

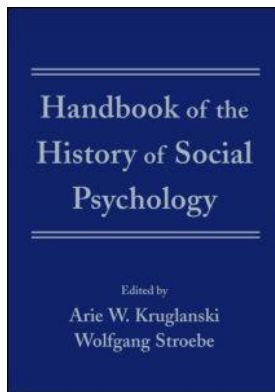
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10 Motivation science in social psychology: A tale of two histories

E. Tory Higgins

Not surprisingly, the history of motivation science in social psychology reflects the history of motivation science in psychology more generally. The ways in which this is *not* the case, however, are noteworthy and are the central themes of this chapter. This chapter highlights the important role of social and social-personality psychologists in researching motivational questions that received relatively little, if any, attention from scientists in other areas of psychology. To appreciate this role of social psychology, the general history of motivation science within psychology needs first to be reviewed in order to provide the background against which social psychology's distinct contributions will more clearly stand out.

This chapter, therefore, will begin with an overview of the history of motivation science within psychology generally. I will then review two histories of motivation science within social psychology more specifically. First, I will review *the history of social psychologists' contributions to motivation science*. Second, and more briefly, I will review *the history of social psychologists' identifying motivation as their research area*. I must emphasize from the beginning that I will take a “big picture,” “broad strokes” approach in my historical reviews. This is necessitated by the magnitude of the motivation literature. It is simply not possible in a short chapter to provide an extensive historical review of all the motivationally relevant theories and findings in social psychology. In addition, my historical review, like all historical reviews, reflects my personal preferences on how to organize and group motivational theories and findings. There are certainly other ways to carve the field, and my cuts may or may not divide the field at its most natural joints. But even with its limitations, I hope it will still provide some insights about the history of motivation science in social psychology.

Historical changes in motivation science within psychology

My review of historical changes in motivation science within psychology will begin around the beginning of the 20th century. Obviously, there is a pre-20th century history, but social psychology's history mostly begins around that time (see Allport, 1968; Jones, 1998) and thus this is a reasonable point at which to begin the background story of motivation for psychology more generally. To a large extent, the history of

motivation is a history of different perspectives on what it is that people really want. The dominant perspective among most psychologists in the early 20th century was that what people really want is basically *the same as what other animals really want*. Indeed, it was precisely because of this perspective that many psychologists believed that the answers to how human motivation worked could be found by investigating the behaviors of rats, pigeons, monkeys, and other animals. And, generally speaking, there were two predominant answers to what people and other animals want: (1) to satisfy their biological needs, such as their needs for food and water; and (2) to experience pleasure and not experience pain. Although these two answers are related in that satisfying needs can produce pleasure and not satisfying needs can produce pain, they are actually different in important ways. For this reason, I will discuss each of them separately.

Motivation as satisfying biological needs

The notion that what people and other animals really want is to satisfy biological needs had the advantage of seeming like the obvious answer to what motivates us: obvious because survival depends on biological needs being satisfied, and what could be more basic to motivation than wanting “*survival*”? The notion that, moment to moment, individuals want to survive—that they prefer to stay alive than to die—is certainly powerful. So powerful, in fact, that it is not surprising that “need satisfaction” was such a popular way to think about motivation in the early 20th century. Indeed, it is still a popular way to think about motivation.

Satisfaction of biological needs was thought to be so central to motivation that even the *value* of something, such as the value of food or water or the value of social interaction, was conceptualized in terms of the extent to which it was instrumental to satisfying a biological need. And it was not just animal learning, behavioristic psychologists that held this viewpoint. Psychologists with Gestalt and psychodynamic theoretical perspectives also proposed that how much you want something, i.e., its value, derived from the extent to which it satisfied some need, such as tension reduction.

In the classic version of this viewpoint, behavior is directed toward the removal of tissue deficits. Drives were manifest in behavior, had physiological correlates, and naturally gave rise

to man's desires (for a classic description of this viewpoint, see Woodworth, 1918; see also Hull, 1943). Value derives from homeostasis and physiological equilibrium (for a fuller discussion of this position, see Weiner, 1972). A striking illustration of this source of value is provided in the classic textbook of Robert Woodworth and Harold Schlosberg (1954). 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 versus one that lacks vitamin B, the animal will choose the vitamin B-rich meal.

Motivation as maximizing pleasure and minimizing pain

The hedonic principle that people are motivated to approach pleasure and avoid pain has an even longer history of being a dominant answer to what is motivation, being found in classical Greek writings. In the 18th century, Jeremy Bentham 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” (see Bentham, 1781/1988, p. 2). And in the beginning of the 20th century, the hedonic principle remained a major answer in psychology to what it is that people and other animals want. And, once again, its popularity was not restricted to animal behavior psychologists, such as Thorndike's (1911) famous law of effect where “pleasure stamps in” and “pain stamps out.” It was true for psychodynamic psychologists as well, including Freud.

Freud (1950/1920) described motivation as a *hedonism of the future*. From the title of his classic book, *Beyond the Pleasure Principle*, it would seem that his theory of motivation went beyond the notion that people are motivated to seek pleasure. But what the title refers to is Freud's proposal that people are not only motivated to seek pleasure, as reflected in the influence of the “Id” or pleasure principle that wants immediate gratification, but also to minimize pain, as reflected in the “Ego” avoiding punishments from violating normative “Superego” demands. For Freud, behaviors (and other psychical activities) were motivated by anticipations of pleasure to be approached (wishes) and anticipations of pain to be avoided (fears). In his field theory, Lewin also described how the “prospect” of reward or punishment is involved in children learning to produce or suppress their behaviors (see Lewin, 1935).

As I noted earlier, although satisfying needs can produce pleasure and not satisfying them can produce pain, need satisfaction and hedonism are *not* the same motivation. Indeed, the motivation to maximize pleasure can trump the motivation to satisfy basic biological needs. Animals will make choices on the basis of hedonic experiences independent of any biological need being satisfied (for a review of this evidence, see Eisenberger, 1972). For example, there are early studies (see Woodworth & Schlosberg, 1954) which show that sweet water with saccharine that has no physiological benefit is preferred to regular water, and that animals prefer sweet food to

a physiologically better food (e.g., a food that is more beneficial given the animal's vitamin deficiency). 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 (Olds & Milner, 1954). In these studies, metallic electrodes were implanted in certain regions of the lateral hypothalamus and some rats would 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 mash, food-deprived rats would stop at a point halfway down the runway to self-stimulate, never going to the food at all.

In sum, at the beginning of the 20th century the two predominant perspectives on what is motivation were that people, like other animals, wanted to satisfy their biological needs and wanted to maximize pleasure and minimize pain. I should emphasize that these two perspectives have not disappeared. They remain today as major perspectives on motivation (see, for example, Kahneman, Diener, & Schwarz, 1999). Nonetheless, there was historical change in thinking about motivation during the 20th century. And one factor behind this change was observing the development of human children (and primates) that suggested another motivation underlying their behavioral choices—a motivation that was more obvious in human children than in laboratory animals. This motivation was wanting to make things happen, wanting to take action— independent of whether any biological need was satisfied or the activity itself was pleasant.

Motivation as wanting to take action

Perhaps the most striking example of a historical change in thinking is provided by Robert Woodworth. It was Woodworth that had coined the term “drive” in his 1918 book, *Dynamic Psychology*, with the notion of drive becoming a central part of the need satisfaction perspective. But in the fourth edition of his book *Psychology* (1940), he makes the following striking statement (p. 374):

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.

Wow! Rather than taking action in order to satisfy biological needs such as drinking water and eating food, water is drunk and food is eaten *to supply the energy for taking action*. What we really want to do is take action. I must admit that when I found this passage a few years ago, it inspired me to write a book on motivation which takes the position that motivation is basically about the different ways we try to be effective in our life pursuits (Higgins, 2011). What is notable about this historical change in Woodworth's thinking that goes beyond need satisfaction drives and the hedonic principle is that his thinking was shared, independently, at almost the same time in history, by none other than John Maynard Keynes, the renowned British economist.

In his magnum opus, *General Theory of Employment, Interest, and Money* (1936), Keynes argues that motivation is the urge to action (see Keynes, 1936/1951, Chapter 12, Part VII, pp. 161–162): “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.”

This shift in thinking about motivation that occurred around 1940 was an important change. But, by itself, it was not sufficient. This is because it left unanswered what this “action-taking” itself was all about. What is it, actually, that is motivating? In the 1950s, however, psychologists began to address these questions and provide some answers about the nature of this motivation that was different from need satisfaction and hedonism. Given space constraints, I will restrict my discussion to two historically significant answers—one from Donald Hebb and one from Robert White.

Hebb's notion of optimal stimulation

In his classic 1955 paper “Drives and the C. N. S. (conceptual nervous system),” Hebb takes the reader on a journey along the different paths of his thinking across a quarter century, from 1930 to 1955. 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 curiosity–investigatory–manipulatory drive. As a Headmaster of a troubled school in a Montreal suburb, he conducted an experiment where pupils from 6 to 15 years of age were suddenly told by their teachers that they didn't have to work anymore if they

didn't want to (Hebb, 1930). Moreover, if they interfered with other students' work in the classroom, they would be *punished* by being sent outside to *play* in the playground. After just a couple of days, *all* of the students chose to study quietly in the classroom. Hebb concluded that the human brain is built to be active, that brain activity is what determines behavior, and, indeed, the only behavioral problem becomes that of accounting for *inactivity*.

This radical statement had a family resemblance to Woodworth's radical statement. Like Woodworth, Hebb was saying that rather than biological 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. However, Hebb's subsequent experiments on sensory deprivation made it clear that this was not a fully sufficient answer because when the participants chose to quit the experiment, despite all their primary biological needs being satisfied and their receiving high monetary incentives, they had been able to think while being deprived and thus their brain cells should have remained active. This led Hebb to the notion of optimal stimulation—too little stimulation disrupts motivation (as during sensory deprivation) and too much stimulation also disrupts motivation (as during a high state of fear). Stimulation between these conditions is optimal (see Hebb, 1955). Thus, people create their own problems to solve, engage in games and puzzles, and take other kinds of action when their current state of stimulation is not high enough in order to reach an optimal level of brain activity—independent of physiological need satisfaction or hedonic pleasure *per se*.

White's notion of effectance

In his highly influential 1959 paper, “Motivation reconsidered: The concept of competence,” White argued that something important was left out when psychologists made drives the motivating force for the behaviors of humans and other animals. White 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 and other animals remain active and up to something.

White describes the work of two pioneers in the study of children's play, Karl Groos (1901) and Jean Piaget (1952), 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 have a special interest in objects that they can affect by their own movements. Children want to have an effect on the environment, deal with it, and change it. Piaget (1951, p. 90) elsewhere, in an early statement about *intrinsic* motivation, describes children's play motivation as follows: “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 spirt from a tap, jumping, and so on, which are always considered to be games.”

White points out the broad range of meanings associated with “competence”—fitness or ability, capability, capacity, efficiency, proficiency, and skill—and concludes that the motivational aspect of competence needs its own name. He 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). Importantly, satisfaction lies in the *arousal and maintaining of activity* rather than reduction, and thus he distinguishes effectance motivation from drive reduction or need satisfaction.

So what happened in the second half of the 20th century? What happened was the “cognitive” revolution (e.g., Chomsky, 1965; Miller, Galanter, & Pribram, 1960; Neisser, 1967). This had a profound effect on the scientific study of motivation. The possibility of bypassing motivation in accounting for learning was supported by the strong computer science/artificial intelligence underpinnings of the new cognitive approach. This nonmotivational perspective was reflected in the popular phrase of the time, “humans as faulty computers.” More generally, the cognitive revolution was against the constraints placed by behaviorism on the study of mental representation and information processing. The result, however, was to abandon altogether the area of “learning and motivation” that was associated with behaviorism. Unfortunately, no distinction was made between the “learning” and the “motivation” parts of this area.

Yes, what people (and other animals) learned was more than just S–R or S–S associations, and the new cognitive psychology was a breadth of fresh air in the study of the nature and the determinants of stored knowledge. But what about the motivation to learn—the motivation to acquire the knowledge to get along in the world? What was the nature of this motivation and how did it work? For most of psychology, the motivational questions were thrown out with the bath water during the “cognitive” revolution. In social psychology as well, the “social cognition” revolution of the 1970s largely followed suit in mostly abandoning motivation as a topic. For example, in the 1950s the “New Look” in perception studied how people’s values and needs influenced their perception of objects (see Bruner, 1957, 1958)—a truly fascinating motivational question. Values and needs were thought to influence accessibility (or “perceptual readiness”), which then impacted judgment (Bruner, 1957). In the 1970s the sources of accessibility that impacted judgment became recent and frequent priming rather than motivation (see Higgins, Rholes, & Jones, 1977; Srull & Wyer, 1979). It would take another two decades before motivation again became a central factor in accessibility (for a review, see Eitam & Higgins, 2010).

Despite the cognitive revolution of the 1970s, there remained social psychologists and social-personality psychologists who

continued to expand psychology’s understanding of motivation. More than any other subdiscipline within psychology, social and social-personality psychologists made historical contributions to motivation science in the second half of the 20th century. As I will discuss in the second history tale, they did not always identify motivation *per se* as their research area. Nonetheless, they changed motivation science in significant ways. This is the story of social psychologists’ historical contributions to motivation science that I present next.

A history of social psychologists’ contributions to motivation science

My viewpoint on the history of social psychologists’ contributions to motivation science derives from two different attitudes that I have about human motivation. Let me begin, then, by introducing these attitudes. The first relates to how *human* motivation differs from the motivation of nonhuman animals (see Higgins & Pittman, 2008).

As I mentioned above, the dominant perspective among most psychologists in the early 20th century was that what people really want is basically the same as what other animals really want. I believe that this perspective was inspired by one interpretation of Darwin’s (1859) revolutionary work in the second half of the 19th century (see Higgins & Pittman, 2008). The logic is that if humans evolved from other animals—if we were descended from them—then it would make sense to use the characteristics of nonhuman animals as reference points for discovering the characteristics of the human animal. This comes from the meaning of “evolve” as “derive from.” That is, if humans originated in, were formed by, or were made up of other nonhuman animals, then they must have characteristics in common with these other animals. Psychologists were impressed by how human motives were so much like those of other animals. If biological needs or drives underlie the behaviors of animals, then they are likely to underlie human behavior as well. If the pleasure principle is central to explaining animal behavior, then it should be central when explaining human behavior as well.

What is curious about all this, however, is that psychologists generally had a different perspective when it came to human cognition. Here the meaning of “evolve” was interpreted more as “develop,” which concerns growth, elaboration of possibilities, and improvement. For cognition, the emphasis was more on how humans developed from other nonhuman animals in a direction of increasing complexity, with some special or greater capacities that make them different from (better than?) other animals. When it came to cognition, psychologists were inspired by how humans’ creation and use of symbol systems and cultural artifacts (e.g., language, art, music, math, law, religion) were so special and advanced compared to the cognitive expressions of other animals.

But if there was development—fundamental growth—in humans for cognition, there must have been development for motivation as well. Higgins and Pittman (2008) describe four

fundamental developments of the human animal that together produce distinct human motives: (1) Social consciousness or awareness that the outcomes or significance of a person's actions (self or other) depend on how another person (self or other) reacts to them; (2) Recognizing that people's *inner states* can mediate their outward behaviors; (3) Relating the present to both the past and the future (mental time travel); and (4) Sharing reality with other people.

Together, these four developments of the human animal produce the distinct human concerns of *wanting to comprehend, manage, and share inner states*. Social consciousness means that people are aware that others have power over their outcomes and it motivates people to *comprehend* others' inner thoughts, feelings, and desires, as well as the social rules and customs that influence others' inner states. It also motivates people to comprehend what are their own competencies, feelings, beliefs, and desires in order to learn about their relative strengths and weaknesses, their own personal preferences and desires. Social consciousness and recognition that people's inner states can mediate their outward behaviors also motivates people to *manage* others' inner states to make them use their power and influence for them rather than against them, and to manage their own feelings and beliefs in order to function effectively in the social world. Finally, humans want to share their comprehension of the past, present, and future with other people (see Hardin & Higgins, 1996), which produces intentional teaching and instruction that is unique to humans.

For the first half of the 20th century, these distinct human motives received relatively little attention by psychologists in comparison to the motives that humans had in common with other animals (i.e., biological need satisfaction; maximizing pleasure and minimizing pain). But, to be fair, they did receive some significant attention from clinical psychologists interested in ego- or self-control and in personality differences, including not only Sigmund Freud but also Anna Freud (see Freud, 1937), Alfred Adler (see Adler, 1954), Carl Jung (see Jung 1921/1971), Karen Horney (see Horney, 1939), Henry Murray (see Murray, 1938), Carl Rogers (1951), Harry Stack Sullivan (see Sullivan, 1953), and others. Their work greatly influenced social and social-personality psychologists in the second half of the 20th century. But for motivation generally, the predominant psychological perspectives on motivation were still biological need satisfaction and maximizing pleasure and minimizing pain—including for Freud himself.

I believe that the revolution in motivation that occurred during the second half of the 20th century was produced by the work of social and social-personality psychologists. To appreciate the nature of this revolution, I need to introduce my second attitude about human motivation that concerns the critical role in human motivation of wanting to be effective (Higgins, 2011). This second attitude is directly inspired by the motivational perspective that I discussed earlier—that motivation is about wanting to take action. After the earlier contributions of psychologists such as Woodworth, Hebb, and White, it was social and social-personality psychologists who made the most

significant contributions to further developing this perspective—especially Al Bandura's work on self-efficacy theory (e.g., Bandura, 1977, 1982, 1986) and Ed Deci and Rich Ryan's work on self-determination theory (e.g., Deci, 1975, 1980; Deci & Ryan, 1985, 2000). Let me briefly discuss each of these historical contributions.

Bandura and motivation as perceived self-efficacy

Bandura (1982, p. 122) proposed that *perceived self-efficacy* is central to human effectiveness: "Perceived self-efficacy is concerned with judgments of how well one can execute courses of action required to deal with prospective situations." 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's 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). 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.

Although Bandura's theory of self-efficacy is related to White's motivational concepts of competence, effectance motivation and feeling of efficacy, historically there are important differences that should be highlighted. First, White's effectance motivation—the motivational aspect of competence—is a general motivation to have an effect on and change the environment, whereas Bandura's perceived self-efficacy is much more contextualized. Second, White's discussion of effectance motivation restricts its range of applicability to conditions 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 dangerous 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

According to Deci and Ryan (2000, p. 229), 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 in interesting activities, to exercise capacities, to

pursue connectedness in social groups.” Following White, *competence* refers to the need to feel effective and to have control in relation to our environment (effectance motivation) and it is distinguished from autonomy.

Autonomy refers to the need to self-endorse our own actions and to *experience volition*, with the opposite of autonomy being excessive external control. Volition has two related meanings: (1) an act of making a choice or decision; and (2) the power of choosing or determining. Self-determination theory—not surprisingly given its name—is especially concerned with the second meaning. (For a fuller discussion of the role of volition in human motivation, see deCharms, 1968.)

I believe that the most distinctive contribution of self-determination theory concerns the need for autonomy. 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.

It should be noted that, according to self-determination theory, integration involves the internalization of a choice preference that was externally compelled to begin with, and continues to be *extrinsically* motivated—experienced as a means to an end, as instrumental, rather than as an end in itself—but now the choice is experienced as autonomous, volitional. Importantly, then, an activity can be extrinsically motivated and still be experienced as autonomous or self-determined. It should be emphasized as well that engaging in activities can be intrinsically motivated (i.e., an end in itself), as when people freely engage in activities they find interesting, novel, or challenging. Importantly, *intrinsic* motivation is considered to involve the highest level of autonomy and self-determination.

Historically, self-determination theory adds something new to White’s perspective by considering not only competence but also autonomy as a basic need. The theory proposes that people not only need to feel effective and have control in relation to their environment, but they also need to experience volition in their actions, to self-endorse and experience their power of choosing what to do. People not only need to have control over what happens, to make something happen, but they need to experience that what they control, what they make happen, is what *they* wanted rather than being only what someone else wanted. In other words, it is not enough for people to control the means of their goal pursuits. They also need to choose what

goals to pursue. Slavery would be an example of having some control over *how* goals are pursued but having little, if any, control over *what* goals to pursue.

Along with other historical contributions by social psychologists on intrinsic motivation in the early 1970s (see, for example, Kruglanski, 1975; Lepper, Greene, & Nisbett, 1973; Ross, 1975), the development of self-determination theory as a perspective on the differences between intrinsic versus extrinsic motivation was a major contribution to the science of motivation. Building on this work and the other foundational contributors to the notion that motivation is about wanting to take action, I have recently proposed that *to be effective in life pursuits* is what people really want (Higgins, 2011). I distinguish between *three different ways to be effective*, which work together as an *organization of motives*.

What Woodworth, White, Bandura, and Deci and Ryan were mostly concerned with was *control* effectiveness—*managing what happens* (including managing inner states such as resisting temptations). There are two other ways of being effective, however. One other way of being effective relates to need satisfaction, drive reduction, and maximizing pleasure—*value* effectiveness as *having desired results*. White, for example, explicitly distinguished between his effectance motivation (control effectiveness) and drive reduction motivation (value effectiveness), but without suggesting that there is an overarching motivation to be effective in life pursuits that includes *both* being effective in managing what happens (control) *and* being effective in having desired results (value). Moreover, he did not discuss a third way of being effective that is very important to humans and has received substantial attention from social psychologists—*truth* effectiveness, which is *establishing what’s real* (what’s correct, what’s right, what’s true).

Combined with what makes human motivation distinctive, this “ways of being effective” perspective provides a framework for appreciating social psychology’s historical contributions to motivation science from the second half of the 20th century to today. I have already begun a discussion of social and social-personality psychologists’ contributions to understanding the motivation of *control* effectiveness, of managing what happens with respect to such inner states as feelings of self-determination (or autonomy) and perceptions of self-efficacy. In the next section, I broaden my discussion of social psychology’s historical contributions to understanding control effectiveness. I then discuss social psychology’s significant historical contributions to understanding the motivations underlying both truth effectiveness and value effectiveness. Once again, space limitations will require my review being very selective and illustrative. For a more comprehensive and critical review, see Higgins (2011).

Social psychology’s contributions to understanding control effectiveness

When people are *effective at control* they manage what is required, such as managing procedures, competencies and

resources, to make something happen or not happen. Having control relates to exercising direction or restraint upon action, to having power or authority to guide or manage. In the motivation literature, *resistance to temptation* is the classic example of a self-control problem. And, when considering resistance to temptation, two historical figures come to mind. First, there is Freud who suggested that controlling conflicts between inner motivational forces was the major psychological problem that people faced (see Freud, 1961a). The most fundamental conflict was between the motivational forces of the Id and the motivational forces of the Superego (also called the Ego Ideal). In one of his last books, *Civilization and Its Discontents*, Freud (1961b) describes how civilization demands that individuals curb their personal pleasures, causing civilized people to live a life of guilt and frustration. A concrete example of this is toilet training, which remains a prime example of conflict between the Id and the Superego and the importance of effective control—the experiences of success and failure in managing when and where defecation does and does not happen.

Almost 50 years later, the second historical figure, Walter Mischel, introduced the now classic “marshmallow” test of children’s ability to *delay gratification* (Mischel, 1974; Mischel & Ebbsen, 1970). Whereas Freud’s problem concerned individuals suppressing wished-for acts that were forbidden by others, Mischel’s problem concerned individuals tolerating self-imposed delays of something they want now. Mischel considers such self-imposed delays to be a basic human task that is at the core of what is typically meant by *willpower*.

The “marshmallow” test is brilliantly simple. Preschoolers are brought into a room one at a time and are seated at a table and shown two objects, such as a marshmallow and a pretzel. It is known from pretesting that, although the test child likes both of the objects, one of them is clearly preferred, such as the test child preferring the marshmallow. In order to attain the preferred object, the child must wait alone with the two objects on the table until the experimenter returns to the room. At any time while the experimenter is away, the child can ring a bell that is on the table to signal the experimenter to return. But the children know that if they hit the bell, then it is the less preferred object, the pretzel, that they will eat rather than the more preferred object, the marshmallow. To eat the marshmallow, then, the child must resist the impulse to ring the bell and have immediate gratification by eating the pretzel.

Mischel and his colleagues made significant contributions to understanding control effectiveness by investigating which of the strategies that children use succeed or fail in delaying gratification. From a traditional incentives perspective, the best strategy should be to think about the preferred object, the marshmallow, that will be attained by waiting. Thinking about the marshmallow’s yummy properties and how delicious it will be to eat it should make the marshmallow even more desirable as a reward, which should increase the child’s motivation to wait to receive it as a reward. But, in fact, this strategy makes it *more* difficult to wait (Mischel & Ebbsen, 1970). What was found to be more effective was to mentally transform the objects

into nonconsummatory objects, such as transforming the pretzel into a thin brown log or the marshmallow into a white fluffy cloud, which is said to transform “hot” properties into “cold” properties (see Metcalfe & Mischel, 1999; Mischel, 1974).

It was not until after the “cognitive” revolution in social psychology that Mischel’s early pioneering work on resisting temptation (and Freud’s even earlier writings) inspired social and social-personality psychologists to study the mechanisms underlying effective and ineffective control of temptations. But once the research started, it mushroomed. This recent research has shown that there are conditions under which paying attention to the temptation can enhance self-control by increasing commitment to successfully attaining the goal. For example, the vigilance required to resist some temptations fits a prevention focus on security but not a promotion focus on accomplishment (for a discussion of the regulatory focus distinction between promotion vs. prevention, see Higgins, 1997, 1998). Thus, individuals with a prevention focus perform even *better* on a primary task when there *is* a temptation to be resisted (requiring the increased vigilance that sustains their orientation) than when there is not a temptation, whereas this is not true for individuals with a promotion focus (see Freitas, Liberman, & Higgins, 2002). In addition, sometimes the best way to resist temptation is to pay attention first to the temptation itself. When the preferred goal (e.g., healthy eating) is clearly a priority, then exposure to the temptation (e.g., tasty junk food) will activate the goal with its higher priority, and activating the preferred goal will override the temptation (e.g., Fishbach, Friedman, & Kruglanski, 2003; Shah, Friedman, & Kruglanski, 2002).

I mentioned that mental time travel is a unique characteristic of humans. This ability has implications for resisting temptation because people can anticipate that when they are faced with a choice in the future between a tempting alternative and the alternative that they actually prefer, they will fail to resist temptation and end up without their preferred outcome. What can they do in the present to control this anticipated failure to resist temptation in the future? One solution is to institute counteractive control mechanisms to deal with the influence of the short-term costs. For example, an effective tactic is to think in the present about the future temptations that need to be resisted. It has been shown that thinking about them in the present can produce a counteractive response now of increasing the value of the preferred alternative, *before* the actual temptation needs to be resisted (Trope & Fishbach, 2000).

Yet another strategy for resisting temptation that has been studied recently is to change how the temptation and the preferred alternative are represented or construed (see Fujita, 2008; Fujita, Trope, Liberman, & Levin-Sagi, 2006). Often the temptation, like a sweet dessert, is construed at a low level, such as “chocolate cake,” while the preferred alternative is construed at a high level, such as “healthy diet.” Thus, if the conflict situation were itself construed at a high level, then the preferred alternative would be experienced as primary, which would make it easier to resist the now secondary temptation. A technique for construing a conflict situation at a higher level is

to ask yourself *why* you are doing an activity rather than *how* you are doing it.

In addition to learning more about what strategies can be used to enhance resistance to temptation, recent research has also increased our understanding of the conditions that make resistance more difficult. One such condition is when psychological resources needed for self-control have been depleted from expending energy in a prior self-regulatory task. Self-control challenges can be conceptualized in terms of self-regulatory *strength* (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Baumeister & Heatherton, 1996; Baumeister, Heatherton, & Tice, 1994). Temptations, such as an impulse to consume alcohol after watching a beer commercial, vary in strength. If a temptation is weak, then resisting it will be relatively easy. However, if a temptation is strong, then the motive resisting it must be strong to stifle it.

Baumeister and colleagues proposed that self-regulatory strength overall is a limited resource, and, thus, if people have had to use some of their self-regulatory strength on an initial task, they will have less self-regulatory resources available for the subsequent task. In one study demonstrating this “limited resource” phenomenon (see Vohs, Baumeister, Schmeichel, Twenge, Nelson, & Tice, 2008), participants first performed a more or less demanding consumer task (i.e., complex choices among different product categories vs. simply writing about different advertisements) and then were given the “cold pressor” self-control task where they tried to submerge their arm in near-freezing water for as long as possible, which requires resisting the natural tendency to remove your arm from the frigid water. Those who had initially performed the more demanding task were less able to resist removing their arm from the frigid water. Importantly, recent research has shown that if participants have an energy drink after the initial demanding task (vs. a non-energy drink with an artificial sweetener), then their ability to resist temptation on the subsequent task is no longer impaired (Gailliot et al., 2007).

In sum, substantial progress has been made in the past 10 years in understanding better the psychological mechanisms that underlie temptation conflicts and what strategies can be used to enhance resistance to temptation. Progress has also been made on other fronts in understanding the nature of the mechanisms underlying control effectiveness and how managing to make things happen can be facilitated. For example, a central question regarding control effectiveness is how to translate wishes or needs into successful goal completion, such as translating wanting to exercise more to actually exercising more or wanting to stop smoking to actually not smoking.

Earlier, Lewin and his colleagues (see Lewin, Dembo, Festinger, & Sears, 1944) had distinguished between the two basic phases of “goal setting” and “goal striving,” where the “goal setting” phase determines which goals a person will choose to pursue and the “goal striving” phase involves the behaviors that are directed toward attaining the selected goals. In their “Rubicon model” of action phases, Heinz Heckhausen and Peter Gollwitzer expanded Lewin’s basic distinction in a

significant way by distinguishing among several different phases in the goal pursuit process (see Gollwitzer, 1990; Heckhausen & Gollwitzer, 1987).

The Rubicon Model distinguishes among preactional, actional, and postactional phases. The preactional and actional phases generally relate to goal setting and goal striving, respectively.

Importantly, the Rubicon Model also makes a distinction *within the preactional phase*—within goal setting so to speak—between a predecisional *deliberative* phase and a postdecisional *implementation* phase. Action initiation—the actional phase—follows the postdecisional implementation phase.

According to the model, having wishes or needs is not sufficient to make things happen. Instead, there must be sufficient resolve to create a feeling of *determination* to fulfill the wish. Only then does the desired end-state specified by the wish or need become a “goal intention.” The critical transition from just deliberating to having commitment to a goal is captured by the phrase *crossing the Rubicon*—with the significance of this transition being expressed in the name of the model. But managing to make things happen requires more than a goal intention. The *implementation phase of planning* is also critical. Once a goal has been established, implementation planning involves selecting those strategies, tactics, and behaviors to be initiated, executed, and terminated during the goal pursuit process.

Such planning requires addressing questions of *when* to start acting, *where* to act, *how* to act, and *how long* to act, and there is substantial evidence that having people answer the *when*, *where*, and *how* questions during the preactional implementation phase increases the effectiveness of the subsequent goal pursuit (Gollwitzer & Brandstatter, 1997; Gollwitzer, Fujita, & Oettingen, 2004). There is also evidence that the effectiveness of such planning is further enhanced by increasing commitment to the implementation plans through creating a fit between the planned strategies and the motivational orientation of the actor (for a discussion of regulatory fit, see Higgins, 2000). In one study (Spiegel, Grant-Pillow, & Higgins, 2004), for example, participants with either chronically strong promotion concerns or prevention concerns had to write a report on how they would spend their upcoming Saturday and turn it in by a certain deadline in order to receive a cash payment. Before leaving the lab, they imagined the implementation *when*, *where*, and *how* steps for doing the report as either eager ways to advance or vigilant ways to be careful. When predominant promotion participants took eager steps and predominant prevention participants took vigilant steps (the fit conditions), they were almost 50% more likely to turn in their reports than when predominant promotion participants took vigilant steps and predominant prevention participants took eager steps (the nonfit conditions).

There is another critical mechanism for effectively managing goal pursuits that began to receive much more sustained scientific attention from social psychologists in the 1980s than it had received earlier—the *mechanism of feedback*. Certainly there had been earlier consideration of the feedback function in control processes (e.g., Miller et al., 1960; Powers, 1973), but it was Carver and Scheier who, I believe, provided the most

developed and empirically tested model of self-regulatory feedback (Carver & Scheier, 1981, 1990, 1998, 2008). I will describe their model for the role of feedback in approaching goals or desired reference values, although the model also considers avoiding anti-goals or undesired reference values (e.g., being unemployed).

Carver and Scheier's feedback control model proposes that there are two layers of feedback control that keep a person on track for some purpose. The first feedback layer consists of an *input*, a *reference value*, a *comparison*, and an *output*. The *input* is information about the present condition, the current state. This current state is *compared* to a goal or desired *reference value*. If a discrepancy between the current state and the reference value (i.e., the desired end-state) is detected, then there is an error signal and an *output* of taking action to reduce (or eliminate) the discrepancy between the current state and the goal. The second feedback layer involves *affect* and provides the degree of urgency behind the action to reduce a detected discrepancy. This layer functions simultaneously with the first layer and is monitoring or checking on how well the first process is doing in its goal attainment. Specifically, the input for the second layer of feedback is the *rate of discrepancy reduction over time*. There is a *rate criterion*, and a rate of progress in reducing a discrepancy that is below this criterion produces negative affect while a rate of progress that is above this criterion produces positive affect.

Other social and social-personality psychologists during the 1980s and 1990s began to study the affective implications of discrepancies from reference values. Studies testing self-discrepancy theory (see Higgins, 1987, 1989) found that congruencies and discrepancies between one's actual self (the current state) and one's desired self (the reference value) produced different emotions depending on whether one's desired self was represented as an Ideal (hopes, wishes, and aspirations) or as an Ought (duties, responsibilities, and obligations). Actual-ideal congruencies produced cheerful-related emotions (e.g., happy, joyful) and actual-ideal discrepancies produced dejection-related emotions (e.g., sad, discouraged) and even depression. In contrast, actual-ought congruencies produced quiescent-related emotions (e.g., calm, relaxed) and actual-ought discrepancies produced agitation-related emotions (e.g., tense, nervous) and even generalized anxiety (see, for example, Strauman & Higgins, 1987, 1988).

People are also highly sensitive to the feedback they receive from other people regarding how those people evaluate them. Mark Leary has proposed that self-esteem itself, which is often discussed as an intrapersonal self-discrepancy, is interpersonal at its core (see Leary, Tambor, Terdal, & Downs, 1995; see also Leary & Baumeister, 2000). He proposes a "sociometer" mechanism that controls a person's interpersonal behavior in the service of finding social acceptance while avoiding social rejection—the *need to belong* (Baumeister & Leary, 1995). According to the "sociometer" theory, people do not have a need to feel good about themselves. Instead, feelings of high self-esteem provide feedback of belongingness success (i.e., having high relational

value to others) and feelings of low self-esteem provide feedback of belongingness failure (i.e., having low relational value to others). If self-esteem is low, people take action to improve their belongingness, to raise their relational value to others.

One final note about social psychology's historical contributions to understanding control effectiveness. The motivation for effective control is so strong that people will perceive themselves as being in control over events that are actually outside of their control. Indeed, people will even perceive themselves as having controlled events for which there are clear costs of taking personal responsibility. That is, there are cases where *wanting control trumps truth* and cases where *wanting control trumps value*. Perhaps, the best known phenomenon associated with such cases is *the illusion of control* (see Langer, 1975). Indeed, people can have an illusion of control even when they are not themselves responsible for an action but simply anticipate what action will be taken by someone else. In one study, for example, a person stood behind the participants, hidden from view, and, with extended hands forward on each side of a participant, made hand movements where the participant's hands would normally make the movements. When the participants could hear the instructions for what the hands should do next, and thus could anticipate what the hand movements would be, the participants felt like *they* were controlling the hands of the person behind them (Wegner, Sparrow, & Winerman, 2004).

Social psychology's contributions to understanding truth effectiveness

Social psychology's contributions to understanding control effectiveness, which I just reviewed, have generally been understood as being historical contributions to motivation science. This is because *managing what happens* has been commonly understood as being part of motivation science. This is not the case, however, with social psychology's contributions to understanding truth effectiveness. Although particular phenomena and specific theories have been recognized as being part of motivation (e.g., cognitive dissonance theory), research on truth effectiveness more generally has not been considered usually as a contribution to motivation science, as evident by its typically not being included in handbooks on motivation. Instead, the phenomena I review in this section typically are reviewed under the headings of person perception/social cognition, persuasion/social influence, or social communication. But I believe and have argued elsewhere (Higgins, 2011) that *establishing what's real*, i.e., *truth effectiveness*, is a third important way that people are motivated to be effective. Indeed, people will sacrifice value, including being willing to suffer and die, for the sake of their truth, as demonstrated by suicide bombers. I also believe that, in the second half of the 20th century especially, no discipline contributed more to understanding truth effectiveness than social psychology. Because, once again, the magnitude of these contributions was immense, I can only provide illustrations in my review (for a more extensive review, see Higgins, 2011).

How do people strive for truth, establish what is real? When a mother wakes up from a crying-like sound in the middle of the night, she might ask, “Am I still dreaming?,” “Is that just the wind?,” “Is that cry from my cat or from my child?” Each step of the way the mother is motivated to find the truth, to determine what is real and not real. This kind of questioning is not idle curiosity; it is dead serious. The mother wants to know what is *really* happening. People in such cases are not questioning whether an event occurred—something definitely did happen—but exactly *what* kind of something is it? Using the earlier example, the mother may decide that she is not dreaming and there *is* really a crying-like sound but she wants to know what produced it—was it the wind, her cat, or her child? Social psychology has paid particular attention to people wanting to know *what* kind of behavior they just observed.

Several person perception models describe the judgmental process as involving a sequence of processing stages that begin with initial low-level steps that are largely automatic or unconscious and proceed to higher-level steps that are more controlled or conscious (see Brewer, 1988; Gilbert, 1990; Trope, 1986). For example, there can be two steps in getting from seeing someone’s change in mouth expression to categorizing the expression as “friendly,” and both steps could be unconscious (or not). The first step involves treating the expression as a real “smile” (where the expression and its consequences on the viewer were intended) and the second step involves treating the “smile” as a “friendly” behavior. In his seminal contribution to the attribution literature, Yaacov Trope (1986) describes how the *situation* surrounding the production of a behavior, such as observing someone “smiling” when that person greets someone arriving at the airport versus observing someone smile after receiving a flattering compliment, can be essential for the interpretation that leads to identifying the behavior—identifying the former smile as “friendly” and the latter as “embarrassed.” But people need not be aware, and often are not aware, of the influence of the situation on the identification process. And this process includes not only identifying the inner states of others, but also identifying one’s own inner states, such as what one is *really feeling*—am I feeling “angry” or “euphoric” (see Schachter & Singer, 1962).

Once people identify *what* a behavior is, they often want to know *why* it happened. This next step in establishing what’s real has received substantial attention from social psychologists under the rubric of “attributional processes.” It concerns the process of drawing inferences about someone’s abilities, dispositions, or personality, including when the someone is oneself (for reviews of this extensive literature, see Kruglanski & Sleeth-Keppler, 2007; Hilton, 2007; Malle, 2004). People want to know the truth, especially, about those aspects of someone’s inner states that are stable over time, such as their competencies, preferences, attitudes, goals, because this will allow them to make more accurate predictions about what that person is likely to do in different types of situations in the future—seeking in the present to know what will be real in the future (see, for example, Bem, 1967; Heider, 1958; Jones & Davis, 1965; Kelley, 1973; Weiner et al., 1971).

The literature on people’s search for explanations of what someone did or what happened to someone (self or other) is vast and beyond the scope of this chapter. What is more relevant to this chapter is the motivational mechanisms involved in establishing what’s real. For example, the literature has found that people use different methods to infer someone’s stable traits, and once inferred, people use different methods to predict what that person will do in the future. What motivational factors might account for such differences in seeking truth from asking “why”? Arie Kruglanski has proposed a theory of *lay epistemics* that describes motivational factors that underlie such variability in attributional processes, and in other judgmental processes as well (see Kruglanski, 1980, 1989).

Kruglanski proposes that people treat cognitive contents, including explanations, just like other objects in the world that have features they find desirable or not. For example, people can prefer their ideas to be simple or complex, just like they can prefer their food to be simple or complex. The theory of lay epistemics distinguishes between the motivations to have closure and to avoid closure. It argues that people are motivated not only to have specific judgmental contents, like a stable trait explanation, but also by desires for different *content-free* cognitive *procedures*. For example, when people have a strong *need to avoid closure* on some issue, as when they are afraid they will be held accountable later for any decision that they make, then they will engage *more* in formal attributional and hypothesis-testing logic to generate multiple competing hypotheses, and then exhaustively search for confirming and disconfirming evidence for each. If, instead, people have a *need for closure*, as when there is pressure to make a quick decision, these extensive processes will be simplified and narrowed. What this highlights is that different epistemic concerns can create preferences for different procedural ways of establishing reality.

In addition to answering “What?” and “Why?,” people also want their different kinds of knowledge to work together, to form a coherent whole. They want present knowledge to be organized with past knowledge in a meaningful way. They want a past and present reality that makes sense together. They want the elements of what they already know to be *consistent* not only with one another but also with what is currently happening. Social psychologists in the 1950s and 1960s became fascinated with this particular kind of being effective in establishing what is real, and their research and theorizing in this area has had a profound and lasting effect on both social psychology and motivation science.

In his introductory chapter to one of the landmark books in social psychology, *Theories of Cognitive Consistency: A Sourcebook* (1968), Theodore Newcomb described the remarkable emergence of scientific attention to cognitive consistency motives (p. xv):

Often in the history of science, when the time is ripe, a large number of similar theories are put forward contemporaneously by researchers who have little if any direct contact with one another. So it was a decade or so ago when at least a half

dozen of what we shall call ‘cognitive consistency’ theories appeared more or less independently in the psychological literature. They were proposed under different names, such as balance, congruity, symmetry, dissonance, but all had in common the notion that the person behaves in a way that maximizes the internal consistency of his cognitive system; and, by extension, that groups behave in ways that maximize the internal consistency of their interpersonal relations.

It is not possible in this chapter to review the conceptual and empirical contributions of the various different theories of cognitive consistency. Instead, I will illustrate how cognitive consistency motives can establish reality by considering the two cognitive consistency theories that have been the most influential—Fritz Heider’s “balance theory” and, especially, Leon Festinger’s “cognitive dissonance theory.” The classic condition in Heider’s (1958) balance theory involves the relations among three cognitive elements, such as “me,” “my friend,” and “my enemy.” Together, the relation between “me” and “my friend,” between “me” and “my enemy,” and between “my friend” and “my enemy” form a triangle pattern. There are two types of relation between elements: *unit* relations and *sentiment* relations. Each of these types can have either positive valence (an *associated* unit or a *like* sentiment) or negative valence (a *disassociated* unit or a *dislike* sentiment). The three relations that constitute a triangle pattern can be in balance together or not in balance. According to the theory, the pattern is in *balance* when the multiplication product of all three positive or negative signs is positive. The pattern is in *imbalance* when the multiplication product is negative.

Searching for cognitive balance can establish a new reality—a new present reality and a new future reality. When it comes to interpersonal relationships, especially, it is common for people to want a reality that makes sense to them, that is cognitively consistent. For example, when people admire one person and have no respect for another, they find it difficult to understand how these two people got married (an imbalance). Often they establish a future reality where the pattern becomes balanced: “There is no way that the marriage will last. They’ll be divorced by next year.” By establishing this future reality, they transform the present reality to make it balanced because this future reality implies that the couple is actually incompatible, which creates a negative unit relation between the couple in the present.

Cognitive dissonance theory was conceptualized by Festinger in terms of *truth*, in terms of establishing what’s real. According to Festinger (1957, p. 3), “the human organism tries to establish internal harmony, consistency, or congruity among his opinions, attitudes, knowledge, and values.” When people fail to do so, they experience dissonance which gives rise to pressures to reduce that dissonance. Importantly, he states (1957, p. 3): “In short, I am proposing that dissonance, that is, the existence of nonfitting relations among cognitions, is a motivating factor in its own right.” *Expectancy disconfirmation* as a cognitive dissonance paradigm clearly concerns establishing truth more than having desired outcomes (value). The

classic study in this area is described in the book *When Prophecy Fails* (Festinger, Riecken, & Schachter, 1956).

The study was inspired by a headline in a local newspaper: “Prophecy from planet Clarion call to city: flee that flood.” Cognitive dissonance theory states that the cognitions x and y are in a dissonant relation to one another if “not- x ” would follow from y . In this case, there were a group of people who held the cognition x that alien beings from planet Clarion would arrive on earth on a specific date and take them away on a flying saucer (thereby saving them from the great flood that would then end the world). Festinger and his colleagues believed that the date would come and go without any flying saucer, and thus not- x would follow from this new knowledge y —creating dissonance. One way to resolve the dissonance would be to justify their sacrifices in preparing to flee Earth by strengthening their original belief and proselytizing this belief. Indeed, this is what happened. Notably, this proselytizing solution not only reflects the group members’ intensified attraction to their beliefs; it also attempts to create a shared reality about their beliefs with others, which is yet another way to establish what’s real that I discuss next.

In another of his seminal contributions, social comparison theory, Festinger (1954) discussed how physical reality can often be ambiguous and difficult to grasp, and, when it is, people initiate social comparison processes in which they depend on others’ judgments to construct a *social reality*. Festinger also proposed that physical reality takes precedence over social reality, but that is not always the case. The motivation to establish a shared reality with others can trump physical reality. This is illustrated in a classic social psychology study by Solomon Asch (see Asch, 1952).

What Asch’s study shows is that individuals can be motivated to treat something as real, to accept something as the truth, even though the physical evidence contradicts their decision. College students were seated together in a classroom in groups of seven to nine individuals and their task was to select a line that was the same length as a standard line. The key property of the experiment was that only one student in each group was an actual naïve participant. All the other students in each group were cooperating with the experimenter, and they gave the same predetermined judgment on each trial. On some trials they unanimously gave an incorrect answer. When this occurred, the naïve participants typically appeared perplexed and bewildered. Most participants at least once made judgments agreeing with the group’s incorrect judgment. Asch describes the naïve participants as searching for the truth, as trying to make sense of the situation—a motivation to share reality, to share the truth with others.

A compelling illustration of this shared reality motive is provided in an earlier classic study by Muzafer Sherif (1936). Sherif had participants in a completely dark room estimate the movement of a point of light that, although actually stationary, appears objectively to move in different directions and amounts by different perceivers (the *autokinetic effect*). Sherif found that when participants in a group gave their independent estimates

of the direction and amount of the light's movement, and did so over several trials, they slowly abandoned their initially disparate judgments and converged on a mutually shared estimate of the light's direction and amount of movement. Different groups converged on different mutually shared estimates—different *social norms*. The participants in each group constructed a shared reality about the direction and amount of the light's movement that did not reflect reality but, nonetheless, was treated as real, including by new generations of group members and by individual group members when alone. This is a striking example of how a social reality, a shared reality, can trump physical reality.

The importance of establishing a shared reality for creating epistemic truth has further been demonstrated in recent research on the “saying-is-believing” effect. This effect refers to the phenomenon that when communicators tune or tailor their message about some target person's behaviors in order to suit or match their audience's attitudes or beliefs about that person, their later memory for the target's behaviors becomes distorted in the direction of their message—they remember what they said about the target rather than what they actually saw or read about the target (Higgins & Rholes, 1978). In keeping with the “cognitive” revolution in social psychology that was going on at the time (which I discuss further in the second part of this chapter), Steve Rholes and I explained this effect in purely cognitive terms. Specifically, we argued that the message was a second mental representation of the target person information which, by being a simpler summary representation, shaped the process of reconstructive memory. It was only years later that I reconsidered what might be happening in motivational terms and proposed that communicators were motivated to share reality with their audience about the target person, and when the shared reality was created it became the objective truth about the target (Higgins, 1992).

This new motivational explanation became part of Shared Reality Theory that Curtis Hardin and I subsequently developed (Hardin & Higgins, 1996). But it took another 10 years before its implications for how communication affects memory were empirically tested. The original cognitive explanation for the “saying-is-believing” effect (Higgins & Rholes, 1978) suggests that what matters is that communicators construct a distorted message representation of the target which matches their audience's attitude. But this is not what is critical according to the motivational explanation. Instead, what is critical is that communicators have the goal of creating a shared reality with their audience—a goal that is an epistemic motivation. Consistent with this motivational explanation, later studies found that when communicators tuned their message about the target to fulfill goals other than to create a shared reality, such as simply to be polite or to have fun, or with the ulterior motive of having the audience like them, then the “saying-is-believing” effect disappeared despite the message representations being just as distorted. Moreover, there was also evidence that when the effect was found for communicators with a shared reality goal, the effect was mediated by communicators' epistemic

concerns (see Echterhoff, Higgins, & Groll, 2005; Echterhoff, Higgins, Kopietz, & Groll, 2008; Echterhoff, Higgins, & Levine, 2009). It is the motivation for truth effectiveness that underlies the effect.

Social psychology's contributions to understanding value effectiveness

Social psychology has a long history of studying phenomena that relate to value effectiveness, to people wanting to have desired results. In the area of attitudes, for example, a highly influential example of this is Ajzen and Fishbein's work testing their theory of reasoned action and theory of planned behavior which propose that individuals' motivation to perform a particular behavior derives from their beliefs about the likely consequences of performing that behavior (see Ajzen, 1985; Ajzen & Fishbein, 1977). Generally speaking, as in this case, social psychologists have described such value-related phenomena with terms other than “value,” such as the term “attitude”. Moreover, their emphasis has often been on something other than understanding the nature of value *per se*; as in this case where the emphasis is on understanding how attitudes impact behavior.

The concept of “attitude” has been central in social psychology for many decades (see Eagly & Chaiken, 1993; McGuire, 1969), and a central component of the concept of attitudes is “evaluation” (see Eagly & Chaiken, 1993). The concept of “evaluation” certainly relates to the concept of value (i.e., value is its root term), but the emphasis in social psychology has been more on the consequences of the evaluative dimension of “goodness” versus “badness,” such as what it means for predicting behavior, than on trying to understand where the “goodness” and “badness” *themselves* comes from. When value itself was studied, it was usually with respect to personal values such as freedom or honesty, values as “shared prescriptive or proscriptive beliefs about ideal modes of behavior and end-states of existence” (see Rokeach, 1980, p. 262).

However, value effectiveness, as people wanting to have desired results, *was* studied in its own right among social psychologists who were interested in the nature and consequences of *goal pursuit*. Once again, Lewin (1935, 1951) was a pioneer in this area. For Lewin, a goal was a force field where all the forces pointed toward the same region. A goal can have a positive force field of attraction (positive valence) or a negative force field of repulsion (negative valence). In addition to direction, the valence of a goal's force field has intensity. Lewin and his students studied various goal phenomena that influenced social psychological research decades later, including the nature and consequences of goal disruption, goal completion, and goal substitution (e.g., Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotschel, 2001; Förster, Liberman, & Higgins, 2005). But there was a delay before this influence was felt. Lewin's immediate impact was evident more in the 1950s and 1960s research on group dynamics (see Cartwright & Zander, 1968), and in the research by his students (e.g., Festinger;

Kelley; Schachter) on issues *other than* the nature and consequences of goal pursuit.

It was not until the 1980s that research specifically on the nature and consequences of goal pursuit began again in earnest. I have already discussed some of this research as it relates to control and truth effectiveness—work by Bandura, by Carver & Scheier, by Gollwitzer and Heckhausen, and my own work on self-discrepancy theory. There have been additional advances as well in distinguishing between types of goals, types of goal orientations, and types of goal structures or goal organizations. Again, I can only illustrate social psychology's historical contributions in this area.

One major issue regarding goal pursuit that received substantial attention in the 1980s and 1990s was distinguishing between different types of goal pursuit. Earlier, in their pioneering work on achievement motivation, David McClelland and John Atkinson had distinguished between anticipating pride from success (the motive to succeed) and anticipating shame from failure (fear of failure) (e.g., Atkinson, 1964; McClelland, Atkinson, Clark, & Lowell, 1953). As discussed above, this distinction was followed by the distinction between intrinsic and extrinsic motivation that received considerable attention in the 1970s from Deci, Kruglanski, Lepper and others. The new distinction that received attention in the 1980s and 1990s was between learning goals and performance goals. One highly influential version of this distinction was proposed by Carol Dweck (see Dweck, 1999; Dweck & Leggett, 1988).

Dweck and her colleagues studied two different implicit theories that individuals hold about the nature of intelligence—the *entity* view that intelligence is fixed and stable, and the *incremental* view that intelligence is malleable and can change through effort over time. These theories are associated with differences in what kind of result is desired. Incremental theorists have *learning* goals where the desired result is to develop their intelligence, whereas entity theorists have *performance* goals where the desired result is to validate or prove their intelligence. When facing failure, incremental theorists typically have “mastery-oriented” strategies whereas entity theories typically have “helpless-oriented” strategies. There is evidence that setting performance goals, especially negative performance goals concerned with avoiding failure (see Elliot & McGregor, 2001), can impair performance in comparison to setting learning goals or positive performance goals concerned with approaching success (see Dweck & Leggett, 1988).

Goal pursuit distinctions have been made not only regarding specific types of goals but also regarding types of general goal orientations or general goal pursuit concerns—distinctions that apply to all goals. In the 1990s, self-discrepancy theory was broadened by distinguishing between two motivational states that varied across situations as well as across persons. Regulatory focus theory (Higgins, 1997) proposed that people can pursue goals either in a promotion state concerned with accomplishments or aspirations or in a prevention state concerned with safety or responsibilities. When individuals are in a promotion-focused state, whether situationally induced or

personality-related, they are motivated to change from their current status quo “0” to a better state “+1,” and they prefer eager strategies that will support this advancement. In contrast, when individuals are in a prevention-focused state, they are motivated to maintain their current satisfactory state “0” and avert a worse state “-1,” and they prefer vigilant strategies that will support this maintenance.

There are significant motivational asymmetries that result from these regulatory focus differences (see Higgins, 2009; Scholer & Higgins, 2011). In a promotion focus, successfully moving to a “+1” increases eagerness (a regulatory fit; see Higgins, 2009), which strengthens engagement and produces high-intensity cheerful emotions such as “joy”; and failing to move to a “+1” reduces eagerness (a nonfit), which weakens engagement and produces low-intensity dejection emotions, including depression. In a prevention focus, failing to maintain a satisfactory “0” increases vigilance (a fit), which strengthens engagement and produces high-intensity agitation emotions, including generalized anxiety; and successfully maintaining a satisfactory “0” reduces vigilance (a nonfit), which weakens engagement and produces low-intensity quiescent emotions such as “relaxed” (see Idson, Liberman, & Higgins, 2004).

These asymmetries underlie important differences in how individuals try to be effective in their goal pursuits, such as whether the classic “goal looms larger” effect involves increased eagerness (promotion) or increased vigilance (prevention) as the goal approaches (see Förster, Higgins, & Idson, 1998), or whether individuals emphasize speed (promotion) or accuracy (prevention) in their goal pursuits (see Förster, Higgins, & Bianco, 2003). They also influence risky versus conservative tactics. When things are satisfactory (“0”), individuals in a prevention focus prefer conservative options that safely maintain the satisfactory status quo (more so than promotion-focused individuals). But when things are currently bad (“-1”), prevention-focused individuals can be highly risk-seeking (more so than promotion-focused individuals) because they are willing to do anything necessary to restore a satisfactory state (Scholer, Zou, Fujita, Stroessner, & Higgins, 2010).

Regulatory mode theory has proposed another distinction regarding general goal pursuit concerns—between *locomotion* concerns with movement from state to state and *assessment* concerns with making comparisons (Higgins, Kruglanski, & Pierro, 2003; Kruglanski et al., 2000). When people self-regulate, they decide what they want that they don't currently have; they figure out what they need to do to get what they want; and then they do it. Two key functions of self-regulation are captured in this conception. First, people *assess* both the different goals to pursue and the different means to pursue them. Second, people *locomote* or “move” from their current state in pursuit of some alternative goal pursuit state. Because the functions of locomotion and assessment are both vital to all goal pursuits, regulatory mode theory assumes that every person has both locomotion and assessment systems available to them, and whether locomotion or assessment is emphasized can vary across persons and across situations.

As with regulatory focus concerns, regulatory mode concerns can have significant effects on how people make decisions, solve problems, and perform tasks. For example, when individuals are making a decision about which product to choose, those in a locomotion state prefer a “progressive elimination” strategy where one attribute dimension is considered at a time and whichever option is worse on that attribute is eliminated, thereby progressively reducing the number of options to be considered at each step. This strategy fits locomotion concerns because there is progressive movement at each step. But it does not fit assessment because it reduces the evaluative comparisons that could be made. What maximizes evaluative comparisons is a “full comparison” strategy where all options are compared to each other on all attributes, and this is the strategy that is preferred by (fits) individuals in an assessment state. There is evidence that when individuals use the decision-making strategy that fits (vs. does not fit) their self-regulatory orientation, the value of their final choice increases, as reflected in their being willing to pay more to buy it (see Avnet & Higgins, 2003; Higgins, Idson, Freitas, Spiegel, & Molden, 2003).

A more recent contribution of social psychology to understanding value effectiveness has been to consider the motivational consequences of the *relations* among the different components of the goal pursuit process. I have just discussed how using a decision-making strategy that fits one’s current regulatory mode can increase the value of one’s final choice. I have described how being eager fits promotion whereas being vigilant fits prevention and how fit strengthens engagement and non-fit weakens engagement, and I have discussed the implications of these relations for the emotions we experience. Earlier I described how creating fit during the implementation phase of planning can enhance commitment to action (Spiegel et al., 2004). Regulatory fit theory (see Higgins, 2000, 2009) proposes that the *relations* between individuals’ goal pursuit *orientations* and their goal pursuit *strategies* are motivationally important. When the strategy or manner of goal pursuit sustains the orientation, there is regulatory fit and engagement is strengthened; when it disrupts the orientation, there is nonfit and weakened engagement. The research I have described above supports this proposal. In addition to influencing emotions and the value of and commitment to objects and activities (see also Higgins, 2006; Higgins, Cesario, Hagiwara, Spiegel, & Pittman, 2010), regulatory fit influences persuasion. For example, Cesario and Higgins (2008) found that communicators were more effective in persuading others when they used nonverbal gestures that fit (vs. did not fit) their audience’s focus orientation (eager gestures for a promotion audience; vigilant gestures for a prevention audience).

Another example of a new theory that explicitly considers the motivational consequences of the *relations* between the different components of the goal pursuit process is goal systems theory (Kruglanski et al., 2002). Successful goal pursuit requires selection because the same means can serve to attain more than one goal, i.e., *multifinality*, as captured in the phrase “many birds with one stone.” Moreover, more than one means

can attain the same goal, i.e., *equifinality*, as captured in the phrase “all roads lead to Rome” (see Kruglanski et al., 2002).

According to goal systems theory, there are stored associations between goals and means such that the activation of a goal will activate an associated means unconsciously. The association between a goal and its means of attainment will be *stronger* as multifinality *decreases* and as equifinality *decreases*. There is evidence, for example, that the extent to which priming a goal increases the accessibility of its means, which is a measure of means–ends associative strength, increases when the means fulfills only that goal and not other goals (low multifinality) and the goal is fulfilled by only that means and not other means (low equifinality)—the property of means–ends *uniqueness* (see Kruglanski et al., 2002). The advantage of uniqueness is that simply thinking about or engaging in the means activity will automatically bring the goal to mind, which in turn will activate the intention or commitment to attain the goal. As the goal–means association becomes stronger, the transfer of goal commitment to the means activity is greater—the means activity will be tied to the goal (see Kruglanski et al., 2002).

In sum, social psychology has had a long history of making significant contributions to motivation science. But to appreciate these contributions more fully, it is important to recognize that they have been made not only with respect to value effectiveness (having desired results), but also with respect to control effectiveness (managing what happens) and truth effectiveness (establishing what’s real). Indeed, until recently, social psychology’s unique contribution, compared to other areas of psychology, has been with respect to understanding control and truth effectiveness. In the past 15 years, however, there have been increasingly important and unique contributions in social psychology to understanding value effectiveness as well. This is one story of social psychology and motivation science. I turn now to the second story—the history of social psychologists’ identifying motivation as their research area.

A brief history of social psychologists’ identifying motivation as their research area

In the section above, I have reviewed social psychology’s historical contributions to motivation science. This is not to say, however, that the social psychologists who made those contributions necessarily identified motivation as their research area or even thought that their work was a contribution to motivation science. Often they had different objectives and/or identified themselves with other topic areas. For this reason, I thought that it would be useful to consider, even if only briefly, a separate story of social psychology and motivation science. This story, and especially its current episode, is important because it could influence how social psychology develops in the future, as well as how motivation science itself as a discipline develops in the future. To be fully transparent from the beginning, I am hoping that many social psychologists will increasingly identify motivation as their explicit research area in the future.

Let me begin with a personal story. In the early 1980s, Dick Sorrentino convinced me that it would be a good idea to begin a Handbook series that examined the interface or synergism between motivation and cognition; what we called the “warm look” (Sorrentino & Higgins, 1986). What soon became very clear was that other social-personality psychologists were not as enthusiastic about this project as we were. The major reason for their lack of enthusiasm, I believe, was their reluctance to identify what they did as being the study of motivation.

When I asked Bob Wyer to participate, for example, he said that his work had nothing to do with motivation, that he was strictly a *cognitive* social psychologist. The active resistance to the idea suggested to me that there was a social identity or self-categorization component involved in the rejection. Fortunately, I was able ultimately to convince him to participate by pointing out that a central, and essential, component of his and Tom Srull’s “Bin” model (e.g., Wyer & Srull, 1986) was a “goal box.” What is a “goal box” if it is not a motivational variable? This conversation reminded me of an earlier conversation with Endel Tulving, who told me that motivation was certainly important but it was not necessary for him to include it in his theorizing. I asked him what, then, was the nature of the “effort” in the “mental effort” that he studied, or the nature of the “feeling” in his own phrase “feeling of remembrance”? Here too, motivational mechanisms were not explicitly recognized as such and there was no identifying motivation as what one was studying.

When Dick and I began our series, it was still the heyday of the “cognitive” revolution in social psychology. Reflecting the influence of social cognition in those days, for a while almost all the editors and associate editors of social psychology’s major journals self-identified as being social cognition researchers. This was not great timing for trying to launch a series on motivation—even if it interfaced with social cognition. Indeed, more than any other period in social psychology, this was a time when social psychologists explicitly questioned the importance of motivation as a determining factor in the phenomena they cared about.

Whereas social psychologists in earlier decades were not concerned with explicitly distinguishing between cognitive and motivational explanations for phenomena—and, if pressed, would have probably said that *both* were clearly important—for the first time in the late 1970s there was an attempt to make cognitive factors sovereign over motivational factors (Ostrom, 1984), to provide alternative cognitive explanations for the human biases and errors that had traditionally been explained in motivational terms. There was an *information processlizing* movement in which the “faulty computer” became the preferred explanation for human woes and foibles (see Higgins & Bargh, 1987). (Of course, this alternative account required the unstated assumption that people were *motivated* to be accurate and reasonable in order to argue that when people were not accurate and reasonable it must be because of their “faulty computer” nature.) This new perspective was found in work on evaluative judgments, inference, memory, attitudes, and even achievement motivation itself (e.g., Bargh, 1982; Cantor & Mischel, 1977;

Fazio, Chen, McDonel, & Sherman, 1982; Greenwald, 1968; Hamilton & Gifford, 1976; Higgins et al., 1977; Lingle & Ostrom, 1979; Miller & Ross, 1975; Ross, 1977; Taylor & Fiske, 1975; Trope, 1975; Wyer & Carlston, 1979).

Some believe that it is a mistake to describe what happened in the late 1970s and early 1980s as a “cognitive” revolution in social psychology because, they argue, social psychology theories have always had a strong “cognitive” element, from Bartlett to Lewin to Sherif to Asch to Festinger to Schachter to Zajonc, and so on. But what was different about this later revolution was that it explicitly distinguished between “cognition” versus “motivation” accounts; it was a battle between types of explanation with social-cognitive psychologists as the Knights of Cognition. If “cognition” won, then “motivation” lost. This was not the case for the earlier social psychologists, whose models were an integration of cognitive and motivational elements. I believe that, ironically, it was precisely because the battle was represented in these terms that many social psychologists—including most of us in the social cognition vanguard—learned to appreciate what a motivational perspective had to offer beyond just a cognitive perspective. It is not that “cognition” lost and “motivation” won. Rather, by distinguishing more clearly between what each had to offer, appreciation increased for both cognitive *and* motivational variables.

I am not suggesting that there were no social or social-personality psychologists explicitly committed to motivation as a scientific topic before the “cognitive” revolution. In the area of achievement motivation, especially, there were several significant figures who considered themselves motivation scientists in the 60s, 70s, and 80s, including Atkinson, Feather, Harackiewicz and Sansone, Kuhl, McClelland, Raynor, Sorrentino, and Weiner. And, more generally, there were historically important contributions to motivation science by individuals in the 60s, 70s, and 80s who explicitly identified motivational questions as their central research topic; for example, Bandura, Berkowitz, Brehm, Cantor, Carver and Scheier, Deci and Ryan, Gollwitzer and Heckhausen, Klinger, Kruglanski, Mischel, Pittman, Wicklund, and Wright. But motivation science as an identified research topic was still relatively minor, or even marginalized, in conventional social psychology, as was evident from its lack of explicit coverage in the Handbooks of social psychology.

In the 1954 *Handbook of Social Psychology*, there was one chapter on “social motivation” (by Gardner Murphy). In the following 1969 *Handbook of Social Psychology*, there was still only one “social motivation” chapter (by Len Berkowitz). Perhaps reflecting the impact of the “cognitive” revolution, the subsequent 1985 *Handbook of Social Psychology* almost 20 years later had *not even one* chapter with “motivation” in the title. In direct contrast to this history, the post-revolution 1998 *Handbook of Social Psychology* had three chapters explicitly addressing motivation science questions (by Roy Baumeister, Thane Pittman, and Bob Zajonc). And in the new *Social Psychology: Handbook of Basic Principles* that appeared around the same time (i.e., 1996), there was an entire section devoted to motivation science questions that contained six chapters. (By the second edition of *Social*

Psychology: Handbook of Basic Principles in 2007, the motivation science section had eight chapters.)

I believe that the “cognitive” revolution in social psychology during the late 1970s and early 1980s—by explicitly contrasting “motivation” and “cognition”—ultimately produced a new appreciation for the significance of motivational mechanisms and principles. This new appreciation has had a dramatic, history-making effect on the role of motivation science in social psychology. Over the past 20 years since Dick Sorrentino and I had such difficulty finding willing contributors to the first volume of the *Handbook of Motivation & Cognition*, motivation science has become a part of social psychology in a manner that it has never been before. Not only do many more social psychologists consider their research to be *about* motivation, but motivation has blossomed into a popular research topic and area. For example, Dick and I had no difficulty finding willing contributors for the second volume of the *Handbook of Motivation & Cognition* (Higgins & Sorrentino, 1990), and we actually found it difficult to select among the wealth of potential contributors for the third volume of the *Handbook of Motivation & Cognition* (Sorrentino & Higgins, 1996). Moreover, in just the past few years, five edited volumes on motivational science have appeared in which the contributors are mostly social and social-personality psychologists (Hassin, Ochsner, & Trope, 2010; Moskowitz & Grant, 2009; Shah & Gardner, 2008; Sorrentino & Yamaguchi, 2010; Vohs & Baumeister, 2010). And in 2008, the Society for the Study of Motivation (SSM) held its first international conference. It is an exciting new chapter in the history of motivation science in social psychology.

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