments and advancement (what we call a predominant “promotion” focus) whereas other participants had especially strong concerns with safety and security (what we call a predominant “prevention” focus). The study found that this personality difference by itself did not affect how much participants were willing to pay to buy the chosen mug.

If humans are motivated to maximize pleasure and minimize pain, which participants should value the chosen mug more as reflected in how much they were willing to pay to buy it? Your answer could depend on whether you think making a decision in an eager manner is a more positive experience than making a decision in a vigilant manner. If like most people you think that this is so, then you would predict that the participants who made their choice eagerly would offer to pay more to buy the mug than those who made their choice vigilantly. However, you might instead think that the manner of decision making is irrelevant; what are relevant are the hedonic properties of the chosen mug. Given that almost everyone chose the exact same mug, this predicts that it does not matter whether the decision was made in an eager or vigilant manner. If you made the latter prediction, then you are correct! In fact, as with the personality difference between predominant promotion and predominant prevention focus, how the choice was made (i.e., whether in an eager or vigilant manner) had *no* effect on what was offered to buy the mug.

However, this is not all that was found in this study. What was found to have a major effect was the *relation* between personality and manner of decision making. Predominant promotion participants who made their decision eagerly and predominant prevention participants who made their decision vigilantly offered much more money to buy the mug than predominant promotion participants who made their decision vigilantly and predominant prevention participants who made their decision eagerly—almost 70% more money for the exact same mug! Why?

## WHAT WAS GOING ON IN THE STUDIES

It is time now to reveal the answers to what was going on in these four studies.

### The “Eating a Worm” Study

Among those participants in this study who were originally assigned to the “worm-eating” task, 50% chose to give themselves painful electric shocks rather

than do the weight discrimination task. Why did this happen? Among the participants who were assigned the “worm-eating” task, almost all of them chose to remain in the study. When asked on the questionnaire why they chose to remain in the study and do the “worm-eating” task, many of them decided that they must be a brave person or a person who deserved to suffer. When subsequently given a choice between the weight discrimination task and the shock task, they wanted to create *consistency* between their belief about themselves (i.e., “I am brave” or “I deserve to suffer”) and their choice between the shock task and the weight discrimination task. They wanted consistency to establish what was real about themselves (truth). To do so, they needed to choose the task in which they would shock themselves. Thus, they chose to do something that they would normally never do just for the sake of consistency.

The results of this study illustrate how the motive to establish a coherent reality (truth) can trump the hedonic motive of avoiding pain. Later in the book, I will provide other compelling examples of the importance of truth motivation to humans. I will discuss the different ways in which people go about establishing what’s real, including fulfilling their uniquely human desire to share reality with others, as reflected in our wanting others to believe what we believe and feel about the world the way we feel about the world. I will discuss how influential models of motivation, such as the classic subjective utility and expectancy-value models in psychology and economics, have failed to appreciate the significance of truth motivation in the choices that people make and in their commitment to them.

### The “Rat Race” Study

By how fast the rats ran to the food, how much of the food they ate, and how fast they ate it, the rats in the high-costs condition (the heavy weight) showed that they valued the food more than the rats in the low-costs condition (the light weight). What is going on here? During the training phase, the weight that has to be pulled to reach the goal functions like an interfering force. This force needs to be opposed in order to get to the goal. Opposing an interfering force during goal pursuit strengthens engagement in the goal-pursuit activity. Stronger engagement intensifies the force of attraction toward the goal, which enhances the value of the goal object—in this case the food. I will be describing the results of other studies in this book that show the importance of strength of engagement in motivation.<sup>7</sup> Compared to the overwhelming attention that pleasure and pain have received as determinants of the value of things, strength of engagement has been overlooked as a determinant of how much we value things in our lives. This critical factor provides another example of how we need to go beyond pleasure and pain to understand more fully how motivation works.

## The “Make Learning Fun” Study

Parents, teachers, and the creators of children’s coloring storybooks all know that children’s interest in learning will be enhanced if fun is added to the activity. After all, research on classical conditioning emphasizes that associating a positive experience with an activity would make that activity more positive. So shouldn’t performance on the paired-associate learning task be enhanced by adding fun to it?

The answer is “yes,” *if* individuals initially believe that paired-associate learning is more of a fun type of activity than it is an important type of activity, because then a fun manner of doing the activity would fit the participants’ prior belief that this kind of activity is fun. But that is not the case for this kind of activity. Learning, especially when it seems to relate to intelligence, is thought to be more an important than a fun type of activity. This means that in this study a fun manner of doing the activity was a *non-fit* with the participants’ prior belief that this kind of activity is important rather than fun, and this non-fit hurt their performance. What this and other studies have found is that what matters is not the orientation toward the activity in itself (i.e., a fun activity; an important activity) nor the manner in which the activity is engaged (enjoyable manner; serious manner) but, instead, the relation between the orientation and the manner. *It’s the fit that counts*. When there is a fit between individuals’ prior orientation toward an activity and the manner of carrying out the activity, engagement in the activity is strengthened, which can enhance performance. When there is a non-fit, as when an activity is thought to be important but the manner of engagement is enjoyable rather than serious, then engagement is weakened, which can hurt performance. This is what happened in the “make learning fun” study. I will later describe other studies on fit and non-fit and will discuss how to use the principles of regulatory fit to manage motivation more effectively and avoid the pitfalls of adding positives, like bonus incentives, when they do more harm than good.

## The “Eager vs. Vigilant Decision Making” Study

Predominant promotion participants who eagerly chose a Columbia coffee mug over an inexpensive pen, and predominant prevention participants who vigilantly made the same choice, subsequently offered much more of their own money to buy the mug than predominant promotion participants who vigilantly chose the same mug and predominant prevention participants who eagerly did so. Given that the participants in these different conditions chose the same mug with the same hedonic properties, it is mysterious why the mug would be valued so much more in the former two conditions than the latter two.

What is going on? If you guessed, “It’s the fit that counts,” then you’re right: once again, there is a fit effect. For predominant promotion individuals, pursuing goals in an eager manner fits their orientation and strengthens engagement in what they are doing—likewise for predominant prevention individuals who pursue goals in a vigilant manner. Vigilance is a non-fit for promotion and eagerness is a non-fit for prevention, and non-fit weakens engagement. Stronger engagement intensifies attraction toward a valued chosen object.

## BEYOND THE HEDONIC PRINCIPLE

The findings of these four studies, like the story of Adam and Eve in the Garden of Eden, illustrate that the answer to what motivates people is beyond just pleasure and pain. The purpose of this book is to describe what psychologists have learned, especially in the past few decades, about how motivation works beyond pleasure and pain. You might be asking yourself whether such a book is really necessary: do we really believe that motivation is basically about maximizing pleasure and minimizing pain?

I cannot, of course, answer for each reader, but most of us still try to motivate ourselves and others as if we do believe this. In particular, we still resort to using incentives—the carrot and the stick—as our main tool of motivation. For example, a British diplomat on BBC News was recently quoted as saying that the solution to a political settlement with the moderate Taliban in Afghanistan was “the right combination of carrot and stick.” As another example, consider the answer that Warren Buffett, the legendary investor, gave when answering a question at the Columbia Business School about how to manage heads of financial institutions who are running risks that they shouldn’t be running. He said that in rewarding CEOs at the top we’ve been better at the carrots than the sticks: “but I think, I think that some more sticks are called for.”

These examples illustrate the pervasive belief that incentives—different forms of “carrots” as pleasant rewards and “sticks” as painful punishments—should be used to motivate people to do what we want them to do. This belief derives from the conviction that people’s actions and decisions are motivated by their wanting to approach pleasure and avoid pain—the *hedonic principle* of motivation that was recognized at least as long ago as the time of the ancient Greeks. Since then, there have been changes in the kinds of “carrots” we use to reward (or promise) people to get them to do what we want them to do, and in the kinds of “sticks” we use to punish (or threaten) people to get them to stop doing what we don’t want them to do. In contemporary society, we use fewer material incentives like food, shelter, and corporal punishment, and use more social incentives like praise and blame. We understand that people are motivated not only by biological needs but also by the need for achievement or the need for

social recognition. But this new understanding about what motivates people is simply translated into new kinds of incentives to get people to do what we want and not to do what we don't want.

I am not suggesting that the hedonic principle of approaching pleasure and avoiding pain has been the only motivational factor that has received attention traditionally. It has been recognized for a long time, for instance, that the strength of people's commitment to a decision depends not only on their beliefs about the pleasure or pain the decision will produce but also on their beliefs about the *likelihood* that these hedonic outcomes will actually occur. Indeed, both subjective utility theory and expectancy-value theory include likelihood as a critical part of motivational commitment. Yet these theories still emphasize hedonic outcomes. The likelihood part simply increases (for high likelihood) or decreases (for low likelihood) the motivational force associated with a hedonic outcome. For example, if you enjoy taking a walk on a sunny day, then you are likely to choose to take a walk rather than stay home. But the strength of this preference will be greater if the likelihood that it will be sunny is 90% rather than 50%. Notice that although likelihood is added as a factor, this is still fundamentally a story about hedonic outcome—about enjoying taking walks on a sunny day. Hedonic outcome is the only motivational force in these models. However, as I shall discuss, likelihood has its own separate motivational force. It is *not* the case that hedonic outcome is simply made stronger or weaker by likelihood.<sup>8</sup>

Thus, many people, including academic scholars, still believe that motivation is about maximizing pleasure and minimizing pain, and they are not familiar with the new ideas and discoveries in motivation science that this book describes. These new ideas and discoveries are significant in what they reveal about managing motivation more effectively and enhancing well-being.

Still, writing a book on motivation is a daunting task. Motivation is a topic that has received thoughtful attention for hundreds of years from thousands of eminent scholars. It is also a topic in which we all believe we have some expertise, whether or not we are formal scholars in the area. Even young children have to figure out what motivates their caretakers' actions towards them in order to get what they need from those caretakers. Managing others' motives is pervasive in human societies, from parents and children managing one another, to teachers and students, coaches and athletes, business supervisors and employees, military officers and subordinates, politicians and citizens. In fact, humans spend much of their lives managing others' motives and having their motives managed by others. We also spend much of our lives trying to manage our own motives. To carry out all of this managing of motives, we spend time trying to infer and understand our motives and those of others, as well as to establish a shared reality with others about our motives. Given that we spend so much

time managing, comprehending, and sharing the motives of ourselves and others, in a real sense we *are* all experts in motivation.

What, then, can I add to all this scholarship and expertise? In brief, I plan to integrate what is now known about motivation into a new conceptual framework that can be used to re-address basic motivational issues in everyday life. Yes, people have expertise in motivation, but in most cases the expertise is applied rather than theoretical. By understanding motivation within a broader, more conceptual framework, people can apply their expertise in motivation even more effectively, whether they be parents, teachers, coaches, business supervisors, military officers, or politicians (or their children, students, athletes, employees, subordinates, or citizens).

At the outset, I do want to make clear what I mean by going beyond pleasure and pain. To begin with, I want to make clear what the traditional claim means that pleasure and pain are what really motivate people. The general motivational question that I am trying to answer is, “What is it that people want and don’t want?” I am using the term “want” advisedly. To avoid tautological reasoning, I need a general terminology for motivation that does not presume, by definition, what motivation is all about. The term “want” is ideal in this regard because it captures in everyday language a wide variety of relevant meanings of motivation: to have or feel need of; to be necessary (require); to wish or demand the presence of; to desire to come, go, or be; to have a strong desire for or inclination to (i.e., to like); to fail to possess (lack); to hunt or seek in order to seize.<sup>9</sup>

Now if “pleasure and pain” were defined as “want and don’t want,” then they would become, *by definition*, the answer to “What do people want and don’t want?” This would not be useful because it would serve to eliminate alternative viewpoints right from the beginning simply by defining “pleasure and pain” so broadly. What is needed, then, is a more precise definition of “pleasure” and “pain.” The *Oxford English Dictionary* (1971) defines pleasure as the sensation that is induced by the experience or anticipation of what is felt to be desirable, with an emphasis on sensuous enjoyment. And it defines pain as physical or bodily suffering, an unpleasant or agonizing sensation. Thus, pleasure and pain are, respectively, *desired and undesired feelings or sensations* (including anticipatory feelings or sensations).

The traditional viewpoint, then, is that motivation is about people approaching desired feelings or sensations (pleasure) and avoiding undesired feelings or sensations (pain). Why is it necessary to provide an alternative viewpoint that goes “beyond pleasure and pain”? First, pleasure and pain refer to only one kind of outcome of goal pursuit—hedonic experience. There are outcomes other than hedonic experience that people care about; in particular, they want to be successful at what they do even if they have to suffer to make it happen.

Second, although hedonic experience contributes to how intensely people value things in the world, it is not the only mechanism that contributes to value intensity; in particular, how strongly people engage in goal pursuits affects how intensely they value the objects and activities associated with those goal pursuits. Third, even when motivation is about pleasure and pain, there is more than one way to approach pleasure and avoid pain, such as doing so with promotion concerns with accomplishment and advancement or with prevention concerns with safety and security. And the distinct motivational systems underlying the different ways people approach pleasure and avoid pain each have their own separate effects on thoughts, feelings, and behavior. For example, success (pleasure) or failure (pain) in the promotion system produces cheerful or dejected feelings (e.g., feeling “happy” or “sad”), whereas success or failure in the prevention system produces quiescent or agitated feelings (e.g., feeling “calm” or “worried”). Fourth, motivation is not just about having desired outcomes, such as having pleasure and not having pain. People also want to manage what happens in their lives (control), and they want to distinguish what’s true in the world from what’s false, to establish what’s real (truth). Finally, and importantly, the different ways of being effective do not function in isolation from one another. Much of motivation concerns the relations among the different ways to be effective—how they work together. One example of this is that, often, it is the *fit* that counts.

Thus, I believe that the best answer to the question of what it is that people want is that they *want to be effective*. People want to be effective at having desired outcomes (value), but they also want to be effective at establishing what’s real (truth) and at managing what happens (control). Precisely what I mean by this will become clearer as the book continues. But here a caveat is needed to avoid misunderstanding. I am not claiming that wanting to be effective encompasses *all* of motivation. After all, motivation to see a sunset is not, one hopes, just to succeed at something (“I think that I am watching the most beautiful sunset that anyone has ever seen”); it is simply to enjoy a wonder of nature. For humans at least, anticipating the experience of some sensual pleasure in the future—be it watching a sunset, drinking a great red wine, or taking a warm bath, to name a few such pleasures—can influence choices in the present. When people engage in these and similar activities solely for the sensual experience they afford, then the motivation involved cannot reasonably be considered as just wanting to be effective.

Nonetheless, I believe that wanting to be effective is generally what motivates people, with pleasure and pain typically functioning as feedback signals of success (pleasure) and failure (pain) at being effective. For example, failure in having enough food or enough water produces painful feedback signals of hunger and thirst. Working to get the needed food or water is not about wanting

future pleasure—it is about being effective in satisfying current bodily needs. I will expand on this point throughout the book. I will also point out that even for the hedonic activities I just mentioned (e.g., drinking a great red wine), there can be components of wanting to be effective that go beyond just wanting a pleasant experience.

Thus, while wanting to be effective is *not* the whole story of motivation, what this book shows is that it is much more of the story than people appreciate. Indeed, I believe that it is the major part of the story of how motivation works when it also includes how value, truth, and control effectiveness *work together*. I believe that this story needs to be described more fully than it has been in the past.

In this book, I review and integrate research and ideas from the scientific literature that provides this alternative viewpoint on motivation. I attempt to present an original perspective on what motivation is and how it works. I propose ways of thinking about motivation, conceptual distinctions, and underlying mechanisms that are new and have inspired recent research, including my own work on *regulatory focus* (promotion vs. prevention), *regulatory fit*, and *strength of engagement*.

I believe that those who are concerned with motivating themselves or others, or are the target of others motivating them, need to know about the motivation science discoveries of the past few decades. It is not simply that the hedonic story—the notion that approaching pleasure and avoiding pain is how motivation works—is incomplete and needs to be augmented. It can also be wrong. Often belief in this story leads to attempts to motivate that are counterproductive, that impede rather than support success.

Although the emphasis in this book is on the research and ideas from recent decades that tell the story of how value, truth, and control effectiveness work and work together, I also review classic ideas and research from earlier periods. I believe that a historical context is needed to appreciate the contribution of recent discoveries, and that there are historical precursors of current ideas that should be acknowledged and appreciated. Whether I am reviewing classic work or more recent work, I want the book to be comprehensible to readers *without* a background in psychology. As the book proceeds, I attempt to provide the necessary conceptual and empirical background in such a way that the new picture of motivation slowly unfolds. This story is new even to most academic psychologists and, thus, I make as few assumptions as possible regarding what the reader already knows about motivation. At the same time, I am challenging a dominant viewpoint—the hedonic principle—and this means that it takes an effort to develop an understanding of and appreciation for the new viewpoint being proposed. I believe that the journey and the destination will make the effort well worthwhile.



The next chapter revisits in more detail the questions of “What do people really want?” and “What does it mean to be motivated?” that underlie, ultimately, the general question of “What is motivation?” The answers from various viewpoints provide a historical background on the topic of motivation, and my own proposed answers serve as the foundation and framework for the subsequent chapters.

Chapter 3 describes how value effectiveness, truth effectiveness, and control effectiveness are distinct from maximizing pleasure and minimizing pain and, importantly, are distinct from one another. The subsequent chapters then describe concepts and research findings that are relevant for understanding how each of these ways of being effective functions psychologically—value effectiveness (Chapter 4), truth effectiveness (Chapter 5), and control effectiveness (Chapter 6). The next chapters concern how these distinct motivations *work together*: value–truth relations (Chapter 7), value–control relations (Chapter 8), and truth–control relations (Chapter 9).

In Chapter 10, I put all the effectiveness elements—value, truth, and control—together within an *organization* of motivations. I describe how these different ways of being effective support one another, how an impact on one element can spread to influence each of the other elements, how they can receive differential emphasis or significance, and how working together as a whole, they are more important and more meaningful than when they work as independent elements.

This book, then, reflects my personal way of organizing and reviewing the motivation science literature as it relates to my overall “value, truth, and control” framework and to my ideas about what motivation is and how it works. This book is not intended to be a textbook in the usual sense because it emphasizes knowledge that goes beyond the classic pleasure and pain story and because it offers my personal perspective on motivation. As such, I hope that it will inspire readers to think differently about motivation, to try different ways to motivate themselves and others, and to carry out new research—both basic and applied. To assist in this last goal, I use the ideas that have been reviewed and developed in this book to address, in the final chapters, some longstanding issues in psychology: What are the motivational underpinnings of personality differences and cultural differences (Chapter 11)? What are the best ways to manage motives effectively (Chapter 12)? What is the “good life” and how does motivation contribute to well-being (Chapter 13)? It is my hope that you will find the ideas in this book both challenging and useful.

## What *is* Motivation?

Each of us has a general idea of the difference between what people are like when they are motivated and what they are like when they are not. Each of us also has a general idea of what motivates people. However, we don't all have the *same* ideas. And the ideas we have about motivation usually remain tacit and thus are not critically evaluated. Indeed, most of us try to manage others' motives, as well as our own motives, without an explicit awareness of our assumptions about what motivation is or how it works. We just get on with "motivating" without thinking a lot about what exactly we are doing. This makes sense in many cases because managing motives can proceed, and reap benefits, without the need to be explicit about our motivational assumptions. But I cannot proceed to write a book about motivation without taking a stand on what I think motivation is and how it works, and I must be precise about my starting assumptions. In this chapter, I will present different positions on what it means to be motivated and what it is that people want, along with my own preferred answers to these questions.

### WHAT DOES IT MEAN TO BE MOTIVATED?

Years ago I taught a class in motivation for the Columbia Business School's Senior Executive Program. The students taking the class were generally

high-level executives who spent much of their time managing their subordinates' motives. They could be thought of as applied motivation experts who had some professional knowledge about motivation as part of their executive training in business. I began the class by asking them what they thought it meant to be motivated. The most common answer was that it meant to have high energy or to be willing to expend high energy (effort) in the pursuit of goals. This answer reflects the most influential conception among professional scientists and laypersons alike—the conception of motivation as *energy* (to be directed). Let's begin with this proposal.

### Motivation as All-Purpose Energy (To Be Directed)

The notion of motivation as all-purpose energy that can then be directed brings different images to mind. One image is igniting the fuel in your car and then guiding the car to a destination. Another image is putting a battery in a battery-powered toy, like the Energizer Bunny, or turning the key in a windup toy, and then directing the toy to some destination. These images treat motivation as energy that can be created within some object—by putting in fuel or a battery or winding a spring—and this energy provides the power that can be directed toward some destination. From this viewpoint, it does not matter where the energy comes from—fuel, battery, wound spring—as long as it provides power that can be directed. It is *all-purpose energy*. For example, once the fuel is in the car and is ignited, the car can go forwards or backwards, to the left or to the right, for short or long distances to any destination until the energy is depleted.

When the senior executives in my course offered “energy (to be directed)” as the answer to what is motivation, I think they had something very much like these examples in mind. I don't mean to say that they treated their subordinates as objects to be manipulated rather than as human beings. Instead, when they thought of energizing their subordinates, it was with very human incentives like social recognition and praise. What I am saying is that they believed that they needed to use the appropriate incentives and work conditions to get their subordinates “energized,” “fired up,” and then the subordinates could be directed to the destination or goal that management wanted. There is a long history of eminent scholars in psychology and other disciplines who, like these senior executives, have treated—and still treat—motivation as all-purpose energy.

### SUPPORT FOR MOTIVATION AS “ALL-PURPOSE ENERGY (TO BE DIRECTED)”

In the first half of the 20th century, there were three highly influential schools of thought in psychology—the psychodynamic school, the learning or

conditioning school, and the Gestalt school. Although these schools differed from each other in critical ways, they all viewed motivation as all-purpose energy to be directed. For Sigmund Freud, the father of the psychodynamic school, there is an underlying quantitative, finite amount of *instinctual energy*, “drive cathexis” or “libido,” that can be used in different kinds of activities.<sup>1</sup> This energy powers our life pursuits. Freud made the additional assumption that this energy inherently seeks to discharge or release, which is associated with his classic “hydraulic” notion of undischarged drives overflowing the “reservoir,” producing anger and aggressive behavior. Freud’s notion of general psychic energy powering life pursuits was shared by many influential thinkers in the psychodynamic movement, such as Alfred Adler, Carl Jung, and Harry Sullivan.

In the 1940s and 1950s, Clark Hull developed his neobehaviorism theory. In this theory, the essential motivational construct was the concept of drive, which is an energizer. Hull proposed that the level of drive is the sum total of all the drives, including those that are not relevant to a current task, such as trying to win a prize by solving anagrams after receiving instructions from a sexually attractive experimenter. Each drive combines with all the others to produce an undifferentiated amount of drive—a pooled energy source.<sup>2</sup>

This Hullian concept of *drive as a pooled energy source* was widely accepted among other learning theorists. As stated by Hilgard and Marquis in their classic book on conditioning and learning: “The motivation of behavior comes about through the existence of conditions (drive-establishing operations) which release energy originating in the organism’s metabolic processes. *This energy, in and of itself, is directionless and may serve any of a variety of motivational objectives*” (my italics).<sup>3</sup> In the same book, Hilgard and Marquis go on to say that “it is important to distinguish between the guidance and the energetics of behavior. The term *motive* should, we think, be reserved for the latter function” (their italics).<sup>4</sup> Similarly, Donald Hebb, a pioneer of behavioral neuroscience, said: “drive is an energizer, but not a guide; an engine, but not a steering gear.”<sup>5</sup>

Kurt Lewin, a central member of the Gestalt family of thinkers (and the father of experimental social psychology), offered a different version of motivation as “energy (to be directed).” He proposed that a person’s need or goal (e.g., to become a professional artist), or a person’s quasi-need or subordinate goal (e.g., to buy a book to prepare for the art school entrance exam), translates into a *goal intention* that corresponds to a *system in tension* within the person. The system in tension involves a force acting upon the person, producing a tendency to locomote or move toward the goal. When the goal is reached (i.e., the need is satisfied), then the tension is released.<sup>6</sup> Thus, by giving someone a goal, you can create a system in tension, a force, within that person for movement toward the goal.<sup>7</sup>

Conceptualizing motivation as general, all-purpose energy to be directed or guided or shaped also has etymological roots. According to the *Oxford English Dictionary*, the etymology of *motive* (the root of “motivation”) includes an early Anglo-Norman term *motif*, which can be translated as “drive.” Any answer to a basic question that receives this amount of support from both formal scientists and expert applied motivation scientists (including the *Oxford English Dictionary*) is likely to possess some usefulness as well as some truth.

### MY CRITIQUE

What I like about the notion of motivation as energy is that it naturally connects the idea of being motivated to actors’ putting effort into what they are doing, and putting out effort is certainly part of what it means to be motivated. Perhaps this was also a central part of what my Senior Executive Program students had in mind when they thought that motivation was energy (to be directed). It is certainly true that our bodies, for example, need energy to do what they do, and that blood delivers the fuel that releases the needed energy in our cells. There is also evidence that when a task is perceived as doable but difficult, more effort is allocated to the task, and this is reflected in the heart pumping blood more strongly (i.e., increased blood pressure). There is a connection, then, between being motivated to allocate more effort (i.e., being in this sense more strongly motivated) and releasing more energy to do the task. This is why the expressions of “getting fired up” and “being energized” are reasonable descriptions of someone being highly motivated. Moreover, when it comes to bodies, the notion that the energy is all-purpose makes sense because the process and the nature of the energy that is released in different parts of the body to deal with different tasks are basically the same.

But there are also aspects of the notion that I don’t like. For one thing, motivation is not all about the energy needed to perform some task. Motivation, for example, is also about how strongly individuals are engaged in what they are doing, and the amount of effort and energy individuals expend in what they are doing is not the same thing as how strongly they are engaged. This is evident when individuals are “in flow” or “in the zone,” where engagement steadily increases to the point of complete absorption while the effort expended remains the same or even decreases.<sup>8</sup>

But what I most dislike about the notion of motivation as all-purpose energy (to be directed) is the *all-purpose* idea. I think it has gotten us all into trouble. The idea is that if you can get someone energized—no matter *what* the source of the energy—then this energy can be directed or guided toward some destination or desired performance. If company managers, for example, want to motivate other employees, then they can use any type of incentive, any type of “carrot” or “stick,” that energizes them, and this energy can be directed toward

their goal. If you want to get employees to be more safety conscious, for instance, then offer a reward bonus for increased safety-related behavior. The reward bonus will, indeed, get the employees “energized,” but it could also give them a promotion focus because a reward bonus is a gain that relates to promotion concerns with advancement. If your goal is more safety-related behaviors, then you want the employees to have prevention focus concerns with safety and security rather than promotion focus concerns with accomplishment and advancement. The “energizing” strategy of offering a reward bonus could be counterproductive—a point I return to in Chapter 12 on “managing motives effectively.”

What is not being considered in the “all-purpose energy” notion is the importance of the relation or fit between the source of the energy and the recipient of that energy, the vessel into which that energy is being poured. We don’t put “general, all-purpose fuel” in a car. We put some particular type of fuel in a particular kind of car. And I know from bitter experience that putting unleaded gasoline fuel in a car with a diesel engine will stop the car in its tracks.<sup>9</sup> And putting any kind of petroleum fuel in the Energizer Bunny would not be a great idea either. There needs to be a fit between the source of motivation and the recipient of motivation. For example, the task performance of prevention-focused individuals is better if their vigilance is increased (e.g., thinking about what they need to do to avoid failure on the task) than if their eagerness is increased (e.g., thinking about how they will succeed on the task).<sup>10</sup>

There is another problem with the *all-purpose* energy notion: it is a quantitative rather than a qualitative notion of what it means to be motivated. Hull, for example, was explicit in saying every source of drive combines quantitatively with all the other sources to produce a pooled energy source of undifferentiated drive. I sometimes wonder whether this non-qualitative conception of motivation relates to the curious tendency of proponents of the all-purpose energizer notion to use non-human metaphors. This tendency is found not only in the traditional notion of shaping behavior through “the carrot or the stick,” where *either* one will do the trick, but also in Freud’s hydraulic reservoir metaphor, Hebb’s engine metaphor, Lewin’s metaphor of the recipient being a mass point in a field of forces, and in my personal favorite from John Watson, the founder of behaviorism, that good parenting is like hammering molten metal into whatever shape is desired.

From the all-purpose energizer viewpoint, it does not matter whether energy is created by a positive carrot incentive or a negative stick incentive, as long as the resultant energy can be directed toward the desired destination. But beginning in the second half of the 20th century, there was increasing evidence of the need to distinguish between positive and negative sources of motives—evidence that the *quality* of the source of motivation *does* make a difference. It does make

a difference whether the incentive is a carrot or a stick. It does make a difference if you motivate through hope versus fear. Indeed, as we will see later in the book, even the type of carrot (i.e., the type of reward) makes a difference.

Suffice it to say that failing to distinguish among qualitatively different types of motive sources is not useful. Even if you could identify some commonality across different sources of motivation, this would not mean that they could simply be combined to function as an all-purpose energy. For example, when people think an activity is important they are more motivated to do it, and they are also more motivated to do an activity that they think is fun. However, as evident from the results of the “*make learning fun*” study described in Chapter 1, *adding fun* to an activity that people consider to be important (e.g., learning new words) *hurts* rather helps performance.<sup>11</sup>

### Motivation as Approaching or Avoiding Something

A second longstanding viewpoint on what it means to be motivated relates to another etymology of the word “motive.” According to the *Oxford English Dictionary*, the Latin term *motivum* can be translated as “that which moves or initiates motion”—motivation as movement. The movement in this case can be understood as the classic movements of approach and avoidance. This conceptualization has the distinct advantage of being easily related to what is perhaps the best-known principle of motivation—the *hedonic principle* that people are motivated to *approach pleasure and avoid pain*.

#### SUPPORT FOR MOTIVATION AS “APPROACHING OR AVOIDING SOMETHING”

There is an obvious advantage to having an answer to the question “What does it mean to be motivated?” (to approach or avoid something) that can be easily combined with an answer to another question, “What do people really want?” (to approach pleasure and avoid pain). Indeed, the psychological literature typically combines these two answers in the form of models that describe the motivation to move toward desired end-states and to move away from undesired end-states. Again, there is a long history of such models, from animal learning/biological models<sup>12</sup> to control models<sup>13</sup> to dynamic models.<sup>14</sup>

But one can have a notion of motivation as approaching or avoiding something without associating it with the hedonic principle of pleasure and pain. The cybernetic model of Norbert Wiener<sup>15</sup> and the TOTE model of George Miller, Eugene Galanter, and Karl Pribram,<sup>16</sup> which were precursors to many subsequent approach–avoidance models, made no claims about pleasure and pain *per se*. These early models conceptualized approaching or avoiding something not in terms of movement in relation to anticipated pleasure or

anticipated pain, but simply in terms of movement in relation to reference points.<sup>17</sup>

Let's consider Miller, Galanter, and Pribram's example of hammering a nail into a board of wood. The current state of the nail is compared to the reference point of the nail ending up flush to the wood. If there is a discrepancy between the current state of the nail and its "flush" end-state as the reference point (i.e., if the nail "sticks up"), then action is taken to reduce the "sticking-up" condition of the nail: the nail is struck with the hammer to reduce the discrepancy by moving the nail toward the wood surface. It is true that when a person is doing the hammering, the human actor might represent the "flush" end-state of the nail as a desired end-state and experience pleasure from reducing the discrepancy. But a machine could be doing the hammering with no such representation or experience.

### MY CRITIQUE

I like that this notion of what it means to be motivated—to approach or avoid something—can be easily combined with the answer to the question of what people really want (i.e., to maximize pleasure and minimize pain) to provide an overall answer to what is motivation. Motivation is to approach pleasure and avoid pain. *Voilà*, the hedonic principle! This is a definite advantage. I also like the fact that, once again, it has support from the *Oxford English Dictionary* with its root meaning of "to move." Moreover, the notion that what it means to be motivated is to approach some things and avoid other things naturally connects to the notion of being attracted toward some things and repulsed by other things, which is basic to the psychological experience of value. And value is a big part of motivation. This is all reasonable and useful.

But there are other aspects of the notion of motivation as approaching or avoiding something that I don't like. Just how seriously should we take the core concept of *movement* that underlies this notion? Consider, for example, the control theory of Charles Carver and Michael Scheier,<sup>18</sup> a highly influential reference point theory for human self-regulation that was inspired by the control process models of scholars such as Miller, Pribram, and Gallanter and, especially, William Powers.<sup>19</sup> In this theory, there are two self-regulatory systems. One has a desired end-state as the reference point that is discrepancy-reducing, and the system attempts to move the current self state as close as possible to the desired end-state. The other self-regulatory system has an undesired end-state as the reference point that is discrepancy-amplifying, and the system attempts to move the current self state as far away as possible from the undesired end-state.

Now if one takes seriously the concept of movement, then negative reference point regulation must be less stable and more open-ended than positive



reference point regulation because it would involve an ever-increasing deviation from the negative reference point with no specific end-state to approach. There would be no obvious “stop” signal. As end-states, there would be an asymmetry between a positive approach goal that provides a “stop” signal by having a clearly defined end-state and a negative goal of moving away without an end-state to provide a “stop” signal.<sup>20</sup>

Carver and Scheier recognize and comment on this asymmetry.<sup>21</sup> But is there a different way to think about self-regulation in relation to desired and undesired end-states that removes this asymmetry created by the movement metaphor? One solution is to distinguish between two distinct functions of goals. Goals are not just end-states; they are also standards that individuals use to evaluate their current state—how well am I doing now relative to where I want to end up? People are motivated by whether their current state does or does not match their goal as a reference point.<sup>22</sup> Conceptualized in this way, self-regulation in relation to either a positive or a negative reference point involves matches and mismatches. Self-regulation in relation to a negative reference point is no longer open-ended. Rather than attempting to “move away” from a negative reference value, self-regulation in relation to a negative reference point would involve attempts to minimize matches to the negative reference value. From this perspective, self-regulation would not differ in principle from self-regulation in relation to a positive reference point.<sup>23</sup>

Another problem with the movement notion is that motivation need not produce movement at all. Often the adaptive response for someone who is highly motivated is *not to move at all*—to inhibit or suppress movement. Take fear, for example. Someone in a state of fear can fight (approach the source of danger to remove it) or flee (avoid the source of danger by removing oneself). These movements are consistent with the approach–avoidance viewpoint. But someone in a state of fear can also freeze. Freezing is *not* moving. Moreover, it is often a very strong motivational condition, such as extreme danger, that produces this *non*-movement.

## Motivation as Preferences Directing Choices

I believe that what it means to be motivated is *to have preferences directing choices*. This is the kind of answer that might be found in classic economics, although an economist is more likely to say “preferences as revealed in choices.” These phrases are not exactly the same, however.

For economists, “preferences as revealed in choices” is about *utility*, one of their key concepts. It is assumed that when individuals choose among a set of alternatives, they will choose the alternative that has the highest utility for them—that alternative with the best benefits-to-costs (or gains-to-losses) ratio

of *outcomes* (decision utility).<sup>24</sup> In contrast to this position, I do not assume that the preferences that direct choices are all about outcomes. Actors, whether humans or other animals, also have preferences for *how* they go about pursuing goals that are separate from their preferences for the different outcomes of their goal pursuits.<sup>25</sup> To illustrate such *strategic* preferences, let us now consider more fully the difference between having a promotion orientation versus a prevention orientation.

As I mentioned earlier, individuals with a promotion orientation are concerned with accomplishments and advancement, whereas individuals with a prevention orientation are concerned with safety and security. According to regulatory focus theory,<sup>26</sup> the same goal, such as having a good marriage, can be experienced in promotion as a hope or aspiration (something you want ideally to happen) or experienced in prevention as a duty or responsibility (something you believe you ought to or must make happen). In promotion, goal pursuit is about change from a current satisfactory state to something better (changing from “0” to “+1”); it is about gains. In prevention, goal pursuit is about stopping change from a satisfactory current state to something unsatisfactory (stopping change from “0” to “-1”); it is about non-losses. Given the nature of promotion concerns, the natural preference is for *eager, enthusiastic* strategies that support advancement, that support change from “0” to “+1.” Given the nature of prevention concerns, the natural preference is for *vigilant, careful* strategies that support maintenance of a satisfactory state, that stop change from “0” to “-1.” Thus, even when the same outcome is desired, such as having a good marriage, individuals with a promotion versus a prevention orientation can have different *preferred strategies* for attaining that outcome—a preference for eager versus vigilant strategies, respectively.<sup>27</sup>

These *strategic preferences* can have a major impact on *how* goals are pursued, which in turn can influence what choice is made independent of the outcomes that are associated with the choice alternatives. Thus, preferences directing choices are not just about utility and outcomes as described in classic economics: it is broader than that. The final choices that are made reflect preferences at multiple levels—outcome preferences and strategic preferences, as well as tactical preferences.<sup>28</sup> They involve *motivations working together*. It is this organization of motives that I wish to emphasize by the expression “preferences directing choices.” Such an organization of motives implies that what it means to be motivated is always an integration of preferences from different regulatory levels whose resultant state directs a choice. This organization of preferences varies not only in strength (quantity) but also in quality, as I discuss more fully in Chapter 10.

The notion of motivation as “preferences directing choices” has another advantage as well. Preferences can be revealed only when there is a range of

possible responses over which an individual has some control; that is, when an individual could have behaved in a different way.<sup>29</sup> Thus, motivation is about preferences under conditions of choice, where the preferences actually direct the choice. From this perspective, humans are not the only animal that has motivation. At the same time, this perspective would *not* consider energy-driven and moving windup toys to be motivated. It is those *making choices while using such toys* who are motivated. Whereas windup toys can be “energized” and “approach” things, they do not have preferences directing choices. Thus, the notion of motivation as “preferences directing choices” has the advantage of conceptualizing motivation in a way that reasonably includes humans and other animals while excluding things like windup toys.

## WHAT DO PEOPLE REALLY WANT?

I have proposed that what it means to be motivated is to have preferences that direct choices. This answer provides a beginning for understanding motivation, but it is not sufficient. It is also necessary to know where the preferences that direct choices come from. What is it that people want that underlies their preferences? What does a motivated person really want? There is more than one reasonable answer to the question. That said, I do believe that some answers are better than others. In my review of possible answers, I will restrict myself to the strongest ones (as defined by historical precedence and consensus).

### People Want to Survive

Thanks to Charles Darwin, we all appreciate that “survival of the fittest” is a biological imperative.<sup>30</sup> If so, then “to survive” must be what we really want. But, actually, biologists consider the phrase “survival of the fittest” to be a metaphor and prefer the phrase “natural selection,” which does not emphasize “survival” in the same way.<sup>31</sup> Moreover, it should be noted that “survival” in the phrase “survival of the fittest” is not very helpful because survival is the outcome and what we want to know is the motivation (i.e., what people really want) that leads to this outcome. That is, we want to know which motivation makes a person the “fittest” to survive. Indeed, those individuals who want, above all else, to survive personally need not be the fittest to survive. For example, those whose predominant motive is personal survival may not be more likely to reproduce (i.e., natural selection), or even to survive personally, than those who have other predominant motives, such as the motive to work with others to achieve common goals (e.g., a cooperative motive) or the motive to do better than others (e.g., a competitive motive).

### SUPPORT FOR “SURVIVAL” BEING WHAT PEOPLE REALLY WANT

Although an evolutionary argument *per se* does not require that “survival” be the answer to what people really want, the notion that moment to moment an individual wants to survive, preferring “to stay alive” rather than “to die,” is powerful. So powerful, in fact, that in the early 20th century it dominated theories of what humans and other animals wanted, and it remains influential. The specific form it took in psychology was to translate “survival” into satisfying basic biological needs—those biological needs considered necessary for the preservation of an individual and species. Satisfaction of biological needs was thought to be so central to motivation that even the value or desirability of something, such as the value of food or water or social interaction, was conceptualized in terms of the extent to which it was instrumental in satisfying a biological need. Psychologists with theoretical perspectives ranging from behavioristic to Gestalt to psychodynamic proposed that the value of something—how much one wants something—comes from the extent to which it satisfies some need.

In the classic version of the notion that the value or desirability of something derives from need satisfaction, behavior is directed toward the removal of tissue deficits (e.g., to satisfy hunger or thirst). Drives were manifest in behavior, had physiological correlates, and naturally gave rise to human desires.<sup>32</sup> A striking illustration of this source of value is provided in the classic experimental psychology textbook of Robert Woodworth and Harold Schlosberg.<sup>33</sup> If one feeds an animal for a few days on a diet that is deficient in vitamin B, one creates a biological need for this vitamin. If one then offers the animal a choice between a meal that is rich in vitamin B and one that lacks vitamin B, the animal will choose the vitamin B-rich meal.

For humans, there is another motivational implication related to “survival” as the answer to what a motivated person really wants. Only humans are aware of their own mortality, and such awareness has been said to create a terror about the inevitability of death that humans are motivated to resolve above all other motives. According to *terror management theory*,<sup>34</sup> it is basic to human motivation. It relates not only to wanting to satisfy the biological necessities of life, such as hunger and thirst, but also to wanting to enhance self-esteem and pursue a meaningful life, with a goal of living on after death by leaving a legacy as, say, a famous scientist or public servant.

### MY CRITIQUE

Do humans and other animals want water when they are thirsty and food when they are hungry? Are they willing to fight to live rather than die? Yes. There is little question, then, that some sense of wanting to survive, such as wanting to

satisfy basic biological needs, is part of what people really want. Like most, if not all, readers of this book, I like the notion that people want to survive. But like it as much as we do, it is not clear how useful it is as an answer by itself. It is compelling, but is it sufficient?

I believe that it is not sufficient because it does not give enough attention to people's life experiences. The "survival" answer to what a motivated person really wants refers to life versus death, to satisfying biological needs or not. This answer is silent on how people's life experiences affect what they want. Strictly speaking, the "survival" answer would predict motivational force to be a direct function of the extent to which something satisfies biological needs, the extent to which it contributes to survival. But this is not the case. For example, people will choose to eat "junk food" snacks that they know have no nutritional value and are unhealthy for them. What these snacks do have is a sweet flavor that they like.

More generally, what is critical to motivation—to preferences that direct choices—is whether a person does or does not experience that something matters.<sup>35</sup> Consider the common refrain that people often don't appreciate something (i.e., don't value it) until they don't have it anymore—"Sometimes you don't know what you want until you've lost it." But whatever this "it" might be, such as physical health, it had survival importance before it was lost and not just after it was lost. Thus, the motivational significance of something is not a direct function of its actual importance for survival but of *experiencing it as important*. The general point is that because some needs are generally being satisfied, without it being necessary to pay much attention to them or make them a priority, the experience of wanting the needs to be satisfied is weak and motivational efforts are directed elsewhere. In terms of preferences, satisfaction of these needs is *not* directing choices. When suddenly the need is not being satisfied, *then* people experience their attraction to it. Only *then* do they value it highly and make choices on that basis. Given this, it is not useful to argue that what motivates people is wanting to survive. This answer does not explain most people's moment-to-moment preferences that direct their everyday choices.

The key point is that something that *actually* satisfies a need does *not* direct choices for that reason alone. There are many biological functions, including at the cellular level, that are critical to survival, but while they function properly they do not determine our preferences that direct our choices. Critical biological functions, like breathing, can be taken for granted and not be appreciated, and while they are not being appreciated they are not directing our choices despite their survival value. Again, it is experiencing their importance that is essential for motivation, essential for creating preferences that direct choices. This point is developed further in the next section, which provides an alternative, experiential answer to what people really want.

## People Want to Maximize Pleasure and Minimize Pain

The most common answer historically to the question of what people want is that they want to maximize pleasure and minimize pain. Indeed, the American Declaration of Independence states that “We hold these truths to be self-evident,” that all people are endowed with “unalienable Rights,” including “the pursuit of Happiness.” That is, because maximizing pleasure and minimizing pain is so obviously basic to human motivation, it is “self-evident” that humans have an “unalienable right” to do so through their pursuit of happiness.

### SUPPORT FOR “MAXIMIZING PLEASURE” BEING WHAT PEOPLE REALLY WANT

The obvious importance to human motivation of maximizing pleasure and minimizing pain has been recognized for centuries, going back (at least) to Greek discussions of the hedonic principle. The term *hedonic*, which derives from the Greek term for “sweet,” means relating to or characterized by pleasure.<sup>36</sup> Jeremy Bentham, the highly influential 18th-century English philosopher, argued that pleasure and pain dictated what people do.<sup>37</sup> For Bentham, even the value or utility of something was based on its relation to maximizing pleasure. For example, he defined utility as “that principle which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question.”<sup>38</sup>

Within psychology in the first half of the 20th century, Freud described motivation as a *hedonism of the future*.<sup>39</sup> It might seem from the title of his book, *Beyond the Pleasure Principle*, that his theory of motivation went beyond the notion that people are motivated to seek pleasure. But actually, the title refers to Freud’s proposal that people are not only motivated to seek pleasure, such as the desire for immediate gratification that is associated with the “Id” or pleasure principle, but they are also motivated to avoid pain. According to Freud’s notion of the “Ego” or reality principle, people are motivated to avoid punishments from violations of normative or “Superego” demands. For Freud, then, behavior and other psychical activities were driven by anticipations of pleasure to be approached (wishes) and anticipations of pain to be avoided (fears). One reason that my book is entitled *Beyond Pleasure and Pain* is to distinguish my viewpoint on motivation from Freud’s hedonic emphasis on pleasure and pain.

In his field theory, Lewin described how children learn to produce or suppress their behaviors from the “prospect” of reward or punishment, respectively.<sup>40</sup> Later, the influential learning and conditioning psychologist Orval Hobart Mowrer (1960) also proposed that the fundamental principle underlying motivated learning was approaching hoped-for end-states and avoiding

feared end-states.<sup>41</sup> In his model of achievement motivation, John Atkinson, a giant figure in personality psychology, also proposed a basic distinction between self-regulation in relation to *hope of success* and self-regulation in relation to *fear of failure*.<sup>42</sup> And in their classic paper on prospect theory, the Nobel Prize-winning cognitive psychologists Daniel Kahneman and Amos Tversky distinguished between mentally considering the possibility of experiencing pleasure (gains) and mentally considering the possibility of experiencing pain (losses).<sup>43</sup> Closing out the century in 1999, a book edited by Kahneman and two other distinguished psychologists, Ed Diener and Norbert Schwarz, contained over two dozen papers by world-renowned psychologists and economists whose purpose was to set “the foundations of hedonic psychology.”<sup>44</sup>

### MY CRITIQUE

There is little question that maximizing pleasure and minimizing pain are at least part of the answer to what people really want. There are sensual pleasure experiences, such as sweet drinks or warm baths, that are clearly motivating. Moreover, the motivation for pleasure, such as sweetness, is so important that it can even trump the motivation to satisfy basic biological needs. It has been known for over half a century that animals will choose on the basis of hedonic experiences independent of any biological need being satisfied.<sup>45</sup> There are early studies, for example, showing that animals not only prefer sweet water with saccharin to regular water, but they also prefer sweet food to a physiologically better food, such as a food that is more beneficial for an animal given its vitamin deficiency.<sup>46</sup>

There are also classic studies by James Old and Peter Milner showing that rats will work to press a bar that activates the pleasure area in the brain but does not satisfy any biological need.<sup>47</sup> In the original and follow-up studies, metallic electrodes were implanted in certain regions of the lateral hypothalamus, causing some rats to push the lever up to 5,000 times an hour, even to the point of collapsing. In a T-maze, with both arms baited with food mash, rats would stop at a point halfway down the runway to self-stimulate by pushing the lever, never going to the food at all. Some mother rats even abandoned their newborn pups—despite the biological imperative of mothers’ caring for their young—in order to press the lever thousands of times per hour.

There is also evidence from classical conditioning studies that animals will learn to value the conditioned cues themselves despite their satisfying no biological need. For instance, such studies have found that pigeons would make eating-like pecks at light cues that were previously associated with an edible reward and would make drinking-like pecks at the same light cues if they had been previously associated with a liquid reward, even though the light cues themselves satisfied neither hunger nor thirst.<sup>48</sup> Indeed, the motivational force

of physiological needs can be, and historically has been, re-conceptualized in terms of maximizing pleasure and minimizing pain. Being thirsty or hungry is a painful state, and the motivation to drink or eat can be re-conceptualized in terms of wanting to reduce these painful experiences rather than to satisfy physiological needs.

So did the Greeks have it right? Is maximizing pleasure the answer to what people really want? I do believe that it is part of the answer, and a significant part given that pleasure can override biological needs in directing choices, which contradicts a purely survival perspective on motivation. But I also believe that maximizing pleasure is only *part* of the answer, and given this, there is a problem with its being anointed for centuries as being *the* answer. It has dominated thinking about motivation for far too long. It has taken attention away from other basic motivational principles that are independent of pleasure and pain *per se*.<sup>49</sup> In Chapter 1, I briefly discussed some of these other principles, such as regulatory focus, regulatory fit, and strength of engagement, and I will consider these and other principles more fully as the book proceeds. Here, let me provide just a couple of examples.

The first example is addiction. It is commonly believed that addictive behaviors, such as smoking opium or tobacco, gambling, drinking alcohol, and so on, are fundamentally motivated by a search for pleasure, by the pleasant “high” or “kick” that the activity provides. But many experts in the area of addiction, and by experts I mean both scientists and addicts themselves, call this belief a myth. William S. Burroughs, the famous American novelist and opiate addict, is quoted as saying, “Junk is not a kick. It is a way of life.”<sup>50</sup> Similarly, Lance Dodes, an addiction treatment expert, states: “No addiction is fundamentally motivated by a search for pleasure. On the contrary, addictions are compulsively driven whether they lead to pleasure or not.”<sup>51</sup> Indeed, during the intoxication stage of addiction to drugs, addicts use more of the substance than would be necessary if they only wanted to experience the intoxicating effects. Moreover, there are phases of addiction where the motivation to engage in the addictive activity increases even though the pleasure experienced from engagement in the activity decreases.

Kent Berridge and Terry Robinson, experts in the neuroscience of addiction, provide critical insight into these phenomena by distinguishing psychologically between brain systems related to “liking” and those related to “wanting.” Specifically, they distinguish between pleasure/pain (hedonic) feelings related to “liking” something, and incentive motivations related to “wanting” something.<sup>52</sup> I will discuss more fully what it means to “want” something beyond pleasure seeking in the next section of this chapter. The point here is simply that the “wanting” motivation to engage in the addictive activity can steadily *increase* even while the hedonic “liking” of the addictive activity *decreases*.



The second example is also a well-known human phenomenon—engagement in life-threatening activities that often involve hardship and even intense suffering. Almost 30 years before Tenzing Norgay (from Nepal) and Edmund Hillary (from New Zealand) climbed Mount Everest on May 29, 1953, British mountain climber George Mallory (in 1924) attempted to do so, despite knowing the extreme dangers and hardships involved in such a climb. In fact, he and his climbing partner Andrew Irvine disappeared on the way to the summit. Before he left on this dangerous venture, he was asked why he wanted to climb Mount Everest. His famous answer was, “Because it’s there.” Thus, it is not just survival or just pleasure that people want: it’s also succeeding at something—in this case succeeding at something that is extremely challenging.

George Mallory was not the first to engage in an extreme sport activity. And he was certainly not the last: now we can even watch televised programs of people engaging in extreme sports, such as the “X Games.” Unlike the athletes in the X Games, however, most of those who engage in extreme sports are not participating in competitions where they might earn fame and glory. Instead, they are competing against environmental obstacles and challenges. The sports are considered extreme precisely because the environmental weather, such as a sudden storm, and terrain conditions are inherently uncontrollable and need to be dealt with on the spot. “Survival” and “pleasure” would *not* be the answers given by the athletes for why they choose to engage in these sports, which makes sense given that these sports are often both dangerous and grueling. Moreover, such athletes also consider the “adrenaline junkie” label to be just a stereotype. Instead, they say they are motivated by developing their physical or mental competence and discipline, by testing their ability to master difficult environments—answers often equivalent to “Because it’s there.”

A famous paraglider pilot, Bob Drury, is quoted as saying, “We do these things not to escape life, but to prevent life escaping us.”<sup>53</sup> That is, people engage in life-threatening activities not because they have some “death wish” but because they experience what it means to be alive when they are dealing with extreme challenges. The danger associated with many extreme sports is not itself the critical motivating factor for these athletes; rather, it is the challenge of overcoming extraordinary obstacles and difficulties. Danger just happens to be associated with such extreme challenges. Eric Brymer, an expert on what people experience when engaging in extreme sports, sees direct parallels between this experience and those in non-dangerous activities such as meditation.<sup>54</sup>

The examples of engaging in addictive activities and extreme sports suggest that there is more to what people really want than “survival” and “pleasure.” In addition, the intensity of “wanting” to engage in an addictive activity need not parallel the intensity of “liking” for the activity. In extreme sports, both “survival” and “pleasure” can be risked for the sake of an activity that is extremely

difficult and challenging. What, then, is the motivation underlying these activities? What is it that people really want?

## People Want To Be Effective in Life Pursuits

When I say that “to be effective in life pursuits” is my preferred answer to what people really want, I am not suggesting that this answer originated with me. Far from it: there is a long history of great scholars within and outside of psychology who have argued for this answer. It is not possible to review the full history of those who have taken this position. Instead, I will give some historical highlights that will help to clarify what I mean by being effective in life pursuits.

### KEYNES AND MOTIVATION AS THE URGE TO ACTION

In his magnum opus, *General Theory of Employment, Interest, and Money* (1936/1951), John Maynard Keynes, the renowned British economist, made the following statement:

Even apart from the instability due to speculation, there is the instability due to the characteristic of human nature that a large proportion of our positive activities depend on spontaneous optimism rather than on a mathematical expectation, whether moral or hedonistic or economic. Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as a result of animal spirits—of a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities. Enterprise only pretends to itself to be mainly actuated by the statements in its own prospectus, however candid and sincere . . . Thus if the animal spirits are dimmed and the spontaneous optimism falters, leaving us to depend on nothing but a mathematical expectation, enterprise will fade and die.<sup>55</sup>

Here is Keynes, the father of modern economics, making a profound statement about human motivation that other economists—and other social scientists—have not taken seriously enough. Most social scientists continue to take for granted that it *is* expected utility—“the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities”—that defines what people really want and underlies the preferences revealed in their choices. What about the alternative that Keynes is identifying? What about “animal spirits”? What about the “spontaneous urge to action rather than inaction”? Keynes is saying that this urge is critical to motivation.

### WOODWORTH AND MOTIVATION AS DIRECTED ACTIVITY

Around the same time that Keynes was thinking about motivation as the urge to action, Robert Woodworth, the psychologist who coined the term *drive*,<sup>56</sup> was coming to a similar conclusion. This is evident in the following quote from his 1940 book, *Psychology*:

To some thinkers on these matters it appears self-evident that dealing with the environment occurs only in the service of the organic needs for food, etc. They say that the muscles and sense organs have evolved simply as tools for the better securing of food and other organic necessities, and for reproducing the race. Only the organic needs, on this view, are entitled to rank as primary drives; all activity dealing with the environment is secondary. The facts of evolution do not compel us to adopt this view, for motility and responsiveness to the environment are present way down to the bottom of the scale of animal life. There is no more reason for saying that the muscles exist for the purpose of obtaining food than for saying that food is needed to supply energy for the muscles . . . What we find in the young animal is activity directed toward the environment, along with the organic needs, and with no sign that one is more primitive and unlearned than the other. It is safe to assume dealing with environment as a primitive characteristic of the organism.<sup>57</sup>

This was a radical statement for an experimental psychologist to be making at the height of behaviorism and neobehaviorism in America—when motivation was about biological need satisfaction and pleasure “stamping in” behavior.<sup>58</sup> Woodworth is suggesting that rather than action being in the service of attaining food to eat and water to drink, which is the traditional viewpoint, perhaps eating food and drinking water are in the service of taking action. Similarly, driving cars is not in the service of attaining gasoline to burn, but, instead, burning gasoline is in the service of driving cars. Combining the statements of Keynes and Woodworth into a single message, we are being told that there is something inherently valuable, inherently motivating, about taking action. It need not be in the service of expected outcomes from taking the action, such as satisfying a biological need or producing pleasure. What people really want is to take action—period. The message is that to experience living fully, rather than just being alive, we need to take action. Which is what extreme sport athletes do, and indeed what drug addicts do, despite the risks and dangers in doing so.

Generally speaking, I think that this is a useful message about motivation—that what matters is taking action itself. But by itself, it is not sufficient. What is this action taking itself all about? What is it, actually, that is motivating?

Fortunately, others also asked themselves these questions and provided some useful answers to them. Once again, I will restrict my review to a few such answers that have influenced psychological thinking about motivation.

### HEBB AND MOTIVATION AS OPTIMAL STIMULATION

In his 1955 paper “Drives and the C. N. S. (Conceptual Nervous System),”<sup>59</sup> Donald Hebb takes the reader on a journey along the different paths of his thinking across a quarter century, from 1930 to 1955. He divides his journey into two periods. During the first, 20-year period, Hebb became convinced that there was more to motivated action than could be understood in terms of drives, even if one included a drive related to our curiosity about things in the world and our investigations and manipulations of them. Hebb had been a teacher, and in the late 1920s he was appointed headmaster of a troubled school in a Montreal suburb (at the same time working as a part-time graduate student at McGill University). His pedagogical experimenting to improve the school provided the kind of evidence that convinced him that something was missing in psychological theories of motivation.<sup>60</sup> In the experiment, the pupils in the school, who ranged from 6 to 15 years of age, were suddenly told by the teachers that they didn’t have to work anymore if they didn’t want to. Moreover, if they interfered with other students’ work in the classroom, they would be *punished* by being sent outside to *play* in the playground.

Hebb found that after just a couple of days of these new conditions, *all* of the students chose to work quietly in the classroom. He concluded that “the human liking for work is not a rare phenomenon, but general.”<sup>61</sup> He argued that the human need for intellectual activity, such as the riddles, puzzles, and puzzle-like games (e.g., chess, bridge) that we devise just to create problems to solve, is a highly significant fact about human motivation. Hebb’s answer, around 1945, as to what such actions say about human motivation was *self-motivating brain cells*: “any organized process in the brain is a motivated process, inevitably, inescapably; that the human brain is built to be active, and that as long as it is supplied with adequate nutrition will continue to be active. Brain activity is what determines behavior, and so the only behavioral problem becomes that of accounting for *inactivity*” [italics in the original].<sup>62</sup>

This, too, was a radical statement to be making about what motivates behavior. Hebb, like Woodworth, was saying that rather than food and other nutritional needs being the motivational driving force, they were simply supplying the energy for self-motivated action. For Hebb, there were self-motivated brain cells that were built to be active.

For a while, Hebb was happy with this answer. But then, in the second part of his intellectual journey as a scientist, along came an experiment on sensory deprivation that he conducted with McGill college students.<sup>63</sup> The participants

were paid a substantial amount of money to do almost nothing for hour after hour. They could see nothing and they could hear and touch very little. Their primary needs, such as food and water, were satisfied and they were free from pain. Given the high payment they received, as well as the opportunity to contribute to science, one would expect them to be highly motivated to remain in these conditions for a long time. And they were quite happy for several hours. But then they became increasingly unhappy and chose to leave the experiment.

The results of this study caused a problem for Hebb. The problem was not that the students chose to leave the experiment despite their receiving strong rewards for participation and having all their primary needs satisfied. That finding *is* a problem for a drive theorist who believes that what people want is to satisfy their biological needs. But Hebb was *not* a drive theorist. The problem for him was that there was nothing about the sensory deprivation conditions that would stop the participants' thought processes, and these organized brain processes should have been self-motivating. That is, the results were a problem for his notion of *self-motivating brain cells*.

Hebb's solution was a new answer to what people really want—*optimal stimulation*. Basically, the idea here is that too little stimulation disrupts motivation, which was what happened in the sensory deprivation study, and too much stimulation also disrupts motivation, which is what happens, for example, when people are in a high state of fear. Stimulation that is in between these conditions—not too low and not too high—is optimal.<sup>64</sup> Thus, when people's current state of stimulation is not high enough, they create their own problems to solve, engage in games and puzzles, and take other kinds of action in order to reach an optimal level of brain activity—*independent of physiological need satisfaction or hedonic pleasure per se*.

Note that Hebb's revised answer to what people want continues to take the position, like Woodworth's position, that people take action not to satisfy their biological needs or to experience hedonic pleasure but because of something inherent in the action itself. Specifically, action is motivating in itself because it is stimulating. We would refrain from taking stimulating actions only when we have already reached an optimal level of stimulation. What Hebb's new answer adds is the idea that brain activity by itself (i.e., *self-motivating brain cells*) is no longer considered a sufficient source of stimulation. As evident in the deprivation studies, taking action is also needed for sufficient stimulation. This new idea could be called *self-motivating action*.

#### WHITE AND MOTIVATION AS HAVING AN EFFECT ON THE ENVIRONMENT

The idea of "optimal stimulation" is one kind of answer to why taking action is motivating. Let me turn now to a different kind of answer that was proposed by

the clinical psychologist Robert W. White in his highly influential 1959 paper, "Motivation reconsidered: the concept of competence."<sup>65</sup> In this paper, White integrated and synthesized the findings and ideas of his contemporaries across different areas of psychology, including child development, animal behavior, personality, and psychoanalytic ego psychology. He argued that something important was left out when psychologists made drives the motivating force for the behaviors of humans and other animals, with the drive theories of Freud and Hull being his prime examples. As an alternative answer to what motivates humans and other animals, White proposed *competence*: "an organism's capacity to interact effectively with its environment."<sup>66</sup>

When considering humans and other mammals, White gave special emphasis to the role of learning in the capacity for effective interaction with the environment. He inferred that motivation must be involved in the directed and persistent behaviors that lead to learning. He argued that the motivation needed to attain such competence could not derive solely from drives as the sources of energy.<sup>67</sup> White reviews evidence for animals being strongly motivated by the opportunity to be active, as when rats choose to run around and around in a wheel; the opportunity to manipulate objects, as when monkeys choose to try over and over again to solve a mechanical problem; and the opportunity to explore the environment, as when monkeys work to open a window that would allow them to look out and see what is happening in the entrance room of the laboratory—without any of these activities being related to satisfying some organic need.

White also points out that although it is true that people seek rest at the end of the day, rest is not the objective during most of the day. Indeed, even when the primary biological needs have been met, humans remain active and up to something. When children's major needs are met, for example, they spend their time actively watching objects and events around them. They want to have *an effect upon the environment*, deal with it and change it. White mentions the work of two pioneers in the study of children's play, Karl Groos<sup>68</sup> and Jean Piaget,<sup>69</sup> who observed that children have a joy in being the producer of effects, especially something dramatic, such as making a clatter or jumping up and down in puddles, and they have a special interest in objects that they can affect by their own movements.

As Piaget himself noted, "Indeed, when the child looks for the sake of looking, handles for the sake of handling, moves his arms and hands (and in the next stage shakes hanging objects and his toys) he is doing actions which are an end in themselves, as are all practice games, and which do not form part of any series of actions imposed by someone else or from outside. They no more have an external aim than the later motor exercises such as throwing stones into a pond, making water spurt from a tap, jumping, and so on, which are always

considered to be games.”<sup>70</sup> In his landmark book *The Origins of Intelligence in Children*, Piaget describes the sensorimotor learning that occurs during the first few months of life. He argues that the actions of infants, such as their sucking after a meal when they are no longer hungry, are not motivated by pleasure or biological needs but by the motivation to exercise the action, to be effective in making it function.<sup>71</sup>

White summarizes this line of argument as follows: “The ever-present, ever-primary feature of motivation is the tendency to deal with the environment.”<sup>72</sup> He is not, however, arguing that motivation is only about having an effect on the environment. He explicitly states that he does not want to “down-grade the drives.” He proposes instead to bring together all the phenomena just described under the general heading of competence. He says: “The concept of competence . . . emphasizes dealing with the environment, and it belongs in the trend away from drive *orthodoxy* but it is not intended to supplant, or even to subsume, such dynamic forces as hunger, sex, aggression, and fear, which everyone knows to be of huge importance in animal and human nature” [italics in the original].<sup>73</sup>

Referring to the dictionary, he points out the broad range of meanings associated with “competence”—fitness or ability, capability, capacity, efficiency, proficiency, and skill. He concludes that the motivational aspect of competence needs its own name, and proposes that the name be *effectance*. Effectance motivation is not a deficit motive like hunger or thirst; there are no consummatory acts (e.g., eating; escaping from danger). Satisfaction lies in the *arousal and maintaining of activity* rather than reduction: “Because there is no consummatory climax, satisfaction has to be seen as lying in a considerable series of transactions, in a trend of behavior rather than a goal that is achieved. It is difficult to make the word ‘satisfaction’ have this connotation, and we shall do well to replace it by ‘feeling of efficacy’ when attempting to indicate the subjective and affective side of effectance.”<sup>74</sup> Importantly, according to White, there are still organic needs that can capture the “energies” of the motivational system, but, between episodes of homeostatic crises, effectance motivation occupies the waking time. Thus, White separates effectance motivation from drive reduction, need satisfaction, and consummatory climax. For him, effectance is an important character in the story of motivation that deserves higher billing, but it is not the whole story: there are still the drives.

White’s motivational concepts of competence, effectance motivation, and feeling of efficacy were influenced by the work of many psychologists before him, and they have influenced the work of many psychologists since. I will now consider two theories that themselves have been highly influential in both understanding and applying motivation as it relates to effectiveness.

### BANDURA AND MOTIVATION AS PERCEIVED SELF-EFFICACY

Albert Bandura, a pioneer in social-cognitive learning, has proposed that *perceived self-efficacy* is central to human effectiveness. He proposes that our judgments of our capabilities, our thoughts about our ability to manage events in our lives, influence our dealings with the environment: “Perceived self-efficacy is concerned with judgments of how well one can execute courses of action required to deal with prospective situations.”<sup>75</sup> For example, when people look at recipes while planning a meal, they look at the ingredients and instructions for how to make each dish not only to decide whether they would like to eat it but also to decide whether they are capable of actually executing it. People want to be efficacious. Their choices of which courses of action to pursue, how long to pursue them, how much effort to expend on them, and whether to persist or not when confronting obstacles, are all influenced by their self-efficacy judgments (whether these judgments are correct or not).

In self-efficacy theory, self-referent thoughts, rather than being global, are particular to the specific situational circumstances of specific activities. According to Bandura, our interest in engaging in an activity can grow from the satisfaction we experience when our performance accomplishments engender perceived self-efficacy. Importantly, the satisfaction need not come from perceiving an increase in self-efficacy; it can come simply from *verifying* or *substantiating* an existing self-efficacy without any new skills being acquired in the activity engagement. When acquiring a new competency, self-efficacy can also be experienced prior to acquisition by setting subgoal standards that mark progress along the way and provide a sense of growing self-efficacy. It should also be noted that perceived self-efficacy can even influence hedonic experiences themselves. For example, people who believe that they have efficacy in coping with pain can withstand more pain (e.g., keep their hand in ice-cold water for a longer period).<sup>76</sup>

Although Bandura’s theory of self-efficacy is related to White’s motivational concepts of competence, effectance motivation, and feeling of efficacy, there are important differences that should be highlighted. First, White’s effectance motivation—the motivational aspect of competence—is a general motivation to initiate or maintain activity and to have an effect upon and change the environment. Bandura’s perceived self-efficacy, in contrast, is much more contextualized. He gives the example of how someone’s perceived self-efficacy in public speaking can vary depending on what the audience is like and what the format of the presentation is.<sup>77</sup> Second, while being more contextualized, perceived self-efficacy is broader in its range of applicability. White’s discussion of effectance motivation restricts its range of applicability to conditions when organic needs are not capturing the energies of the motivational system—that is, when



the motivational system is not concerned with meeting the primary biological needs. In contrast, perceived self-efficacy would also influence decisions about how to meet organic needs, such as whether or how to hunt a particular animal for food (e.g., in a hunter-gatherer society). Bandura considers self-efficacy judgments to be involved in regulating all types of performance except for habitual, highly routinized behavior patterns.

### DECI AND RYAN AND MOTIVATION AS SELF-DETERMINATION

Another highly influential theory of competence and effectiveness is self-determination theory, developed by the motivation scientists Edward Deci and Richard Ryan.<sup>78</sup> According to Deci and Ryan, the starting point for self-determination theory is “the postulate that humans are active, growth-oriented organisms who are naturally inclined toward integration of their psychic elements into a unified sense of self and integration of themselves into larger social structures . . . it is part of the adaptive design of the human organism to engage interesting activities, to exercise capacities, to pursue connectedness in social groups.”<sup>79</sup>

Self-determination theory states that to understand human motivation it is necessary to consider the innate psychological needs for competence and autonomy. Following White, *competence* refers to the need to feel effective and to have control in relation to our environment (effectance motivation). *Autonomy* refers to the need to self-endorse our own actions and to *experience volition*, with the opposite of autonomy being excessive external control. Autonomy as the experience of volition is notable. Volition has two related meanings: (1) an act of making a choice or decision and (2) the power of choosing or determining.<sup>80</sup> Self-determination theory—not surprisingly, given its name—is especially concerned with the second meaning.

I believe that the most distinctive contribution of self-determination theory concerns the need for autonomy, and thus I will concentrate on this aspect of the theory. A critical feature of self-determination theory is its proposal that self-regulation in society varies in relative autonomy along the following continuum of *internalization*: first, there is the lowest-autonomy condition where individuals are *externally controlled*, such as acting out of hope for tangible reward or fear of punishment for disobeying some rule (the classic “carrot and stick” administered by others); at the next level, individuals are *introjected*, as when they follow social norms in order to feel pride or avoid guilt (the inner state version of the “carrot and stick” producing internal conflicts); at the next level is *identification*, when individuals consciously recognize and accept the underlying value of some activity (i.e., identify with the activity); and finally there is *integration*, the highest-autonomy level of internalization, where the

value of an activity is well assimilated with other values and aspects of the self to create a coherent, harmonious whole.<sup>81</sup>

Engaging in activities can also be intrinsically motivated (i.e., an end in itself), as when people freely engage in activities they find interesting, novel, or challenging. *Intrinsic* motivation is considered to involve the highest level of autonomy and self-determination. Indeed, according to self-determination theory, motivation is not intrinsic unless there is perceived autonomy. Finally, when there is neither extrinsic nor intrinsic motivation there is *amotivation*, which is a state where people lack the intention to do anything. Even externally controlled extrinsic motivation involves the *intention* to do something (e.g., in response to a carrot or stick). According to self-determination theory, a condition of amotivation is likely to occur when people lack a sense of efficacy or control over making something happen or not happen, as when they feel helpless because their actions have no effect on what happens to them.

I have now reviewed influential ideas within and outside of psychology suggesting that *to be effective in life pursuits* is what people really want. Although the term “effective” is not precisely the one that has been used in prior discussions of this motivation, it clearly relates to previous terms such as “effectance” and “efficacy.” I prefer “effective” because it is a more common term in everyday language. In addition, its formal dictionary definitions capture best what I have in mind, and what others have said, about this motivation<sup>82</sup>: (a) *having the power of acting upon something*; (b) *that part of a force that is instrumental in producing a result*; (c) *executing or accomplishing a notable effect*; (d) *fit for work or service*.

More broadly, I have also discussed three answers to the question, “What do people really want?” Each of these three answers—“to survive,” “to maximize pleasure,” and “to be effective in life pursuits”—tells us something important about motivation and has supporting evidence. My reasons for preferring the answer “to be effective in life pursuits” will become clearer as the book proceeds. Here, let me note just a couple of reasons. First, people will choose to endure pain and risk their biological health in order to meet challenges. This shows how the motivation to be effective—wanting to succeed at something—can trump hedonic and survival concerns. Second, if what it means to be motivated is to have preferences that direct choices, I believe that wanting to be effective in life pursuits provides the best answer to what determines people’s preferences moment to moment in everyday life. Being effective is about wanting to be successful at something and making choices in order to be successful, and thus it generally involves preferences directing choices. This view about what it means to be motivated and what it is that people really want provides an answer to the general question with which this chapter began: *What is motivation?*

## MOTIVATION IS DIRECTING CHOICES IN ORDER TO BE EFFECTIVE

I am not suggesting that “directing choices in order to be effective” is the only reasonable perspective on what is motivation. In fact, there are reasonable alternatives that have been around for a very long time because they capture important insights about what motivation is and how it works. Let me consider two major alternative perspectives—the “approaching pleasure and avoiding pain” perspective and the “directing energy in order to survive” perspective—and consider how they answer the main questions about motivation raised in this chapter.

### Approaching Pleasure and Avoiding Pain

As discussed earlier, the hedonic principle underlies both the accepted notion that people prefer pleasure to pain, which is generally true, and the common assumption that a good way to motivate someone is the promise of reward (the “carrot”) or the threat of punishment (the “stick”), which is not necessarily true but can be true. The hedonic principle is an elegant overall answer to the general question of what is motivation because it effortlessly combines an answer to “What does it mean to be motivated?”—to approach or avoid something—with an answer to “What do people really want?”—to maximize pleasure and minimize pain. Motivation, according to this principle, is thus “approaching pleasure and avoiding pain.”

My preferred view that motivation is “directing choices in order to be effective” does not contradict the hedonic principle. One way people can be effective is to have pleasure rather than pain. And their choices will be directed by their preference for pleasure over pain. However, people’s preferences are not based only on the hedonic outcomes they anticipate. There are other kinds of outcomes, such as knowing the truth about something (even when the truth hurts). In addition, anticipated outcomes, whether hedonic or not, are not the only sources of preferences that direct choices. People also prefer to do something in a particular *way*, such as pursuing goals in an eager way rather than a vigilant way, and these *strategic preferences* also direct choices. And it is not as if some way of doing things, such as being eager rather than vigilant, is more motivating because it is more pleasant. Indeed, if a person has prevention concerns, behaving in an eager manner has been shown to *reduce* motivation.<sup>83</sup>

Beyond these considerations, citing pleasure and pain as the determinants of people’s choices can overemphasize the motivational force of the hedonic consequences of self-regulatory success in the future. The basic function of pleasure and pain is to provide *feedback* about self-regulatory success and failure. For example, a thirsty animal gets unpleasant “thirsty” feedback that

motivates seeking a liquid to drink that will reduce the thirst. What the animal wants is just to reduce the thirst; it is not looking to experience the future pleasant feedback signal of success from drinking the needed liquid. In addition, during the goal-pursuit process itself the animal manages what happens (control effectiveness), and once it drinks the liquid it has the desired result of no longer being thirsty (value effectiveness).

Characterizing all these motives as just wanting a future pleasant feedback signal is not reasonable. At worst, it is a teleological error (i.e., a logical fallacy) because it implies that a future event caused a past event. Yes, thanks to the feedback signal, there are hedonic experiences involved in this goal pursuit, and they are part of the motivational story. But it is misleading to treat them as *the* story. And for nonhuman animals that are not self-conscious of their own future self experiences, it is especially misleading to suggest that their choices in the present are determined by the pleasant feedback signals they will experience in the future from successful self-regulation.

Another limitation of the hedonic principle is that it fails to distinguish among different kinds of motivational experiences that relate to different ways of being effective. There is not a single success experience of pleasure and a single failure experience of pain; there are many different kinds of success and failure experiences. For example, if a goal pursuit is successful, individuals with a promotion focus and individuals with a prevention focus will both feel proud and satisfied, which are feelings of being effective at having what's desired, but, in addition, the promotion-focused individuals will feel happy while the prevention-focused individuals will feel relaxed.<sup>84</sup> For successful promotion- and prevention-focused individuals, characterizing those positive feelings that are the same (proud and satisfied) and those positive feelings that are different (happy vs. relaxed) as simply *pleasant* feelings does not capture the fact that these feelings are different because the motivational states that underlie them are different.<sup>85</sup>

There are other positive feelings as well that are not just pleasant. Both promotion- and prevention-focused individuals will “feel right” about what they are doing if the strategic manner of their goal pursuit fits their focus, where an eager manner fits promotion and a vigilant manner fits prevention.<sup>86</sup> Feeling right about what you are doing is an experience of success in managing what happens (control effectiveness). It is *not* the same as just feeling pleasure.<sup>87</sup>

The distinct positive feelings that are associated with a particular self-regulatory system provide feedback that the system is regulating effectively. Each system also has distinct negative feelings that signal that it is not regulating effectively. For example, people feel hungry when they have not had enough to eat and feel thirsty when they have not had enough to drink. People feel sad or discouraged when their promotion system fails, and they feel nervous and

tense when their prevention system fails.<sup>88</sup> It has been suggested that the primary function of affective experiences is to signal or provide feedback about self-regulatory success or failure—that some self-regulatory system is working or not working.<sup>89</sup>

Thus, rather than people doing things only for the sake of “happiness” or “life satisfaction,” which is a hedonic motivational story, they often do things in order to experience value, truth, or control effectiveness. The motivational instigator is not to feel good but to be effective, and when we are effective we receive a “success” feedback signal that happens to feel good. The motivation is to be effective in our life pursuits, and we use feedback signals to manage these goal pursuits. Just because these feedback signals can be pleasant or painful, and we prefer pleasure over pain, does not mean that they instigated the goal pursuits.

I believe that the hedonic principle receives more credit than it deserves for what motivates someone to do something. Indeed, placing too much emphasis on the hedonic principle, as when people blithely use “carrot and stick” incentives, can guide motivation in the wrong direction, as I discuss more fully in Chapter 12. It is true that when people succeed in their goal pursuits they experience pleasure, and when they fail they experience pain. But it does not follow from this that these hedonic outcomes motivated the goal pursuits to begin with. Was it really pleasure and pain that people wanted? I believe that people really want to be effective, and it is this motivation that generally initiates goal pursuits. Pleasure and pain function as highly useful feedback signals about whether the goal pursuit has been effective or not. And, as feedback signals, pleasure and pain are an important part of the motivational system. But this does not make them the initiator of motivation.

Earlier I described classical conditioning studies that found that pigeons will make eating-like pecks at light cues that were previously associated with an edible reward and drinking-like pecks at the same light cues when they were previously associated with a liquid reward, despite the fact that the light cues themselves do not satisfy hunger or thirst. I mentioned these studies as evidence against physiological needs, or survival, being a sufficient answer to what is really wanted. I concluded that these studies show that experience matters. I also implied that they support the pleasure and pain answer to what is really wanted. On that final implication, I could have been giving pleasure and pain too much credit. Yes, experience matters. But the experience could be one of being effective and not hedonic experience. Were the pigeons really pecking for the sake of pleasure or were they pecking to be successful at something that they had learned to do? From a Piagetian perspective, was the pecking of the pigeons like the non-nutritive sucking of infants who want to exercise that function? Upon reflection, the latter alternative seems a stronger possibility.<sup>90</sup>

Again, I am not claiming that “directing choices in order to be effective” encompasses *all* of motivation. There *are* experiences of pleasure (e.g., watching a sunset) and pain that motivate people beyond their implications for being effective. But what generally motivates people is the desire to be effective, with pleasure and pain typically functioning as feedback signals of success and failure at being effective.

## Directing Energy in Order to Survive

The “directed energy” answer to what it means to be motivated can be combined with the “survival” answer to what people really want. From this perspective, motivation is “directing energy in order to survive.” This answer to what is motivation also has a long history, especially within psychology in the first half of the 20th century, and it is implicitly held by some current evolutionary perspectives on motivation.

It is true that energy is expended in goal-pursuit activities. It is also true that activities can be pursued in order to satisfy biological needs of survival. Thus, people can choose to invest their energy more in one activity than in another as a function of each activity’s contribution to satisfying biological needs of survival. In short, people can direct choices of energy investment in order to be successful at survival. This alternative, then, is certainly part of the story of motivation. But again it is not the whole story because not all of our choices are directed by biological survival needs. People can make choices that are directed by motives that *decrease* rather than increase their chances of survival, such as thrill-seeking activities and addictions.

In addition, it is *not* the case that stronger motivation necessarily means investing more energy, or that more energy is the key to success at survival or at any other objective. Regardless of how much effort people would be *willing* to invest in order to be successful at something, they will invest only the amount of energy that is actually *required* to ensure success.<sup>91</sup> Given this, the amount of energy that is invested in doing something does not directly reflect the strength of motivation to succeed at it. And, most important of all, there is no all-purpose energy that can simply be directed to attain any goal. Success in goal pursuit depends on making strategic and tactical choices that *work together effectively* with one’s goal orientation. Success is not about the amount of energy that is invested; it is about the right organization of motives.

The underlying assumption of this book is that, generally speaking, motivation is *directing choices in order to be effective*. In the next chapter, I will be discussing the three ways in which people want to be effective—*value*, *truth*, and *control*. I will compare and contrast them as well as describe briefly the relations among them. I will then devote a chapter to each way of being effective.

It is important to know about each one in its own right because each is critical to motivation. But the three different ways of being effective do not operate just as separate dimensions of effectiveness: it is the *relations* among them as they *work together* that is a central theme of this book. Thus, in later chapters, I will discuss the significance of specific pairs of relations—between value and truth, value and control, and truth and control—and then consider the structural organization among all three ways of being effective: *value, truth, and control working together*.