Erlbaum.

Wood, J.V. (1989) Theory and research concerning social comparison of personal attributes. *Psychological Bulletin*, *106*, 231–248.

Wood, J.V. (1996) What is social comparison and how should we study it? *Personality and Social Psychology Bulletin*, *22*, 520–537.

Wood, J.V., Taylor, S. and Lichtman, R. (1985) Social comparison in adjustment to breast cancer. Journal of Personality and Social Psychology, 49, 1169–1183.

Zanna, M., Goethals, G.R. and Hill S. (1975) Evaluating a sex related ability: Social comparison with similar others and standard setters. *Journal of Experimental Social Psychology*, *11*, 86–93.

### Regulatory Focus Theory

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#### ABSTRACT

Regulatory focus theory was the child of selfdiscrepancy theory and the parent of regulatory fit theory. As the child of self-discrepancy theory, it distinguishes between self-regulation in relation to hopes and aspirations (promotion ideals) versus self-regulation in relation to duties and obligations (prevention oughts). But in regulatory focus theory, promotion and prevention orientations are states that vary not only predispositionally across individuals but also can be situationally induced. And the emotional and motivational effects of success and failure can be on a current task rather than just chronic congruencies and discrepancies to ideal and ought self-guides. Most importantly, the emphasis is on strategic differences between promotion and prevention in how desired states are attained, with promotion preferring eager means of advancement and prevention preferring vigilant means of maintenance. This emphasis on strategic differences also distinguishes regulatory focus theory from control system theories' concern with approach and avoidance at the system level rather than the strategic level. The asymmetry between promotion and prevention in strategic preferences and in the motivational effects of success and failure, with success strengthening motivation in promotion but failure strengthening motivation in prevention, gave birth to the regulatory fit idea that the manner of goal pursuit can sustain or disrupt a self-regulatory orientation.

#### INTRODUCTION

I moved from New York University (NYU) to Columbia University in 1989. The decision was very difficult, mostly because of the wonderful qualities of both options - an approach-approach conflict. The conflict would have been even worse if I had recognized and fully considered all of the consequences of each option. But I didn't. I had other things on my mind. My wife and I were about to be blessed with our first child and this was what I was thinking about. And, not surprisingly, our child was what I continued to think about for several months after she was born. It was not until my second term at Columbia (Spring, 1990) that I finally began thinking about what research I would do at Columbia. And when I did begin thinking about it, I was thunderstruck. I suddenly realized that I could no longer do the kind of research that I had done at NYU for years. I could no longer work on self-discrepancy theory. Like an irresponsible parent, I had thoughtlessly abandoned my theory by moving to Columbia. What was I going to do?

What struck me at that painful moment was that the research conditions at Columbia were completely different from those at NYU. At NYU, where I had developed selfdiscrepancy theory, there was a very large subject pool - thousands of potential participants per year. In contrast, the subject pool at Columbia was just a few hundred. And there was another difference that was at least as important. At NYU all students in the subject pool filled out a battery booklet that contained not only demographic questions but also personality questionnaires. You guessed it - one of those questionnaires was the Selves Questionnaire that my lab used to measure individuals' self-discrepancies. This meant that even before my lab contacted potential participants for a study, we already had information about their selfdiscrepancies. We could select participants as a function of whether they were high or low in different kinds of self-discrepancies. At Columbia, on the other hand, there was no such battery booklet. My lab would have to do a formal study with hundreds of participants just to obtain the background information on their self-discrepancies. By the time we had done that, we would have no more subject hours for research. It was hopeless!

So there I was, mourning over the lost of my theory and wondering what kind of research I would do instead. My first thought was, "Well, I will just have to go back to doing research on priming and accessibility full-time." It was a comforting thought, but not comforting enough. I still missed self-discrepancy theory. After all, whereas construct accessibility theory was an independent teenager by this time (Higgins et al., 1977; see Chapter 4, this volume), self-discrepancy theory was still only a child (Higgins, 1987).

It was during this period, under these trying circumstances, that I began to find

a solution to the problem of what to do about self-discrepancy theory - a solution that ultimately became regulatory focus theory. Without question, it was trying to continue parenting self-discrepancy theory that gave birth to regulatory focus theory (see Higgins, 2004, 2006a). I realized that what I needed was to find a way to test self-discrepancy theory without having to measure people's chronic self-discrepancies. In thinking about this problem, and ultimately finding a solution, regulatory focus theory was born. although I didn't appreciate that immediately. It took me some time to recognize what had happened (a separate theory construction issue I will discuss later). But now, I need to begin at the beginning. For you to appreciate the dilemma I faced in the spring of 1990, I need to provide some basic background information about self-discrepancy theory and describe the kinds of studies we had conducted to test it.

## SELF-DISCREPANCY THEORY: THE PARENT OF REGULATORY FOCUS THEORY

Why do people emotionally react so differently to the same tragic event? More specifically, why is it that when people are emotionally overwhelmed by a serious setback in their life, such as the death of their child, the loss of their job, or the breakup of their marriage, some suffer from depression whereas others suffer from anxiety? Selfdiscrepancy theory was developed to answer this question. Self-discrepancy theory proposed that even when people have the same specific goals, such as seniors in high school wanting to go to a good college or older adults wanting a good marriage, they often vary in how they represent these goals. The goals or standards that direct or guide our self-regulation are called self-guides in selfdiscrepancy theory. Some of us represent our self-guides as hopes or aspirations, the kind of person we ideally want to be - ideal

self-guides. Others of us represent our self-guides as duties or obligations, the kind of person we believe we ought to be – *ought* self-guides.

According to self-discrepancy theory (Higgins, 1987), it is the difference between failing to meet our ideals versus failing to meet our oughts that provides the key to unlocking the mystery of why we have different emotional reactions to the same negative life event. Self-discrepancy theory proposes that when a negative life event happens to us, it is represented as saying something about how we are doing. We compare our current, actual self to our self-guides: "Compared to the kind of person I want to be (e.g., going to a good college; having a good marriage), how am I doing?" We suffer emotionally when there is a discrepancy between our actual self and a self-guide - a self-discrepancy. When our actual self is discrepant from an ideal self-guide, we feel sad, disappointed, discouraged - dejection-related emotions that relate clinically to depression. When our actual self is discrepant from an ought self-guide, we feel nervous, tense, and worried - agitation-related emotions that relate clinically to anxiety disorders. According to self-discrepancy theory, then, our vulnerabilities to different kinds of emotional suffering depend on which type of self-guide is emphasized in our self-regulation - dejection/depression suffering when ideals are emphasized, and agitation/anxiety suffering when oughts are emphasized.

Research with clinically depressed and clinically anxious patients has found support for these proposals about emotional vulnerabilities. Discrepancies between patients' actual selves and their ideal self-guides predicts their suffering from depression more than it predicts their suffering from anxiety disorders, whereas discrepancies between patients' actual selves and their ought self-guides predicts their suffering from anxiety disorders more than it predicts their suffering from depression (Strauman, 1989). Because some individuals have

actual-self discrepancies from both their ideal and ought self-guides, they can suffer from both depression and anxiety disorders.

At any one time, however, either individuals' ideal self-guides or their ought selfguides can be more accessible, and whichever is more accessible will determine which emotional syndrome they experience. This means that momentary situations can determine which syndrome is experienced by priming or activating either ideal or ought self-guides. For example, there is evidence that either actual-ideal discrepancies or actual-ought discrepancies can be made temporarily more accessible by exposing individuals either to words which relate to an ideal they possess or to an ought they possess. When such priming of either an ideal or an ought occurs in an experiment, participants whose actual-ideal discrepancy is activated suddenly feel sad and disappointed and fall into a depression-related state of low activity (e.g., talk slower). In contrast, participants whose actual-ought discrepancy is activated suddenly feel nervous and worried and fall into an anxiety-related state of high activity (e.g., talk quicker). And these kinds of effects have been found with both clinical samples (Strauman, 1989) and non-clinical samples (Strauman and Higgins, 1987).

What is the psychological mechanism that underlies these effects? Self-discrepancy theory proposes that different emotions relate to different psychological situations that people experience. That is, the psychological situations produced by success or failure to meet our ideals are different from the psychological situations produced by success or failure to meet our oughts. Specifically, when events are related to our ideal self-guides (i.e., to our hopes and aspirations), we experience success as the presence of a positive outcome (a gain), which is a happy experience, and we experience failure as the absence of positive outcome (a nongain), which is a sad experience. In contrast, when events are related to our ought self-guides (i.e., our beliefs about our duties and obligations), we experience success as the absence of

a negative outcome (a nonloss), which is a relaxing experience, and we experience failure as the presence of a negative outcome (a loss), which is a worrying experience. Consistent with this proposed underlying mechanism, research has shown (e.g., Higgins and Tykocinski, 1992) that individuals with strong ideals remember better events that reflect the absence or the presence of positive outcomes (gains and nongains), whereas individuals with strong oughts remember better events that reflect the presence or absence of negative outcomes (nonlosses and losses). People also remember better those events in their own lives that relate to whichever type of self-guide is more accessible for them (Strauman, 1992).

What kind of parenting is likely to result in children having either strong ideal self-guides or strong ought self-guides? In answering these questions, self-discrepancy theory relies on the basic idea that self-regulation in relation to ideal self-guides versus ought self-guides involves experiencing different psychological situations. When children interact with their parents (or other caretakers), the parents respond to their child in ways that make the child experience one of the different kinds of psychological situations. Over time, the children respond to themselves like their parents respond to them, producing the same specific kinds of psychological situations, and this develops into the kind of self-guide (ideal or ought) that is associated with those psychological situations (see Higgins, 1991).

What pattern of parenting, then, predicts the development of strong ideal self-guides in children? It is when parents combine bolstering (when managing success) and love withdrawal (when disciplining failure). Bolstering occurs, for instance, when parents encourage the child to overcome difficulties, hug and kiss them when they succeed, or set up opportunities for the child to engage in success activities – it creates an experience of the presence of positive outcomes in the child. Love withdrawal occurs, for instance, when parents end a meal when the child

throws some food, take away a toy when the child refuses to share it, stop a story when the child is not paying attention – it creates an experience of the absence of positive outcomes in the child.

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What pattern of parenting predicts the development of strong ought self-guides in children? It is when parents combine prudence (when managing success) and punitive/critical (when disciplining failure). Prudence occurs, for instance, when parents "child-proof" the house, train the child to be alert to potential dangers, or teach the child to "mind your manners" - it creates an experience of the absence of negative outcomes in the child. Punitive/critical occurs, for instance, when parents play roughly with the child to get his or her attention, yell at the child when he or she doesn't listen, criticize the child when he or she makes a mistake - it creates an experience of the presence of negative outcomes. Indeed, consistent with these self-discrepancy theory predictions, there is recent evidence of positive associations between the critical and punitive parenting style and prevention-focused selfregulation and between the bolstering parenting style and promotion-focused selfregulation (see Higgins and Silberman, 1998; Keller, 2008; Manian et al., 2006).

In addition to distinguishing between ideal and ought self-guides, self-discrepancy theory distinguishes between different standpoints that can be taken in self-regulation (Higgins, 1987) - between self-regulation from our own independent standpoint ("What are my own goals and standards for myself?") and self-regulation from the standpoint of a significant other person in our lives (e.g., "What are my mother's goals and standards for me?"). For example, in North America at least, there is evidence that discrepancies from independent self-guides are a more important determinant of emotional vulnerabilities for males than for females. In contrast, discrepancies from significant other self-guides are more important for females than for males (Moretti and Higgins, 1999a, 1999b).

### NOW BACK TO THE STORY: THE BIRTH OF REGULATORY FOCUS THEORY

Research testing self-discrepancy theory had always used the participants' selfdiscrepancies as part of the study. Most studies had tested the effects of self-discrepancies on emotional responses – the relation between self and affect - but occasionally we took advantage of previous work on priming and accessibility to make either actual-ideal or actual-ought discrepancies temporarily more accessible by priming either ideal or ought self-guides, respectively. For example, in one study by Higgins et al. (1986) participants were selected who were either high in both actual-ideal and actual-ought discrepancies or low in both, and when they arrived for the study they were asked either to discuss their own and their parents' hopes and aspirations for them (ideal priming) or to discuss their own and their parents' beliefs concerning their duties and obligations (ought priming). The study found that for "high in both" participants, but not "low in both" participants, ideal priming produced dejection-related emotions whereas ought priming produced agitation-related emotions.

The idea of using priming to make temporarily more accessible either ideal or ought self-guides (i.e., ideal or ought goals) was itself new to us. In the beginning, our research was based solely on using the Selves Questionnaire measure of self-discrepancies, which ideographically measured individuals' stable selfdiscrepancies (e.g., Higgins et al., 1985). It took a while for us to realize that we could take advantage of what we knew about accessibility and priming (see Chapter 4, this volume) to activate different kinds of self-discrepancies, thereby having more experimental control over our tests of self-discrepancy theory by activating momentarily either actual-ideal or actualought discrepancies. This experimental method discovery turned out to be a critical turning point for the birth of regulatory focus theory, but we did not know that at the time.

At the time, we still thought of self-discrepancy theory in strictly personality terms. We were using priming to make one kind of chronic self-discrepancy more accessible than another; that is, make it the more currently active self-discrepancy. We knew from research that was going on during the same period that temporary accessibility from situational priming could trump, at least for a while, chronic accessibility from established individual differences (Bargh et al., 1988). But self-discrepancy theory was still about chronic individual differences in stored selfdiscrepancies. For individuals with both ideal and ought discrepancies, as in the Higgins et al. (1986) study, we were simply using the priming to make one or the other discrepancy more active at the moment.

So here I was in 1990 realizing that I could not conduct studies at Columbia which required measuring participants' self-discrepancies beforehand. To me that meant I could no longer do research on selfdiscrepancy theory. What was I to do? As I mentioned earlier, one thought was to return to priming and accessibility research full-time. But I did not want to abandon selfdiscrepancy theory so early in its development. Perhaps I was thinking about priming and accessibility while wanting to continue working on ideals and oughts that was critical. I don't know. What I do know is that I suddenly realized that there was a solution to my problem. What had fascinated me about accessibility for a long time was the fact that accessibility was a state, and individuals did not know the source of their accessibility state – it could be from chronic accessibility, priming, or both (see Chapter 4, this volume). I had thought about accessibility being a common language for variability across persons (chronic accessibility) and variability across situations (priming), which provided a different perspective on the classic "personsituation" debate (Higgins, 1990). I had also thought that standards provided another common language for variability across persons (personal standards) and variability across situations (contextual standards)

(Higgins, 1990). But I had *not* fully appreciated what the notion of a common language implied nor had I thought about how accessibility and standards could be combined.

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I now realized that the distinction between ideal and ought self-regulation was being unnecessarily restricted by self-discrepancy theory. Rather than this distinction being about chronic discrepancies (or congruencies) between the actual self and ideal or ought self-guides, it was more generally about two different systems of self-regulation. At any moment, people could be in a state of regulating in relation to hopes or wishes (ideals) or they could be in a state of regulation to duties or responsibilities (oughts). And, importantly, this could be true regardless of whether they did or did not possess chronic ideal or ought discrepancies.

From this broader, two-distinct-systems perspective, the emotional and motivational implications of individuals being in a state of ideal self-regulation versus a state of ought self-regulation could be studied without any need to measure individuals' self-discrepancies. What mattered now was the distinction between two systems of self-regulation, and one or the other system could be activated through priming or other experimental manipulations. It was not necessary to measure self-discrepancies in order to study the implications of ideal versus ought self-regulation. My problem was solved!

An issue did remain, however. Specifically. would I still be testing self-discrepancy theory – that is, the theory itself – if I was no longer measuring self-discrepancies? For many years I have taught a course on theory construction in psychology (see Higgins, 2004). I was well aware in 1990 that it was important to distinguish between an extension of a theory versus a new theory. Failure to do so can be very unfair to both the "old" theory and the "new" theory. The question, then, was whether there were two theories the old self-discrepancy theory and the new "X" theory - or simply earlier and later versions of self-discrepancy theory. Why treat what might be just an extension or

elaboration of the extant self-discrepancy theory as a new theory? I have noted elsewhere that this is a gray area (Higgins, 2004), and it comes down to whether one believes that the "new" theory, in fact, really adds something that is fundamentally new.

In brief, I did believe that something fundamentally new had been added by the "new," and as-yet-unnamed, theory. The "new" theory - what became called regulatory focus theory - was concerned with distinct self-regulatory states that varied across both persons and situations. Unlike selfdiscrepancy theory, it was not a personality theory. Whereas ideal and ought self-guides varied chronically across persons in self-discrepancy theory, ideal and ought self-regulation in regulatory focus theory varied across situations as well as persons. And this difference really mattered. It inspired research that would not have been generated by selfdiscrepancy theory, such as framing effects on problem solving and decision making (see Higgins, 1998).

I believed then, as I believe now, that what distinguishes a theory are the discoveries that it generates (Higgins, 2004). And it was clear even then that this new theory would generate studies that could make discoveries that self-discrepancy theory would not. What made the most sense, and was most fair, was to let self-discrepancy theory continue to develop in its same basic form - after all it was still just a child - while treating its offspring as something deserving its own separate path of development. And self-discrepancy theory did continue to develop (see Moretti and Higgins, 1999a, 199b), such as considering the overlap between own standpoint and significant other standpoint on someone's goals in order to distinguish among independent self-regulation (just own standpoint), identified self-regulation (shared reality from own and significant other overlap), and introjected self-regulation (just significant other "felt presence of other"). Moreover, when regulatory focus theory began to mature, it was used to enrich self-discrepancy theory and broaden its implications, as evident in

Tim Strauman's construction of *self-system* therapy (Strauman et al., 2006). Like all good children, then, regulatory focus theory had a positive impact on its parent. Parent and child have each benefited enormously from one another – a nice family story. It is time, then, to describe what this new regulatory focus theory was all about and discuss the new research directions that it inspired.

### PROMOTION AND PREVENTION SYSTEMS OF SELF-REGULATION

From the ancient Greeks, through seventeenth- and eighteenth-century British philosophers, to twentieth-century psychologists (see Kahneman et al., 1999), the hedonic principle that people are motivated to approach pleasure and avoid pain has dominated our understanding of people's motivation. It is the basic motivational assumption of theories across all areas of psychology, including theories of emotion in psychobiology (e.g., Gray, 1982), conditioning in animal learning (e.g., Mowrer, 1960; Thorndike, 1935), decision-making in cognitive psychology (e.g., Edwards, 1955; Kahneman and Tversky, 1979), consistency in social psychology (e.g., Festinger, 1957; Heider, 1958), and achievement motivation in personality (e.g., Atkinson, 1964). Even when Freud, in Beyond the Pleasure Principle (Freud, 1950/1920), assigned a motivational role to the ego's reality principle, he made it clear that the reality principle "at bottom also seeks pleasure although a delayed and diminished pleasure" (Freud, 1952/1920: 365). Perhaps the clearest statement on the importance of hedonic experiences to motivation was given by Jeremy Bentham (1781/1988: 1): "Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne."

Within this historical context, the contribution of self-discrepancy theory and, especially, regulatory focus theory has been to emphasize the significance of the different motivational systems that underlie pleasure and pain. It is not enough to know that people approach pleasure and avoid pain. It is critical to know *how* they do so. The starting assumption of regulatory focus theory is that the *different ways* that people approach pleasure and avoid pain can be *more* significant for understanding motivation and emotion than the hedonic principle per se.

To illustrate, for Gray (1982) and Mowrer (1960), as well as Carver and Scheier (1981, 1990 a.b), the important motivational distinction was between the approach system (BAS) and the avoidance or inhibition system (BIS). Grav (1982) and Mowrer (1960) explicitly included both approaching reward (the presence of a positive outcome) and approaching safety (the absence of a negative outcome) as equivalent cases of approaching a desired end-state. In contrast, self-discrepancy theory (Higgins, 1987) and regulatory focus theory (Higgins, 1996) explicitly distinguished between the promotion-ideal system versus the prevention-ought system as two different ways of approaching desired endstates. Within approach, and within avoidance, there were distinct systems of self-regulation, and, according to selfdiscrepancy theory and regulatory focus theory, it was the difference between the nature of these systems that mattered emotionally and motivationally rather than the hedonic principle per se.

### THE SIGNIFICANCE OF REGULATORY FOCUS THEORY FOR EMOTIONAL EXPERIENCES

As I discussed earlier, self-discrepancy theory distinguished between different types of pleasures and different types of pains as a function of which self-guide was involved in an actual self-congruency or discrepancy,

cheerful-related and dejected-related feelings for ideal congruencies and discrepancies, and quiescent-related and agitated-related feelings for ought congruencies and discrepancies. Regulatory focus theory moved beyond this personality-based distinction by considering momentary successes and failures for people who happened to be in either a promotion focus state or a prevention focus state.

According to regulatory focus theory, the distinct emotional experiences from having a promotion focus versus a prevention focus are not restricted to personality. Anyone at a particular moment can be pursuing a goal with a promotion focus or a prevention focus. If a person in a promotion state succeeds in their goal pursuit, they will experience cheerful-related feelings (e.g., feel happy), and if they fail they will experience dejected-related feelings (e.g., feel sad). If a person in a prevention state succeeds, they will experience quiescent-related feelings (e.g., feel calm), and if they fail they will experience agitatedrelated feelings (e.g., feel tense) (see Idson et al., 2000).

The emotional significance of the two distinct self-regulatory systems was no longer restricted to actual-self relations to ideal and ought self-guides. It extended to any case of success or failure when self-regulating with a promotion focus or a prevention focus. One intriguing study which illustrates this included participants who did or did not believe that their father would strongly hope they would do well on the current task (promotion father) and other participants who did or did not believe that their father would view it as their obligation to do well on the task (prevention father). For "promotion father"-primed participants, success or failure on the current task produced feelings along the cheerful-dejected dimension, whereas for "prevention father"-primed participants success or failure produced feelings along the quiescent-agitated dimension (see Shah, 2003).

Although priming or activating a personal ideal or a personal ought is one way to induce

a promotion or prevention state, it is not the only way. Other momentary situations can induce promotion or prevention states. In an early study by Roney et al. (1995), for example, success and failure feedback was framed in a promotion or prevention manner. In the promotion-framing condition, success and failure feedback was "you got that one" and "you didn't get that one." respectively. In the prevention-framing condition, success and failure feedback was "you didn't miss that one" and "you missed that one," respectively. By the end of the task, everyone had failed. As predicted by regulatory focus theory, agitation-related emotions increased from pretest to post-test more for prevention-framed participants than for promotion-framed participants, whereas the opposite was true for dejection-related

Even when individuals' promotion focus and prevention focus are chronic predispositions, it does not require that there be chronic self-discrepancies or self-congruencies in order for distinct emotions to be produced. Distinct emotions will be produced by success or failure on a current task. Our discovery of this fact involves another story with a message about theory construction and testing. It is remarkable, to me at least, how our knowledge in one scientific area is not readily applied to theory construction and theory testing in another scientific area. To illustrate, James Shah and I wanted to find a way to measure the chronic strength of individuals' promotion focus and prevention focus independent of whether they had selfdiscrepancies or self-congruencies. We felt that this was important because it could predict how they would feel from success or failure in a momentary situation independent of their past history of success and failure. We believed, for example, that whether individuals had actual-ideal discrepancies or not, if they pursued a goal with a promotion focus they would feel sad after failure and happy after success; and whether they had actual-ought discrepancies or not, if they pursued a goal with a prevention focus they

would feel nervous after failure and relaxed after success.

For many months we tried various ways to measure the chronic strength of individuals' promotion focus and prevention strength that would predict the likelihood that they would pursue a goal in a promotion state or a prevention state. Time after time we developed what we thought was a very clever measure, but time after time the measure failed to work consistently. Then in 1993 I attended, as usual, the Social Psychology Winter Conference in Utah where I heard John Bassili describing his recent work on attitude strength, work that was inspired by the earlier work of Russ Fazio (see Bassili, 1996; Fazio, 1986). This work took advantage of the notion of chronic accessibility.

By the time of that conference, I had worked on chronic accessibility for many years (e.g., Higgins et al., 1982; see Chapter 4, this volume). But somehow it had never occurred to me to take advantage of what I knew about chronic accessibility to devise a measure of promotion and prevention strength. But now, after returning from the conference, James Shah and I did exactly that. In brief, we used individuals' response latencies when describing their personal ideals and oughts as a measure of the chronic accessibility of their ideals and oughts. Our assumption about ideals and oughts, like that of Bassili and Fazio about attitudes, was that chronic accessibility related positively to self-regulatory strength. Specifically, the more that a person's ideals had higher chronic accessibility than their oughts, the more that person's promotion system predominated; and the more that a person's oughts had higher chronic accessibility than their ideals, the more that person's prevention system predominated.

This implicit measure of promotion and prevention strength worked out very well. It turned out that promotion and prevention strength were independent of the extent to which individuals had ideal or ought discrepancies. Moreover, promotion and prevention strength moderated self-discrepancy effects,

such that an actual-ideal discrepancy predicted suffering from dejected-related emotions more when promotion strength was also high, and an actual-ought discrepancy predicted suffering from agitated-related emotions more when prevention strength was also high (Higgins et al., 1997). This was a very nice parent and child collaboration that benefited both family members. Equally nice was now we had what we always wanted - an implicit measure of the likelihood that a person would pursue a goal with either a promotion focus (predominant promotion strength) or a prevention focus (predominant prevention strength), independent of the extent to which that person had actual-ideal or actual-ought discrepancies.

Individuals with predominant promotion strength - as measured by greater chronic accessibility of ideals than oughts - should emotionally experience success and failure along the cheerful-dejected dimension, and should emotionally appraise objects in the world along the cheerful-dejected dimension. In contrast, individuals with predominant prevention focus - as measured by greater chronic accessibility of oughts than ideals - should emotionally experience success and failure along the quiescent-agitated dimension, and should emotionally appraise objects in the world along the quiescentagitated dimension. All of these predictions were supported (see Idson et al., 2000; Shah and Higgins, 2001).

### THE SIGNIFICANCE OF REGULATORY FOCUS THEORY FOR STRATEGIC GOAL PURSUIT

The bread and butter of self-discrepancy theory was to distinguish among different kinds of emotional experiences – different kinds of pleasure and different kinds of pain – and predict when they would occur. But even here, as I described above, regulatory focus theory had something new and important to add by predicting emotional

effects of success and failure on a current task that varied as a function of situationally induced promotion or prevention states, and by predicting emotional effects of chronic promotion or prevention strength independent of chronic self-discrepancies. The major difference between self-discrepancy theory and regulatory focus theory, however, was regulatory focus theory's concern with understanding how the two distinct systems of self-regulation worked; how exactly the promotion and prevention systems worked differently to approach pleasure and avoid pain. Addressing this how issue would really move us beyond the hedonic principle and beyond self-discrepancy theory. This issue became the major concern of our lab in the early 1990s.

At the time that we began working on regulatory focus theory, Carver and Scheier had also developed a self-regulatory model that was concerned with motivation and emotion (Carver and Scheier, 1990a, 1990b). In their model there were also two selfregulatory systems - an approach system of reducing discrepancies to desired states as reference points, and an avoidance system of amplifying discrepancies from undesired states as reference points. As I mentioned earlier, this general distinction between an approach system and an avoidance system was a classic and important way of thinking about self-regulatory systems, and it was elaborated and developed by Carver and Scheier in significant and innovative directions (see Carver and Scheier, Chapter 24, this handbook). What we needed to do conceptually and empirically was to clarify and demonstrate how the distinct systems identified by regulatory focus theory were not the same as the distinction between an approach system versus an avoidance system as described in Carver and Scheier's model or in other approachavoidance models, such as Mowrer's (1960) model, Gray's (1982) model, Atkinson's (1964) model, Lopes' (1987) model, and so on.

Carver and Scheier's distinction between an approach system and an avoidance system involves a distinction between two different

reference points - a desired end-state as reference point versus an undesired end-state as reference point. I have called this a regulatory reference distinction (Higgins, 1997). (The distinction of Atkinson and Lopes between hope and fear is a regulatory anticipation distinction - see Higgins [1997].) In contrast, the regulatory focus theory distinction between a promotion focus system and a prevention focus system involves a distinction within a desired end-state as reference point and within an undesired end-state as reference point. Within a desired end-state as reference point, for example, individuals can have a promotion focus on ideals and accomplishments as the desired end-state or they can have a prevention focus on oughts and safety as the desired end-state. Regulatory focus and regulatory reference are orthogonal distinctions.

Continuing with a desired end-state as the reference point, how does self-regulation with a promotion focus differ from selfregulation with a prevention focus? Early on we decided that the difference between promotion versus prevention concerns would translate into a difference in strategic preferences for how to pursue goals. With a promotion focus, individuals would prefer the strategy of approaching self-states that were matches to a desired end-state. With a prevention focus, individuals would prefer the strategy of avoiding self-states that were mismatches to a desired end-state. This was a distinction at the strategic level instead of Carver and Scheier's distinction at the level of approach versus avoidance systems. Within Carver and Scheier's approach system, this was a distinction between a promotion strategy of approaching matches versus a prevention strategy of avoiding mismatches. Within Carver and Scheier's avoidance system, regulatory focus theory distinguished between a promotion strategy of approaching mismatches to an undesired end-state versus a prevention system of avoiding matches to an undesired end-state.

To test this new strategic distinction, an early study had participants read about

many different episodes in the life of an individual that occurred over several days (Higgins et al., 1994). In each of the episodes, the target was trying either to experience a desired end-state or not experience an undesired end-state. The episodes were of the following kinds:

- 1 Approaching matches to a desired end-state: "Because I wanted to be at school for the beginning of my 8:30 psychology class which is usually excellent, I woke up early this morning."
- 2 Avoiding mismatches to a desired end-state: "I wanted to take a class in photography at the community center, so I didn't register for a class in Spanish that was scheduled at the same time."
- 3 Approaching mismatches to an undesired endstate: "I dislike eating in crowded places, so at noon I picked up a sandwich from a local deli and ate outside."
- 4 Avoiding matches to an undesired end-state:
  "I didn't want to feel tired during my very long morning of classes, so I skipped the most strenuous part of my morning workout."

Using an "unrelated studies paradigm," the participants first described either their personal ideals or their personal oughts to experimentally induce either a promotion focus or a prevention focus. Then they read the story and, afterward, tried to remember it. Across the desired and undesired end-states as reference points, the promotion-focused participants better remembered the episodes that involved strategic approach than the episodes that involved strategic avoidance, whereas the opposite was true for the prevention-focused participants.

Another study by Higgins et al. (1994) had participants make their own strategic choices regarding the desired end-state of friendship. The first phase of the study identified different friendship tactics. There were three tactics for the strategy of approaching matches: (a) "Be generous and willing to give of yourself"; (b) "Be supportive to your friends. Be emotionally supportive"; and

(c) "Be loving and attentive." There were also three tactics for the strategy of avoiding mismatches: (a) "Stay in touch. Don't lose contact with friends"; (b) "Try to make time for your friends and not neglect them"; and (c) "Keep the secrets friends have told you and don't gossip about friends." In a later phase of the study, new participants varying in chronic strength of regulatory focus were given all six tactics and were asked the same general question about friendship: "When you think about strategies for friendship, which THREE of the following strategies would you choose?" Across all participants, strategic approach tactics were chosen more than strategic avoidance tactics. But the study also found that predominant promotion participants chose more strategic approach tactics than predominant prevention participants, and predominant prevention participants chose more strategic avoidance tactics than predominant promotion participants.

The results of these two initial studies conducted in the early 1990s provided the first support for the unique prediction of regulatory focus theory that the promotion and prevention systems differed in the strategic manner of their goal pursuit. The distinction between the promotion and prevention systems was not a distinction between approach versus avoidance systems like Carver and Scheier's model and other earlier models. Within the approach system, and within the avoidance system, promotion and prevention differed in how goals were pursued. This strategic difference between the two regulatory focus systems was a critical distinguishing feature. It would have implications for self-regulation that were not fully foreseen at the time that these studies were done – implications that later led to the birth of regulatory fit theory (Higgins, 2000). I believe that the implications were not foreseen in part because the terminology of regulatory focus theory at that point in its development was more of a hindrance than a help. It is time to turn to that part of the story of regulatory focus theory.

### HOW "PROMOTION" AND "PREVENTION" BECAME THE LABELS FOR THE TWO SYSTEMS

HANDBOOK OF THEORIES OF SOCIAL PSYCHOLOGY

I have already talked about how theory development is a family affair in the sense of one theory giving birth to another, as self-discrepancy theory gave birth to regulatory focus theory. There are other ways in which theory development is a family affair (see Higgins, 2006a). For example, friends and colleagues provide feedback and suggestions at key stages in the development of a theory that have different kinds of positive effects in its development. An illustration of this concerns the labeling of "regulatory focus theory" and its "promotion" and "prevention" systems. These were *not* the original labels.

In the summer of 1993, I attended a conference at Ringberg Castle that was organized by Peter Gollwitzer and John Bargh - a conference with the now classic titles, "For Whom the Ring Bergs" and "Four Days at Ringberg: Four Days at Ringberg" (see Gollwitzer and Bargh, 1996). At that conference, I discussed my new theory, called "regulatory outcome focus" that concerned two distinct self-regulatory systems, called "positive outcome focus" and "negative outcome focus" (Higgins, 1996; see also Roney et al., 1995). A couple of years later (1995), I attended another conference in Italy that was organized by Arie Kruglanski and Augusto Palmonari. I presented a similar talk to the one that I had presented at the Ringberg Conference. Sitting in the audience was Marilynn Brewer.

Marilynn came up to me after my talk and asked me why I was using the labels "positive outcome focus" and "negative outcome focus" in my new theory. As I remember our conversation, she said something like the following:

Don't those labels contradict the very point you are trying to make? Aren't you arguing that both of your systems have pain and pleasure, both have positive and negative outcomes? Isn't your point not to confuse your two distinct systems with

approaching positive outcomes versus avoiding negative outcomes? But your labels, "positive outcome focus" and "negative outcome focus," make it sound like the distinction is about positive versus negative outcomes.

It was hard to argue her point. Actually, a good life lesson with Marilynn is to listen carefully to what she has to say because you will learn something useful. When I arrived home I was convinced that I had to find new labels. But which labels? I knew that, developmentally, having a "positive outcome focus" was about "bolstering" and nurturing advancements. It was about fulfilling wishes and aspirations. For desired end-states, it was about strategically approaching matches. It did not take too long - with my trusty tool, Roget's Thesaurus to help me - to find a label that worked: promotion. That definitely sounded right; it had all the right connotations.

Now I needed a new label for "negative outcome focus." I realized at this point that to follow Marilynn's wise counsel I needed a label that not only captured the psychology of a "negative outcome focus" but also sounded positive. I needed two labels that were both positive and, at the system level, both involved approaching a desired endstate. It would be nice if the labels also implied a difference at the strategic level, but it was critical that both have positive valence at the system level.

With 20/20 hindsight, the answer may seem obvious to you now, but it was not obvious to me then. This was in part because, thanks to the self-discrepancy theory parentage, our research emphasis regarding "negative outcome focus" was on *ought* self-guides (i.e., duties and obligations). When I began searching for a new label, it was ought selfregulation that I had in mind - not safety and security. But, eventually, I came across the concept of prevention. Not only did "prevention" capture the association with security concerns and strategically avoiding mismatches (for desired end-states), but it was also a three-syllable word with "p" as the initial consonant - just like "promotion"!

It was perfection (another three-syllable word with "p" as the initial consonant).

The theory was now about the distinction between self-regulation with a promotion focus and self-regulation with a prevention focus. To keep it simple, the theory should simply be called "regulatory focus theory." To this day, I should note, papers appear that refer to the theory as "self-regulatory focus theory" – perhaps a more accurate phrase but too many words. When possible, try to find labels for your concepts, like "ideal" and "ought" or "promotion" and "prevention," that are simple and everyday terms. (Donald Campbell's [1958] label, "entitativity," famously broke this rule but prospered anyway.)

I have always believed that words matter, and that exploring the different meanings of a word, its different denotations and connotations, is a great tool for discovering the psychological underpinnings of the concept to which the word refers. Indeed, for this reason, there was a kind of positive externality, an unexpected benefit, of changing the labels in the theory from "positive outcome focus" and "negative outcome focus" to "promotion focus" and "prevention focus." For the reasons that Marilynn Brewer suggested, the original labels were more confusing than helpful because they differed from each other only by the words "positive" and "negative." But this valence distinction is precisely not what the theory is about. In contrast, the difference between "promotion" and "prevention" is precisely what the theory is about.

The more I thought about the words "promotion" and "prevention" – once again with the help of my trusty Roget's Thesaurus plus the Webster and Oxford English dictionaries – the more the differences between them became apparent. Perhaps most important initially, it occurred to me that the way to fulfill a promotion focus was by being eager and enthusiastic, whereas the way to fulfill a prevention focus was by being vigilant and careful. Up to this point I had emphasized the strategic difference between approaching matches to desired

ideals and avoiding mismatches to desired oughts. This strategic distinction, I believe, is still accurate, but it is less generative than thinking of the difference between being eager in the service of promotion and being vigilant in the service of prevention. Indeed, this new way of thinking ultimately gave birth to another new child – *regulatory fit theory* (Higgins, 2000).

### REGULATORY FOCUS THEORY: THE PARENT OF REGULATORY FIT THEORY

I suppose that it would have been possible to think about approaching matches to a desired end-state as being a strategy that sustained (versus disrupted) a positive outcome focus and that avoiding mismatches to a desired end-state as being a strategy that sustained a negative outcome focus. But surely it is easier to think of an eager strategy as sustaining promotion and a vigilant strategy as sustaining prevention. And in the late 1990s, after the label changes, we began to do studies where we varied which strategies people used during goal pursuit (e.g., Förster et al., 1998). In one study by Shah et al. (1998), for example, participants solved green-colored anagrams in order to gain points versus redcolored anagrams in order not to lose points. We found that promotion-focused participants performed better on the (eager) green anagrams than the (vigilant) red anagrams, but the opposite was true for preventionfocused participants. Another study by Shah et al. (1998) found that predominant promotion participants performed better on an anagram task when the suggested strategy was to try and find 90 percent or more of the words (eager) versus when the suggested strategy was to try not to miss more than 10 percent of the words (vigilant).

Over time we began to think of these different strategies as being eager versus vigilant strategies, and we began to label them as such. Importantly, we thought of strategic eagerness as an approach strategy and strategic vigilance as an avoidance strategy. Because this strategic difference was a kind of approach versus avoidance distinction, it became all the more important to distinguish regulatory focus theory from control theories like Carver and Scheier's. Whereas Carver and Scheier's approachavoidance distinction was at the system level (i.e., approaching desired end-states versus avoiding undesired end-states), our approachavoidance distinction was at the strategic level. The different conceptions of avoidance at the system level versus the strategic level provided a critical test between these theories.

At Carver and Scheier's system level of avoidance, moving away from an undesired end-state should decrease avoidance intensity over time (see Miller, 1959). At regulatory focus theory's strategic level of avoidance, moving toward a desired end-state with prevention-focused vigilant avoidance should increase motivational intensity over time according to a "goal looms larger effect" (Lewin, 1935; Miller, 1959). These different predictions were tested in several studies using alternative measures of change in motivational intensity over time (i.e., arm pressure; persistence) and the results supported the prediction of regulatory focus theory (see Förster et al. 1998, 2001).

During the same general period we were conducting our "goal looms larger effect" studies, we were conducting other studies which suggested that the combination of promotion plus eager and prevention plus vigilance involved some sort of compatibility that had its own motivational significance. Earlier, Lorraine Idson, Nira Liberman, and I (Idson et al., 2000) had conducted studies in which participants imagined buying a book and choosing between paying with cash or paying with a credit card, with the book's price being lower if you paid with cash (see Thaler, 1980). The participants reported either how good they would feel if they paid with cash (the positive "success" outcome) or how bad they would feel if they paid with

a credit card (the negative "failure" outcome). These earlier studies found that the pleasant feelings from the positive "success" outcome were more intense for promotion than prevention, that is, feeling cheerful versus feeling quiescent, whereas the painful feelings from the negative "failure" outcome were more intense for prevention than promotion, that is, feeling agitated versus feeling dejected.

In addition to measuring how good or bad participants felt about the outcome, our new studies included separate measures of pleasure/pain intensity and strength of motivational force (see Idson et al., 2004). For example, in one study that induced either a promotion focus or a prevention focus by priming either ideals or oughts, pleasurepain intensity was measured by asking the participants how pleasant the positive outcome would be or how painful the negative outcome would be; and strength of motivational force was measured by asking the participants how motivated they would be to make the positive outcome happen (in the positive outcome condition) or how motivated they would be to make the negative outcome not happen (in the negative outcome

We found that pleasure/pain intensity and strength of motivational force each made significant independent contributions to the perceived value of the imagined outcome (i.e., its goodness/badness). We also found that for the positive success outcome, strength of motivational force was higher in promotion than prevention; but for the negative failure outcome, strength of motivational force was higher in prevention than promotion. What these studies discovered was that there is an asymmetry between promotion and prevention with respect to whether success or failure yields a stronger motivational force. Other studies conducted around the same time also found this asymmetry. For promotion, there was better performance under conditions of success than failure. For prevention, there was better performance under conditions of failure than success

(Förster et al., 2001; Idson and Higgins, 2000). This asymmetry between promotion and prevention regarding the effects of success versus failure was another major feature distinguishing the two systems. It was not a feature that had been identified in models distinguishing approach versus avoidance systems. It was something new about the difference between the promotion and prevention systems, and I knew it was important.

The earlier performance studies had found that goal pursuit in a promotion focus yielded better performance when an eager than a vigilant strategy was used, and the opposite was true for goal pursuit in a prevention focus. Now there was this new asymmetry for the effects on motivational strength of success versus failure. What was going on? The key to the solution was to recognize that the effects for intensity of emotions that we had found earlier (Idson et al., 2000) reflected differences in motivational strength. That is, when promotion-focused individuals feel cheerful after success their motivation is high, but whey they feel dejected after failure their motivation is low. In contrast, when prevention-focused individuals feel quiescent after success their motivation is low, but when they feel agitated after failure their motivation is high. And these differences in motivational strength are related to the same eagerness and vigilance that were involved in the earlier performance studies. That is, when promotion-focused individuals feel cheerful after success they are eager (strong motivation), but when they feel dejected after failure they are not eager (weak motivation). In contrast, when prevention-focused individuals feel agitated after failure they are vigilant (strong motivation), but when they feel quiescent after success they are not vigilant (weak motivation).

What united all the findings of these studies in the late 1990s was that being eager sustains motivational strength for individuals in a promotion focus, whereas being vigilant sustains motivational strength for individuals in a prevention focus. This solution to the mystery of what was going on in our recent

regulatory focus studies gave birth to regulatory fit theory. What became clear was that there was another self-regulatory principle which contributed to the effects we were finding – the principle of *regulatory fit*.

Within this same period, a serendipitous event occurred. In 1999 I learned that I would receive the APA's Award for Distinguished Scientific Contributions, which meant that I would be giving a talk in 2000 that would then appear as an article in the American Psychologist. I wasn't sure whether to give a talk about past research testing regulatory focus theory or to give a talk on something new. I preferred the latter. But what would a new talk be about? I was quite excited about the findings from our recent studies and the solution to the mystery of what might underlie them. So I decided that my speech and paper for the APA award would present the new principle of regulatory fit. But this meant that I had to develop the new theory in short order.

The major proposal of regulatory fit theory was that people experience regulatory fit when the manner of their engagement in an activity sustains (versus disrupts) their current regulatory orientation (Higgins, 2000). An eager manner sustains promotion and a vigilant manner sustains prevention. But regulatory fit was not the same as regulatory focus because it concerned the relation between any goal pursuit orientation and the strategic manner in which the goal is pursued. Indeed, when I reconsidered other research we had done during the same period, for example, research on how "fun" versus "important" task instructions impact performance (Bianco et al., 2003), I began to realize that regulatory fit was a very general principle that applied to other orientations and strategies. Nonetheless, it was the specific work testing regulatory focus theory that led to the discovery of regulatory fit. Regulatory focus theory was the parent of regulatory fit theory, and as this new child developed it began to generate its own separate studies and findings (see Higgins, 2008a, 2009). At the end of this chapter, I will discuss how parent and child have benefited from one another.

#### **APPLICABILITY TO SOCIAL ISSUES**

As I noted earlier, it was self-discrepancy theory that gave birth to regulatory focus theory. And my inspiration for selfdiscrepancy theory was wanting to understand the distinct psychological underpinnings of depression and anxiety disorders. My first collaborator on self-discrepancy theory, Tim Strauman, had the same inspiration as me. Indeed, while a graduate student at NYU, he earned two PhDs - one in social psychology and one in clinical psychology. After leaving NYU, he continued to wear both hats, including being a director of clinical training and helping clinically depressed and anxious clients as a therapist. He began to develop a new form of clinical psychotherapy based on self-discrepancy theory. After the birth of regulatory focus theory, he expanded and modified this therapy to take advantage of the new insights provided by regulatory focus theory.

Conceptual advances and empirical discoveries from developing regulatory focus theory since 1990 have increased psychologists' understanding of the differences between depression-related promotion failure and anxiety disorder-related prevention failure. This has led to Strauman and his collaborators developing and testing, in clinical trials, a new-generation psychotherapy called "self-system therapy" (Vieth et al., 2003). Interventions specifically designed to reduce the actual-ideal discrepancies of depressed patients have proven to be effective. Indeed, for a theory-specified subset of depressed patients, it has been shown to be even more effective than cognitive therapy (Strauman et al., 2006).

The emotional and motivational significance of the difference between a failure in the promotion system and a failure in the prevention system sheds new light regarding other clinical phenomenon. There is evidence, for example, that among women who become a mother for the first time, having an actual-ideal discrepancy prior to the birth of their child predicts increased vulnerability to post-partum depression, whereas having an actual-ought discrepancy predicts *decreased* vulnerability to post-partum anxiety (Alexander and Higgins, 1993). There is also evidence that possessing an actual-ideal discrepancy is a vulnerability factor for *bulimic* eating disorders whereas possessing an actual-ought discrepancy is a vulnerability factor for *anorexic* eating disorders (Higgins et al., 1992; Strauman et al., 1991).

In addition to its implications for clinical phenomenon, regulatory focus theory has implications for interpersonal relations and intergroup relations as well. There is evidence that people are more willing to forgive another person who apologizes for hurting them and are more empathic concerning another person's suffering when the promotion or prevention nature of the forgiveness message or the other person's suffering fits the promotion or prevention focus of the recipient or perceiver (Houston, 1990; Santelli et al., 2009). This illustrates an interpersonal benefit from similarity in regulatory focus. There is evidence as well that complementarity in regulatory focus can also have interpersonal benefits. Recent research has found that long-term married partners with complementary regulatory focus orientations have higher relationship wellbeing (Bohns et al., 2009). What appears to be critical for such complementarity effects is for each partner to be able to assume a separate role on shared tasks (i.e., division of labor) so that each can use the goal strategy that fits their regulatory focus orientation, such as the promotion partner taking on the eager parts of the task and the prevention partner taking on the vigilant parts of the task. There is also evidence that responses to social exclusion vary in a manner that relates to regulatory focus, with individuals responding in a prevention manner when they are rejected but responding in a promotion

manner when they are ignored (Molden et al., 2009).

Intergroup relations are also influenced by regulatory focus. Specifically, there is evidence that the classic phenomenon of ingroup favoritism (see Levine and Moreland, 1998) varies by regulatory focus. Two separate research programs have shown that favoritism that rewards and embraces ingroup members is driven largely by promotion concerns, whereas favoritism that punishes and rejects outgroup members is driven largely by prevention concerns (Sassenberg et al., 2003; Shah et al., 2004) - promoting us versus preventing them. And this effect is evident even for subtle measures of motivation for intergroup contact. For example, in a study by Shah et al. (2004), participants chose where to sit in a waiting room that had a backpack on a chair which supposedly was owned either by their future partner in an upcoming task or their future opponent. Participants with a stronger promotion focus chose to sit closer to their teammate, whereas a stronger prevention focus had no relation to sitting closer to one's teammate. In contrast, participants with a stronger prevention focus chose to sit further away from their opponent, whereas a stronger promotion focus had no relation to sitting further away from one's opponent.

Regulatory focus has other implications for intergroup relations as well. Being discriminated against is painful. But the nature of this pain and reactions to it can depend on perceivers' regulatory focus. When discrimination is perceived as blocking opportunities for advancement, the pain would involve dejection which has low motivational intensity. In contrast, when discrimination is perceived as a threat to one's security, the pain would involve agitation which has high motivational intensity. There is evidence, for example, that a prevention focus leads to more anger and agitation after social discrimination than a promotion focus, and especially when social discrimination is based on losses rather than on nongains (Sassenberg and Hansen, 2007).

These differences in emotions and motivation could translate into people responding differently when they are discriminated against. Consistent with this, Quinn and Olson (2004) demonstrated that, compared to promotion-focused women, preventionfocused women report stronger intentions to engage in future behaviors that are aimed at reducing discrimination toward women, such as participating in protests on women discrimination issues, as well as reporting that they have performed such actions more frequently in the past. Interestingly, when behaviors that protest discrimination are explicitly framed in terms of removing obstacles to advancement, that is, removing a barrier to accomplishing progress, then promotion-focused women report stronger intentions to engage in such behaviors than do prevention-focused women.

There is also evidence that regulatory focus is relevant for reducing the negative impact of stereotype threat on performance (Steele et al., 2002). Keller (2007) has shown that if a promotion focus, rather than a prevention focus, can be induced under stereotype threat conditions, the negative impact of stereotype threat can be reduced. Keller (2007) argues that when individuals are in a promotion focus, stereotype threat is more likely to be experienced as a challenge rather than as a threat, which in turn creates greater eagerness and engagement in maximal goals that enhance performance. Research by Seibt and Förster (2004) suggests that negative stereotypes induce a prevention focus that, in turn, motivates people to use vigilant strategies on a task (cf. Förster et al., 2004). If the task is one in which a vigilant strategy is useful, such as an analytical task, then this will not be a problem. But if the task requires the use of an eager strategy, or a mix of vigilant and eager strategies, then the prevention focus induced by negative stereotypes will hurt performance. On such tasks, Keller's (2007) intervention of inducing a promotion focus under stereotype threat conditions could be especially important.

One final way in which regulatory focus theory has been applied to social issues should be mentioned. Over the last several years, regulatory focus theory - often combined with the principle of regulatory fit has been used to increase the effectiveness of persuasive messages (for reviews, see Cesario et al., 2008; Lee and Higgins, 2009). This application can be used, and has been used, to enhance the effectiveness of health messages. For instance, several studies have demonstrated that when recipients who are either promotion-focused or preventionfocused are given messages that are framed, respectively, in promotion-eager terms or in prevention-vigilant terms, the recipients are more persuaded to increase their consumption of fruits and vegetables (Cesario et al., 2004; Latimer et al., 2007; Spiegel et al., 2004), to use sunscreen (Keller, 2006; Lee and Aaker, 2004), increase physical activity (Latimer et al., 2008), and reduce intentions to smoke (Kim, 2006; Zhao and Pechmann, 2007).

In an early demonstration of this persuasion technique, Spiegel et al. (2004) gave participants health messages that advocated pursuit of the same desired end-state – eating more fruits and vegetables. The key manipulations took place as part of the messages that participants received. Although all participants received the same message advocacy ("eat more fruits and vegetables"), a promotion versus prevention focus was manipulated through the concerns that were highlighted within the messages - accomplishments for promotion and safety for prevention. Within each regulatory focus condition, participants were asked either to imagine the benefits they would get if they complied with the health message (eager strategy) or the costs they would incur if they didn't comply with the health message (vigilant strategy). The participants in the fit conditions (promotion recipients/ eager message; prevention recipients/vigilant message) ate more fruits and vegetables in the week following the first session than participants in the nonfit conditions

(prevention recipients/eager message; promotion recipients/vigilant message). Latimer et al. (2008) extended these findings to show that a single message framed to fit individuals' chronic regulatory focus led to greater fruit and vegetable consumption even four months after message delivery.

#### CONCLUSION

From self-discrepancy theory to regulatory focus theory to regulatory fit theory, this family of theories has been developed and applied for over 20 years now. I should note that when a parent has a child, the parent does not stop developing. The child develops, but so too does the parent. Regulatory focus theory, for example, continued to develop on its own after giving birth to regulatory fit theory, as illustrated by the recent regulatory focus theory distinction between eager and vigilant strategies versus risky and conservative tactics (e.g., Scholer et al., 2010; see Scholer and Higgins, in press).

Importantly, it is not only the parent that affects the development of the child. The child affects the development of the parent as well. For example, regulatory fit theory taught regulatory focus theory that a particular strategy can have a consistent and stable association with a specific regulatory concern, such as eager with promotion and vigilant with prevention, because the strategy is in the service of sustaining that regulatory concern; a perspective that has proven useful when reconsidering the relation between culture and personality (Higgins, 2008b; Higgins, et al., in press). And in addition to a child affecting a parent, a grandchild can affect a grandparent. Regulatory fit theory, for example, provided new insights for selfdiscrepancy theory's understanding of anhedonia, that is, the inability to gain pleasure from normally pleasurable activities, which is a central symptom of the depression that is associated with severe actual-ideal discrepancies. Because an actual-ideal discrepancy

is a promotion failure that reduces eagerness, and low eagerness is a nonfit for promotion, engagement in positive activities is weakened when people have severe actual-ideal discrepancies, which in turn deintensifies their attractiveness (see Higgins, 2006b). In this way, positive activities in general lose their attractiveness.

In my family of theories, grandparent, parent, child, and grandchild have all enriched one another. It has been an exciting journey, and I look forward to observing and participating in further developments. I am certain there will be new discoveries and new surprises. Let me conclude as I have in the past:

Children teach parents to appreciate life in new ways. Children help parents to discover new things about the world. Theories can too. Always remember to love your theory, enjoy your theory, and help it develop. It is what makes life as a scientist a joy

(Higgins, 2006a).

#### **REFERENCES**

Alexander, M.J. and Higgins, E.T. (1993) Emotional trade-offs of becoming a parent: How social roles influence self-discrepancy effects. *Journal of Personality and Social Psychology*, 65, 1259–1269.

Atkinson, J.W. (1964) An Introduction to Motivation.

Princeton: D. Van Nostrand.

Bargh, J.A., Lombardi, W.J. and Higgins, E.T. (1988) Automaticity of chronically accessible constructs in person x situation effects on person perception: It's just a matter of time. *Journal of Personality and Social Psychology*, *55*, 599–605.

Bassili, J.N. (1996) Meta-judgmental versus operative indexes of psychological attributes: The case of measures of attitude strength. *Journal of Personality and Social Psychology*, 71, 637–653.

Bentham, J. (1988) *The Principles of Morals and Legislation*. Amherst, NY: Prometheus Books. (Original work published 1781).

Bianco, A.T., Higgins, E.T. and Klem, A. (2003) How 'fun/importance' fit impacts performance: Relating implicit theories to instructions. *Personality and Social Psychology Bulletin, 29*, 1091–1103.

Bohns, V.K., Lucas, G., Molden, D.C., Finkel, E.J., Coolsen, M.K., Kumashiro, M., Rusbult, C.E. and Higgins, E.T. (2009) When opposites fit: Increased relationship strength from partner complementarity in regulatory focus. Unpublished manuscript, Columbia University.

Carver, C.S. and Scheier, M.F. (1981) Attention and Self-regulation: A Control-theory Approach to Human Behavior. New York: Springer-Verlag.

Carver, C.S. and Scheier, M.F. (1990a) Principles of self-regulation: Action and emotion. In E.T. Higgins and R.M. Sorrentino (eds), *Handbook of Motivation and Cognition: Foundations of Social Behavior, 2,* 3–52. New York: Guilford Press.

Carver, C.S. and Scheier, M.F. (1990b). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, *97*, 19–35.

Cesario, J., Grant, H. and Higgins, E.T. (2004) Regulatory fit and persuasion: Transfer from 'feeling right'. Journal of Personality and Social Psychology, 86, 388–404.

Cesario, J., Higgins, E.T. and Scholer, A.A. (2008) Regulatory fit and persuasion: Basic principles and remaining questions. *Social and Personality Psychology Compass*, *2*, 444–463.

Edwards, W. (1955) The prediction of decisions among bets. *Journal of Experimental Psychology*, *51*, 201–214.

Fazio, R.H. (1986) How do attitudes guide behavior? In R.M. Sorrentino and E.T. Higgins (eds), *Handbook of Motivation and Cognition: Foundations of Social Behavior*, pp. 204–243. New York: Guilford Press.

Festinger, L. (1957) *A Theory of Cognitive Dissonance*. Evanston: Row, Peterson.

Förster, J., Higgins, E.T. and Idson, C.L. (1998) Approach and avoidance strength as a function of regulatory focus: Revisiting the 'goal looms larger' effect. *Journal of Personality and Social Psychology*, 75, 1115–1131.

Förster, J., Higgins, E.T. and Werth, L. (2004) How threat from stereotype disconfirmation triggers self-defense. *Social Cognition*, *22*, 54–74.

Förster, J., Grant, H., Idson, L.C. and Higgins, E.T. (2001) Success/failure feedback, expectancies, and approach/avoidance motivation: How regulatory focus moderates classic relations. *Journal of Experimental Social Psychology*, *37*, 253–260.

Freud, S. (1950) *Beyond the Pleasure Principle*. New York: Liveright. (Original work published 1920).

Freud, S. (1952) *A General Introduction to Psychoanalysis*. New York: Washington Square Press. (Original work published 1920).

Gollwitzer, P.M. and Bargh, J.A. (eds) (1996) *The Psychology of Action: Linking Cognition and Motivation to Behavior*. New York: Guilford Press.

Gray, J.A. (1982) The Neuropsychology of Anxiety: An Enquiry into the Functions of the Septo-hippocampal System. New York: Oxford University Press.

HANDBOOK OF THEORIES OF SOCIAL PSYCHOLOGY

- Heider, F. (1958) The Psychology of Interpersonal Relations. New York: Wilev.
- Higgins, E.T. (1987) Self-discrepancy: A theory relating self and affect. Psychological Review, 94, 319–340.
- Higgins, E.T. (1990) Personality, social psychology, and person-situation relations: Standards and knowledge activation as a common language. In L.A. Pervin (ed.), Handbook of Personality, pp. 301-338. New York: Guilford Press.
- Higgins, E.T. (1991) Development of self-regulatory and self-evaluative processes: Costs, benefits, and tradeoffs. In M.R. Gunnar and L.A. Sroufe (eds), Self Processes and Development: The Minnesota Symposia on Child Psychology, 23, 125-165. Hillsdale, NJ: Erlbaum.
- Higgins, E.T. (1996) Ideals, oughts, and regulatory focus: Affect and motivation from distinct pains and pleasures. In P.M. Gollwitzer and J.A. Bargh (eds), The Psychology of Action: Linking Cognition and Motivation to Behavior, pp. 91-114. New York: Guilford Press.
- Higgins, E.T. (2000) Making a good decision: Value from fit. American Psychologist, 55, 1217–1230.
- Higgins, E.T. (2001) Promotion and prevention experiences: Relating emotions to nonemotional motivational states. In J.P. Forgas (ed.), Handbook of Affect and Social Cognition, pp. 186-211. Mahwah, NJ: Lawrence Erlbaum Associates.
- Higgins, E.T. (2004) Making a theory useful: Lessons handed down. Personality and Social Psychology Review. 8. 138-145.
- Higgins, E.T. (2006a) Theory development as a family affair. Journal of Experimental Social Psychology,
- Higgins, E.T. (2006b) Value from hedonic experience and engagement. Psychological Review, 113, 439-460.
- Higgins, E.T. (2008a) Regulatory fit. In J.Y. Shah and W.L. Gardner (eds), Handbook of Motivation Science, pp. 356–372. New York: Guilford Press.
- Higgins, E.T. (2008b) Culture and personality: Variability across universal motives as the missing link. Social and Personality Psychology Compass, 2.
- Higgins, E.T. (2009) Regulatory fit in the goal-pursuit process. In G.B. Moskowitz and H. Grant (eds), The Psychology of Goals. New York: Guilford Press.
- Higgins, E.T., Bond, R.N., Klein, R. and Strauman, T. (1986) Self-discrepancies and emotional vulnerability: How magnitude, accessibility, and type of discrepancy influence affect. Journal of Personality and Social Psychology, 51, 5–15.

- Higgins, E.T., King, G.A. and Mavin, G.H. (1982) Individual construct accessibility and subjective impressions and recall. Journal of Personality and Social Psychology, 43, 35–47.
- Higgins, E.T., Klein, R. and Strauman, T. (1985) Selfconcept discrepancy theory: A psychological model for distinguishing among different aspects of depression and anxiety. Social Cognition, 3, 51-76.
- Higgins, E.T., Pierro, A. and Kruglanski, A.W. (in press) Re-thinking culture and personality: How selfregulatory universals create cross-cultural differences. In R.M. Sorrentino and S. Yamaguchi (eds), Handbook of Motivation and Cognition Across Cultures. New York: Academic Press.
- Higgins, E.T., Rholes, W.S. and Jones, C.R. (1977) Category accessibility and impression formation. Journal of Experimental Social Psychology, 13, 141-154.
- Higgins, E.T., Roney, C., Crowe, E. and Hymes, C. (1994) Ideal versus ought predilections for approach and avoidance: Distinct self-regulatory systems. Journal of Personality and Social Psychology, 66,
- Higgins, E.T., Shah, J. and Friedman, R. (1997) Emotional responses to goal attainment: Strength of regulatory focus as moderator. Journal of Personality and Social Psychology, 72, 515-525.
- Higgins, E.T. and Silberman, I. (1998) Development of regulatory focus: Promotion and prevention as ways of living. In J. Heckhausen and C.S. Dweck (eds), Motivation and Self-regulation Across the Life Span, pp. 78-113. New York: Cambridge University Press.
- Higgins, E.T. and Tykocinski, O. (1992) Self-discrepancies and biographical memory: Personality and cognition at the level of psychological situation. Personality and Social Psychology Bulletin, 18, 527-535.
- Higgins, E.T., Vookles, J. and Tykocinski, O. (1992) Self and health: How 'patterns' of self-beliefs predict types of emotional and physical problems. Social Cognition, 10, 125-150.
- Houston, D.A. (1990) Empathy and the self: Cognitive and emotional influences on the evaluation of negative affect in others. Journal of Personality and Social Psychology, 59, 859-868.
- ldson, L.C. and Higgins, E.T. (2000) How current feedback and chronic effectiveness influence motivation: Everything to gain versus everything to lose. European Journal of Social Psychology, 30, 583-592.
- Idson, L.C., Liberman, N. and Higgins, E.T. (2000) Distinguishing gains from nonlosses and losses from nongains: A regulatory focus perspective on

- hedonic intensity. Journal of Experimental Social Psychology, 36, 252-274.
- Idson, L.C., Liberman, N. and Higgins, E.T. (2004) Imagining how you'd feel: The role of motivational experiences from regulatory fit. Personality and Social Psychology Bulletin, 30, 926-937.
- Kahnemen, D., Diener, E. and Schwarz, N. (eds) (1999) Well-being: The Foundations of Hedonic Psychology. New York: Russell Sage Foundation.
- Kahneman, D. and Tversky, A. (1979) Prospect theory: An analysis of decision under risk. Econometrica, 47, 263-291.
- Keller, J. (2007) When negative stereotypic expectancies turn into challenge or threat: The moderating role of regulatory focus. Swiss Journal of Psychology, 66. 163-168.
- Keller, J. (2008) On the development of regulatory focus: The role of parenting styles. European Journal of Social Psychology, 38, 354-364.
- Keller, P.A. (2006) Regulatory focus and efficacy of health messages. Journal of Consumer Research, 33, 109-114.
- Kim, Y. (2006) The role of regulatory focus in message framing for antismoking advertisements for adolescents. Journal of Advertising, 35, 143-151.
- Latimer, A.E., Rivers, S.E., Rench, T.A., Katulak, N.A., Hicks, A., Hodorowski, J.K., Higgins, E.T. and Salovey, P. (2008) A field experiment testing the utility of regulatory fit messages for promoting physical activity. Journal of Experimental Social Psychology, 44, 826-832.
- Latimer, A.E., Williams-Piehota, P., Katulak, N.A., Cox, A., Mowad, L.Z., Higgins, E.T. and Salovey, P. (in press) Promoting fruit and vegetable intake through messages tailored to individual differences in regulatory focus. Annals of Behavioral Medicine.
- Lee, A.Y. and Aaker, J.L. (2004) Bringing the frame into focus: The influence of regulatory fit on processing fluency and persuasion. Journal of Personality and Social Psychology, 86, 205–218.
- Lee, A.Y. and Higgins, E.T. (2009) The persuasive power of regulatory fit. In M. Wänke (ed.), Social Psychology of Consumer Behavior, pp. 319-333. New York: Psychology Press.
- Levine, J.M. and Moreland, R.L. (1998) Small groups. In D.T. Gilbert, S.T. Fiske, and G. Lindzey (eds), The Handbook of Social Psychology, 4th Edition, pp. 415-469. Boston: McGraw-Hill.
- Lewin, K. (1935) A Dynamic Theory of Personality. New York: McGraw-Hill.
- Lopes, L.L. (1987) Between hope and fear: The psychology of risk. In L. Berkowitz (ed.), Advances in

- Experimental Social Psychology, 20, 255-295. New York: Academic Press.
- Manian, N., Papadakis, A.A., Strauman, T.J. and Essex, M.J. (2006) The development of children's ideal and ought Self-Guides: Parenting, temperament. and individual differences in guide strength. Journal of Personality, 74, 1619-1645.
- Miller, N.F. (1959) Liberalization of basic S-R concepts: Extensions to conflict behavior, motivation, and social learning. In S. Koch (ed.), Psychology: A Study of a Science, Vol. 2: General Systematic Formulations, Learning, and Special Processes, pp. 196-292. New York: McGraw-Hill.
- Molden, D.C., Lucas, G.M., Gardner, W.L., Dean, K. and Knowles, M.L. (2009) Motivations for prevention or promotion following social exclusion: Being rejected versus being ignored. Journal of Personality and Social Psychology, 96, 415-431.
- Moretti, M.M. and Higgins, E.T. (1999a) Internal representations of others in self-regulation: A new look at a classic issue. Social Cognition, 17, 186-208.
- Moretti, M.M. and Higgins, E.T. (1999b) Own versus other standpoints in self-regulation: Developmental antecedents and functional consequences. Review of General Psychology, 3, 188–223.
- Mowrer, O.H. (1960) Learning Theory and Behavior. New York: John Wiley.
- Quinn, K.A. and Olson, J.M. (2004) Preventing prejudice or promoting progress? Regulatory framing and collective action. Unpublished manuscript.
- Roney, C.J.R., Higgins, E.T. and Shah, J. (1995) Goals and framing: How outcome focus influences motivation and emotion. Personality and Social Psychology Bulletin, 21, 1151-1160.
- Santelli, A.G., Struthers, C.W. and Eaton, J. (2009) Fit to forgive: Exploring the interaction between regulatory focus, repentance, and forgiveness. Journal of Personality and Social Psychology, 96, 381–394.
- Sassenberg, K. and Hansen, N. (2007) The impact of regulatory focus on affective responses to social discrimination. European Journal of Social Psychology, 37, 421-444.
- Sassenberg, K., Kessler, T. and Mummendy, A. (2003) Less negative = more positive? Social discrimination as avoidance or approach. Journal of Experimental Social Psychology, 39, 48-58.
- Scholer, A.A. and Higgins, E.T. (in press) Distinguishing levels of approach and avoidance: An illustration using regulatory focus theory. In A.J. Elliot (ed.), Handbook of Approach and Avoidance Motivation.
- Scholer, A.A., Zou, X., Fujita, K., Stroessner, S.J. and Higgins, E.T. (2010) When risk-seeking becomes a

- motivational necessity. *Journal of Personality and Social Psychology*, *99*, 215–231.
- Seibt, B. and Förster, J. (2004) Stereotype threat and performance: How self-stereotypes influence processing by inducing regulatory foci. *Journal of Personality and Social Psychology*, *87*, 38–56.
- Shah, J. (2003) The motivational looking glass: How significant others implicitly affect goal appraisals. Journal of Personality and Social Psychology, 85, 424–439.
- Shah, J. and Higgins, E.T. (2001) Regulatory concerns and appraisal efficiency: The general impact of promotion and prevention. *Journal of Personality and Social Psychology*, *80*, 693–705.

Shah, J., Higgins, E.T. and Friedman, R. (1998) Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, 74, 285–293.

- Shah, J.Y., Brazy, P.C. and Higgins, E.T. (2004) Promoting us or preventing them: Regulatory focus and manifestations of intergroup bias. *Personality and Social Psychology Bulletin, 30*, 433–446.
- Spiegel, S., Grant-Pillow, H. and Higgins, E.T. (2004) How regulatory fit enhances motivational strength during goal pursuit. *European Journal of Social Psychology*, *34*, 39–54.
- Steele, C.M., Spencer, S. and Aronson, J. (2002) Contending with group image: The psychology of stereotype and social identity threat. In M.P. Zanna (ed.), *Advances in Experimental Social Psychology*, 34, 379–440. New York: Academic Press.
- Strauman, T.J. (1989) Self-discrepancies in clinical depression and social phobia: Cognitive structures

that underlie emotional disorders? *Journal of Abnormal Psychology, 98,* 14–22.

- Strauman, T.J. (1992) Self-guides, autobiographical memory, and anxiety and dysphoria: Toward a cognitive model of vulnerability to emotional distress. *Journal of Abnormal Psychology*, 101, 87–95.
- Strauman, T.J. and Higgins, E.T. (1987) Automatic activation of self-discrepancies and emotional syndromes: When cognitive structures influence affect. *Journal of Personality and Social Psychology*, 53, 1004–1014
- Strauman, T.J., Vieth, A.Z., Merrill, K.A., Kolden, G.G., Woods, T.E., Klein, M.H., Papadakis, A.A., Schneider, K.L. and Kwapil, L. (2006) Self-system therapy as an intervention for self-regulatory dysfunction in depression: A randomized comparison with cognitive therapy. *Journal of Consulting and Clinical Psychology*, 74, 367–376.
- Strauman, T.J., Vookles, J., Berenstein, V., Chaiken, S. and Higgins, E.T. (1991) Self-discrepancies and vulnerability to body dissatisfaction and disordered eating. *Journal of Personality and Social Psychology*, 61, 946–956
- Thaler, R.H. (1980) Toward a positive theory of consumer choice. *Journal of Economic Behavior and Organization*, 1, 39–60.
- Thorndike, E.L. (1935) *The Psychology of Wants, Interests, and Attitudes.* New York: Appleton-Century-Crofts.
- Zhao, G. and Pechmann, C. (2007) The impact of regulatory focus on adolescents' response to antismoking advertising campaigns. *Journal of Marketing Research*, 44, 671–687.



# A Model of Behavioral Self-regulation

Charles S. Carver and Michael F. Scheier

#### **ABSTRACT**

This chapter describes the evolution (or perhaps accretion) of a set of ideas bearing on the selfregulation of action and emotion. The ideas were drawn from many sources, eventually yielding a viewpoint in which goal-directed action is seen as reflecting a hierarchical set of feedback control processes, and the creation and reduction of affect are seen as reflecting another set of feedback processes. Also embedded in the model is the idea that confidence and doubt influence whether the person continues to struggle against adversity or gives up the goal that the adversity is threatening. The portion of the model devoted to affect is of particular interest in that it generates two positions that differ substantially from those deriving from other theories. The first is that both approach and avoidance give rise to both positive and negative feelings; the second is that positive affect leads to coasting, reduction in effort regarding the goal under pursuit. The recent interest in dual-process models, which distinguish between top-down goal pursuit and reflexive responses to cues of the moment, has caused us to re-examine some of our previous assumptions, considering the possibility that behavior is triggered in two distinct ways.

#### INTRODUCTION

This chapter outlines several aspects of a perspective we have adopted over an extended

period of time concerning the self-regulation of behavior and emotion. This perspective is more about the structure of behavior than it is about the content of behavior. It represents a viewpoint on the metaphorical bones and tendons that underlie very diverse sorts of action. We believe it is a viewpoint that is generally compatible with many other theories that are described in this book, standing beside them rather than in place of them.

There are two respects in which the ideas described here differ from those described elsewhere in this book. First, these ideas may be less a "theory" than a "meta-theory," a very general way of conceptualizing interwoven functions. It is a declaration of belief about certain aspects of how complex systems are organized. Second, we actually developed on our own very little of the viewpoint we are about to describe. With a few exceptions, most of what we have done is to bring together ideas that had been developed by other people for their own reasons, and applied them to phenomena that are of interest to personality and social psychologists.

The viewpoint outlined here has long been identified with the term *self-regulation* (Carver and Scheier, 1981), a term that means different things to different people. We use it to imply purpose, with self-corrective