

3

Content and Structure of the Self-Concept

ALLEN R. McCONNELL and LAURA M. STRAIN

Who are you? This is a question that has been posed by people ranging from The Who (1978) to Inigo Montoya of Westley during their classic left-handed duel in *The Princess Bride* (Goldman, 1987) to infuriated parents and lovers throughout the ages. When used in a colloquial sense, we expect the respondent to reply with a name, an occupation or a relevant social role, and with some personality traits or other self-relevant attributes. Presumably, the response requires consulting one's self-concept content for the answer. Although the self-concept is filled with such content, we suggest that to fully appreciate the value of knowing this content, we must also consider self-concept structure as well. This is the overarching theme of our chapter.

Understanding the content and structure of the self has been increasingly emphasized in social psychology, especially in response to the growing influence of social cognition on the field (e.g., Baumeister, 1998; Fiske & Taylor, 1991; Linville & Carlston, 1994). Indeed, social cognitive approaches to examining the self have elucidated the importance of understanding how information about the self is stored and represented in memory (e.g., Kilhstrom & Klein, 1994). Accordingly, in the current chapter, we focus on how our knowledge of the implications of self-concept content also requires an appreciation of self-concept structure. We explore the ongoing evolution of thinking about the self from being a mere "vessel filled with traits" to being a sophisticated cognitive structure. Along the way, we discuss how this work provides insights for understanding important themes that are central to the self, such as affective responses to life events, goals and self-regulation, and the experience of well-being. In particular, we draw upon findings from the self-complexity literature to provide a framework for exploring these issues. Finally, we conclude by identifying questions for future research suggested by this analysis.

SELF-CONCEPT CONTENT

A great deal of the history of studying the self in social psychology has focused on self-concept content (i.e., what one believes to be true about oneself) rather than on self-concept structure (i.e., how one's self-concept is represented in memory). This initial work adopted a guiding metaphor that one's self-concept is a vessel filled by the ongoing accumulation of one's life experiences. For example, some of the earliest theorizing about the origin of self-concept suggested that it was based upon one's interactions with others (e.g., Cooley, 1902; Mead, 1934). Similarly, later work suggested that greater self-esteem reflected, among other things, the unconditional love provided by others (e.g., Rogers, 1951).

Much of the focus on self-concept content has explored why the self is so positive (e.g., Taylor & Brown, 1988). For instance, most people endorse far more positive traits than negative traits for the self, and this tendency is more strongly revealed by those with greater self-esteem (Brown, 1998). Given the almost ubiquitous nature of self-enhancement, research has focused on its implications. Adopting a functional perspective, Taylor and Brown (1988, 1994) have argued that possessing an enhanced sense of self-worth is beneficial in helping people respond adaptively to negative feedback and in persevering through difficult times in order to succeed. Consistent with this thesis, Taylor, Lerner, Sherman, Sage, and McDowell (2003) found that those revealing greater self-enhancement experienced more favorable psychological and social outcomes (for similar findings, see Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000). Yet, others have argued that having overly positive self-evaluations reflects an unhealthy, self-centered personality that impairs well-being (e.g., Colvin & Block, 1994; John & Robins, 1994). For example, Colvin, Block, and Funder (1995) observed that greater self-enhancement predicted poorer social skills and psychological maladjustment (for similar findings, see Robins & Beer, 2001). Mixed findings such as these suggest that important moderating factors must be better understood to account for when possessing positive self-concept content is beneficial or is detrimental (for suggestions, see Robins & Beer, 2001; Taylor et al., 2003). In all likelihood, the mixed evidence probably reflects, among other things, different perspectives on the nature of self (e.g., social psychologists seeing it as a fluid response to changing social situations versus personality psychologists viewing the self as more stable and invariant), how these questions are investigated (e.g., lab-based experiments versus longitudinal studies), and how constructs are assessed (e.g., private versus public measures). At any rate, we contend that an understanding of the relation between self-concept content positivity and well-being is critical but far from complete.

Perhaps one important factor in this debate is whether one considers social and mental health consequences in the short-run or in the long-term. For example, Paulhus (1998) found that those revealing greater self-enhancement initially came across to others in group interactions as agreeable and well-adjusted, yet after several weeks, the group members' impressions of them became less favorable. Similarly, Robins and Beer (2001) reported that, across a 4-year-long assessment period, students who were especially self-enhancing at the beginning

of college showed declining self-esteem, declining well-being, and greater disengagement from academics. Findings such as these suggest that high positive self-regard may have short-term benefits but it can incur long-term costs. So, what determines whether high self-regard leads to positive or negative long-term consequences? Crocker and Park (2004) suggest that how one strives for self-worth is important. They argue that when people pursue self-esteem to address short-term emotional needs (e.g., feeling good about the self, establishing dominance over others), it often comes at the expense of long-run objectives (e.g., developing competency and autonomy, considering others' feelings, narcissism). However, they contend that if people adopt goals that include others and contribute to something larger than the self, the link between greater self-worth and costly consequences can be severed.

Not only do people have tremendously positive self-concepts, they also have exceedingly strong beliefs of personal control (Langer, 1975). Indeed, perceptions of control can be quite beneficial features of the self, leading to better performance under stress and even longer lives (e.g., Glass & Singer, 1972; Langer & Rodin, 1975). However, the need for control can also be so strong that people misperceive having it, leading to questionable actions (e.g., Langer, 1975) and inappropriate self-blame following negative life events (e.g., Davis, Lehman, Wortman, Silver, & Thompson, 1995; Sherman & McConnell, 1995). Thus, even though people possess (and seek) self-concepts filled with positivity and control, this penchant can have downsides that, ironically, can subvert one's greater goals.

Researchers have also explored the content of self-concept in other ways. For example, a substantial literature in personality psychology has argued that self-concept content has important implications for well-being and mental health. In particular, the Five Factor Model of personality proposes that the self-concept is comprised of personality attributes characterized by five relatively orthogonal dimensions (John, 1990; John & Srivastava, 1999; McCrae & Costa, 1999; McCrae & John, 1992): extraversion versus introversion, agreeableness versus antagonism, conscientiousness versus lack of direction, neuroticism versus emotional stability, and openness versus closedness to experience. Although there are differences of opinion about the Five Factor Model ranging from its structure to its implications (John & Srivastava, 1999; McCrae & Costa, 1999), some general conclusions can be drawn about what promotes well-being. Although some dimensions such as extraversion may not be predictive of general well-being, others such as being relatively greater in openness, conscientiousness, and agreeableness have been shown to predict better classroom performance and lower juvenile delinquency (John, Capsi, Robins, Moffitt, & Stouthamer-Loeber, 1994), better workplace performance (Barrick & Mount, 1991), and better physical health (Adams, Cartwright, Ostrove, & Stewart, 1998). Thus, the Five Factor Model suggests that self-concept content can be thought about in ways beyond just valence or control, and that this more nuanced conceptualization has implications for well-being.

In addition to examining specific content (e.g., positive attributes, personality traits), other theoretical perspectives on the self have emphasized the importance of maintaining self-concept consistency.¹ Self-verification theory, for instance, assumes that people seek to maintain consistency between the content of their

self-concept and their social involvements, even leading those with low self-esteem to prefer the company of others who do not think very highly of them as well (e.g., Swann, 1997). Additional work has shown that people prefer interaction partners (e.g., college roommates) who view them in a manner consistent with their self-concept (Swann, Pelham, & Krull, 1989) and direct social interactions to “correct” others’ misconceptions about the self (Swann & Read, 1981). In a similar vein, cognitive dissonance research (for a review, see Cooper & Fazio, 1984) has shown that people prefer endorsing ideas and behaving in ways consistent with their already-existing beliefs about the self to avoid an aversive state of arousal that results from such inconsistencies. Although one can respond to cognitive dissonance in ways ranging from hypocrisy reduction (e.g., Fried & Aronson, 1995) to reaffirming one’s sense of moral integrity (e.g., Steele, 1988), the starting point for experiencing dissonance stems from the conflict between one’s actions and the content of one’s self-concept.

IS ONE SELF ENOUGH?

It is intriguing that the aforementioned (and many other) areas of work are based on a relatively unitary conceptualization of the self. That is, it is assumed that there is one self that is shaped by social interactions with others, that seeks consistency, and that responds aversively when inconsistencies are revealed with one’s self-concept. There are many factors that contribute to this perception of possessing “one self.” First, independent, Western cultures reinforce the notion that there is one, true self (Markus & Kitayama, 1991). For example, the experience of dissonance is different between members of independent and interdependent cultures, with the latter only showing many classic dissonance effects when one’s inconsistent behavior reflects on important others (Kitayama, Snibbe, Markus, & Suzuki, 2004). Further, people who possess meta-theories that personalities are fixed, rigid, and unchangeable are predisposed to expect consistency in personality traits across time (Dweck, 2000). These entity theorists expect less variability in behaviors across time (unlike incremental theorists, who assume personality is flexible and changes considerably across time). Research has shown that entity theorists, relative to incremental theorists, form stronger online impressions (McConnell, 2001), which should lead to more consistent impressions of social entities, including the self.

Despite this backdrop of factors that encourage the perception of a “unitary self,” parallel theorizing in social psychology conceives the self as a collection of multiple, context-dependent selves (Linville & Carlston, 1994). This perspective assumes that people possess many and different *self-aspects* (e.g., husband, athlete, researcher) and that social context (e.g., at dinner with one’s wife, on a morning run, in the lab) activates one of these self-aspects, which in turn guides behavior (Markus & Wurf, 1987). The perspective that people are comprised of multiple self-aspects requires researchers to eschew viewing the self as a single repository of traits and experiences, but instead, to consider how a system of self-aspects is represented in memory and to explore the implications of this conceptualization.

Thus, one must consider self-concept structure in order to account for how a system of multiple selves operates.

SELF-CONCEPT STRUCTURE

Different lines of research have suggested that appreciating self-concept structure was important for quite some time. For example, the self-reference effect (e.g., Bower & Gilligan, 1979; Rogers, Kuiper, & Kirker, 1977) demonstrates that people are better at recalling a list of trait adjectives if they, while encoding them, considered whether each word is self-descriptive (e.g., Am I *creative*?) in comparison to considering whether each word is descriptive of a less familiar person (e.g., Is Jon Stewart *creative*?). The explanation for better recall of self-relevant information is that there is a considerable amount of self-knowledge that is elaboratively organized in memory, and the extensiveness of this memory structure aids in recall (Greenwald & Banaji, 1989). This work suggests that the self is comprised of a relatively large amount of information within a substantial cognitive structure (e.g., many associative links in memory).

Is this assumption reasonable? Several pieces of evidence provide support for it. First, people are quite capable of describing themselves when asked to do so (Linville, 1985; Markus & Wurf, 1987), indicating that such information readily available. Further, we know that some attributes are especially accessible and are used frequently to interpret one's own and others' behavior. For example, Markus (1977) noted that people can be schematic on self-relevant attributes (e.g., honesty), leading them to be especially fast to report possessing these attributes and to have better memory for the presence of these attributes in others and in the self as well. This information processing advantage for schematic information results from the frequent use and activation of these attributes, resulting in heightened accessibility in memory. It also seems likely that these highly accessible attributes are not isolated in memory, but instead, are part of very integrative knowledge structures. For instance, we know from the person memory literature that people form integrative and elaborative cognitive structures for social targets when they expect consistency in their behaviors (e.g., McConnell, Sherman, & Hamilton, 1997; Srull, 1981). And indeed, people expect greater consistency for the self than they do for others, leading them to form especially integrative and elaborative self-concepts (McConnell, Rydell, & Leibold, 2002). In sum, it seems that self-concepts are highly organized memory structures featuring critical attributes that, because of their exceptional accessibility, serve to guide the interpretations of behaviors and characteristics of one's self and of others.

In addition to self-concepts being highly organized and integrated in memory, research indicates that the self is more than a unitary structure. In fact, different lines of work propose that one's "current self" is compared to other selves to direct self-regulation. Most of these perspectives assume a thermostat metaphor (e.g., Carver & Scheier, 1998) in which one's current state is compared to goal selves to determine whether additional self-regulation is required to reach the goal. For example, one's current behavior (e.g., playing Mozart's *Minuet in G* poorly) may

be compared to a goal self (e.g., becoming a professional pianist) in order to inform one that more work is needed. One of the earliest such areas of work involved self-awareness theory (Duval & Wicklund, 1972), which proposes that making one's current behavior salient (e.g., seeing one's action in a mirror) leads to a comparison with one's self standards, and to the extent that one's behavior fall shorts of these standards, one will either change their behavior to be more in line with their standards or reduce self-awareness (e.g., reduce the salience of one's behavior). Indeed, comparisons between one's current self and goal selves are at the heart of many self-regulation theories (e.g., Carver, 2001; Carver & Scheier, 1998; Higgins, 1987, 1997; Markus & Nurius, 1986; Ryan & Deci, 2000).

For example, Higgins's (1987, 1997) regulatory focus model posits that comparisons between one's actual (current) self and one's *self-guides* (e.g., an *ideal self* representing one's aspirations, an *ought self* reflecting one's obligations) serve to direct goal-relevant behaviors. When there are discrepancies between one's actual self and a self-guide, the theory predicts that actual-ideal self-discrepancies make people feel disappointment that can lead to depression, whereas experiencing actual-ought self-discrepancies induce people to feel guilt that can lead to anxiety. Conversely, successfully achieving one's goals can result in positive affect such as cheerfulness (achieving an ideal self) and quiescence (achieving an ought self). Moreover, it is proposed that the magnitude of each affective experience is proportionate to the amount of discrepancy between one's actual self and self-guides. The theory not only posits that different self-guides exist and serve to produce particular emotions, but also that particular types of goal-directed behaviors are initiated to reduce self-discrepancies. Specifically, reducing discrepancies with an ideal self entails a promotion focus involving the eager pursuit of successes, whereas reducing discrepancies with an ought self involves a prevention focus that emphasizes the vigilant minimization of losses (e.g., Higgins, Idson, Freitas, Spiegel, & Molden, 2003).

In sum, many self-regulation theories posit that comparisons among self-aspects serve to regulate social behavior and also account for the experience of affect from one's successes and failures.² Unlike the general negative state of arousal that results from cognitive dissonance (Cooper & Fazio, 1984), these more recent self-regulatory theories (e.g., Carver, 2001; Higgins, 1997; Ryan & Deci, 2000) explain how inconsistencies and congruencies among self-aspects result in the experience of particular emotions and the magnitude of their intensity, as well as the behaviors that people undertake to reach their goals. Importantly, these theories of self-regulation require a nonunitary self-concept structure to account for these outcomes.

At this point, we begin to see that different selves can be compared to assess how well one is pursuing one's goals. However, this raises the question of whether other types of self-aspects exist in addition to goal selves. To speak to this question, we asked 85 undergraduate students in our lab to describe "meaningful aspects of their lives" (this was left deliberately vague and open-ended), and later, trained judges coded the varieties of self-aspects they generated. In this sample, participants generated about five self-aspects on average. The proportions of self-aspects, listed by type, are displayed in Table 3.1. Although our participants did generate

TABLE 3.1 Proportion of Frequently-mentioned Types of Self-aspects Generated by Participants

Type	Examples	Self-aspects
Goal	Who I ought to be, Who I'm afraid I'll become	4%
Roles	Me at home, As a student	20%
Relationships	With my boyfriend, With my family	16%
Affective	When I'm stressed, Relationship feelings	16%
True selves	The actual me, Who I really am	15%
Situations	Meeting new people, being in public	11%
Temporal	The old me, Thinking of the future	6%
Others		12%

goal selves (e.g., Who I ought to be), this only represented 4% of their total self-aspects. On the other hand, 20% of their self-aspects were roles, 16% described relationships with specific others, 16% captured positive or negative affectively-valenced self-aspects, 15% depicted true selves, 11% were associated with abstract social situations, 6% revealed self-aspects in a different temporal location (but that were not goal selves), and the remaining self-aspects were more idiosyncratic in nature and did not fit into a particular category well. From these data, it appears that the self is comprised of a wide variety of different selves and not just “goal selves.” Given that people possess multiple self-aspects that probably are represented in a highly-elaborative cognitive structure, what are the implications of these multiple selves for the experience of self-relevant feedback, well-being, self-regulation, and perceptions of control? We now turn to the self-complexity literature for a framework to address these important questions.³

SELF-COMPLEXITY: A FRAMEWORK FOR CAPTURING SELF-CONCEPT CONTENT AND STRUCTURE

One of the attractive features of self-complexity is that it serves as an excellent vehicle for examining issues central to “the self.” As Figure 3.1 illustrates, it is assumed that the self is comprised of multiple self-aspects, each of which is comprised of a series of attributes. In this example, Sarah has four self-aspects (i.e., girlfriend, with her family, student, and when she’s in groups) with many attributes, most uniquely associated with one self-aspect (e.g., sexy, quiet) and some associated with more than one (i.e., caring, outgoing). Although most self-complexity research has assumed that these attributes are traits, later we will discuss research exploring a broader array of possibilities (Schleicher & McConnell, 2005). People vary in both the number of self-aspects they possess and the extent to which these self-aspects are relatively unique (i.e., do not share attributes associated with other self-aspects). Conceptually, people are considered greater in self-complexity when they have more self-aspects and the attributes associated with their self-aspects show little redundancy (i.e., each self-aspect is comprised of relatively unique attributes). In the current example, there is very little redundancy among the

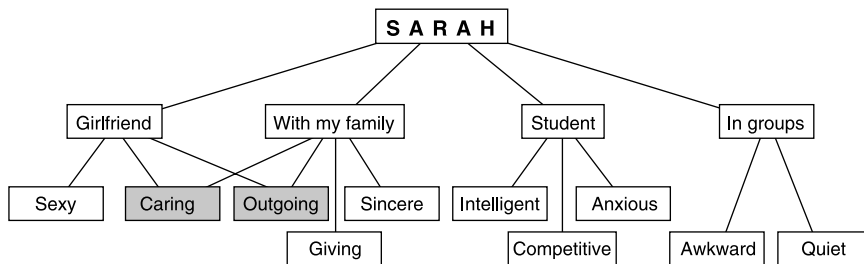


FIGURE 3.1 Hypothetical self-concept for a person with four self-aspects (e.g., girlfriend, student) and associated attributes (e.g., sexy, caring). Shaded attributes are those associated with more than one self-aspect.

attributes (i.e., only the two gray attributes are shared with more than one self-aspect).

In the task used to assess self-complexity, respondents put attributes (usually 33 or 40 personality traits, featuring a mixture of positive and negative attributes) into groups that represent meaningful aspects of their lives (Linville, 1985). The instructions are open-ended, encouraging respondents to represent their *self-aspects* (the groups) and the *attributes* (the traits) that are self-descriptive of them in each self-aspect in their own idiosyncratic fashion. They are told they can assign any particular attribute to several different self-aspects and that they do not have to use all of the attributes provided to them. Returning to the example involving Sarah, she put the attributes “intelligent,” “competitive,” and “anxious” in a group and labeled it as her “student” self-aspect. Next, a self-complexity score, based on the *H* statistic (Scott, 1969), is calculated that captures both the number of self-aspects generated and the degree to which the traits ascribed to each self-aspect are not redundant with traits associated with other self-aspects (for more details, see Linville, 1987; Woolfolk, Novalany, Gara, Allen, & Polino, 1995; cf. Rafaeli-Mor, Gotlib, & Revelle, 1999). In general, self-complexity (and *H*) increases as people report more self-aspects comprised of attributes that appear in unique combinations of self-aspect groupings (i.e., attributes are relatively unique in how they are distributed across the self-aspects). Although *H* is far from a perfect measure (for critiques and alternatives, see Rafaeli-Mor et al., 1999; Schleicher & McConnell, 2005), it does a reasonable job of capturing both the number of self-aspects and the redundancy of attributes associated with them.

Self-complexity is useful for thinking about self-concept and its implications for several reasons. First, by its nature, it incorporates both self-concept content (e.g., attributes) and self-concept structure (e.g., the arrangement of attributes across self-aspects) both conceptually and operationally. Second, it explicitly acknowledges that people can possess multiple selves. Although people are free to report only having one self-aspect (data from over 1000 participants collected in our lab at three different universities finds that only 5% do), they typically reported multiple self-aspects ($M = 4.22$, $SD = 2.01$).

Third, the structural features of the self-complexity task can generate pre-

dictions ranging from how affect is experienced (e.g., Linville, 1985; McConnell, Rydell, & Brown 2007) to how mental control is exercised (e.g., Renaud & McConnell, 2002). As Figure 3.1 illustrates, it is assumed that associative links exist between and among the attributes associated in the network of self-aspects and that spread of activation applies to these concepts (Collins & Loftus, 1975). For example, imagine that Sarah has a bad day at school by failing an exam. Although this would be a negative event, inspection of her self-concept structure would suggest that it may not have a tremendous impact on her overall sense of well-being because the traits that may be called into question by that feedback (e.g., her intelligence) are not important for other self-aspects, and thus, only 25% of her self-aspects would be affected. On the other hand, imagine that Sarah has a wonderful weekend at a family reunion. This positive event may have relatively more impact on her sense of well-being because half of the attributes affected by that feedback (i.e., caring, outgoing) are also important for her girlfriend self-aspect (in fact, they comprise 67% of that self-aspect). In this case, the feedback associated with her family self-aspect would *spill over* to her girlfriend self-aspect, increasing the positivity of both self-aspects (which, in total, comprise 50% of her total self-aspects). As we can see, the potential for spillover based on attribute overlap leads to clear predictions regarding how self-relevant feedback will be experienced. But in addition to considering the structure of attribute overlap, self-complexity takes into account the number of multiple selves people have as well. All things being equal, self-relevant feedback should have a greater impact on people with fewer self-aspects because feedback about any one self-aspect will implicate a greater proportion of one's self-aspects. Thus, Sarah's failing an exam would have more impact on her with 4 self-aspects (25% of her total self is affected) than if Sarah had 10 self-aspects (where 10% of her total self is affected). In sum, self-complexity theory predicts that life events will have greater impact when people have (1) relatively few self-aspects and (2) have greater structural overlap in their self-concept attributes. In other words, those lower in self-complexity will have relatively stronger spillover effects.

Although this derivation makes intuitive sense, Linville (1985) was the first to provide empirical evidence demonstrating spillover effects. In her study, participants completed a self-complexity task (similar to the one described earlier), measures of their mood and self-evaluations based on their feelings at the moment they completed the questionnaires, and an analytical ability task (which presumably measured one's intelligence). Afterwards, participants were given false feedback about their performance on the analytical ability task. Specifically, they were told that they had scored either in the bottom 10% (negative feedback) or in the top 10% (positive feedback), compared to other college students. Next, the experimenter told them a computer error had occurred and that their previous responses to the mood and self-evaluation measures were lost, and as a result, they would need to provide them again. In reality, these data were not lost, but instead, this "problem" provided an opportunity to assess how much the students' mood and self-evaluations were affected by the feedback (by comparing the original measures collected prior to the analytical ability task to the measures collected after the feedback was provided). As expected, those lower in self-complexity

showed more spillover than those greater in self-complexity. That is, those lower in self-complexity showed greater changes in mood and self-evaluations in the direction of the feedback on the analytical ability task (i.e., more positive following positive feedback, more negative following negative feedback).

But why does self-relevant feedback have a greater impact on those lower in self-complexity? To explore the mechanisms responsible for affective spillover effects, McConnell et al. (2007) conducted a series of experiments exploring how self-relevant feedback impacts those lower in self-complexity especially strongly. In one experiment, participants completed a self-complexity task and a series of self-related measures (e.g., mood scales, evaluations of the positivity of each self-aspect) during an initial prescreening session (Time 1). Several weeks later (Time 2), participants returned to the lab and were given either positive (top 10%) or negative (bottom 10%) feedback about a *targeted self-aspect* (i.e., their student self or their dating self). Following this feedback, they responded to the same measures (based on their feelings at the current moment) that they completed at the Time 1 session. Thus, the impact of the targeted self-aspect feedback could be assessed by comparing Time 1 and Time 2 measures.

First, the results of this study replicated Linville (1985), showing that those lower in self-complexity exhibited stronger changes in affect following feedback about the targeted self-aspect (more positive mood following positive feedback, more negative mood following negative feedback) than those greater in self-complexity. Moreover, McConnell et al. (2007) identified the mechanism responsible for this spillover effect: changes in the appraisal of the targeted self-aspect. That is, feedback about the targeted self-aspect produced greater spillover for those lower in self-complexity to the extent that their evaluation of the targeted self-aspect changed as well. Thus, if self-relevant feedback does not change one's evaluation of the targeted self-aspect (e.g., failing a test when one already views oneself as a bad student), spillover effects will not occur even for those lower in self-complexity because the feedback did not impact the evaluation of the targeted self. On the other hand, when feedback changes one's appraisal of the targeted self (e.g., failing a test makes one question their previously-held belief that they are a good student), spillover occurs and especially for those lower in self-complexity. Indeed, mediational analyses supported the causal role of changes in targeted self-aspect appraisal in the spillover effect (i.e., people lower in self-complexity showing stronger changes in affect).

In addition to showing affective spillover, this study revealed that feedback about a self-aspect can impact evaluations of *other* self-aspects as well. Consider our example of Sarah (Figure 3.1). If she learns she is in the bottom 10% of students, it might make her mood more negative (a broad effect), but it probably will not change her views of herself as a family member because there are no associative links between her "student" and "family" selves. However, imagine that Sarah learns she is in the bottom 10% of dating partners. Based on the assumed underlying associations in memory, this feedback would not only impact her mood, but it should also negatively affect her evaluations of her "with my family" self-aspect because there is considerable overlap in the attributes between her girlfriend and family self-aspects. Indeed, this is what McConnell et al. (2007)

observed. That is, evaluations of *nontargeted* self-aspects were impacted by feedback about the targeted self-aspect when the nontargeted self-aspects had greater attribute overlap with the targeted self-aspect. Thus, self-relevant feedback produces spillover in those lower in self-complexity because of changes in evaluations of the targeted self-aspect, and this feedback also impacts evaluations of other self-aspects when they share more associative links in memory with the targeted self-aspect.

Are there other ways in which spillover has consequences beyond simply the experience of self-relevant affect and changes in evaluations of interrelated self-aspects? In fact, one can derive predictions from the self-complexity framework for *behaviors* as well. One behavioral consequence of self-complexity is that people low in self-complexity should experience especially intense states of self-awareness, motivating them to eliminate self-focus following undesirable actions. Supporting this prediction, Dixon and Baumeister (1991) had undergraduate participants receive negative academic feedback (which presumably should impact their student self) by telling them they performed poorly on an anagrams test that purportedly assessed intelligence. When placed in a state of high self-awareness by sitting in a room facing a large mirror and asked to complete a secondary task, those lower in self-complexity left the room more quickly than those greater in self-complexity. Apparently, the negative feedback was more aversive for those lower in self-complexity because of spillover effects, making escaping from the state of high self-awareness (i.e., leaving the room early) more attractive for them.

Interestingly, the consequences of spillover can impact mental regulation as well. In one study, Renaud and McConnell (2002) reasoned that those lower in self-complexity would experience greater difficulty in suppressing self-relevant thoughts because of the nature of self-concept structure. Consider students who fail an exam and desperately want to ignore thoughts of their student self-aspect. Instead, they try to distract themselves with thoughts of other aspects of their lives (e.g., their family, their dating partner). Presumably, those lower in self-complexity would be more likely to return to thoughts of their student self because (1) there would be more associative links between attributes associated with their student self-aspect and their other self-aspects and (2) they would have relatively fewer other self-aspects with which to distract themselves. That is, the structure of the self-concept should make mental regulation more difficult for those lower in self-complexity. To test their prediction, Renaud and McConnell had students complete a set of analogies that purportedly assessed scholarly success. All participants completed mood measures both before and after receiving false negative feedback, indicating they scored in the bottom 10% of college students. Afterwards, some participants were told to not think about their student self-aspect (suppression condition), whereas others were not instructed to suppress their student self. Later, when given an opportunity to express their thoughts, those in the suppression condition were more likely to show rebound effects (i.e., greater spontaneous mentioning of the once-suppressed self-aspect), and this effect was stronger for those lower in self-complexity. In sum, those lower in self-complexity experienced stronger affective responses (e.g., less positive mood) following negative feedback and had greater difficulty in controlling thoughts associated with the negative feedback

than did those greater in self-complexity. Thus, when attempting to regulate their thoughts following a negative life event, those lower in self-complexity experienced an unpleasant double-whammy (i.e., more extreme negative affect and greater difficulty in suppressing thoughts about its source).

Given these findings, it seems that self-complexity may have important implications for well-being and mental health. In this spirit, Linville (1987) extended the logic of the spillover effect into the *buffering hypothesis*. Specifically, it was predicted that individuals greater in self-complexity would fare better than those lower in self-complexity when faced with stressful life events. Using a prospective design, Linville collected measures of self-complexity, life stressors, and psychological and physical outcomes associated with the consequences of experiencing stress (e.g., stress-related physical symptoms and illnesses, depression) during an initial experimental session, and then collected the same measures 2 weeks later in a follow-up session. Consistent with the buffering hypothesis, Linville found a self-complexity by stress interaction in predicting changes in the outcomes. Specifically, those lower in self-complexity reported relatively poorer well-being (e.g., greater depression, more stress-related physical symptoms and illnesses) at the follow-up session than those greater in self-complexity. In other words, when experiencing stressful events, those greater in self-complexity appeared to fare better than those lower in self-complexity because their stress was more confined to relevant self-aspects rather than affecting a greater proportion of the overall self.

Despite the intuitive appeal of this finding, a recent review of subsequent research concluded that there is not universal support for the buffering hypothesis (Rafaeli-Mor & Steinberg, 2002). This summary reviewed 24 studies that examined the stress-buffering role of self-complexity, and it reported that seven studies supported the buffering hypothesis, whereas four studies showed results directly opposite to it (along with many null results). Moreover, Rafaeli-Mor and Steinberg found that there was a small but reliable positive relation between greater self-complexity and *poorer* well-being. For example, across several experiments that used a variety of experimental materials, outcome measures, measures of self-complexity, and subject populations, Woolfolk et al. (1995) found no evidence of the stress by self-complexity interaction predicted by the buffering hypothesis. Instead, Woolfolk et al. observed significant zero-order correlations showing that as participants' self-complexity increased, they were more likely to report greater depression and lower self-esteem. It should be noted that such a direct relation is not contradictory to the interaction predicted by the buffering hypothesis. However, these findings show that for *the average person*, greater self-complexity may have deleterious rather than desirable consequences. Clearly, findings that run contrary to the spirit of the buffering hypothesis suggest that our understanding of self-complexity is far from complete.

Indeed, many studies conducted in our lab are consistent with such findings. Although we do not observe any evidence supporting the buffering hypothesis (i.e., better well-being observed by those under stress with greater self-complexity), we do find that greater self-complexity reliably predicts greater depression, lower self-esteem, and more physical symptoms and illnesses associated with stress.

Once again, on average, those greater in self-complexity seem to experience poorer outcomes relative to those lower in self-complexity.

How do we reconcile these mixed findings? Work in our lab has focused on identifying *for whom* being greater in self-complexity is a burden rather than a blessing. The upshot of this work is that we have found that people, on average, seem less equipped to deal with stress as their self-complexity increases. For example, in one set of studies (McConnell et al., 2005), we found that those greater in self-complexity report having less perceived control over their self-aspects. In this work, participants completed the self-complexity sort task, and afterwards, evaluated how much control they possess over each of their self-aspects (i.e., the extent to which they control it, they initiated it, and they perceive it as stable). Several notable findings obtained. First, those greater in self-complexity reported poorer overall well-being (e.g., greater depression, lower self-esteem, more stress-related illnesses). Second, those greater in self-complexity also reported less overall control over their self-aspects. Third, an interaction between self-complexity and perceived control was revealed for predicting well-being. That is, the relation between greater self-complexity and poorer well-being was primarily revealed by those reporting little control over their self-aspects. When self-aspect control was greater, self-complexity and well-being were essentially unrelated. We interpret these results as indicating that people greater in self-complexity are often overwhelmed by the sheer number of roles and responsibilities that they are juggling. For instance, research shows that becoming parents (i.e., adding the new role of “parents”) reduces marital satisfaction because of greater role conflicts (Twenge, Campbell, & Foster, 2003). Thus, having many self-aspects becomes an onerous burden rather than a resource because people are being stretched “too thin” by having to manage a large number of diverse selves low in perceived control (see also Donahue et al., 1993).

Unfortunately, there appears to be other ways in which those greater in self-complexity seem less equipped to deal with life’s challenges. In other research in our lab (McConnell, Strain, & Rydell, 2006), we examined the relations between self-complexity and the prevalence of personality traits derived from the Five Factor Model with respect to predicting well-being. Recall that people reporting personality traits of greater in openness, conscientiousness, and agreeableness tend to enjoy better life outcomes (e.g., Adams et al., 1998; Barrick & Mount, 1991; John et al., 1994). In our work, we found interactions between self-complexity and these three critical personality traits in accounting for differences in well-being (e.g., depression, stress-related illnesses, self-esteem). In general, individuals reporting the poorest well-being were those with less-favorable personality characteristics (i.e., low openness, low conscientiousness, and low agreeableness) who were greater in self-complexity.

As we see, the nature of self-concept representation can be very important for understanding how people experience emotion, evaluate their self-aspects, control their thoughts, respond to stress, and achieve well-being. It is also interesting that hallmark findings such as “greater perceptions of control lead to better outcomes” (e.g., Abramson, Seligman, & Teasdale, 1978; Bandura, 1997; Glass & Singer, 1972; Ryan & Deci, 2000) and “particular personality characteristics promote greater

well-being” (e.g., Adams et al., 1998; John et al., 1994) are qualified by self-concept structure. Thus, we contend that self-complexity provides an excellent (albeit developing) framework to explore these important issues.

Beyond the particulars of self-complexity work (e.g., the self-complexity task, using *H* as a measure of self-concept structure), we see broader value in this way of thinking about the self. That is, to understand meaningful issues such as affect, mental regulation, and well-being, we need to not only understand the content of the self, but its structure and representation as well. Of course, there is still much work to do within this framework. Hence, we turn to some questions that we believe future research should address.

FUTURE DIRECTIONS FOR SELF-CONCEPT RESEARCH

Some of the work described above has shown that to understand the relations between self-concept representation and outcomes, one needs to consider the nature of one’s self-aspects (e.g., perceived control). In other words, all selves are not the same, and self-aspects with particular features may produce particular outcomes (e.g., greater affective spillover, poorer thought suppression), especially for those lower in self-complexity. For example, importance has been shown to have an especially strong impact on one’s affective responses to self-relevant feedback (e.g., Pelham, 1991). Thus, we would anticipate stronger spillover effects would result from feedback about a self-aspect that is greater in importance. Yet another meaningful factor associated with the self is its certainty and clarity. Research has shown that those who report greater clarity about the self have greater self-esteem (Baumgardner, 1990; Campbell, 1990) and show a broad array of more desirable behaviors (Campbell et al., 1996). Most treatments of self-clarity have focused on the self as a whole. However, we would contend that self-aspects can vary in degrees of self-clarity as well. In general, we would expect that those lower in self-complexity would show stronger spillover-related effects (e.g., stronger affective shifts in mood, poorer mental control) when self-relevant feedback pertains to more certain self-aspects.

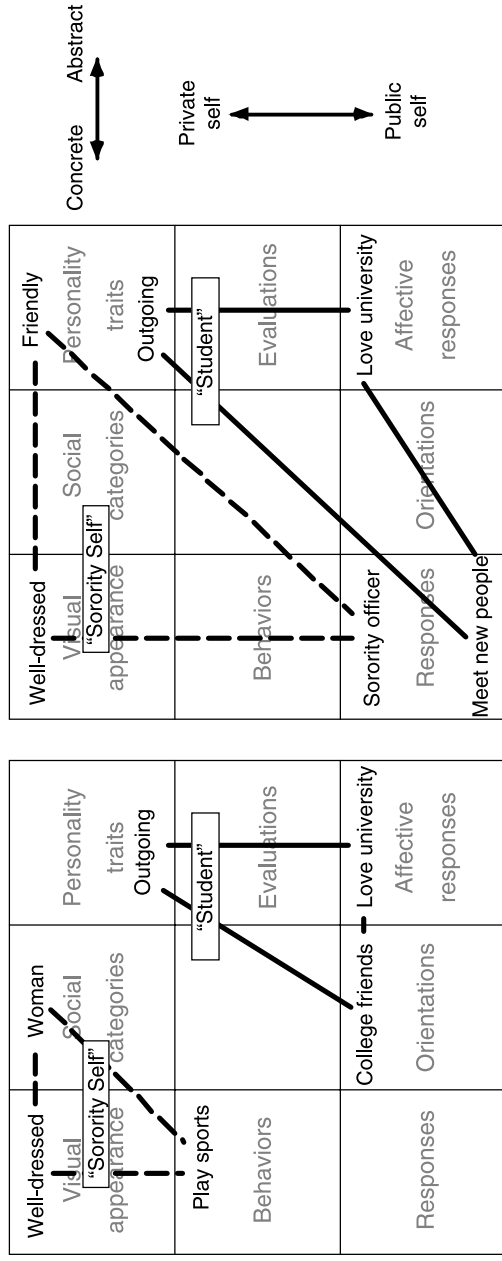
In addition to thinking about self-aspect moderator effects, we believe that a better account of self-concept content and structure will require considering individual differences in the nature of one’s self-aspects. Although many have argued for a rich and diverse collection of multiple selves and attributes (e.g., Linville, 1985), it seems that most self-complexity research can be characterized as exploring people’s social roles (e.g., girlfriend) and the traits (e.g., caring) ascribed to them. Although many people may organize their self-aspects around social roles, not all do. Indeed, the data presented earlier in this chapter (Table 3.1) hints at a taxonomy of self-aspects, including goal selves, roles, relationships with others, affective and emotional selves, true selves, situational selves, temporal selves, and perhaps others as well. We suspect that particular types of selves reflect well-established personality qualities and individual differences. For example, people who are greater in self-monitoring (Snyder, 1974) are more likely to attend to situations to determine which role self is required, thus we anticipate positive

relations between self-monitoring and the frequency of using role selves. Other work has suggested that people who are greater in interdependence (Singelis, 1994) are more likely to emphasize interconnections with others, which may be reflected by having self-aspects that stress orientations toward others. It has also been argued that women are more likely to have such an orientation than men (e.g., Cross & Madson, 1997), at least for close dyadic relationships (Gabriel & Gardner, 1999). Thus, we might expect cultural and sex differences in the proportion of relationship self-aspects.

Other predictions suggest themselves too. For instance, regulatory focus theory posits that people possess different self-guides that direct behavior with respect to one's aspirations and obligations (Higgins, 1987, 1997). Thus, to the extent that people exhibit chronic ideal goals and chronic ought goals (e.g., Higgins, Shah, & Friedman, 1997; Shah & Higgins, 2001), they should be especially likely to have goal self-aspects. Further, we anticipate that people with a stronger independent self-construal (Singelis, 1994) would be more likely to report having a "true self." To summarize, we believe that the types of self-aspects people exhibit should reflect important individual differences, and it is interesting that most of these factors (e.g., regulatory focus) are already well-established in the self literature. Consequently, we see an array of meaningful research issues coming full circle. That is, understanding the consequences of individual differences is greatly advanced by a better understanding of self-concept representation.

Finally, we turn to an even more fundamental question. Might there be alternative ways to conceptualize self-concept content and structure? Even though it has been forwarded (e.g., Linville, 1985) that the self is comprised of traits, roles, physical features, social categories, behaviors, abilities, preferences, goals, autobiographical recollections, and relations with others, little (if any) research has explored these assumptions or their implications. Recently, we have conducted research (Schleicher & McConnell, 2005) that departs from established paradigms and measures to seek a more comprehensive, process-derived account for multiple selves and their consequences for physical and mental health. Specifically, this work has used Associated Systems Theory (AST; Carlston, 1992, 1994) to provide a comprehensive, process-derived model for accounting for the representation of multiple selves and the nature of spillover effects.

As Figure 3.2 illustrates, AST conceptualizes social representations as existing in a Cartesian space with two underlying dimensions: abstract versus concrete, private self versus public self. A variety of different types of attributes can be captured in this space, ranging from visual appearance features (e.g., attractive; concrete and private self) to personality traits (e.g., intelligent; abstract and private self) to social responses (e.g., meeting new people; concrete and public self) to affective responses (e.g., love for my dog; abstract and public self), with a variety of other possibilities (e.g., social categories, evaluations) in between. One of the tenets of AST is that representations are more likely to prime other concepts that are spatially proximal. Thus, all things being equal, if one plots one's self-aspects in this Cartesian space, self-aspects with spatial overlap are more likely to activate each other. As we suggest in Figure 3.2, we believe that spatial overlap between self-aspects makes spillover more likely to occur because attributes that are closer



to other self-aspect attributes in AST space are more likely to activate each other. Thus, even though the two examples provided in Figure 3.2 would not differ with respect to self-complexity as traditionally assessed (i.e., two self-aspects, each comprised of three nonredundant attributes), differences would be expected from an AST perspective.

In an initial study examining self-complexity in this AST framework, we found support for this orientation (Schleicher & McConnell, 2005). That is, when experiencing stress, people who had relatively greater spatial overlap among their self-aspects (right panel, Figure 3.2) showed greater difficulty in dealing with negative life events (e.g., more depression and stress-related physical illnesses) than people with relatively less spatial overlap among their self-aspects (left panel, Figure 3.2). Thus, based on the processes underlying AST, we were able to develop a completely different approach to how self-aspects interact, and yet, account for findings obtained in the classic self-complexity literature (e.g., Linville, 1987) where traditional approaches and measures would be less sensitive and less process rich.

We believe this approach to the self can be useful for several reasons. First, it captures a broader constellation of self-relevant attributes than just personality traits. Indeed, people can represent their social categories, physical appearance attributes, behaviors toward others, and many other important features in their self-concept. Also, the opportunity for assessing spillover (i.e., overlap among self-aspects) follows from a process-derived account of how experiences lead to particular types of cognitive representations (Carlston, 1992, 1994), which suggest how self-concepts might initially be formed (see also, McConnell et al., 2002). Although considerable work lies ahead in the development of our AST-based approach to self-concept representation, we believe it has much promise in providing a broader and more conceptually rich account of the self.

SUMMARY

In this chapter, we have argued that understanding self-concept is critical for outcomes ranging from self-relevant affect to mental control to well-being. Although we have made considerable progress in these areas by exploring the content of the self-concept (e.g., research on self-esteem, Five Factor Model), even greater headway can be made by considering the interplay of self-concept content and structure. As an example of such an approach, we have focused on self-complexity to address these questions and to provide a guiding template for how one might more effectively pursue these goals. We contend that this line of work has advanced our understanding of self-concept content and structure, has demonstrated important implications of self-concept, and has identified new directions for future work. So when answering the question of “Who are you?” from a scientific standpoint, we propose that considering self-concept content and structure is the best way to respond to this timeless and important question.

ACKNOWLEDGMENTS

This research was supported by NIMH grant MH068279. We thank Robert J. Rydell for his important contributions to this work, including his thoughtful comments on this chapter.

NOTES

1. In addition to self-enhancement and self-verification, a third important self motive is self-assessment (i.e., seeking an accurate appraisal of the self; see Festinger, 1954; Sedikides & Strube, 1997; Trope, 1983). In the current chapter, we focus on self-enhancement (e.g., perceptions of positivity and control) and self-verification because both speak to behavior that results from *already formed* self-concepts. Often, self-assessment is the process through which features of the self-concept are initially developed.
2. There are other important approaches to understanding the self that have implications for self-regulation, including the cognitive-affective system theory of personality (Mischel & Shoda, 1995) and the psychosocial dynamic processing model (Mischel & Morf, 2003). Both of these aim to capture cognitive-affective relations in ways that speak to one's motives and goals, but an extensive discussion of them is beyond the scope of the current chapter.
3. We acknowledge that there are other approaches to viewing the self-concept representation, such as work on the compartmentalization of positive and negative attributes (e.g., Showers, 1992; Showers, Abramson, & Hogan, 1998) and on self-concept differentiation (e.g., Donahue, Robins, Roberts, & John, 1993). In this chapter, we focus on the self-complexity literature because its predictions not only speak to issues regarding well-being, but to broader consequences as well (e.g., mental regulation, how self-relevant feedback is experienced). Readers interested in comparisons among these different approaches should consult Campbell, Assanand, and DiPaula (2000).

REFERENCES

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87*, 49–74.
- Adams, S. H., Cartwright, L. K., Ostrove, J. M., & Stewart, A. J. (1998). Psychological predictors of good health in three longitudinal samples of educated midlife women. *Health Psychology, 17*, 412–420.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1–26.
- Baumeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 1, pp. 680–740). New York: McGraw-Hill.
- Baumgardner, A. H. (1990). To know oneself is to like oneself: Self-certainty and self-affect. *Journal of Personality and Social Psychology, 58*, 1062–1072.
- Bower, G. H., & Gilligan, S. G. (1979). Remembering information related to one's self. *Journal of Research in Personality, 13*, 420–432.

- Brown, J. D. (1998). *The self*. New York: McGraw-Hill.
- Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology*, *59*, 538–549.
- Campbell, J. D., Assanand, S., & DiPaula, A. (2000). Structural features of the self-concept and adjustment. In A. Tesser, R. B. Felson, & J. M. Suls (Eds.), *Psychological perspectives on self and identity* (pp. 67–87). Washington, DC: American Psychological Association.
- Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology*, *70*, 141–156.
- Carlston, D. E. (1992). Impression formation and the modular mind: The associated systems theory. In L. L. Martin & A. Tesser (Eds.), *The construction of social judgments* (pp. 301–341). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Carlston, D. E. (1994). Associated systems theory: A systematic approach to cognitive representations of persons. In R. S. Wyer (Ed.), *Advances in social cognition* (Vol. 7, pp. 1–78). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Carver, C. S. (2001). Self-regulation. In A. Tesser & N. Schwarz (Eds.), *Blackwell handbook of social psychology: Intraindividual processes* (pp. 307–328). Oxford, UK: Blackwell.
- Carver, C. S., & Scheier, M. F. (1998). *Attention and self-regulation: A control-theory approach to human behavior*. New York: Springer-Verlag.
- Collins, A. M., & Loftus, E. F. (1975). A spreading-activation theory of semantic processing. *Psychological Review*, *82*, 407, 428.
- Colvin, C. R., & Block, J. (1994). Do positive illusions foster mental health? An examination of the Taylor and Brown formulation. *Psychological Bulletin*, *116*, 3–20.
- Colvin, C. R., Block, J., & Funder, D. C. (1995). Overly positive self-evaluations and personality: Negative implications for mental health. *Journal of Personality and Social Psychology*, *68*, 1152–1162.
- Cooley, C. H. (1902). *Human nature and the social order*. New York: Scribners.
- Cooper, J., & Fazio, R. H. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 17, pp. 229–266). Orlando, FL: Academic Press.
- Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin*, *130*, 392–414.
- Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin*, *122*, 5–37.
- Davis, C. G., Lehman, D. R., Wortman, C. B., Silver, R. C., & Thompson, S. C. (1995). The undoing of traumatic life events. *Personality and Social Psychology Bulletin*, *21*, 109–124.
- Dixon, T. M., & Baumeister, R. F. (1991). Escaping the self: Moderating effects of self-complexity. *Personality and Social Psychology Bulletin*, *17*, 363–368.
- Donahue, E. M., Robins, R. W., Roberts, B. W., & John, O. P. (1993). The divided self: Concurrent and longitudinal effects of psychological adjustment and social roles on self-concept differentiation. *Journal of Personality and Social Psychology*, *64*, 834–846.
- Dweck, C. S. (2000). *Self-theories: The role in motivation, personality, and development*. Philadelphia: Psychology Press.
- Duval, S., & Wicklund, R. A. (1972). *A theory of objective self awareness*. New York: Academic Press.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *2*, 117–140.

- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition* (2nd ed.). New York: McGraw-Hill.
- Fried, C. B., & Aronson, E. (1995). Hypocrisy, misattribution, and dissonance reduction. *Personality and Social Psychology Bulletin*, *21*, 925–933.
- Gabriel, S., & Gardner, W. L. (1999). Are there “his” and “hers” types of independence? The implications of gender differences in collective versus relational interdependence for affect, behavior, and cognition. *Journal of Personality and Social Psychology*, *77*, 642–655.
- Glass, D. C., & Singer, J. E. (1972). *Urban stress: Experiments on noise and social stressors*. New York: Academic Press.
- Goldman, W. (1987). *The princess bride: S. Morgenstern’s classic tale of true love and high adventure*. Westminister, MD: Ballantine Books.
- Greenwald, A. G., & Banaji, M., R. (1989). The self as a memory system: Powerful, but ordinary. *Journal of Personality and Social Psychology*, *57*, 41–54.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, *94*, 319–340.
- Higgins, E. T. (1997). Beyond pleasure and pain. *The American Psychologist*, *52*, 1280–1300.
- Higgins, E. T., Idson, L. C., Freitas, A. L., Spiegel, S., & Molden, D. C. (2003). Transfer of value from fit. *Journal of Personality and Social Psychology*, *84*, 1140–1153.
- Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology*, *72*, 515–525.
- John, O. P. (1990). The “Big Five” factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 66–100). New York: Guilford Press.
- John, O. P., Capsi, A., Robins, R. W., Moffitt, T. E., & Stouthamer-Loeber, M. (1994). The “Little Five”: Exploring the nomological network of the five-factor model of personality in adolescent boys. *Child Development*, *65*, 160–178.
- John, O. P., & Robins, R. W. (1994). Accuracy and bias in self-perception: Individual differences in self-enhancement and the role of narcissism. *Journal of Personality and Social Psychology*, *66*, 206–219.
- John, O. P., & Srivastava, S. (1999). The big five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford Press.
- Kihlstrom, J. F., & Klein, S. B. (1994). The self as a knowledge structure. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (2nd ed., Vol. 1, pp. 153–208). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Kitayama, S., Snibbe, A. C., Markus, H. R., & Suzuki, T. (2004). Is there any “free” choice? Self and dissonance in two cultures. *Psychological Science*, *15*, 527–533.
- Langer, E. J. (1975). The illusion of control. *Journal of Personality and Social Psychology*, *32*, 311–328.
- Langer, E. J., & Rodin, J. (1975). The effects of choice and enhanced personal responsibility for the aged: A field experiment in an institutional setting. *Journal of Personality and Social Psychology*, *34*, 191–198.
- Linville, P. W. (1985). Self-complexity and affective extremity: Don’t put all of your eggs in one cognitive basket. *Social Cognition*, *3*, 94–120.
- Linville, P. W. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology*, *52*, 663–676.
- Linville, P. W., & Carlston, D. E. (1994). Social cognition perspective on self. In P. G. Devine, D. L. Hamilton, & T. M. Ostrom (Eds.), *Social cognition: Contributions to classic issues in social psychology* (pp. 143–193). New York: Springer-Verlag.

- Markus, H. R. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, 35, 63–78.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Markus, H. R., & Nurius, P. (1986). Possible selves. *The American Psychologist*, 41, 954–969.
- Markus, H. R., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology*, 38, 299–337.
- McConnell, A. R. (2001). Implicit theories: Consequences for social judgments of individuals. *Journal of Experimental Social Psychology*, 37, 215–227.
- McConnell, A. R., Renaud, J. M., Dean, K. K., Green, S. P., Lamoreaux, M. J., Hall, C. E., & Rydell, R. J. (2005). Whose self is it anyway? Self-aspect control moderates the relationship between self-complexity and well-being. *Journal of Experimental Social Psychology*, 41, 1–18.
- McConnell, A. R., Rydell, R. J., & Brown, C. M. (2007). *On the representation of self-concept: Multiple selves, their organization, and implications for affect*. Manuscript submitted for publication.
- McConnell, A. R., Rydell, R. J., & Leibold, J. M. (2002). Expectations of consistency about the self: Consequences for self-concept formation. *Journal of Experimental Social Psychology*, 38, 569–585.
- McConnell, A. R., Sherman, S. J., & Hamilton, D. L. (1997). Target entitativity: Implications for information processing about individual and group targets. *Journal of Personality and Social Psychology*, 72, 750–762.
- McConnell, A. R., Strain, L. M., & Rydell, R. J. (2006, January). More complex selves are less happy selves: Personality characteristics moderate the link between greater self-complexity and poorer well-being. Paper presented at the 7th annual meeting of the Society for Personality and Social Psychology, Palm Springs, CA.
- McCrae, R. R., & Costa, P. T. (1999). A five-factor theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 139–153). New York: Guilford Press.
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 54, 430–446.
- Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.
- Mischel, W., & Morf, C. C. (2003). The self as a psycho-social dynamic processing system: A meta-perspective on a century of the self in psychology. In M. Leary & J. Tangney (Eds.), *Handbook of self and identity* (pp. 15–43). New York: Guilford Press.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102, 246–268.
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74, 1197–1208.
- Pelham, B. W. (1991). On confidence and consequences: The certainty and importance of self-knowledge. *Journal of Personality and Social Psychology*, 60, 518–530.
- Rafaëli-Mor, E., Gotlib, I. H., & Revelle, W. (1999). The meaning and measurement of self-complexity. *Personality and Individual Differences*, 27, 341–356.
- Rafaëli-Mor, E., & Steinberg, J. (2002). Self-complexity and well-being: A review and research synthesis. *Personality and Social Psychology Review*, 6, 31–58.
- Renaud, J. M., & McConnell, A. R. (2002). Organization of the self-concept and the suppression of self-relevant thoughts. *Journal of Experimental Social Psychology*, 38, 79–86.

- Robins, R. W., & Beer, J. S. (2001). Positive illusions about the self: Short-term benefits and long-term costs. *Journal of Personality and Social Psychology*, *80*, 340–352.
- Rogers, C. R. (1951). *Client-centered therapy*. New York: Houghton-Mifflin.
- Rogers, T. B., Kuiper, N.A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology*, *35*, 677–688.
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the facilitation of intrinsic motivation, social development, and well-being. *The American Psychologist*, *55*, 68–78.
- Schleicher, D. J., & McConnell, A. R. (2005). The complexity of self-complexity: An Associated Systems Theory approach. *Social Cognition*, *23*, 387–416.
- Scott, W. A. (1969). Structure of natural cognitions. *Journal of Personality and Social Psychology*, *12*, 261–278.
- Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 209–269). New York: Academic Press.
- Shah, J., & 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.
- Sherman, S. J., & McConnell, A. R. (1995). Dysfunctional implications of counterfactual thinking: When alternatives to reality fail us. In N. J. Roese & J. M. Olson (Eds.), *What might have been: The social psychology of counterfactual thinking* (pp. 199–231). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Showers, C. (1992). Compartmentalization of positive and negative self-knowledge: Keeping bad apples out of the bunch. *Journal of Personality and Social Psychology*, *62*, 1036–1049.
- Showers, C., Abramson, L. Y., & Hogan, M. E. (1998). The dynamic self: How the content and structure of the self-concept change with mood. *Journal of Personality and Social Psychology*, *75*, 478–493.
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, *20*, 580–591.
- Snyder, M. (1974). The self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, *30*, 526–537.
- Srull, T. K. (1981). Person memory: Some tests of associative storage and retrieval models. *Journal of Experimental Psychology: Human Learning and Memory*, *7*, 440–463.
- Steele, C. M. (1988). The psychology of self-affirmations: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). San Diego, CA: Academic Press.
- Swann, W. B. (1997). The trouble with change: Self-verification and allegiance to the self. *Psychological Science*, *8*, 177–180.
- Swann, W. B., Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth? Reconciling self-enhancement and self-verification. *Journal of Personality and Social Psychology*, *57*, 782–791.
- Swann, W. B., & Read, S. J. (1981). Acquiring self-knowledge: The search for feedback that fits. *Journal of Personality and Social Psychology*, *41*, 1119–1128.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, *103*, 193–210.
- Taylor, S. E., & Brown, J. D. (1994). Positive illusions and well-being revisited: Separating fact from fiction. *Psychological Bulletin*, *116*, 21–27.
- Taylor, S. E., Kemeny, M. E., Reed, G. M., Bower, J. E., & Gruenewald, T. L. (2000).

- Psychological resources, positive illusions, and health. *The American Psychologist*, 55, 99–109.
- Taylor, S. E., Lerner, J. S., Sherman, D. K., Sage, R. M., & McDowell, N. K. (2003). Portrait of the self-enhancer: Well adjusted and well liked or maladjusted and friendless? *Journal of Personality and Social Psychology*, 84, 165–176.
- Trope, Y. (1983). Self-assessment in achievement behavior. In J. M. Suls & A. G. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 2, pp. 93–122). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Twenge, J. M., Campbell, W. K., & Foster, C. A. (2003). Parenthood and marital satisfaction: A meta-analytic review. *Journal of Marriage and the Family*, 65, 574–583.
- The Who. (1978). Who are you? On *Who are you?* [record]. MCA Records.
- Woolfolk, R. L., Novalany, J., Gara, M. A., Allen, L. A., & Polino, M. (1995). Self-complexity, self-evaluation, and depression: An examination of form and content within the self-schema. *Journal of Personality and Social Psychology*, 68, 1108–1120.