Journal of Psychotherapy Integration, Vol. 4, No. 4, 1994 Stein, Karen F.

The Organization of the Self: An Alternative Focus for Psychopathology and Behavior Change

Karen Farchaus Stein[1,3] and Hazel Rose Markus[2]

Cognitive theories of psychotherapy have tended to focus on the content of the self-concept as a key determinant in the formation of psychopathology. Studies completed in the last decade in the field of cognitive social psychology suggest that people also vary according to the organization of information within the self-concept, and this source of individual difference plays an important role in shaping emotional and behavioral responses to events. A diverse, unrelated, and contextually bound collection of self-conceptions may, at least for some people, be central to emotional health and well-being. These findings challenge the firmly held Western perspective of the universal value of the distinct, separate but fully integrated self, and in doing so lead to some new ways for thinking about the link between the self-concept, psychopathology, and behavioral change.

KEY WORDS: self-concept; organizational properties; behavioral change; complexity; differentiation and integration.

INTRODUCTION

The idea that the self is at the core of mental health, illness, and therapeutic change has a long and controversial history in clinical theories of psychopathology. Beginning with Freud, a diverse group of theorists including Sullivan, Winnicot, Hartman, Jacobson, and more recently, Kernberg, Kohut, and Beck, have implicated the self in personality functioning. Despite this seeming consensus regarding the existence of the self, ques-

[1]School of Nursing, University of Michigan, Ann Arbor, Michigan.
[2]Department of Psychology, Stanford University, Stanford, California.
[3]Correspondence should be addressed to Karen Farchaus Stein, 400 N. Ingalls, Room 2344, University of Michigan, Ann Arbor, Michigan 48109-0482.

tions about what the self is and how it functions have occasioned a persistent and highly charged debate over the last hundred years. In fact, Greenberg and Mitchell (1983), in their book on the development of the object relations school of thought, suggest that the evolution of psychoanalytic theory is primarily a story of the self and changes in its function. In the years from Freud's early writings until the present, the self has been markedly transformed from a passive mental image that functioned only as a *target* for the id drives to a full-fledged component of the psychological structure that *motivates* and *regulates* behavior.

Although many conceptual issues remain unresolved, the self is now firmly established as a key psychological structure and important determinant of emotional health and well-being. Diverse theories from the psychoanalytic tradition, as well as from the cognitive therapy approach, agree that during the course of development, a concept of the self is established in memory. The self-concept is generally defined as a stable and complex knowledge structure that consists of a collection of images, beliefs and feelings about the self (see Beck, 1967; Horowitz, 1987; and Kernberg, 1975, for examples). The self-concept is constructed through interactions with the interpersonal environment and, once established, plays an important role in the ongoing process of adaptation.

The issue for empirical and theoretical focus now becomes how the self-concept functions to promote either adaptive, healthy functioning or maladaptation and illness. Theories founded on a cognitive approach to psychotherapy focus on the *content* of the self-conceptions as a primary cause of a variety of psychiatric illnesses and other dysfunctional states. Individual differences in the definition of the self — whether the self is viewed as good or bad, self-sufficient or needy and weak, entitled or undeserving — are at the heart of maladaptive thoughts, feelings, and behaviors. For example, Ellis's theory of Rational Emotive Therapy suggests that absolute, dogmatic, and irrational beliefs about what the self "must, should and ought to be" influence the interpretation of external events and play a central role in the formation of psychopathology (Ellis & Dryden, 1987). A basic tenet of Beck's theory of cognitive therapy is that a variety of psychiatric disorders are associated with unique constellations of inaccurate beliefs or schemas about the self that give rise to misinterpretations and maladaptive responses (Beck, 1987; Beck & Freeman, 1990). Within Beck's model, lasting behavioral change in therapy requires modifying or expanding the content of the underlying core beliefs about the self (Freeman, 1987).

Clearly these theories with their emphasis on the content of the self-conceptions have led to important advances in understanding the role of the self-concept in psychopathology and behavioral change. Yet some theorists suggest that it is now important to move beyond a focus on the content of the self to an analysis of other structural and functional properties of the self-cognitions that influence adaptation and therapeutic change (Beutler & Guest, 1989; Markus, 1990; Nasby & Kihlstrom, 1986).

In this paper, we suggest that a focus on the *organizational* properties of the self-concept may offer a promising extension and perhaps an alternative to the current emphasis in clinical theories on the content of the self-conceptions. Building on an idea initially put forth in psychoanalytic theories of psychopathology, we argue that the organizational properties of the self-concept, including both individual differences in the differentiation and integration of the self-conceptions, shape emotional and behavioral responses to events, and therefore are key dimensions of the self-concept that must be considered when addressing mental illness and health.

Recent studies in the field of social psychology that have addressed the organizational properties of the self-concept have shown that people vary not only according to the content of their self-conceptions but also according to the extent to which other people are included in the definition of the self, the number of self-conceptions articulated in memory, the degree of interdependence among the self-conceptions and features of the ways they are clustered in memory. These differences — both in the amount and organization of knowledge about the self — have been shown to have a marked influence on mood, self-esteem, and behavioral responses to stress. Therefore, we argue that exploration of the organizational properties of the self-concept will result in a more comprehensive understanding of the role of the self-concept in psychopathology and behavioral change. Furthermore, we suggest that the findings of these studies present an important challenge to the idea that the healthy self is always the separate and integrated self.

A number of psychoanalytic theories, particularly those within the ego psychology school of thought, acknowledge the importance of the organizational properties of the self-concept in mental illness and health. However, within these theories, differentiation of the self as a bounded entity, distinct from the surrounding social environment, and integration of the discrete images into a coherent and unified conception of the self, are viewed as essential cornerstones necessary for a stable and healthy personality. It is increasingly evident that the adaptive self may be much less unified and much less bounded than previously assumed. Although psychoanalytic and many other Western theories of personhood are founded on the assumption that the separate, integrated, stable, and consistent self is necessary for health and adaptation (Westen, 1992), the

emerging empirical picture reveals the self as multifaceted, interpersonally connected, and decidedly variable across social context and time.

In exploring the role of the organizational properties of the self-concept in psychopathology and behavioral change we will (1) trace the historical roots of the idea that people vary according to the organizational properties of their cognitive structures within two bodies of literature including ego psychology theory and academic social psychology, (2) review contemporary empirical studies that address the links between differentiation and integration of the self-concept and maladaptive responses in normal and clinical populations, and finally (3) explore the implications of this approach to the self-concept on the conceptualization of psychopathology and the processes of behavioral change.

ORGANIZATIONAL PROPERTIES OF THE SELF-CONCEPT: A HISTORICAL OVERVIEW

The Psychoanalytic Theoretical Perspective

In psychoanalytic theory, the self emerged as a pivotal construct as the focus shifted from instinctual drives to reality-based human interactions as a key determinant in the unfolding of the personality (Blum, 1982; Greenberg & Mitchell, 1983; Richards, 1982). As theorists broke away from the Freudian view of the person as a bounded system, singularly motivated by biologically based drives, attention was directed toward the development of the psychological structures in the context of interactions with other people. A variety of new theoretical models emerged including interpersonal theory, ego psychology, and object relations theory. Although all of these derivative theories address the self-concept, the ego psychology perspective is the most explicit in its focus on the organization of the self-representations in normal development and psychopathology.

In the ego psychology model, interactions with significant others, particularly during the early stages of life, lead to the formation of internal representations of the self and others (Blanck & Blanck, 1974; Jacobson, 1964; Kernberg, 1975). Four phases in the development of the self-concept have been identified (see Mahler, Pine, & Bergman, 1975). Each phase is associated with a unique pattern of organization of the self-representations. During the four phases, two fundamental processes occur: (1) differentiation of the self from the interpersonal environment, and (2) integration of images of the self into a coherent whole. The first phase is an undifferentiated, unorganized, if not chaotic period during which the infant has no recognition of the self nor the environment (Jacobson, 1964; Sandler &

Rosenblatt, 1962). During the second phase, patterned fluctuations in physiological status between hunger and satiation and the related interactions with the mothering figure lead to the formation of the first mental representations of the self and the interpersonal environment (Jacobson, 1964; Kernberg, 1975; Mahler *et al.*, 1975). These early representations are marked by two distinctive features. First, the self and the other (i.e., usually mother) are not distinguished and, therefore, are represented within the same unit. Second, neither the self nor the object is represented as a single cohesive whole. Rather, many separate representations of the self in interaction with the mother are articulated in memory. These representations, referred to as "part-images," reflect isolated frames of experience that closely correspond to episodes of satisfaction or tension.

Developmental accomplishments that occur during the second year of life, including upright locomotion and the ability for symbolic representation, contribute to the child's emerging awareness of the self as a separate entity (Mahler *et al.*, 1975). In this third phase, the self structure is a collection of discrete, if not discrepant, images of the good and bad selves that have yet to coalesce into an integrated, cohesive whole.

The fourth and final phase is marked by the integration of the "good" and "bad" images of the self into a single, unified structure, referred to as the self-concept. Ego theorists posit that the establishment of an integrated and unified self-concept serves as the psychological foundation that gives rise to a sense of coherence and consistency of the self across time and situation (Blanck & Blanck, 1974; Erikson, 1959; Mahler *et al.*, 1975). This ego psychology perspective suggests that the establishment of a fully integrated and unified self-concept is a fundamental developmental achievement necessary for adaptive functioning and psychological well-being.

Just as psychological health is marked by a predictable pattern of organization of the self-structure, psychiatric illness is similarly linked to specific deviations in the development of the self-concept. In fact, ego psychology theorists have proposed a typology of illness that links specific disorders to phase-specific developmental arrests. For example, both Jacobson (1954) and Kernberg (1975) postulate that the psychotic illnesses are associated with a regression to undifferentiated phases in development when the boundaries between the self and the object dissolve and are represented in memory as a single merged unit. Severe personality disorders such as borderline and narcissistic disorders are caused by a fixation at the third phase of development when the "good" and "bad" selves remain discrete, unintegrated structures (Horowitz, 1977; Kernberg, 1966, 1984). Other personality disorders such as obsessive-compulsive and hysterical personalities are considered higher level disorders. Ego theorists suggest these disorders are caused by a classic basic drive conflict that occurs within

a fully developed psychological structure including an integrated and stable self-concept (Blanck & Blanck, 1974).

Other theorists, even those from the interpersonal and object relations orientations, also link deviations in the organization of the self-concept to psychopathology. For example, Sullivan (1953) referred to the self-concept as the "self-system," and defined it as an organization of experiences of the self in interaction with the mothering figure. In this model the organization of information within the self-system is central in explaining mental illness and health. Interactions between the child and the mother vary according to the extent to which the child's behavior stimulates a tender vs. an anxious response from the mother (Sullivan, 1968). Behaviors associated with the tender response are encoded in memory as the "good-me," whereas those that generate modest levels of anxiety in the mother form the "bad-me." Most crucial to this model, however, are the behavioral episodes that engender high levels of anxiety in the mother. These memories are so threatening to the child that they are dissociated from the self and form what Sullivan refers to as the "not-me." According to Sullivan, the key determinant of maladaptive behaviors is the lack of cohesiveness of the self-system — that is, the propensity to acknowledge the good-me while systematically struggling to avoid the not-me aspects of the self (Greenberg & Mitchell, 1983).

Clearly within the psychoanalytic models, the marker of psychological health and well-being is the establishment of a distinct and separate but integrated and unified self-concept. Differentiation of the self from the social environment and integration of the discrete images into a coherent and unified conception of the self are developmental milestones essential for the establishment of a stable and healthy personality. Failure to achieve these structural advances in the self-concept are linked to an array of dysfunctional responses and are seen as the source of major psychopathology.

The Social Psychology Perspective

The idea that people differ according to the organizational properties of their cognitive structures and that these differences influence overt actions also emerged within the field of social psychology around the middle of this century. However, unlike the psychoanalytic theorists that focused primarily on the development of the self-concept, social psychologists have traditionally been more broadly interested in the total cognitive system. The main tenet underlying this theoretical orientation is that the person is an active participant in the construction of experience (Markus & Zajonc, 1985). Internal representations — cognitive structures that are formed as

the result of interaction with the environment — serve as the interpretive framework that links the external stimulus world with individual responses.

In the 1960s and early 1970s, an important goal in social psychology research was to describe properties of cognitions that influence responses to stimuli (Markus & Zajonc, 1985). Research focused on identifying organizational properties of the cognitive structures and describing the nature of their influence on the processing of information. Cognitions were generally described as organized systems of attributes that define a domain of knowledge (Scott, 1969; Zajonc, 1960). The organizational properties of the cognitions referred to various types of relationships among the defining attributes.

Building on the theoretical work of Kurt Lewin (1951) and George Kelly (1955), social psychologists during this era offered a distinctly new perspective on the nature of the organizational properties of cognition. Theorists such as Bieri (1955), Scott (1962), and Leventhal (1957) suggested that an important source of variability among people is in the complexity of their cognitions, or number of independent, noncorrelated attributes articulated within a given knowledge structure. A highly complex cognition is characterized by many independent attributes that can be used to comprehend or evaluate an object in the domain, whereas a less complex cognition consists of relatively fewer independent attributes. For example, a middle-aged divorced businessman with highly complex cognition in the domain of women might recognize that women differ according to their intellectual capabilities, creativity, interpersonal sensitivity, athleticism, energy, and physical characteristics and acknowledge that these traits are generally distinct and unrelated. In contrast, a man with a less complex knowledge structure about women may tend to evaluate women according to their physical attractiveness, sensuality, friendliness, and dedication, and believe that if a woman is physically attractive, she is likely to possess all the other traits.

Although the construct of cognitive complexity was similar to the psychoanalytic perspective in that it focused on both the differentiation and integration of a cognition, the construct addressed these two organizational properties in decidedly different ways. First, in contrast to the psychoanalytic theorists who were primarily concerned with differentiation between the object and nonobject, the construct of complexity focused on differentiation of various aspects within the object itself. Within the social psychology perspective, the level of cognitive complexity was generally viewed as a function of the amount of experience in the domain (Scott, 1969). Therefore, complexity was viewed as a domain-specific characteristic rather than as a general personality trait. Through experience in a domain of knowledge, the person comes to recognize attributes that discriminate the domain

from others. The process of discrimination not only strengthens the boundaries between the two different domains but also leads to a more refined and elaborated understanding of each of the domains. This view of cognitive complexity is similar to the psychoanalytic notion of differentiation in that it acknowledges the importance of delineating boundaries. However, with the concept of complexity, social psychologists shifted the emphasis from the formation of boundaries to the development of a rich and refined understanding of the attributes that characterize the object itself.

The second important difference between the two theoretical perspectives is that social psychologists emphasized independence vs. integration of the defining attributes within a cognition. The construct of cognitive complexity focused not only on the number of attributes included within a cognition but also on the extent of the interdependence among them. Based on Kelly's (1955) personal construct theory, social psychologists posited that the availability in memory of a collection of functionally independent or uncorrelated attributes would enable the person to comprehend subtle features of an object and, therefore, lead to greater flexibility of thought. Referring back to our example of the middle-aged businessmen, the first man, who acknowledges that women's intellectual capabilities, creativity, interpersonal sensitivity, and physical appearance are unrelated to each other, would have greater potential for appreciating individual differences among a group of women friends than the second man who evaluates women in terms of the four perfectly correlated characteristics. The findings of a number of studies completed during the 1960s and 1970s lent support to this theoretical prediction.

Bieri (1955) found that the level of cognitive complexity in the domain of social relations influences the person's ability to understand other people and to accurately predict their behaviors. Compared to individuals with low complexity in the cognitive domain, individuals who had highly complex cognition in the domain of social relations were more able to accurately predict behaviors of a classmate when the classmate's behaviors differed from their own. Furthermore, individuals with low complexity of the social cognition were more likely to engage in "assimilative projection," or to inaccurately perceive similarities between themselves and their classmates, than high complexity subjects.

Scott (1963) examined the relationship between cognitive complexity and structural balance. Structural balance refers to people's tendency to conceptualize objects in like-valenced units such that objects that are liked or seen as positive are grouped together, and similarly, objects that are disliked are grouped together in a separate unit (Heider, 1946). Scott postulated that individuals with highly complex cognition in a given domain use many independent, noncorrelated attributes to define the domain; therefore, the cognition is likely to include a mixture of positive and negative attributes. The findings of three studies that examined the complexity of students' knowledge of nations supported the hypothesis. Students with highly complex knowledge structures about other nations were less likely to classify nations in balanced, like-valenced groupings than students with less complex knowledge in the domain. In another related study, Scott (1962) found that subjects with a highly complex knowledge structure in the domain of nations demonstrated more flexibility in their thinking about the domain. Persons who had a highly complex cognitive structure in the domain were more able to adjust their view to accommodate new information and, in fact, tended to demonstrate more complex thinking in the domain in response to a challenge than low complexity subjects.

Although the majority of studies completed during this era addressed differentiation and integration with the single construct of complexity, a few studies attempted to measure each of these properties independently. One advantage to this approach is that it acknowledged the lack of clarity in the definition of integration (see Miller & Wilson, 1979, for a review) and provided multiple ways of conceptualizing the construct. In a study that examined the nature of cognitions as a function of one's role in interpersonal communication, Zajonc (1960) explored four organizational properties of a cognition: (1) differentiation — the number of attributes included in a cognition; (2) complexity — the extent of the hierarchical structuring of the cognition such that lower level attributes are nested within superordinate categories; (3) unity — the extent to which attributes are interdependent; and (4) organization — the extent to which attributes included within the cognition are dependent on a single dominant attribute. This conceptualization of the organizational properties of cognition was unique in that differentiation and integration of the cognition were separated out into distinct variables. Furthermore, Zajonc attempted to broaden the definition of integration to include three separate organizational properties.

Although the early experimental work in social psychology was not explicitly focused on the self-concept, the contributions associated with this body of research laid an important foundation necessary for considering the organizational properties of the self-concept and their role in adaptive and maladaptive functioning. The early conceptual work on defining the organizational properties of cognitions and the development of methods of measurement have served as an important starting point for contemporary investigators interested in pursuing these highly abstract but important properties of cognitions.

ORGANIZATIONAL PROPERTIES OF THE SELF-CONCEPT AND BEHAVIORAL OUTCOMES: THE CONTEMPORARY SOCIAL PSYCHOLOGY PERSPECTIVE

The idea that the organizational properties of cognitions have important consequences in the person's construal of the world has gradually made its way back into the mainstream of social psychology research over the last decade. Beginning at the point where earlier investigations left off, the concept of cognitive complexity has reemerged as an important source of individual difference. Although studies have examined the level of complexity of a variety of social cognitions including knowledge structures about specific significant others (Leigh, Westen, Barends, Mendel, & Byers, 1992) and broad categories of people, such as the aged and racial minorities (Ben-Ari, Kedem, & Levy-Weiner, 1992; Linville, 1982; Linville & Jones, 1980), many of the more recent studies focus on complexity of the self-concept. In addition to the familiar concept of cognitive complexity, other organizational properties of the self-concept — some that were defined by earlier theorists such as differentiation and unity, and other newly defined properties such as compartmentalization — and their effects on the processing of self-relevant information also have been the focus of investigation.

Basic to all recent studies on the organizational properties of the self-concept is the view that the self is represented in memory as a large, complex, and dynamic system of self-representations (Harter, 1983; Kihlstrom & Cantor, 1984; Markus & Wurf, 1987). In contrast to earlier approaches in which the self-concept was defined as a highly stable overall view of the self (i.e., global self-esteem), the self is now commonly seen as an organized collection of many views of the self that may shift or change over the life span (Cross & Markus, 1991; Ryff, 1991). Also in contrast to earlier theories, the self-concept is now viewed as a highly powerful determinant of behavior (Cantor, 1990). The individual conceptions of the self that make up the total self-concept, referred to as self-schemas, are considered functional structures — active, working structures that shape the emotional and behavioral responses to events (Greenwald & Pratkanis, 1984). Self-schemas are constructed through interaction with the social environment, and once established they function as information processors impacting the perception, interpretation, and response to social information (Bargh, 1982; Kuiper & Rogers, 1979; Markus, 1977). Furthermore, because self-schemas include procedural knowledge such as rules, strategies, and routines, they give organization and form to behavior in the domain (Cantor, 1990; Markus & Wurf, 1987).

A majority of studies on the organizational properties of the self-concept focus on the regulation of mood. These studies examine the differentiation and integration of the self-concept in asymptomatic, mildly symptomatic, and clinically diagnosed samples, and have linked these organizational properties to a number of dimensions of mood including variability, intensity, and level, and other outcome variables such as self-directed attention and behavioral responses to stress. Although there is considerable diversity among the studies in the samples, the organizational properties addressed, and the outcome variables of interest, the emerging empirical picture convincingly suggests that our current beliefs about the nature of the healthy and adaptive self must be reconsidered.

The Integrated Self-Concept

Variability of Affect

One of the first outcome measures linked to the organizational properties of the self-concept was variability of affect. Variability of affect refers to the changeability of mood or the extent to which short-term fluctuations in mood are experienced (Cowdry, Gardner, O'Leary, Leibenluft, & Rubinow, 1991; Larsen, 1987). It is typically associated with high levels of responsitivity to environmental stimuli such that emotional reactions to events are rapid and extreme.

Linville (1985) was the first to hypothesize that complexity of the total self-concept would reliably predict individual differences in emotional reactivity to self-relevant events. Building on the spreading activation model of memory, she posited that the availability in memory of many independent conceptions of the self may actually serve as an internal resource that limits the affective consequences of a self-relevant event. According to the spreading activation model, phenomena are represented in memory as concepts or nodes that are linked together to form a rich and complex network (Collins & Loftus, 1975). Concepts that are semantically similar or related to each other in other ways are thought to be linked in memory such that activation of one node readily spreads to the other. In contrast, objects that are not related do not have direct linkages between them, and therefore, activation of one node will not affect the other.

Extending this theoretical framework to the self-conceptions, Linville (1985) posited that in cases in which the person has few conceptions of the self that are highly interrelated and hence, tightly interconnected in memory, an event that triggers a highly negative evaluation of one aspect of the self will quickly spread throughout the entire structure and result in a generalized sense of self-dissatisfaction and negative mood. In contrast, the same threat to a single self-conception in a more fully elaborated and

less unified self-concept will be more contained and negative feelings limited to a smaller proportion of the total self-concept (Niedenthal, Setterlund, & Wherry, 1992).

The findings of a series of studies with asymptomatic college-aged samples supported her hypothesis (Linville, 1985, 1987). Subjects with high complexity of the self-concept, or many noncorrelated conceptions of the self articulated in memory, experienced less extreme emotional reactions to feedback about their performance on a challenging cognitive task than those with fewer, more interdependent conceptions of the self. Furthermore, this difference in emotional responsitivity held for both positive and negative events. In other words, low complexity subjects experienced a greater increase in mood in response to the positive feedback and a greater decrease in mood in response to negative feedback than high complexity subjects.

Since Linville's original work, a number of studies have both replicated the findings and extended the work to examine other components of the self-concept (see Campbell, Chew, & Scratchley 1991, for an example). Niedenthal *et al.* (1992) examined complexity of the possible self-conceptions and explored its impact on emotional reactions to events that challenge future goals and aspirations. Rather than focusing on the organizational properties of the total self-concept, this study focused on the future-oriented conceptions of the self that are typically viewed as a component of the self-schema. Possible selves are detailed images of oneself in the future in a specific behavioral domain (Markus & Nurius, 1986). Because self-schemas are established in domains that the individual values and in which he/she has considerable experience, the array of self-knowledge included in the structure spans over time. Consequently, the self-schema includes not only images of the self — "I am in the present" — but also images of the self — "I was in the past" and "I hope or fear being in the future."

Niedenthal *et al.* (1992) argued that the extent to which the future-oriented possible selves are elaborated in memory is a function of the amount of time spent thinking about the possibilities in the domain, and therefore, may vary considerably from the level of complexity of the total self-concept. Furthermore, she predicted that the person's emotional reaction to a threat that challenges a future-oriented goal will be a function of the level of complexity of the related possible self, not the total self-concept. The results of her studies support the hypotheses. First, the complexity scores for the total self-concept and the possible selves were moderately correlated, suggesting that the level of complexity of the total self-concept is related but not identical to the level of complexity of the possible selves. Furthermore, while complexity of the self-concept was in-

versely related to emotional reactions to threats to current self, complexity of the possible self was inversely related to emotional reactions to threats to achievement of one's future goals.

Although variability of affect is considered a source of individual difference within normal populations (see Larsen, 1987; Larsen & Diener, 1987), more extreme short-term fluctuations in mood are associated with a number of psychiatric disorders including borderline, schizotypal and histrionic personality disorders, the eating disorders, and atypical depression (Cowdry *et al.*, 1991; Ellison & Adler, 1990; Rodin, Silberstein, & Striegel-Moore, 1984; Siever, Klar, & Coccaro, 1985). Recently Stein (1993) completed a preliminary study that examined the organizational properties of the total self-concept in adults with a mental illness associated with dysregulated mood. Based on the findings of studies with asymptomatic subjects, she predicted that adults who experience severely dysregulated mood would have fewer conceptions of the self articulated in memory and higher interdependence among the self-conceptions than asymptomatic adults, and that these features of the self-concept would reliably predict variability of affect.

Zajonc's conceptualization of the organizational properties was used in this study to enable exploration of the independent contributions of both the number of attributes included in the self-concept and the interdependence among them. Consequently, two organizational properties of the self-concept were addressed: (1) differentiation — the number of attributes included in the self-concept; and (2) unity — the degree of interdependence among the attributes.

The Diagnostic Inventory for Borderlines (Gunderson, Kolb, & Austin, 1981) and a clinical history were used to select two groups of subjects: the Clinical Group and the Asymptomatic Control Group. The Clinical Group included adults with either a primary psychiatric diagnosis of borderline personality disorder (BPD) or anorexia nervosa (AN). These two disorders were selected for study because (1) instability of mood is recognized as an important symptom of both disorders (see Cowdry *et al.*, 1991; Goodsitt, 1983), and (2) the severities of the disorders are comparable in that both are associated with severe impairments in self-care abilities that often necessitate inpatient hospitalization.

A card-sorting task developed by Zajonc (1960) was used to measure differentiation and unity of the self-concept. In order to examine variability or short-term fluctuations mood, mood states were measured repeatedly over time using the Experience Sampling Method (Hormuth, 1986; Larson & Csikszentmihalyi, 1983). Subjects wore an alarm watch that was set to signal them five times daily for a period of 10 days. At each alarm watch signal, subjects completed a one-page diary-type questionnaire that in-

cluded the Self-Report Affect Circumplex Scale (Larsen & Diener, 1991). In this study, two main outcome variables were addressed: (1) variability of positive affects, and (2) variability of negative affects. The within-subject standard deviations across the multiple measures of the positive and negative affects were used as indices of variability of the affects.

As expected, the Clinical group reported significantly more variability of negative affects across the repeated measures than the Asymptomatic group. However, the two groups did not differ in variability of positive affect, suggesting that affect variability in this clinical sample was not a symmetric increase in emotional responsivity across positive and negative affects. In contrast to findings of studies of normal populations, in this clinical sample, high levels of fluctuation were found for negative affects only.

The expected group differences also were found on the organizational properties of the self-concept. The clinical group had fewer self-conceptions articulated in memory and more interdependence among their self-conceptions than the asymptomatic sample. Finally, the results revealed that differentiation and unity were not significant predictors of variability of positive affect. Furthermore, differentiation of the self-concept was not a significant predictor of variability of negative affect. However, unity of the self-concept was a strong predictor of variability of negative affects, suggesting that individuals who had more correlated, interdependent self-conceptions articulated in memory experienced more short-term fluctuations in negative mood than those with a more independent, noncorrelated set of self-conceptions.

When considered together, the findings of these studies offer strong support for the idea that independence of self-conceptions rather than unity or integration of the self-conceptions is central to emotional stability. In contrast to the psychoanalytic position, which suggests that integration of the self-conceptions into a coherent structure is essential for emotional and behavioral stability, these findings suggest that a highly unified collection of self-conceptions may actually leave the individual more vulnerable to environmental stressors and emotional distress.

Level of Mood

Another dimension of mood that has been linked to the organizational properties of the self-concept is the level of mood or the extent to which positive or negative mood is experienced (Cowdry *et al.*, 1991). The findings of studies that have examined the relationship between complexity of the self-concept and level of mood have been mixed. In her first study, Linville (1985) found that self-complexity was related to variability of mood

but had no impact on level of mood. However, in a later study, she found that self-complexity functioned as a moderating variable between stressful life events and mood (Linville, 1987). For individuals who experienced high levels of stress, low self-complexity was associated with higher levels of depression and physical illness whereas high self-complexity led to more positive mood states and fewer symptoms of physical distress. MacLeod and Williams (1991) found that moderately depressed subjects had higher levels of self-complexity than the nondepressed controls. In another study, Gara *et al.* measured the level of complexity separately for the positive and negative aspects of the self, and found that depressed subjects had higher complexity of the negative self-conceptions but lower complexity of the positive self-conceptions than normal controls (Gara *et al.*, 1993).

One notable feature of this collection of studies that may account for the inconsistent pattern of findings is the marked differences in ways in which self-complexity was operationally defined. In the MacLeod study, self-complexity was measured by the pattern of endorsement of 10 adjectives on a 6-point Likert-type scales. Gara *et al.* used yet another definition of self-complexity that reflected the number of attribute clusters used to define the self. Although Linville's (1987) study offers some preliminary evidence that the relationship between self-concept complexity and level of mood may be a very complicated one, efforts to understand the relationship have been hampered by inconsistencies in the theoretical definition and measurement of the complexity construct.

Another organizational property that has been linked to the level of mood and self-esteem is compartmentalization of the self-concept. Compartmentalization refers to the extent to which positive and negative knowledge about the self is organized into separate, uniformly valenced categories (Showers, 1992). In a highly compartmentalized self-concept, positive self-defining attributes are clustered together to form homogeneous, like-valenced categories that are distinct and separate from the negatively valenced categories. For example, a woman with a highly compartmentalized self-concept may include her positive attributes of sincere, caring, sympathetic, dedicated, fun-loving, and reliable, in her self as "good friend" schema, and separate out her other less desirable traits of moody, short-tempered, and sometimes jealous into another, perhaps less valued conception of "myself when over-tired." In a less compartmentalized self-concept both positive and negative self-knowledge is mixed together within a single category. Here the traits of caring, sympathetic, fun-loving, moody, short-tempered, and sometimes jealous are organized into a single category of "myself as a temperamental woman."

Recently, Showers (1992) investigated the relationship between compartmentalization of the self-concept and level of self-esteem and mood

and found that, in general, individuals with a highly compartmentalized self-concept had higher levels of self-esteem and lower levels of depression. However, this simple relationship held only for those individuals who view their positive self-aspects as relatively more *important* than their negative self-conceptions. In a follow-up study of depression prone individuals (i.e., those who scored 59 or above on the Depression Proneness Inventory and had current Beck Depression Inventory scores of 9 or above), Showers found that many depression-prone subjects rated their negative self-views at least as important or more important than their positive self-conceptions. For these subjects, high compartmentalization was associated with higher levels of depression and lower self-esteem, whereas a mixed organization was associated with higher self-esteem and more positive mood. Showers suggested that when positive self-aspects are deemed important and the value of negative self-aspects are minimized, the compartmentalization of self-attributes ensures that the activation of the important self-aspects brings to mind only a positive view of the self. In this case, negative self-aspects may more easily be avoided and a state of positive mood and self-esteem preserved. However, if the valued self-aspects are negative and compartmentalized in homogeneous groups, then activation of the important self-aspects will bring to mind only negative views of the self. In this case, a mixed organization may offer an emotional advantage, in that activation of the important aspects will bring to mind both negative and positive attributes that can serve to modulate mood and self-esteem.

Strategies for Coping with a Threat

Dixon and Baumeister (1991) examined the role of complexity of the self-concept in behavioral responses to a stressful event and found marked differences in the strategies used to cope with a threat. After receiving failure feedback, low complexity subjects quickly sought to escape a situation in which self-awareness was heightened and, in doing so, withdrew efforts from a potentially self-enhancing task. In contrast, high complexity subjects who received failure feedback were more able to endure the aversive state of heightened self-awareness and persisted longer in behaviors directed toward improving their self-view. Using the spill-over model of affect, Dixon and Baumeister concluded that in low complexity subjects any single negative event will become a more pervasive threat to the self that makes a state of self-awareness a particularly aversive event. Consequently, low complexity individuals will be motivated to escape self-awareness and may be more likely to engage in activities that draw attention away from the self. Given that tendencies to escape self-awareness have

been linked to a variety of highly stimulating and self-damaging behavioral patterns (see Baumeister, 1986), individuals with low complexity may be more likely to engage in these dysfunctional behaviors as a means of distracting themselves from the distress.

In a related study, Stein (1994) found differences between high and low complexity subjects in their defensive resistance to feedback that challenged the established self-view. Processing indicators suggested that high complexity subjects took in and considered the negative feedback but did not alter the established self-view. In contrast, low complexity subjects responded defensively to the feedback. Not only did they not take in or encode the new information, but they actively sought to discount it by reaffirming a highly positive view of the self in the domain. Based on these findings, Stein concluded that a highly complex self-schema may be considered a *stable* but *flexible* cognitive structure. The highly complex schema may be considered stable in that the general view of the self is not capriciously altered each time a new and inconsistent piece of self-relevant information is encountered. This stability is, however, not maintained by rigidly blocking out or ignoring inconsistent feedback. Rather, the individual with a highly complex self-schema has the capacity to consider and take in a broader range of information about the self and in doing so creates a means by which the schema can be further elaborated, modified, or changed. In contrast, low complexity subjects apparently ensure the stability of the structure by defensively resisting new information about the self but in doing so their flexibility to consider new information about the self is compromised.

The psychoanalytic perspective places the separation of the self from the surrounding environment and the integration of the various aspects of the self into a unified and coherent whole at the core of human development and mental health. The broad and diverse collection of studies described thus far, however, offers a strong challenge to the value of a highly unified self-system and suggests that a collection of more discrete, even unrelated self-views may be central to emotional well-being. The ability to separate aspects of the self, sometimes isolating or otherwise ignoring the negative, while keeping salient one's strengths and capabilities may be the key to stable states of positive mood and health.

The findings of other recent investigations call into question the second important principle underlying the psychoanalytic perspective of the self: the universal value of establishing a separate, differentiated self. In an important shift in focus, a number of recent studies have begun to investigate the cognitive and emotional consequences of the "separate, bounded, unique" self vs. the "interdependent, contextualized, connected" self. These studies have shown that people vary according to the extent to

which others are represented in memory as part of the self and that this difference has important emotional and behavioral consequences (Aron, Aron, Tudor, & Nelson, 1991; Josephs, Markus, & Tafarodi, 1992; Markus & Kitayama, 1991).

The Differentiated Self-Concept

Recent studies suggest that in many non-Western cultures the self is fundamentally linked to the interpersonal environment (Marsella, De Vos, & Hsu, 1985; Shweder & Le Vine, 1984; Triandis, 1989; Westen, 1985). For example, in many Asian cultures a core value that pervades all aspects of life is the belief in a basic connectedness and interdependence among people (Kondo, 1990; Lebra, 1976). Within these cultures the individual is viewed as an inseparable component of the larger social group and the culturally mandated, overarching life task emphasizes fitting in with and being a part of the valued social group. Within this social milieu, the self has definition and meaning only in the context of other people, and therefore, valued others form an essential component of the self-structure. Markus and Kitayama state the following:

> Instead, the self *is* inherently social — a part of the collective. This interdependent view grants primacy to the relationship between the self and others. The self only derives from the individual's relationship with specific others in the collective. There is no self without the collective, the self is a fraction that becomes whole only in interaction with others (Derne, 1992; Kondo, 1990; Kumagai & Kumagai, 1985; Lebra, 1992). It is defined and experienced as inherently connected with others. From this frame, there is an abiding fear of being on one's own, of being separate or disconnected from the collective. A desire for independence is cast as unnatural and immature. (Markus & Kitayama, 1994)

Certainly in the Western cultures the normative conception of the self is consistent with the psychoanalytic perspective of the differentiated, bounded, and distinctly separate self (Geertz, 1975; Sampson, 1988, 1989). The culturally valued self is a separate, unique, and self-determined entity that strives to be distinguished from rather than similar to others. From this perspective the other is not part of the self-concept but rather an external standard for evaluating oneself and coming to understand one's own unique capabilities (see Guisinger & Blatt, 1994, Markus, & Kitayama, 1991, and Sampson, 1988, for further discussion of this point).

These studies are significant for what they reveal about the nature of the self-concepts of Asian cultural groups, but perhaps more importantly they reveal that there are other models or theories or construals of how to be a self. In other words, these studies underscore that there is more than one viable solution to selfhood, or to the question of "who am I and where do I belong." The growing volume of studies focused on revealing cultural variation in self indicate that many of the generalizations about the unified, integrated, separate nature of the healthy self may be less an empirical conclusion and more a reflection of a deep cultural commitment to a Cartesian, dualistic philosophical tradition in which the ontological imperative is a separation of self from object and from the natural world (Kim & Berry, 1993; Kitayama & Markus, 1994). Many non-Western cultures are invested in a more holistic view in which a fundamental inseparability of elements including self and other and person and situation is assumed. As a consequence of this view, selves are contextualized and compartmentalized. Unity and integration are essentially irrelevant concerns, and what one says and what one does will be different in different situations, depending on the nature of the social relationship at stake. For example, according to Kimura (cited in Hamaguchi, 1985), the self is "neither a substance nor an attribute having a constant oneness" (p. 302). Similarly, Hamaguchi (1985) contends "selfness is not a constant like the ego but denotes a fluid concept which changes through times and situations according to interpersonal relationships" (p. 302). It is likely that these ideological and philosophical commitments are associated with a very different type of self.

As theory and research begin to converge on the idea that the self can be construed, framed, or conceptually represented in multiple ways, and that there is nothing God-given or "natural" or "inviolate" about the unified or fully integrated self, it is reasonable to assume the following: (1) the organization of the self can assume a more compartmentalized, contextualized, or situated form than we have previously imagined; and (2) some reanalysis of what it means to be a healthy self, and whether one can specify this without knowledge of the nature and workings of an individual's interpersonal environment, may be in order.

Even with the Western milieu in which separateness of the self is highly valued, important individual differences in self exist. In the last decade a number of feminist theorists (Chodorow; 1978; Gilligan, 1982; Jordan & Surrey, 1986) have drawn attention to important gender differences in the construal of the self. These theorists have raised important questions about the universality of separateness and independence and have convincingly argued that for women in our society, relatedness with others is fundamental. In some respects, similar to an Asian view, for women, the self is known and even defined through relationships with other people, and therefore, one's conception of the self is incomplete without the inclusion of others.

Exactly what is meant by the relational nature of the self and inclusion of others in the cognitive structure of the self, at this point in time, remains

unclear. Markus and Kitayama (1991) represent the interdependent self as a set of intersecting representations of self and others in which the shared regions connote the shared aspects between the self and the other person. Aron *et al.* (1992) suggest that the cognition of the self and the other person may share common elements such that activation of one necessarily spreads to the other (Aron, Aron, & Smollan, 1992).

Studies that have examined the independent vs. collective definition of the self have shown that this source of individual difference may be an important determinant of self-esteem. Josephs, Markus, and Tafarodi (1992) showed that self-esteem in men and women is differentially related to a separate vs. an interdependent self-definition. For men, high self-esteem was associated with a definition of one's self as independent, unique, and separate from others, whereas for women, a very different picture emerged. In high self-esteem women, significant others are included as part of the self-definition whereas low self-esteem women do not seem to include the significant other in their self-definition.

Some investigators have suggested that the core cognitions in depression may not be those about the self, but rather those about the self in interaction with other people (Hammen & Goodman-Brown, 1990; Markus, 1990; Segal, 1988). Recently Markus and Kitayama (1991) showed that the construal of the self as separate vs. collective influences the types of emotions experienced. American and Western European cultures that emphasize the separateness of the person have language for and emphasize the emotional states of anger, frustration, and pride, whereas in Asian cultures in which the self is more contextually defined, the more relational emotional states of indebtedness and shame are common. Studies that link depression to feelings of guilt, shame, and unworthiness (Beck, 1967, 1987) suggest that an interdependent self-definition may be a kind of risk factor that increases one's vulnerability to depressive emotional states. This idea, although purely speculative, may offer an explanation for the high prevalence of depression in adult females in our country. Given that women in our culture may, for a variety of reasons, be more likely to establish an interdependent definition of the self (see Chodorow, 1978), they may be more likely to experience feelings of shame and guilt, which if sustained over time may lead to states of depression.

An interesting counterpoint to the idea that interdependent construal of the self may be an emotional liability, are the findings of studies that demonstrate the adaptive consequences of the activation of people's fantasies of being merged with another. Silverman and Weinberger (1985) suggest that activation of primitive fantasies of being merged with "Mommy" lead to reduced states of anxiety and positive affect states. Furthermore, they suggest that the activation of "self merged with other" fantasies may

be an important curative factor common across most types of psychotherapy. Consistent with this perspective that there are emotional advantages to viewing the self as united with another, the interdependent construal of the self may be associated with feelings of embeddedness and communion that can serve to protect against states of anxiety and fear.

Of course, a third alternative is that the emotional consequences of the independent vs. interdependent construal of the self are culture-specific. As Markus and Kitayama (1994) have pointed out, in many Asian cultures, the idea of the relatedness between the self and others is deeply rooted in the core of the culture. At every level of activity, through every communication, the culturally mandated view of the self is conveyed to the person. Given the strong cultural imperatives for the acceptable definition of the self, the emotional consequences of the independent vs. interdependent self may have more to do with the degree of *congruence* between the person's self-construal and the cultural norm than with any inherent advantages to one self-definition or the other (Josephs *et al.*, 1992).

IMPLICATIONS FOR CLINICAL PRACTICE

Although we recognize that our knowledge of the role of the organizational properties in emotional and behavioral regulation is in the early stages, we believe that findings of the studies reviewed here hold considerable potential for stimulating new ways of thinking about psychopathology and the process of change. In this section we will explore some of the implications of this body of research for clinical practice. We will begin by exploring how the findings might be used to develop new ways of conceptualizing psychopathology and go on to discuss how the findings may be used to broaden our understanding of the process of behavioral change and resistance to change. Finally, we offer some suggestions of how this perspective of the self-concept might lead to new approaches to clinical assessment and psychotherapeutic intervention.

Implications for Conceptualizing Psychopathology

Twenty years ago Gergen wrote,

> The second assumption — that a unified sense of self is good and that inconsistency is bad — is so pervasive in our cultural traditions that it is virtually unquestioned. At the turn of the century William James said that the person with a divided sense of self has a "sick soul": he was to be pitied and redeemed. The psychologist Prescott Lecky argued that inconsistency of the self was the basis of neurotic behavior. And of course we are all apt to applaud the person of firm character

> who has self-integrity; we think of the inconsistent person as wishy-washy, undependable, a fake. (Gergen, 1972, p. 32)

Despite the growing collection of empirical evidence suggesting the important emotional and behavioral advantages to a more diverse, unrelated, and perhaps contextually bound collection of conceptions about the self, our deeply rooted belief in the supremacy of the separate, autonomous, and coherent self remains largely untouched. Many researchers base their explorations on the assumption of the links between separateness, coherence, and health, and construct their interpretations through that lens (see Cohen & Gara, 1992, Olgivie, 1987, Robey, Cohen, & Gara, 1989, for examples of investigations founded on the assumption of integration). Even in those studies in which the findings support the advantages of a diverse collection of selves, the discourse of the integrated, unified, stable self is so pervasive and powerful that, at times, investigators feel compelled to include in their papers some mention of the value of the integrated self (see Niedenthal *et al.*, 1992). Furthermore, clinicians still adhering to early theories about the self remain virtually unshaken in their convictions of the value of the separate, unified and fully coherent self (Saari, 1993). The separate and integrated self is pervasively viewed as the healthy self; the undifferentiated and unintegrated self is the sick self—emotionally and behaviorally unstable, pathologically dependent on others and at risk for frank identity diffusion.

One important possibility to consider is that the most adaptive structural organization of the self is a function of the sociohistorical context, and therefore will most likely shift and change over time (Sampson, 1985; Taylor, 1989). From this perspective, earlier theories that emphasized the adaptive value of unity and coherence of the self were not inaccurate but, in fact, reflected the values of the modern era. Earlier in this century, when geographic mobility was limited, and one's commitments to the extended family and community were lifelong, the possible arenas for self-definition were more limited and the various roles assumed by the individual were probably more highly interrelated. Consequently within this historical context, the integrated and coherent self may have made sense. However, given the complexities of our contemporary society, in which multiple and often competing roles are the norm, a more complex, differentiated, and unrelated collection of self-conceptions may be necessary for the postmodern individual to enact the complex array of behaviors to meet multiple demands (see Horowitz, 1987; Sampson, 1988). As Lifton (1993) writes:

> We are becoming fluid and many-sided. Without quite realizing it, we have been evolving a sense of self appropriate to the restlessness and flux of our times. This mode of being differs radically from that of the past, and enables us to engage in continuous exploration and personal experiment. I have named it the "protean self," after Proteus, the Greek sea god of many forms. (p. 1)

Of course, another plausible explanation for the unilateral view of the importance of the separate but integrated self earlier this century may have been the gender-specific biases of the theorists themselves. As Chodorow (1978) has already pointed out, psychoanalytic theory was exclusively founded on the Western-European male view. Within this homogeneous group of theorists, important gender and cultural differences in the organization and functioning of the self may simply have been overlooked.

The findings of the studies reported here point to the necessity of developing a more flexible and, perhaps, individualized approach to defining both the desirable and pathological organizational structures of the self. Rather than relying on a single universal formula of the self-characteristics essential for mental health, clinicians need to recognize that differences in cultural background, gender, and even historical era, influence the conceptualization of the ideal structure of the self, and must be seriously considered before a diagnosis can be established and relevant treatment goals can be set. For example, evidence that a middle-aged woman's identity is tightly linked to her relations with her children, husband, and family of origin need not be construed as evidence of a pathologically dependent, merged, or undifferentiated self. For a woman in this position, an interdependent construal of the self may serve as an important source of positive self-regard. In fact, clinical interventions aimed at establishing a more differentiated self may erode the woman's self-esteem and put her at higher risk for depression.

As clinicians, the risk that our own biases about the appropriate and desirable construal of the self will influence both the assignment of a diagnosis and the course and outcomes of treatment cannot be overlooked. Clinicians have the responsibility for knowing and understanding the assumptions underlying the theories chosen to guide their practice. Furthermore, theories must be selected based on their appropriateness for the population being treated rather than solely on the preferences of the clinician.

Another important issue relevant to the conceptualization of psychopathology that is brought into focus by this body of research is whether the organizational properties of the self-concept can be most profitably linked to specific symptoms of psychopathology or to more comprehensive psychiatric disorders. Although exceptions can certainly be identified (see Horowitz, 1977, for an example), a prevailing assumption underlying many theoretical approaches is that each psychiatric disorder can be linked to a unique and specific pattern of self-concept organization. The typical kind of question encountered in the clinical literature is, How does the self-con-

cept of a person with schizophrenia differ from that of a person with depression, anxiety, or a personality disorder (see Beck & Freeman, 1990, Cohen & Gara, 1992, Gara *et al.*, 1993, for examples)?

One disadvantage of focusing broadly on a diagnostic category is that this approach makes it difficult to theoretically specify and empirically test the mechanisms that link the self-concept to the disorder. Because of the broad range of symptoms typically associated with each disorder and the extensive overlap in symptoms across disorders (Clark, 1993; Widiger & Frances, 1985), the process of describing differences in the organizational properties of the self-concept across a number of disorders provides little information about how the properties contribute to the symptom formation. For example, recently Robey *et al.* (1989) found that persons with schizophrenia have less fully developed hierarchically structured self-concepts than adults with major depression and asymptomatic adults. Although the results suggest interesting group differences in the elaboration of the self-concept, they provide little information about the significance of this difference. Does the lack of hierarchical organization of the self-structure contribute to the positive symptoms associated with schizophrenia, or do the observed differences in self-concept play a role in the formation of the cognitive symptoms associated with the disorder? Particularly with the disease of schizophrenia, in which the presenting pattern of symptoms varies markedly across individuals, the failure to carefully delineate the specific outcome of interest seriously limits the usefulness of the findings.

The findings of the studies reported here suggest that an alternative approach is to examine organizational properties of the self-concept that contribute to the formation of specific symptoms of psychopathology. In these studies, symptoms such as affect instability, low self-esteem, and depressed mood that are shared across diverse clinical and nonclinical populations were examined and linked to specific organizations of the self-conceptions. Although additional replications with more severely disturbed and rigorously defined clinical populations are needed (see Coyne & Downey, 1991), we believe this symptom-focused approach to exploration of the self-concept holds considerable promise for advancing clinical practice. Clarification of the organizational properties of the self-concept associated with specific psychiatric symptoms enables a more detailed specification of the mechanism that links the self-concept to the dysfunction, and in doing so provides the foundation necessary for the development of highly focused and refined treatment interventions. Furthermore, because the interventions will aim toward improving a specific and measurable symptom, the effectiveness of the intervention can easily be tested.

Implications for Understanding Resistance and the Process of Therapeutic Change

Focusing on the organizational properties of the self-concept provides an alternative framework for considering the process of behavioral change and resistance to change. Traditional models of psychotherapy have tended to view resistance to change as the workings of a set of oppositional forces designed to undermine the power of the change agent or protect the primitive self (Greenberg, & Mitchell, 1983). Studies that focus on the organizational properties of the self-concept provide evidence to suggest that a profitable alternative may be to view resistance to change as a automatic and natural consequence of the information-processing and affect-regulation processes that comprise the self-concept (Stein & Markus, 1994).

Any attempt to explain why people do not change must begin by acknowledging the complexity of behavioral change itself (Bandura, 1986; Cantor & Kihlstrom, 1987; DiClemente, Prochaska, Fairhurst, & Velicer, 1991; Meichenbaum & Turk, 1987). Change is not a unidimensional phenomenon. Rather, behavioral change is probably best conceptualized as a complex process that consists of a series of phases, including (1) a recognition of the need to change, (2) an initiation of behaviors directed toward the desired outcome, and (3) maintenance of the desired behaviors over time and across varying social situations. A failure or a breakdown can occur at any point in the change process.

During the first phase of behavioral change, the person comes to recognize the dysfunctional behavior and acknowledge the existing discrepancy between the current and desired selves. Often social feedback — in the form of a comment of a therapist, a frustrated plea from a spouse, or a negative evaluation from a boss — provides the initial impetus for change by focusing the person's attention on the dysfunctional behaviors and its disruptive effects.

Studies showing that complexity of the self-concept influences people's emotional and behavioral responses to self-threatening feedback provide evidence to suggest that this source of individual differences may powerfully impact the recognition phase of behavioral change. Individuals with low complexity of the self-concept respond to self-threatening feedback with a number of defensive strategies that may impede introspection and direct attention away from the need for change. Behavioral responses such as defensive reaffirmation of positive beliefs about the self or a shift of attention from self-awareness may serve to protect the person from a precipitous drop in self-esteem, but are likely to interfere with one's ability to use the information to stimulate change. For a woman with few and highly interdependent conceptions of herself as a warm, nurturing mother,

effective homemaker and cook, and highly dedicated wife, a comment from her therapist that she is fostering dependent behavior of her family would be more likely to trigger a defensive reaction than to stimulate honest consideration of the need for change.

In contrast, those with highly complex self-concepts have a broader and diverse collection of self-definitions available to buffer the impact of negative feedback, thereby enabling them to take in and consider the new information about the self. In this case, a woman who defines herself as a professional woman, a dedicated and caring mother, a steadfast friend, an avid gardener, and views each of the many roles as distinct and unrelated, may be less likely to react to her therapist's comment with a drop of self-esteem, and therefore may be more likely to use the information to bring into focus the need for behavioral change.

Compartmentalization of self-knowledge may also impact the recognition stage of behavioral change by influencing both the salience and the importance assigned to an aspect of one's self that is targeted for change. An individual with a compartmentalized self-concept may accept negative feedback and acknowledge that a specific negative behavior is self-descriptive, but feel little discomfort or urgency to change. In this case, the individual may encode the information into the "negative" category, and, in doing so, may diminish both the generalizability and importance of the trait. The high-powered business executive who compartmentalizes self-knowledge may accept as self-diagnostic the comments that his abrupt, sarcastic style is alienating, but minimize the significance of his behavior by adding it to his established view of himself as "short-tempered when under pressure." Integration of the new information into an established negative category reduces the amount of threat associated with the feedback, and thereby undermines its power to draw attention to the need for change.

The initiation phase of behavioral change represents the point of transition from the recognition of the need to change to the execution of instrumental behaviors designed to realize the desired goal. This phase of behavioral change reflects the confluence of motivational energy, knowledge, and skills, and the ability to formulate and enact an organized course of action.

The organizational properties of the self-concept may influence the initiation phase of behavioral change in a variety of ways. For example, the acquisition of knowledge necessary to bring about behavior change may be impeded by the same emotional and behavioral responses associated with self-complexity that impact the recognition phase. The individual with low complexity of the self-concept who is unable to utilize social feedback to bring into focus the need for change will probably be unable to attend to and encode factual information necessary to direct a new pattern of

behaviors in the domain. A person with low complexity of the self-concept who rigidly resists diagnostic feedback about his adult onset diabetes can be expected to reject or otherwise ignore the related information about required self-monitoring behaviors and dietary changes. In this case, the individual not only lacks the motivation necessary to bring about behavior change, but in addition, lacks the factual knowledge necessary to organize and direct the required behaviors.

Affect states that are more predominant with particular organizations of the self-concept may play a role in the initiation phase by providing the motivational energy necessary to fuel behavioral change. Recent studies suggest that the nature of the self (e.g., independent vs. interdependent) can influence the range and type of emotions experienced. Since intense negative affective states such as shame, guilt, and unworthiness can function to distract (Sarason, 1984), inhibit (Higgins, Bond, Klein, & Strauman, 1986) and overwhelm goal-directed behavior (Beck, 1967), an interdependent definition of self may interfere with or inhibit the initiation of behavioral change. Furthermore, studies have shown that, under certain conditions, negative affect states such as disappointment, sadness, and anger are associated with increased levels of activity (Higgins *et al.*, 1986) and positive behavioral outcomes (Cantor, Norem, Niedenthal, Langston, & Brower, 1987). These findings suggest that a separate construal of the self may at times facilitate the initiation of change.

Once behavioral change is initiated, the next important challenge facing the individual is to sustain the new behaviors across time and varying circumstances (Bandura, 1986). The person who successfully completes an inpatient treatment program for alcoholism must now somehow maintain sobriety despite times of crisis and high stress and the availability of enticing social situations.

In this maintenance phase of behavioral change, possible selves serve as a beacon to keep instrumental behaviors focused and directed toward the attainment of the desired goal. Positive and negative affect states associated with the possible selves serve as an important source of energy that propel the person into action. In addition, these highly detailed, specific, and enduring visions of the self function as stable goals that give meaning, organization, and coherence to behavior. As such, possible selves are viewed as the cognitive foundation of goal-directed behavior (Markus & Ruvolo, 1989) and of behavioral change itself (Cantor, 1990).

Although speculative, the organizational properties of the future-oriented possible self-conceptions may influence the person's ability to persist toward a desired goal. Recently, Setterlund (1993) showed that the level of complexity of the future-oriented component of the self-system influences the ease with which one can make goal-relevant decisions and the

level of satisfaction with the decision once it was made. More specifically, individuals with high complexity of the future-self—that is, those with many, diverse images of themselves in the future—had more difficulty selecting their most desired future goal, and once they made their selection they were less satisfied with their decision than those with fewer and more highly interrelated sets of possible selves. Given the higher levels of dissatisfaction and, perhaps, ambivalence experienced once a goal is selected, individuals with high complexity of their future selves may have more difficulty sustaining their commitment to a single outcome and may be more easily distracted by other equally desirable competing goals. Feelings of ambivalence or even regret may erode the motivation to persistently engage in the desired behaviors, particularly at times when progress toward the desired end-state is slow and feelings of frustration and discouragement are high. It is possible that under these circumstances, a simple and less diverse collection of options for the self in the future may enable the individual to remain focused, goal directed, and persevering.

In summary, the organizational properties of both the current self-conceptions and the future-oriented possible selves may play an important role in shaping the person's behaviors at all phases of the change process. Rather than viewing behaviors, such as an unwillingness to acknowledge the need for change, or lapses in the execution of the newly acquired behavior, as indications of basic attitudinal or characterological problems, these behaviors may be viewed as natural, if not expected, components of the process of behavioral change itself.

Behavior that appears resistant may provide important information about features of the self-system that must be addressed before behavioral change can occur. Attention to both the timing and the type of resistant behavior displayed may provide valuable clues that will facilitate identification of the dysfunctional feature of the self-system and enhance the formulation of appropriate interventions. For example, a therapist working with an alcoholic individual who is repeatedly unable to sustain self-focused attention after receiving feedback about the destructive effects of his/her addictive behavior may have to focus treatment on the level of complexity of the person's total self-concept before therapy can proceed. If the individual has only a few highly related aspects that comprise his/her self-definition, therapy may have to begin with interventions designed to increase self-complexity (for discussion, see Halberstadt, Niedenthal, & Setterlund, 1994). Therapeutic exercises that require the person to systematically enumerate various aspects of the self and describe how the many sides of the self are unique and different may help to increase the complexity of the self-concept, and in doing so may strengthen the person's ability to use the therapist's feedback to stimulate behavioral change.

Approaches to Clinical Assessment and Psychotherapeutic Intervention

An important issue that emerges when focusing on the organization of the self-concept is the clinical assessment of these properties. Particularly within the cognitive therapy models in which the conscious accessibility of one's beliefs is a basic assumption, the clinical assessment of the content and valence of the self-conceptions is easily accomplished through observation and discussion with the patient (Freeman, 1987; Mahoney, 1993). Clearly the underlying organizational properties of the self-concept are less easy to observe in the course of a clinical interview and would require a more systematic means of observation.

We propose that empirical measures of the organizational properties may provide a starting point for assessing differentiation, unity, and complexity, and compartmentalization of the self-concept in clinical populations. Certainly additional research is necessary to establish the reliability and validity of the measures across the various clinical populations. However, instruments such as Linville's and Zajonc's card-sorting tasks require little in the way of equipment and have been found to be easy if not enjoyable to complete (Linville, 1987; Stein, 1994). For example, the card-sorting task originally developed by Zajonc has been used to measure differentiation and unity of the self-concept. This measure consists of two tasks. First, the person is given a stack of black index cards and asked to write down all the attributes that are important to who he/she is. The person is asked to write only one self-defining attribute on each card and is encouraged to use as many or as few cards as necessary to thoroughly describe him/herself. Next, he/she is asked to consider each of his/her attributes separately and to "identify all other attributes that would change if the targeted attribute was somehow changed, absent or untrue of you." Responses to the two tasks are used to compute the differentiation and unity scores.

Differentiation refers to the number of attributes included in the self-concept and is computed by counting the number of attributes generated. Unity refers to the degree of interdependence among the attributes included in the self-concept. Responses to the second task are used to construct a dependency matrix such that when attribute Aj causes a change in attribute Ai a value of 1 is assigned, and when no change in Ai occurs a value of 0 is assigned. The total dependency of an element is calculated by summing the row entries and the total dependency of self-concept is calculated by summing the dependencies across all attributes. To compare the degree of unity across self-concepts of varying levels of differentiation the measure of unity is normalized by dividing the sum by the total number

of possible dependencies of the structure. Possible values for the unity measure range from 0 to 1.0.

Another card-sorting procedure developed by Linville (1987) has been used successfully to measure complexity of the current and future-oriented self-conceptions and compartmentalization of the self-concept. For this task, subjects are given a predetermined collection of self-descriptors, each written on a separate index card. Subjects are instructed to "form groups of traits that go together, where each group of traits describes an aspect of you or your life." Subjects are told that each group may contain as many or as few traits as they wish, and they are encouraged to only use the traits that are descriptive themselves. The *H* statistic is used to determine a self-complexity score from the sort (see Linville, 1987; Scott, 1969) and the phi coefficient is used to ascertain a measure of compartmentalization (see Showers, 1992).

Focusing on the organization of the self-conceptions rather than on content and valence as the means of effecting behavioral change leads to the formation of distinctly different therapeutic goals. Rather than striving to modify or revise the content of how one thinks about the self, a goal of treatment may be to reconfigure the existing self-conceptions. For example, the finding that mood variability is caused, at least in part, by low complexity of the self-concept, suggest that interventions to stabilize mood should be directed toward helping the person differentiate the various aspects of the self. Rather than seeking to diminish or change an existing negative aspect of the self, important goals of treatment may include the following: (1) to help the person identify and elaborate unacknowledged strengths and abilities to increase the number of self-conceptions articulated in memory, and (2) to make salient the differences rather than the similarities among the various aspects of the self to decrease the overlap or interdependence.

Although interventions studies are needed to assess the effectiveness of any technique, one could speculate that behavioral interventions designed to increase one's competence in a new behavioral domain may facilitate the elaboration of a new and different conception of the self. In this case, the therapy would focus on helping the individual build and elaborate new domains of expertise and in doing so would create new vision of the self. The therapy would be forward in focus, highlighting what one is working to become rather than focusing on the past to learn about the nature of the underling self-conceptions. In addition the therapeutic process would be highly active and experiential, with the therapist directing and supporting the person's efforts to engage in new behaviors.

The second main focus in therapy designed to increase self-complexity would be directed toward helping the individual recognize the differences

across the self-defining domains. Therapeutic interventions may begin by challenging cognitive biases such as the tendency to overgeneralize that lead to undifferentiated, global conceptions of the self, and then would focus on highlighting what is unique and different about the self in specific domains. In some cases an effective way to increase differentiation may be to encourage the person to focus more narrowly on contextually dependent aspects of the self that take into account the behavior of others in the construal of the self.

One advantage of the card-sorting measures is that, in addition to providing diagnostic information about the organizational structure of the self-concept, they may provide a means for altering the underlying structure. For example, to achieve the therapeutic goal of increasing the differentiation of the self-concept, task 1 of the Zajonc card sort could be used as a vehicle for working with the patient to identify unrecognized or unelaborated aspects of the self. Once the patient has finished task 1, a number of direct questions—such as "What other things might your friends say about you?" or "Let's focus on you at work, what other things could you say about the way you are at work?"—could be used to stimulate new ways of thinking about the self. In cases in which the therapeutic goal is to decrease the interdependence or unity among aspects of the self, task 2 could be used to identify aspects of the self that are viewed as highly interdependent and to stimulate discussion of how these aspects are different. In addition, the card-sort measures could also be profitably used to monitor progress toward the desired goals.

Another therapeutic goal that focuses on reconfiguring the existing self-conceptions is to change the existing pattern of compartmentalization. Showers (1992) suggested that for persons with depression who isolate their valued self-conceptions into separate positive and negative clusters, an effective therapeutic strategy may be to help them integrate their valued self-conceptions into mixed valence clusters. In this case, therapeutic efforts would be directed toward reorganizing self-defining aspects or domains. For example, for the adolescent who views him/herself as a poor athlete and values that domain as fundamentally important, therapeutic interventions may focus on reconstruing the domain. Rather than simply defining athletic competence based on one's physical skills, the teen may be encouraged to think of other strengths such as sense of dedication, ability to cooperate and capacity for hard work, as essential skills needed for successful team sports. Therapeutic interventions would be directed towards helping the teen reconceptualize what is meant by "a good athlete" and integrate other positive aspects of the self into that self-conception.

CONCLUSIONS

The role of the self-concept in psychopathology has been in the past, and continues to be in the present, a focus of considerable debate. Even within the last five years arguments found in the literature range from positioning the self-concept at the heart of a broad range of emotional problems to frank challenges to the relevance of the construct (see Coyne, 1982; Coyne & Gotlib, 1983). In this paper, we have joined those who view the self as an important determinant of mental illness and health by proposing that the organization of information within the self-structure plays an influential role in shaping emotional, and perhaps even behavioral, responses to stress. The self-concept is a complex system that includes arrangements of information at many different levels of specificity ranging from the future-oriented possible selves, to the self-schemas in particularly behavioral domains and finally to the total collection of information about the self. The studies reported here suggest that the amount and organization of information within each level of the self-concept play an important role in shaping the person's responses to an event. Furthermore, the broad collection of findings that show some emotional advantages to a more diverse, unrelated, and perhaps contextually bound definition of the self challenge the firmly held assumption that a distinct, separate, but fully integrated and coherent conception of the self is the universal key to mental health. Given the state of our current understanding about the nature and functioning of the self, we cannot yet offer an alternative key to mental health, but it is now possible to spell out a diverse but specific set of considerations that must be taken into account in any new comprehensive theory of the role of the self in emotional health and well-being.

REFERENCES

Aron, A., Aron, E., Tudor, M., & Nelson, G. (1991). Close relationships as including the other in the self. *Journal of Personality and Social Psychology, 60*, 241-253.

Aron, A., Aron, E., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology, 63*, 596-612.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliifs, NJ: Prentice-Hall.

Bargh, J. A. (1982). Attention and automaticity in the processing of self-relevant information. *Journal of Personality and Social Psychology, 43*, 425-436.

Baumeister, R. F. (1986). *Identity: Cultural change and the struggle for self.* New York: Oxford University Press.

Beck, A. T. (1967). *Depression: Clinical, experimental and theoretical aspects.* New York: Harper.

Beck, A. T. (1987). Cognitive models of depression. *Journal of Cognitive Psychotherapy, 1*, 5-37.

Beck, A. T., & Freeman, A. (1990). *Cognitive therapy of personality disorders.* New York: Guilford Press.

Ben-Ari, R., Kedem, P., & Levy-Weiner, N. (1992). Cognitive complexity and intergroup perception and evaluation. *Personality and Individual Differences, 13*, 1291-1298.

Beutler, L., & Guest, P. (1989). The role of cognitive change in psychotherapy. In A. Freeman, K. Simon, L. Beutler, & H. Arkowitz (Eds.), *Comprehensive handbook of cognitive therapy.* New York: Plenum Press.

Bieri, J. (1955). Cognitive complexity-simplicity and predictive behavior. *Journal of Abnormal Psychology, 51*, 263-268.

Blanck, G., & Blanck, R. (1974). *Ego psychology: The theory and practice.* New York: Columbia University Press.

Blum, H. (1982). Theories of the self and psychoanalytic concepts: Discussion. *Journal of the American Psychoanalytic Society, 30*, 959-978.

Campbell, J., Chew, B., & Scratchley, L. (1991). Cognitive and emotional reactions to daily events: The effects of self-esteem and self-complexity. *Journal of Personality, 59*, 473-503.

Cantor, N. (1990). From thought to behavior: "Having" and "doing" in the study of personality and cognition. *American Psychologist, 45*, 735-750.

Cantor, N., & Kihlstrom, J. F. (1987). *Personality and social intelligence.* Englewood Cliffs, NJ: Prentice-Hall.

Cantor, N., Norem, J. K., Niedenthal, P. M., Langston, C. A., & Brower, A. M. (1987). Life tasks, self-concept ideals, and cognitive strategies in a life transition. *Journal of Personality and Social Psychology, 53*, 1178-1191.

Chodorow, N. (1978). *The reproduction of mothering: Psychoanalysis and the sociology of gender.* Berkeley: University of California Press.

Clark, L. A. (1993). Personality disorder diagnosis: Limitations of the five-factor model. *Psychological Inquiry, 4*, 100-104.

Cohen, B., & Gara, M. (1992). Self-structure in borderline personality disorder. *American Journal of Orthopsychiatry, 62*, 618-625.

Collins, A., & Loftus, E. (1975). A spreading-activation theory of semantic processing. *Psychological Review, 82*, 407-428.

Cowdry, R. W., Gardner, D., O'Leary, K., Leibenluft, E., & Rubinow, D. (1991). Mood variability: A study of four groups. *American Journal of Psychiatry, 148*, 1505-1511.

Coyne, J. C. (1982). A critique of cognitions as causal entities with particular reference to depression. *Cognitive Therapy and Research, 6*, 3-13.

Coyne, J. C., & Downey, G. (1991). Social factors and psychopathology: Stress, social support and coping processes. *Annual Review of Psychology, 42*, 401-425.

Coyne, J. C., & Gotlib, I. H. (1983). The role of cognition in depression: A critical appraisal. *Psychological Bulletin, 94*, 472-505.

Cross, S., & Markus, H. (1991). Possible selves across the life span. *Human Development, 34*, 230-255.

Derne, S. (1992). Beyond institutional and impulsive conceptions of self: Family structure and the socially anchored real self. *Ethos, 20*, 259-288.

DiClemente, C., Prochaska, J., Fairhurst, S., & Velicer, W. (1991). The process of smoking cessation: An analysis of precontemplation, contemplation, and preparation stages of change. *Journal of Consulting and Clinical Psychology, 59*, 295-304.

Dixon, T. M., & Baumeister, R. F. (1991). Escaping the self: The moderating effect of self-complexity. *Personality and Social Psychology Bulletin, 17*, 363-368.

Ellis, A., & Dryden, W. (1987). *The practice of rational emotive therapy.* New York: Springer.

Ellison, J., & Adler, D. (1990). A strategy for the pharmacology of personality disorders. *New Directions for Mental Health Services, 47*, 43-60.

Erikson, E. H. (1959). Identity and the life cycle. *Psychological Issues, 1*, 18-164.

Freeman, A. (1987). Cognitive therapy: An overview. In A. Freeman & V. Greenwood (Eds.), *Cognitive therapy: Applications in psychiatric and medical settings* (pp. 19-35). New York: Human Science Press.

Gara, M., Woolfolk, R., Cohen, B., Goldston, R., Allen, L., & Novalany, J. (1993). Perceptions of the self and other in major depression. *Journal of Abnormal Psychology, 102*, 93-100.

Geertz, C. (1975). On the nature of anthropological understanding. *American Scientist, 63*, 47-53.
Gergen, K. (1972). The healthy, happy human being wears many masks. *Psychology Today*, 31-35.
Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
Goodsitt, A. (1983). Self-regulatory disorders in eating disorders. *International Journal of Eating Disorders, 2*, 51-61.
Greenberg, J., & Mitchell, S. (1983). *Object relations in psychoanalytic theory.* Cambridge, MA: Harvard University Press.
Greenwald, A. G., & Pratkanis, A. R. (1984). The self. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (Vol. 3, pp. 129-178). Hillsdale, NJ: Erlbaum.
Guisinger, S., & Blatt, S. J. (1994). Individuality and relatedness: Evolution of a fundamental dialectic. *American Psychologist, 49*, 104-111.
Gunderson, J., Kolb, J., & Austin, V. (1981). The diagnostic interview for borderlines. *American Journal of Psychiatry, 138*, 896-903.
Halberstadt, J., Niedenthal, P., & Setterlund, M. (1994). *Cognitive organization of different "tenses" of the self mediate affect and decision making.* Unpublished manuscript.
Hamaguchi, E. (1985). A contextual model of the Japanese: Toward a methodological innovation in Japan studies. *Journal of Japanese Studies, 11*, 289-321.
Hammen, C., & Goodman-Brown, T. (1990). Self-schemas and vulnerability to specific life stress. *Cognitive Therapy and Research, 14*, 215-227.
Harter, S. (1983). The development of the self-system. In M. Hetherington (Ed.), *Handbook of child psychology: Social and personality development* (Vol. 4, pp. 275-385). New York: Wiley.
Heider, F. (1946). Attitudes and cognitive organization. *Journal of Psychology, 21*, 107-112.
Higgins, E. T., Bond, R., Klein, R., & Strauman, T. (1986). Self-discrepancies and emotional vulnerability: How magnitude, accessibility, and type of discrepancy influence affect. *Journal of Personality and Social Psychology, 51*, 5-15.
Hormuth, S. E. (1986). The sampling of experience in situ. *Journal of Personality, 54*, 261-293.
Horowitz, M. J. (1977). Cognitive and interactive aspects of splitting. *American Journal of Psychiatry, 134*, 549-553.
Horowitz, M. J. (1987). *States of the mind: Configurational analysis of individual psychology* (2nd ed.). New York: Plenum.
Jacobson, E. (1954). On psychotic identifications. *International Journal of Psychoanalysis, 35*, 102-108.
Jacobson, E. (1964). *The self and the object world.* New York: International Universities Press.
Jordan, J. V., & Surrey, J. L. (1986). The self-in-relation: Empathy and the mother-daughter relationship. In T. Bernay & D. W. Cantor (Eds.), *The psychology of today's women* (pp. 81-104). Cambridge, MA: Harvard University Press.
Josephs, R., Markus, H., & Tafarodi, R. (1992). Gender and self-esteem. *Journal of Personality and Social Psychology, 63*, 391-402.
Kelly, G. A. (1955). *The psychology of personal constructs.* New York: Norton.
Kernberg, O. (1966). Structural derivatives of object relationships. *International Journal of Psychoanalysis, 47*, 236-253.
Kernberg, O. (1975). *Borderline conditions and pathological narcissism.* New York: Jason Aronson.
Kernberg, O. (1984). *Severe personality disorders: Psychotherapeutic strategies.* New Haven, CT: Yale University Press.
Kihlstrom, J. F., & Cantor, N. (1984). Mental representations of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 17, pp. 1-47). New York: Academic Press.
Kitayama, S., & Markus, H. R. (Eds.). (1994). *Emotion and culture: Empirical studies of mutual influence.* Washington, DC: American Psychological Association Press.
Kondo, D. (1990). *Crafting selves: Power, gender, and discourses of identity in a Japanese work place.* Chicago: University of Chicago Press.

Kuiper, N. A., & Rogers, T. B. (1979). Encoding of personal information: Self-other differences. *Journal of Personality and Social Psychology, 37*, 499-514.
Kumagai, H. A., & Kumagai, A. K. (1985). The hidden "I" in *amae*: "Passive love" and Japanese social perception. *Ethos, 14*, 305-321.
Larsen, R. (1987). The stability of mood variability: A spectral analytic approach to daily mood assessments. *Journal of Personality and Social Psychology, 52*, 1195-1204.
Larsen, R., & Diener, E. (1991). Promises and problems with the circumflex model of emotion. *Review of Personality and Social Psychology, 13*, 25-59.
Larson, R. & Csikszentmihalyi, M. (1983). The experience sampling method. In H. T. Reis (Ed.), *Naturalistic approaches to studying social interaction.* San Francisco: Josey-Bass.
Lebra, T. S. (1976). *Japanese patterns of behavior.* Honolulu: University of Hawaii Press.
Leigh, J., Westen, D., Barends, A., Mendel, M., & Byers, S. (1992). The assessment of complexity of representations of people using TAT and interview data. *Journal of Personality, 60*, 809-837.
Leventhal, H. (1957). Cognitive processes and interpersonal predictions. *Journal of Abnormal Social Psychology, 55*, 176-180.
Lewin, K. (1951). *Field theory in social science.* New York: Harper.
Lifton, R. J. (1993). *The protean self: Human resilience in an age of fragmentation.* New York: Basic.
Linville, P. (1982). Affective consequences of complexity regarding the self and others. In M. S. Clark & S. T. Fiske (Eds.), *Affect and cognition* (pp. 79-109). Hillsdale, NJ: Lawrence.
Linville, P. (1985). Self-complexity and affective extremity: Don't put all your eggs in one cognitive basket. *Social Cognition, 3*, 94-120.
Linville, P. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology, 52*, 663-676.
Linville, P., & Jones, E. (1980). Polarized appraisals of out-group members. *Journal of Personality and Social Psychology, 38*, 689-703.
MacLeod, A., & Williams, J. M. (1991). Moderate levels of chronic mood disturbance are associated with increased cognitive complexity about the self. *British Journal of Medical Psychology, 64*, 179-188.
Mahler, M., Pine, F., & Bergman, A. (1975). *The psychological birth of the human infant: Symbiosis and individuation*, New York: Basic Books.
Mahoney, M. J. (1993). Introduction to special section: Theoretical developments in cognitive psychotherapies. *Journal of Consulting and Clinical Psychology*, 187-193.
Markus, H. (1977). Self-schemata and the processing of information about the self. *Journal of Personality and Social Psychology, 35*, 63-78.
Markus, H. (1990). Unresolved issues of self-representation. *Cognitive Therapy and Research, 14*, 241-253.
Markus, H., & Kitayama, S. (1991). Culture and the self. *Psychological Review, 98*, 224-253.
Markus, H., & Kitayama, S. (1994). A collective fear of the collective: Implications for selves and theories of selves. *Personality and Social Psychology Bulletin, 20*, 568-579.
Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*, 954-969.
Markus, H., & Ruvolo, A. R. (1989). Possible selves: Personalized representations of goals. In L. Pervin (Ed.), *Goal concepts in personality and social psychology* (pp. 211-241). Hillsdale, NJ: Erlbaum.
Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology, 38*, 299-337.
Markus, H., & Zajonc, R. B. (1985). The cognitive perspective in social psychology. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., pp. 137-228). New York: Random House.
Marsella, A., De Vos, G., & Hsu, F. L. K. (1985). *Culture and self.* London: Tavistock.
Meichenbaum, D., & Turk, D. C. (1987). *Facilitating treatment adherence: A practitioner's guidebook.* New York: Plenum Press.
Miller, A., & Wilson, P. (1979). Cognitive differentiation and integration: A conceptual analysis. *Genetic Psychology Monographs, 99*, 3-40.

Nasby, W., & Kihlstrom, J. (1986). Cognitive assessment of personality and psychopathology. In R. Ingram (Ed.), *Information processing approaches to clinical psychology* (pp. 217-239). New York: Academic Press.
Niedenthal, P., Seterlund, M., & Wherry, M. B. (1992). Possible self-complexity and affective reactions to goal-relevant evaluations. *Journal of Personality and Social Psychology, 63,* 5-29.
Ogilvie, D. M. 91987). Life satisfaction and identity structure in late middle-aged men and women. *Psychology and Aging, 2,* 217-224.
Richards, A. (1982). The superordinate self in psychoanalytic theory and in the self psychologies. *Journal of the American Psychoanalytic Society, 30,* 939-957.
Robey, K., Cohen, B., & Gara, M. (1989). Self-structure in schizophrenia. *Journal of Abnormal Psychology, 98,* 436-442.
Rodin, J., Silberstein, L., & Striegel-Moore, R. (1984). Women and weight: A normative discontent. *Nebraska Symposium on Motivation* (Vol. 27, pp. 267-307). Lincoln: University of Nebraska.
Ryff, C. (1991). Possible selves in adulthood and old age: A tale of shifting horizons. *Psychology and Aging, 6,* 286-295.
Saari, C. (1993). Identity complexity as an indicator of health. *Clinical Social Work Journal, 21,* 11-24.
Sandler, J., & Rosenblatt, B. (1962). The concept of the representational work. *Psychoanalytic Study of the Child, 17,* 128-145.
Sampson, E. E. (1985). The decentralization of identity: Toward a revised concept of personal and social order. *American Psychologist, 40,* 1203-1211.
Sampson, E. E. (1988). The debate on individualism: Indigenous psychologies of the individual and their role in personal and societal functioning. *American Psychologist, 43,* 15-22.
Sampson, E. E. (1989). The challenge of social change for psychology: Globalization and psychology's theory of the person. *American Psychologist, 44,* 914-921.
Sarason, I. G. (1984). Stress, anxiety, and cognitive interference: Reactions to tests. *Journal of Personality and Social Psychology, 46,* 929-938.
Scott, W. (1962). Cognitive complexity and cognitive flexibility. *Sociometry, 25,* 405-414.
Scott, W. (1963). Cognitive complexity and cognitive balance. *Sociometry, 26,* 66-74.
Scott, W. (1969). Structure of natural cognitions. *Journal of Personality and Social Psychology, 12,* 261-278.
Segal, Z. (1988). Appraisal of the self-schema construct in cognitive models of depression. *Psychological Bulletin, 103,* 147-162.
Setterlund, M. (1993). *The effects of possible self-complexity on self-relevant decision making.* Unpublished doctoral dissertation, Johns Hopkins University.
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.
Shweder, R. A., & LeVine, R. A. (Eds.). (1984). *Culture theory: Essays on mind, self, and emotion.* Cambridge, England: Cambridge University Press.
Siever, L. J., Klar, H., & Coccaro, E. (1985). Psychobiologic subtracts of personality. In L. J. Siever & H. Klar (Eds.), *Biologic response styles: Clinical implications.* Washington, DC: American Psychiatric Press.
Silverman, L., & Weinberger, J. (1985). Mommy and I are one. *American Psychologist, 40,* 1296-1308.
Stein, K. F. (1993). *The organizational properties of the self-concept and instability of affect.* Manuscript submitted for publication.
Stein, K. F. (1994). Complexity of the self-schema and responses to disconfirming feedback. *Cognitive Therapy and Research, 18,* 161-178.
Stein, K. F., & Markus, H. (in press). The role of the self in behavior change. In H. Arkowitz (Ed.), *Why don't people change.*
Sullivan, H. S. (1953). *The interpersonal theory of psychiatry.* New York: Norton.
Sullivan, H. S. (1968). Beginnings of the self-system. In C. Gordon & K. J. Gergen (Eds.), *The self in social interaction* (pp. 171-178). New York: Wiley & Sons.

Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review, 96,* 506-520.
Westen, D. (1985). *Self and society: Narcissism, collectivism and the development of morals.* New York: Cambridge University Press.
Westen, D. (1992). The cognitive self and the psychoanalytic self: Can we put our selves together. *Psychological Inquiry, 3,* 1-13.
Widiger, T., & Frances, A. (1985). The DSM-III-R personality disorders: Perspectives from psychology. *Archives of General Psychiatry, 42,* 615-623.
Zajonc, R. B. (1960). The process of cognitive tuning in communication. *Journal of Abnormal and Social Psychology, 61,* 159-167.