Self-Discrepancy and Regulatory Focus

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Summary

Self-discrepancy theory and regulatory focus theory are two related motivational theories. Self-discrepancy theory describes the associations between self and affect, positing that the relations among different sets of self-concepts influence a person's emotional experience. A discrepancy between a person's *ideal* self-guide (e.g., hopes and aspirations) and his or her *actual* self-concept produces dejection-related emotions (e.g., sadness), whereas a discrepancy between a person's *ought* self-guide (e.g., duties and obligations) and his or her *actual* self-concept produces agitation-related emotions (e.g., anxiety). The intensity of these emotional experiences depends upon the magnitude and accessibility of the associated discrepancy.

Regulatory focus theory builds on self-discrepancy theory, positing that distinct self-regulatory systems are reflected in the two types of self-guides proposed in self-discrepancy theory. The *promotion* system is motivated by *ideal* end-states, by pursuing hopes and aspirations; as a result, it is primarily concerned with the presence or absence of positive outcomes—with gains and non-gains. Given this focus on gains and non-gains, the promotion system is motivated by fundamental needs for nurturance and growth. In contrast, the *prevention* system is motivated by *ought* end-states, by fulfilling duties and obligations; as a result, it is primarily concerned with the presence or absence of negative outcomes—with losses and non-losses. Given this focus on losses and non-losses, the prevention system is motivated by fundamental needs for safety and security. The promotion and prevention systems predict a range of important variables relating to cognition, performance, and decision-making.

Keywords: motivation, self-regulation, goal pursuit, self-discrepancy, self-guides, ideal self, ought self, regulatory focus, promotion, prevention

Subjects: Social Psychology

Introduction

Self-discrepancy theory describes the associations between self and affect (Higgins, 1987). The theory proposes that the relations among different sets of self-concepts influence both the intensity and quality of a person's emotional experience. Further, it describes that both the relative magnitude and accessibility of self-discrepancies predict the kinds of emotional discomfort that a person will tend to experience. In doing so, it integrates and extends prior work on the associations between conflicting or inconsistent self-concepts and affective experience (e.g., Adler, 1964; Allport, 1955; Cooley, 1902; Freud, 1923/1962; Horney, 1945; James, 1892/1920; Lecky, 1945; Mead, 1934; Rogers, 1961).

Defining Self-Discrepancies

Self-discrepancy theory posits that distinct self-discrepancies arise from the relations among different self-state representations, often described within the theory as "self-concepts" (Higgins et al., 1985). These representations vary on two dimensions: domains of the self and standpoints on the self.

Domains of the Self

Self-discrepancy theory proposes that self-concepts span three distinct domains. The *ideal* self describes the set of attributes that a person would ideally want for himself or herself, or that another person would ideally want for him or her. For this reason, the ideal self tends to encompass a set of wishes, hopes, and aspirations. In contrast, the *ought* self describes the set of attributes that a person believes that he or she should possess, or that another person thinks he or she should possess. As a result, the ought self tends to encompass a set of duties, obligations, and responsibilities. Finally, the *actual* self describes the attributes a person believes he or she actually possesses. Although the term "self-concept" is used within the theory to broadly describe each of these three representations, only the actual self describes the self-state representation, typically called a self-concept in the psychological literature (Higgins, 1987; Higgins et al., 1985). In contrast, the ideal and ought selves are *self-guides* used as standards against which one's actual self can be evaluated. (For a review of different types of self-evaluative standards, see Higgins, Strauman, et al., 1986.)

These ideal and ought self-guides are more stable than the attributes making up the actual self-concept. Strauman (1996) proposes two broad classes of mechanisms to explain this stability. From a cognitive perspective, the evaluative standards used in early life will tend to be reactivated in similar situations involving positive outcomes (ideals) or negative outcomes (oughts). Over time, due to frequent and recent knowledge activation, these standards will eventually become chronically accessible representations. From a motivational perspective, fundamental needs for nurturance and security motivate children to learn the interpersonal contingencies related to the satisfaction of each of these needs by their parents, which in turn are internalized as self-guides. For more detail on how self-guides are acquired, see the section "Acquisition of Self-Guides"; for a broader look at how parenting contributes to the acquisition of regulatory focus, see the section "Parenting."

Standpoints on the Self-Guides

The theory posits that each of the two self-guides can be conceptualized from different "standpoints on the self" (Higgins, 1987; Higgins et al., 1985). The "own" standpoint describes the self-guides that a person holds for him or herself. For example, what are a person's hopes and aspirations or duties and obligations for his or her own life? In contrast, the "other" standpoint describes self-guides that others hold for a person, whether the "other" is a specific, significant other or a generalized other. This yields four self-guide self-concepts: ideal/own, ought/own, ideal/other, ought/other.

Types of Self-Discrepancies

The theory focuses on discrepancies between a person's own self-concept and his or her self-guides (Higgins, 1987). An *actual-ideal discrepancy* describes the difference between the actual self and one's own hopes and aspirations (actual/own:ideal/own) or another's hopes and aspirations for them (actual/own:ideal/other). The *actual-ought discrepancy* describes the difference between the actual self and one's own duties and obligations (actual/own:ought/own) or the duties and obligations another believes are required of them (actual/own:ought/other).

Measuring Self-Discrepancies

Self-discrepancies are typically measured using an idiographic instrument called the Selves Questionnaire (Higgins et al., 1985). This measure directs participants to list up to 10 attributes or traits associated with each of three different self-concepts: ideal ("the attributes you would like *ideally* to possess; your ultimate goals for yourself"); ought ("the attributes you believe you *should* or *ought* to possess; your normative rules or prescriptions for yourself"); and actual ("the attributes you think you actually possess"; Higgins et al., 1985, p. 58). Participants complete this exercise from up to four different standpoints: from their own perspective, as well as from the perspective of their father, mother, and closest friend. Using these attribute listings, researchers determine the number of matching attributes between the actual/own self-concept and a self-guide (e.g., matches between actual/own attributes and ideal/own attributes) by counting the number of identical or synonymous attributes (with synonyms operationalized using Roget's Thesaurus). Researchers also determine the number of mismatching attributes between each pair of self-concepts by counting the number of opposing or antonymous attributes (with antonyms operationalized using Roget's Thesaurus). Finally, the magnitude of each self-discrepancy is calculated for each pair of self-concepts.

In early self-discrepancy work (e.g., Higgins et al., 1985), the discrepancy magnitude scores were determined by subtracting the total number of matches from the total number of mismatches. Given that up to 10 attributes may be listed for each self-concept, self-discrepancy scores based on this original scoring method could range from +10 (i.e., 10 mismatches and 0 matches) to -10 (i.e., 0 mismatches and 10 matches): the higher the score, the greater the discrepancy. In some later self-discrepancy work (e.g., Higgins, Bond, et al., 1986), participants were also asked to rate on a four-point scale the extent to which they or their most relevant other believed that they ideally possessed, ought to possess, and actually possessed each listed attribute. Researchers then calculated modified self-discrepancy scores using these ratings. One point was assigned to each pair of identical or synonymous attributes which were rated within one scale point of each other ("true" or "synonymous matches") as well as synonymous attributes which were *not* rated within one scale point of each other ("synonymous mismatches"). Two points were assigned to each pair of antonymous attributes, regardless of any difference in ratings ("antonymous mismatches"). Then, magnitude scores for this modified measure were determined by subtracting the number of synonymous matches from the summed points for the antonymous mismatches and synonymous mismatches.

Self-Discrepancies and Affective Experience

Quality of Affective Experience

Higgins (1987) proposes that the different discrepancies predict the *quality* of affective experience: actual-ideal discrepancies are generally associated with dejection-related affective experiences, whereas actual-ought discrepancies are generally associated with agitation-related affective experiences. These emotional experiences can further be distinguished based upon the standpoint of the self-guide against which a particular discrepancy is noted. (Even more distinctions among motivational and emotional experiences can be made when accounting for the possible "future" self and the "can" self; see Higgins et al., 1990, 1992.)

An actual/own:ideal/own discrepancy describes a psychological situation in which the attributes that a person believes he or she currently possesses do not reflect the ideal self that he or she personally aspires to attain. This kind of discrepancy tends to produce dejection-related emotions such as dissatisfaction and disappointment, as these emotions relate to the belief that one's own hopes and wishes have not been achieved. For instance, Higgins et al. (1985) found that an actual/own:ideal/own discrepancy was associated with feeling "disappointed," "blaming yourself for things," and "feeling no interest in things." Follow-up research indicated that, after imagining a negative event, people with a predominant chronic actual/own:ideal/own (vs. actual/own:ought/own) discrepancy were more dejected (Higgins, Bond, et al., 1986). Additionally, the presence of this kind of discrepancy predicts depressive affect 1–2 months later (Strauman & Higgins, 1988).

An actual/own:ideal/other discrepancy describes a psychological situation in which the attributes that a person believes he or she currently possesses do not reflect the ideal self that another person wishes he or she would attain. This kind of discrepancy tends to produce dejection-related emotions such as embarrassment or shame, as these emotions relate to the belief that one has disappointed an important other. For instance, Higgins et al. (1985) found that an actual/own:ideal/other discrepancy was negatively associated with feeling "proud," and positively associated with feeling "shame" and reports that "if I fail to live up to expectations, I feel unworthy."

An actual/own:ought/own discrepancy describes a psychological situation in which the attributes that a person believes he or she currently possesses do not reflect the self that the person believes he or she should attain. This kind of discrepancy tends to produce agitation-related emotions such as guilt and uneasiness, as these emotions relate to the belief that one has failed to meet an important obligation. For instance, Higgins et al. (1985) found that an actual/own:ought/own discrepancy was associated with feeling "guilty" and "irritated" as well as reporting "heart pounding or racing." Follow-up research indicated that, after imagining a negative event, people with a predominant chronic actual/own:ought/own (vs. actual/own:ideal/own) discrepancy were more agitated (Higgins, Bond, et al., 1986).

An actual/own:ought/other discrepancy describes a psychological situation in which the attributes that a person believes he or she currently possesses do not reflect the self that another person believes he or she has the obligation to attain. This kind of discrepancy tends to produce agitation-related emotions such as fear or threat, as these emotions relate to the belief that one has failed to meet an important obligation set by others and risks being sanctioned due to this failure. For instance, Higgins et al. (1985) found that an actual/own:ought/other discrepancy was associated with reports of "spells of terror or panic" and being "suddenly scared for no reason." Further, the presence of this kind of discrepancy predicts social anxiety 1–2 months later (Strauman & Higgins, 1988).

Intensity of Affective Experience

Higgins (1987) proposes that discrepancies greater in magnitude (i.e., with more mismatches and less matches) will produce more intense experiences of discomfort. This assertion is grounded in the proposal that discrepancies are representations subject to common principles of knowledge activation like availability and accessibility (Higgins, 1996b). The availability of a self-discrepancy depends on its magnitude (Higgins, 1987). In contrast, the accessibility of a self-discrepancy will depend on the factors known to influence the accessibility of any representation, including how recently it was activated (e.g., due to recent priming) or how frequently it has been activated (e.g., due to chronic use). Similar to the effect of magnitude, discrepancies with greater accessibility will also produce more intense experiences of discomfort.

Evidence supports this proposal. For instance, in one study by Higgins, Bond, et al. (1986), participants who had previously completed a self-discrepancy measure engaged in a between-subjects writing manipulation intended to prime an actual/ideal discrepancy versus an actual/ought discrepancy. The purpose of priming one of the two discrepancies was to increase the momentary accessibility of this discrepancy. Then, the researchers measured how participants' emotions changed as a result of completing the manipulation. As expected, in addition to experiencing the quality of negative emotion associated with the primed domain, participants with a *high* chronic self-discrepancy reported more intense negative emotions than participants with a *low* chronic self-discrepancy. Follow-up research found similar effects when matching versus non-matching attributes were primed in a single experimental session (Strauman & Higgins, 1987). The results of this study indicated that participants with greater actual/ideal discrepancies showed increased dejection-related responses (i.e., increased feelings of "disappointment" and "sadness," decreased physiological arousal, slower verbal responses) to mismatching primes, whereas participants with greater actual/ought discrepancies showed greater agitation-related responses (i.e., increased feelings of "nervous" and "tense," increased physiological arousal, faster verbal responses) to mismatching primes.

Self-Discrepancy Effects beyond Affect

Although self-discrepancy theory emphasized the effects of self-discrepancies on emotional experience, different types of self-discrepancies have unique consequences for important psychological outcomes beyond affect. These consequences are wide-ranging and span different

domains of psychology. For example, consider event memory. People with predominant actual/ideal self-discrepancies tend to remember events involving the presence and absence of positive outcomes, whereas people with predominant actual/ought self-discrepancies tend to remember events involving the absence and presence of negative outcomes (Higgins & Tykocinski, 1992). Self-esteem also relates to self-discrepancies. In particular, reduced actual/ideal discrepancies are associated with higher self-esteem (Moretti & Higgins, 1990). Even certain health challenges are uniquely associated with the patterns of suffering related to different self-discrepancies: actual/ideal discrepancies predict bulimia-related symptoms and stomach problems, whereas actual/ought discrepancies predict anorexia-related symptoms, migraines, and muscle cramps (Higgins et al., 1992). Notably, as work investigating self-discrepancy theory advanced, researchers began to examine areas that were more fully explored through the lens of regulatory focus theory (e.g., strategic preference for approach vs. avoidance: Higgins et al., 1994; susceptibility to persuasion: Tykocinski et al., 1994). For a brief review of this work, see the section "Regulatory Focus Theory."

Acquisition of Self-Guides

Higgins (1989, 1991) proposes that ideal and ought self-guides are learned and acquired through patterns of child–caretaker interaction throughout development. In this socialization process, children first learn the attributes and behaviors that predict the presence or absence of both positive outcomes (i.e., related to nurturance) and negative outcomes (i.e., related to threats to security) as well as the anticipation of these outcomes. For instance, for an infant, the presence of a positive outcome might be the presence of the mother's breast as feeding begins, whereas the absence of a positive outcome might be the mother's ending of a play session. The absence of a negative outcome might be the removal of a loud toy that had startled the child, whereas the presence of a negative outcome might involve the child confronting a frightening stranger. Through this early process, children learn the different emotional responses that result from each of these psychological situations and begin to self-regulate accordingly. As children's representational abilities develop further, they also begin to understand the relations between their own attributes or behavior and the responses of their caretakers—that is, contingency knowledge. The development of this contingency knowledge is supported by four features of child–caretaker interactions: frequency (i.e., how often is the child exposed to the contingency?); consistency (i.e., how consistently does a certain caretaker response follow a given behavior of the child?); clarity (i.e., how salient and comprehensible is the contingency information?); and significance (i.e., how consequential is the contingency for the child?).

A notable change again occurs as children become able to represent the mental states of others. At this point, children realize that their caretakers maintain standards regarding the children's own attributes and behavior. With this change, children learn to self-evaluate and self-regulate in relation to these caretaker standards (rather than by using more basic contingency knowledge). Over time, children eventually adopt and internalize these caretaker standards as their own self-guides. In doing so, these self-guides come to function as shared realities about the world (Higgins, 2019). For more detail on the related process through which parenting contributes to the acquisition of self-guides (and regulatory focus more broadly), see the section "Parenting."

Regulatory Focus Theory

Regulatory focus theory (Higgins, 1997, 1998) builds on self-discrepancy theory, proposing that distinct self-regulatory systems are rooted in the two key types of self-discrepancies. In particular, self-discrepancy theory posits that actual/ideal discrepancies comprise the psychological situation of the absence of positive outcomes (i.e., non-gains), whereas actual/ought discrepancies are said to comprise the psychological situation of the presence of negative outcomes (i.e., losses; Strauman & Higgins, 1988). The two systems within regulatory focus theory parallel these distinctions.

Promotion and Prevention

According to Higgins (1997), the *promotion* system is fundamentally related to ideal self-guides as it is primarily concerned with the presence or absence of *positive* outcomes—gains and non-gains. Given this strategic concern with gains (e.g., achievement, progress), a promotion focus serves fundamental needs for nurturance and growth. In contrast, the *prevention* system is fundamentally related to ought self-guides as it is primarily concerned with the absence or presence of *negative* outcomes—non-losses and losses. Given this strategic concern with non-losses, a prevention focus serves fundamental needs for safety and security. Like the two types of discrepancies posited within self-discrepancy theory, promotion and prevention goals are subject to the principles of knowledge activation (Higgins, 1996b), including accessibility. As a result, although both systems exist within every person, the extent to which people maintain a promotion versus prevention focus can vary on a momentary basis (e.g., due to recent situational priming) as well as chronically (e.g., due to frequent activation). Further, these two systems are relatively independent. As a result, an individual can have a strong promotion focus and weak prevention focus (i.e., promotion predominance), a strong prevention focus and weak prevention focus (i.e., prevention predominance), or be strong in both or weak in both.

Associations with Affective Experience

Given their close associations with ideal versus ought self-guides, a promotion versus prevention focus, respectively, are associated with distinct patterns of affect (Higgins, 1996a). However, given that regulatory focus theory examines more directly both success and failure, research has examined how these systems are associated with both positively *and* negatively valenced emotions (whereas self-discrepancy theory emphasized the negative emotions associated with discrepancies). People with a promotion focus tend to experience cheerfulness, happiness, and satisfaction in response to success and dejection, sadness, and dissatisfaction in response to failure. In contrast, people with a prevention focus tend to experience quiescence, relief, and calmness in response to success and agitation, tension, and nervousness in response to failure. Moreover, the intensity of the emotional experiences that result from a promotion or prevention success or failure is moderated by individual differences in the relative strength of participants' chronic promotion focus and chronic prevention focus (Higgins et al., 1997). When a promotion (vs. prevention) focus is stronger (i.e., predominates), goal attainment (success or failure) is

associated with more intense responses on the cheerfulness–dejection spectrum; when a prevention (vs. promotion) focus is stronger, goal attainment is associated with more intense responses on the quiescence–agitation spectrum.

Desired End-States of Goal Pursuit

The end-states that people want to reach within their goal pursuits relate to the self-guides of self-discrepancy theory (Higgins, 1997, 1998). Promotion goals relate to *ideal* end-states, including a person's wishes, hopes, and aspirations. Prevention goals relate to *ought* end-states, including a person's duties, obligations, and responsibilities. In 2018, the more general reference points associated with this distinction were featured in a "story of 0" that highlights how the promotion and prevention systems differ from one another in how success and failure are construed (Higgins, 2018). With "0" representing the status quo, promotion-focused people consider the reference point of "+1" (i.e., a gain) to be a success and "0" or lower (i.e., a non-gain) to be a failure. In contrast, prevention-focused people tend to consider the reference point of "0" or higher (i.e., a non-loss) to be a success and "-1" (i.e., a loss) to be a failure. As a result, promotion- and prevention-focused individuals construe the "0" status quo reference point in fundamentally different ways: prevention-focused people are content to maintain a satisfactory status quo "0" because it is a non-loss, whereas promotion-focused people are not because it is a non-gain.

Strategic Preferences

A critical distinction between the promotion and prevention systems is the set of strategic means that people prefer to use when pursuing promotion versus prevention goals (Higgins et al., 1994). People with a promotion focus prefer eager strategies that approach desired end-states when pursuing their goals (e.g., eagerly focusing on strategic approach to attain career success). In contrast, people with a prevention focus prefer to vigilantly avoid mismatches from desired ought end-states (e.g., vigilantly focusing on strategic avoidance to maintain an honorable reputation). In signal detection terms, these inclinations tend to manifest themselves as promotion-focused preferences for ensuring "hits" and ensuring against errors of omission (i.e., a "lenient" response bias) as opposed to prevention-focused preferences for ensuring "correct rejections" and ensuring against errors of commission (i.e., a "conservative" response bias; Crowe & Higgins, 1997). In sum, there is a promotion preference to pursue goals with approach-related eager strategies versus a prevention preference to pursue goals with avoidance-related vigilant strategies.

These distinct goal-pursuit preferences are reflected in regulatory focus differences in a broad range of psychological tendencies. For instance, a promotion (vs. prevention) focus is, respectively, associated with: speed (vs. accuracy) in goal pursuit (Förster et al., 2003); creative (vs. analytical) thinking (Friedman & Förster, 2005); global (vs. local) object perception (Förster & Higgins, 2005); a positive bias toward in-group members (vs. a negative bias toward out-group members; Shah et al., 2004); a higher (vs. lower) likelihood of engaging in risky unethical behaviors (Gino & Margolis, 2011); a preference for moral excellence (vs. moral rightness;

Cornwell & Higgins, 2015b); preferences for risky economic reforms (vs. status quo maintenance; Boldero & Higgins, 2011); and relying on feelings (vs. reasons) to make judgments and decisions (Molden & Higgins, 2008). (For a fuller review of these differences, see Higgins & Cornwell, 2016.)

The difference between the promotion preference for approach-related eager strategies versus the prevention preference for avoidance-related vigilant strategies can create differences in motivational fit during goal pursuit. Substantial research on *regulatory fit* (Higgins, 2000, 2009) has shown that when people use goal-pursuit strategies that align with their regulatory focus (promotion with approach-related eagerness; prevention with avoidance-related vigilance), they experience regulatory fit, and fit has a variety of consequences. This includes enhancing task performance. In one early study, promotion-focused (vs. prevention-focused) participants who completed an anagram task while engaging in an arm flexion exercise that involved an approach movement completed more anagrams than when promotion-focused participants engaged in an arm extension exercise that involved an avoidance movement (Förster et al., 1998). Similarly, after receiving eager versus vigilant instructions for completing a report during their Saturday activities (i.e., respectively, finding good times and comfortable places for working on the report vs. avoiding bad times and uncomfortable places for working on the report), participants whose instructions fit their regulatory focus were far more likely to submit a completed report (Spiegel et al., 2004). Additionally, people enjoy activities more when the task—or even its framing—fits their promotion or prevention focus (Freitas & Higgins, 2002; Latimer et al., 2008). A fit with regulatory focus has also been shown to intensify evaluations of a range of targets, including persuasive messages (Cesario et al., 2004) and monetary value (Higgins et al., 2003).

Tactical Choices

Although the promotion and prevention systems are associated with the general tendencies outlined in the section "Strategic Preferences," the specific tactics that people choose to use in their goal pursuits will vary. For example, within the domain of risk preference, tactical decisions depend on the relations between a person's goal (i.e., promotion vs. prevention), his or her current state (i.e., "-1," "0," or "+1"), and the set of more or less risky options that are available (Zou et al., 2020). As a result, despite the conservative bias that tends to be associated with a prevention focus (Crowe & Higgins, 1997), when prevention-focused people find themselves in a state of loss (i.e., "-1") and their choice set includes a risky option that is the only option that provides the possibility of returning them to a satisfactory status quo (i.e., "0"), they are more willing to choose that risky option than promotion-focused people (Scholer et al., 2010). They make this decision because, for people with a prevention focus, recouping losses to return to a satisfactory status quo is experienced as a necessity. Conversely, promotion-focused people actually become relatively risk-averse immediately after making progress toward a goal (Zou et al., 2014).

Parenting

As described in the section "Acquisition of Self-Guides," ideal and ought self-guides are learned and internalized through patterns of child–caretaker interaction throughout development. Higgins has proposed that these parenting interactions can be classified on several key dimensions, including regulatory focus (Higgins, 1991; Higgins & Silberman, 1998). Both promotion and prevention parenting involve interactions for the child that are both positive (i.e., presence of a positive outcome or absence of a negative outcome, respectively) and negative (i.e., absence of a positive outcome or presence of a negative outcome, respectively). Further, within these positive and negative interactions, both promotion and prevention parenting can produce strong versus weak self-guides. The predictors of strong self-guides are the same features of child–caretaker interactions described as contributing to contingency knowledge: frequency, consistency, clarity, and significance. These dimensions produce eight different types of parent–child interactions. Within the domain of promotion parenting, strong self-guides are produced from bolstering (a positive interaction for the child) and love withdrawal (a negative interaction). In the same domain of promotion, weak self-guides emerge through spoiling (a positive interaction) and neglect (a negative interaction). Within the domain of prevention parenting, strong self-guides are produced from prudent-controlling parenting (a positive interaction) and punitive/critical parenting (a negative interaction). In the same domain of prevention, weak self-guides emerge through overprotective parenting (a positive interaction) and abuse (a negative interaction).

Culture

Regulatory focus also has implications broader than the individual. Higgins (2008) describes how cultures influence their members' personalities through a socialization process similar to the process through which children internalize ideal and ought self-guides. Based on this line of thinking, Higgins et al. (2008) recruited participants from seven countries: Australia, China, India, Israel, Italy, Japan, and the United States. They administered the Regulatory Focus Questionnaire (Higgins et al., 2001), which is a measure of chronic individual differences in feeling effective in promotion pursuit (promotion pride) and in prevention pursuit (prevention pride; see the section "Measuring Regulatory Focus" for more detail). Results indicated that participants from Italy and the United States were promotion predominant rather than prevention predominant in their regulatory focus. In contrast, participants from Japan were more prevention predominant than promotion predominant. Follow-up research has provided additional evidence for associations between a promotion focus and individualist cultures, as well as a prevention focus and collectivist cultures (Kurman et al., 2015; see also Lee et al., 2000). Further, these cultural associations appear to influence a number of social psychological variables. For instance, the associations between individualism (vs. collectivism) and various achievement-related variables are mediated by regulatory focus: people from individualist (vs. collectivist) cultures tend to show increased divergent thinking and mastery goals, and these relationships are mediated by a promotion (vs. prevention) focus (Kurman et al., 2015). Further, regulatory focus is associated with distinct patterns of reciprocity, such that people in promotion-focused North American cultures tend to escalate positive behaviors (i.e., giving) over time but only reciprocate negative behaviors (i.e., taking) in kind. In contrast, people in

prevention-focused East Asian cultures tend to escalate negative behaviors over time but only reciprocate positive behaviors in kind (Deng et al., 2021). Additionally, work investigating the person–culture match hypothesis has indicated that when there is a match between individuals' regulatory focus scores being promotion predominant for a person and promotion focus being predominant for a culture, subjective well-being is higher (Fulmer et al., 2010).

Regulatory Focus as a Moderator

In addition to the key distinctions between a promotion versus prevention focus, regulatory focus has also been shown to moderate a number of established psychological principles and effects. Specific examples include: the "goal looms larger" effect (such that as individuals near their goal, promotion-focused individuals tend to show a greater increase in approach-oriented motivational strength than prevention-focused individuals, with the reverse being true for avoidance-oriented motivational strength; Förster et al., 1998); the "endowment effect" (such that prevention-focused individuals, but not promotion-focused individuals, show a reluctance to exchange objects currently in their possession; Liberman et al., 1999); and feedback valence effects on motivation (such that promotion-focused individuals are more motivated by positive feedback, whereas prevention-focused individuals are more motivated by negative feedback; Van Dijk & Kluger, 2004). Additionally, regulatory focus moderates a number of general principles proposed within prospect theory (Kahneman & Tversky, 1979, 1984). For instance, prevention- (vs. promotion-) focused people tend to show stronger "loss aversion" effects, whereby perceived losses are experienced more intensely than perceived gains (Halamish et al., 2008; see also Higgins & Liberman, 2018). Additionally, prevention-focused individuals tend to underweight high event probabilities (i.e., treat them as less likely than the probability would predict) and overweight low probabilities (i.e., treat them as more likely than the probability would predict); however, among promotion-focused individuals, these probability weights reverse (Kluger et al., 2004).

Distinguishing Regulatory Focus from Other Self-Regulatory Principles

When introducing regulatory focus theory, Higgins (1997) distinguished between three key principles that specify how people approach pleasure and avoid pain. The principle of *regulatory anticipation* describes that people may decide to approach a goal because of different types of expected affective consequences: anticipating positive affect (i.e., pleasure) from attaining the goal versus anticipating negative affect (i.e., pain) from not attaining the goal. The principle of *regulatory reference* describes that people can use different reference points in their self-regulation: approaching desired end-states (i.e., positive reference values) versus avoiding undesired end-states (i.e., negative reference values). Finally, the principle of *regulatory focus* describes that people can use different strategic means for self-regulation: eager-related ensuring hits and ensuring against errors of omission for promotion versus vigilant-related ensuring correct rejections and ensuring against errors of commission for prevention. (For approach-avoidance distinctions as they relate to moral psychology, see Cornwell & Higgins, 2015a.)

Measuring Regulatory Focus

A number of instruments have been proposed to measure regulatory focus. This section contains a review of some of the most commonly used measures, including one response-latency measure, three self-report measures, and one textual analysis measure. (For a more thorough review, see Haws et al., 2010.)

Regulatory Focus Strength Measure

The Regulatory Focus Strength Measure (also known as the Self-Guide Strength Measure; Higgins et al., 1997) uses materials adapted from the Selves Questionnaire (Higgins et al., 1985) used to measure self-discrepancies. Notably, whereas the Selves Questionnaire is a magnitude measure with scoring based upon the number of matching versus mismatching attributes, the Regulatory Focus Strength Measure is an accessibility measure with scoring based upon the speed at which participants list and rate ideal attributes (i.e., promotion goals) versus ought attributes (i.e., prevention goals). More specifically, participants are asked to list four attributes they would ideally like to possess and four attributes they believe they ought to possess in a pseudo-random order. Additionally, after listing each attribute, participants are asked to rate on a four-point scale the extent to which they would ideally like to possess (vs. feel they ought to possess) the attribute, as well as the extent to which they actually possess the attribute. Researchers then calculate promotion and prevention strength scores by summing the reversed and log-transformed response latencies when participants listed and rated ideal versus ought attributes.

One key benefit of this measure is its implicit nature; given that participants' response latencies are the key metric of interest, the measure is less susceptible to demand effects. Although the reaction time-based approach has its benefits, one challenge associated with this measure is the high positive correlation between promotion strength and prevention strength given that both are measured with response latencies and response speed varies across individuals. Despite this potential drawback, the measure has proven very useful in many of the seminal studies comprising the regulatory focus literature when it is used as a measure of the relative strength or predominance of promotion versus prevention orientation (e.g., Förster et al., 2003; Higgins et al., 1997; Scholer et al., 2010).

Regulatory Focus Questionnaire

The Regulatory Focus Questionnaire measures regulatory focus *pride*, the subjective experience of historical effectiveness in the domains of promotion and prevention (Higgins et al., 2001). The measure is grounded in the proposal that a history of success using a given set of strategic means will orient people to use those same strategic means when approaching new goals. This self-report questionnaire consists of 11 self-reported items rated on a five-point scale ranging from 1 (*never or seldom* or *certainly false*) to 5 (*very often* or *certainly true*). Six items measure promotion pride (e.g., "I feel like I have made progress toward being successful in my life") and five items

measure prevention pride (e.g., "Not being careful enough has gotten me into trouble at times (reverse-scored)"). Researchers then calculate promotion and prevention pride scores by averaging the scores of the items associated with each regulatory focus.

One key strength of the Regulatory Focus Questionnaire is its careful treatment of the distinctions between regulatory focus and regulatory reference: it does not conflate promotion and prevention with approach and avoidance (Summerville & Roese, 2008). However, another important consideration for researchers is that the prevention-related items in the questionnaire are past-oriented and many probe childhood interactions with parents (Haws et al., 2010). For these reasons, although it has been successfully used in research in a wide variety of contexts, alternate regulatory focus measures may be appropriate in specific cases.

General Regulatory Focus Measure

The General Regulatory Focus Measure (Lockwood et al., 2002) differs from the Regulatory Focus Questionnaire (Higgins et al., 2001) in that it was developed to directly measure regulatory focus concerns (i.e., the same constructs measured by the Regulatory Focus Strength measure; Higgins et al., 1997), rather than regulatory focus pride. This self-report questionnaire consists of 18 self-reported items rated on a nine-point scale ranging from 1 (*not at all true of me*) to 9 (*very true of me*). Nine items measure promotion pride (e.g., "I frequently imagine how I will achieve my hopes and aspirations") and nine items measure prevention pride (e.g., "I am anxious that I will fall short of my responsibilities and obligations"). Researchers then calculate promotion and prevention scores by averaging the scores of the items associated with each regulatory focus.

One important strength of the General Regulatory Focus Measure is its intended purpose: to determine promotion and prevention strength using a self-report measure. However, a key limitation of the measure is that it does not treat promotion and prevention as orthogonal to approach and avoidance (Summerville & Roese, 2008). More specifically, all promotion-related items involve approach, whereas all prevention-related items involve avoidance. For this reason, it is difficult to conclude if research findings involving this measure result from distinctions in general approach versus avoidance as opposed to regulatory focus.

Composite Regulatory Focus Scale

The Composite Regulatory Focus Scale was developed by Haws et al. (2010) to retain the strongest aspects of the Regulatory Focus Questionnaire (Higgins et al., 2001) and General Regulatory Focus Measure (Lockwood et al., 2002) while addressing their limitations. This self-report questionnaire consists of 10 self-reported items rated on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Five items measure promotion, including items from the Regulatory Focus Questionnaire (e.g., "I feel like I have made progress toward being successful in my life") and the General Regulatory Focus Measure (e.g., "I frequently imagine how I will achieve my hopes and aspirations"). Similarly, five items measure prevention, including slightly modified items from the Regulatory Focus Questionnaire (e.g., "I usually obeyed rules and regulations that were established by my parents") and the General Regulatory Focus Measure

(e.g., "I frequently think about how I can prevent failures in my life"). Researchers then calculate promotion and prevention pride scores by averaging the scores of the items associated with each regulatory focus.

One key strength of the Composite Regulatory Focus Scale is its deliberate creation to capitalize on the strengths and minimize the drawbacks of other measures. Although the measure has strong psychometric properties in Haws et al.'s (2010) paper, several studies that have used the measure since its original publication have reported that the subscales had relatively low levels of internal consistency (Lafrenière et al., 2016; Lalot et al., 2018; Park & Ryu, 2018). Given these mixed results, until further clarity is reached, researchers may wish to supplement this particular measure with the Regulatory Focus Questionnaire, which has been used most effectively in the literature to measure promotion and prevention.

Regulatory Focus at Work Scale

The Regulatory Focus at Work Scale assesses respondents' regulatory focus within the specific context of the workplace (Wallace et al., 2009). This self-report questionnaire consists of 12 self-reported items that describe different thoughts and activities upon which one might focus while working. Participants indicate how often they focus on each item using a five-point scale ranging from 1 (*never*) to 5 (*constantly*). Six items measure promotion (e.g., "Accomplishing a lot at work") and six items measure prevention (e.g., "Following rules and regulations at work"). Researchers then calculate promotion and prevention scores by averaging the scores of the items associated with each regulatory focus. Although the applicability of the Regulatory Focus at Work Scale is limited by design to organizational contexts, this limitation is also one of its key strengths, as it probes the specific ways in which the promotion and prevention systems are most likely to manifest themselves in the workplace. Studying regulatory focus in this context is important because promotion and prevention are associated with a range of important consequences for workers, including job satisfaction, task performance, organizational citizenship behaviors, and various types of commitment (for a meta-analysis, see Gorman et al., 2012).

Regulatory Focus LIWC Dictionaries

This measure differs from the other instruments described in this section as it involves text-based linguistic analysis techniques, rather than responses to a questionnaire (Gamache et al., 2015). This approach allows researchers to measure the use of promotion versus prevention words within existing corpora of text-based content using Linguistic Inquiry Word Count (LIWC) software (Pennebaker, Booth, et al., 2015; Pennebaker, Boyd, et al., 2015). These dictionaries were originally developed and validated by Gamache et al. (2015) to measure the use of promotion versus prevention language in CEO letters to shareholders. The dictionaries include 27 promotion words (e.g., "accomplish," "grow," "wish") and 25 prevention words (e.g., "obligation," "safety," "responsible"). Upon analyzing a given piece of text-based content, the LIWC software provides a score indicating the proportion of words in the text from each dictionary. The key benefit of this measure is the ability to use it to implicitly measure regulatory focus without

requiring participants to complete an additional questionnaire. Further, while researchers could instead use human coders to rate the promotion or prevention focus of text-based content, these ratings would be relatively subjective. In contrast, this LIWC dictionary measure precisely quantifies differences in regulatory focus. For this reason, it is a good fit for research involving existing text-based data that is available for analysis. For instance, Kanze et al. (2018) used this measure to analyze question-and-answer dialogues between potential investors (i.e., venture capitalists) and startup founders at the TechCrunch Disrupt Startup Battlefield competition between 2010 and 2016. They found that investors tended to ask female (vs. male) startup founders more prevention-focused questions, and these female founders tended to respond in-kind with prevention-focused responses. This difference in the regulatory focus of questioning predicted decreased funding raised by female (vs. male) investors.

Key Distinctions between Self-Discrepancy Theory and Regulatory Focus Theory

As briefly mentioned in the section "Regulatory Focus Theory," self-discrepancy theory and regulatory focus theory have similar roots. The promotion and prevention systems posited by regulatory focus theory are related to, respectively, the actual/ideal and actual/ought discrepancies posited in self-discrepancy theory. However, despite these similarities, these theories have unique emphases. As such, each sheds new light on different aspects of self-regulation.

First, the theories differ with respect to the phase of self-regulation that is emphasized and the reference points that are most relevant. Self-discrepancy theory tends to emphasize the phase of goal pursuit prior to reaching a satisfactory state for both actual/ideal and actual/ought discrepancies, as the notion of a discrepancy necessarily means that the desired end-state has not yet been attained. In contrast, regulatory focus theory tends to emphasize how promotion and prevention goal pursuit differ for people who currently find themselves at a "0" status quo state (see the section "Desired End-States of Goal Pursuit"). As a result, the reference points that are pertinent to each theory differ, particularly with regard to ought self-guides and the prevention system. Whereas self-discrepancy theory emphasizes ought-related goal-pursuit processes in which the individual currently falls *below* a satisfactory "0" status quo (i.e., at "-1" or below) and wants to attain this "0" state, regulatory focus theory emphasizes prevention goal-pursuit processes in which the individual is presently *at* "0" and wants to maintain this state. This distinction is not present when examining ideal-related goal-pursuit processes and the promotion system because both involve striving from a non-gain "0" status quo to reach a desired "+1" gain that has not yet been attained.

Second, self-discrepancy theory and regulatory focus theory involve different emphases on strategic concerns when conceptualizing goal pursuit. Self-discrepancy theory is concerned with desired end-states to attain and undesired end-states to avoid, whereas regulatory focus theory emphasizes desired end-states to attain or maintain. When considering strategies of goal pursuit, self-discrepancy theory distinguishes between ideal goal pursuit's preference for strategic approach by approaching matches to desired end-states and approaching mismatches to

undesired end-states versus ought goal pursuit's preference for strategic avoidance by avoiding mismatches to desired end-states and avoiding matches to undesired end-states. In contrast, regulatory focus theory emphasizes promotion preference for eager strategies and prevention preference for vigilant strategies.

Finally, self-discrepancy theory pays special attention to different standpoints on the self. For instance, is a particular self-guide held by oneself or by others for the self (e.g., parents' self-guides for their children)? These differences in standpoint have important implications for emotion and motivation, as possessing discrepant self-guides is associated with chronic approach-avoidance conflicts and identity confusion (Van Hook & Higgins, 1988). In contrast, regulatory focus theory is silent on these distinctions.

Conclusion

Since their inception, the related theories of self-discrepancy (Higgins, 1987; Higgins et al., 1985) and regulatory focus (Higgins, 1997, 1998) have contributed to the field's understanding of how motivation and self-regulation relate to emotion, thought, and behavior. Both theories are grounded in the notion that the goals that people treat as *ideals* are fundamentally different from those that people treat as *oughts*, and this is because the motivational systems that underlie their pursuit are fundamentally different. This promotion–prevention distinction has sparked a wealth of research spanning from the examination of basic psychological mechanisms to broad applications in fields as diverse as business (e.g., Higgins & Pinelli, 2020; Higgins et al., 2020; Lanaj et al., 2012), healthcare (e.g., see article "Regulatory Focus and Regulatory Fit in Health Messaging <https://doi.org/10.1093/acrefore/9780190228613.013.257>"; see also Uskul et al., 2008; Veazie et al., 2014), and psychotherapy (e.g., Klenk et al., 2011; Strauman et al., 2013, 2015). This growing body of knowledge offers promising insights to people and organizations looking to improve decision-making, performance, and well-being.

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