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Gender and Thought: The Role of the Self-Concept

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In the continuing analysis of sex and gender differences, there is a growing awareness of the possibility of fundamental differences in how women and men perceive themselves and their worlds, in how they take meaning, and in how they come to know or reason (e.g., Belenky, Clinchy, Goldberger, & Tarule, 1986; Block, 1984; Cantor & Kihlstrom, 1987; Chodorow, 1987; Gilligan, 1982; Miller, 1986; Ruddick, 1980). The nature of these differences and the psychological structures and mechanisms that mediate them are not well understood. Such differences are likely to be subtle and not easily isolated but when closely analyzed may prove powerful. Our goal is to examine the divergent theories of the self that can be held by men and women and to explore how they may influence basic perceptual and cognitive processes.

This chapter has its origins in several general assumptions that derive from psychology's two basic paradigms–the person as constructor of external reality and the person as constructed by external reality (see Chapter 1 in this volume). From our perspective, the self-concept governs one's perception of reality. It is an important mediator and regulator of thoughts, feelings and actions. Furthermore, both the structure and the function of the self-concept will vary according to the nature of the social environment. The nature of the social environment is determined by its structural features and also by the theories and assumptions of the individuals (including the individual herself or himself) who create this environment.

Overview of the Approach

Our view is that men and women are typically encouraged to make the great divide—the self/nonself divide—in very different ways. This divergence comes as a consequence of the different patterns of social interaction and interpersonal experience that are likely to characterize men and

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women from their earliest experience and throughout their lives. More specifically, men and women will construct different types of structures about the self and as a consequence their thought processes may diverge both in content and in form.

Building on the ideas of a number of theorists (Chodorow, 1978; Erikson, 1968; Gilligan, 1982; Miller, 1986; Sampson, 1988; Stewart & Lykes, 1985), we suggest that women are more likely than men to have what can be called a "collectivist," "sociocentric," "ensembled," "communal," or "connected" schema for the self. A schema here is an affective/cognitive structure that is created to lend meaning and coherence to one's experience. In a connectedness schema, relations with others are the basic elements. In contrast, men are relatively more likely to have what can be called an "individualist," "egocentric," "separate," "independent," or "autonomous" schema of the self. Other individuals are represented not as part of the self but as separate and distinct from it.

We assume that connectedness and separateness self-schemas influence thinking, not just about the *self* but about *all* objects, events, and situations. This assumption is compatible with a variety of theoretical perspectives (Baldwin, 1902; Erikson, 1968; Fast, 1985; Jacobson, 1964; Kernberg, 1976) yet it seldom finds expression in studies of social cognition. While infants quickly achieve a diversity of representations of their experience, our perspective assumes that the self/nonself distinction affords a particularly meaningful categorization and integration of these representations. The self/other distinction is made repeatedly and in a variety of ways in the course of development. The typical degree of separation from or connection to the interpersonal context that characterizes it, however, will provide a model for the representation of all objects, events, and situations.

A sense of self as separate, individuated, and autonomous gives rise to the normative task of knowing, expressing, or realizing this "true" or unique inner self regardless of the constraints of the current social environment. Conversely, a sense of self as interdependent, embedded, and continuous with others is linked with the normative task of being carefully attuned to the immediate social environment and of coming to know and understand the other (for further discussion of the importance of normative life tasks, see Cantor & Kihlstrom, 1987; Erikson, 1968; Veroff, 1983).

Neither of these views of the self should be considered more developed or more productive than the other. Rather, they reflect divergent views of "who am I" and what it means to a "self." Self-schemata deriving from a sense of self as connected have a different structure and determine different patterns of perception and thought than those deriving from a sense of self as separate. Connected selves should not be viewed as less "good" because they are responsive to the social environment. Many treatments of sex differences in self-structure (Aries & Olver, 1985; Mahler, Pine, &

Bergman, 1975) begin with the assumption that the lack of a sense of self as separate from others must always comprise a difficulty or a conflict for women, one that must be overcome if a woman is to become a complete or developed individual. From our view, believing one's self to be functioning autonomously as an isolated individual is only one approach to selfhood, and one that has at least as many complications and limitations as an approach that focuses on connectedness (Hare-Mustin & Marecek, 1986).

There are at least three aspects to our frankly speculative argument. The first aspect is based on the idea that the characteristically different experiences of men and women with other people will result in differing conceptions of self and other. These divergent self/other conceptions can arise for a variety of reasons. Chodorow (1978) proposes that mothers and daughters, unlike mothers and sons, experience a sense of similarity and continuity with one another. As a result, in defining themselves, women learn to focus on and value relationships more so than do men. Similarly, Miller (1986) claims that relations to others are central to women's sense of self. She arrives at this point by analyzing women's relatively powerless position in society. As subordinates in a culture dominated by men, women must be constantly attuned to and responsive to others because it is these others who control their future.

The second aspect of our argument derives from the growing literature on culture and selfhood (Geertz, 1975; Harding, 1987; Heelas, 1980; Kelly, 1987; Marsella, De Vos, & Hsu, 1985; Shweder & Levine, 1984). This literature claims that different cultures or different social environments may well create and foster the development of divergent idioms and bedrock assumptions about the nature of the self and the nature of others. From this literature comes the idea that individuals can be mutually dependent and that this interdependence or sense of community with others can be a central organizing reality. Individuals thus can develop self-structures in which the primary referent is not the individual himself or herself, but instead the self-in-interpersonal relationships.

The third aspect of the argument comes from research on cognitive approaches to self and personality. This literature claims that the nature of the self-structure determines how information about the self and others is processed. Markus and her colleagues, for example, suggest that individuals develop a system of distinct self-schemata. These schemata are theories about the self derived from the repeated categorizations and evaluation of behavior by oneself and by others (Markus, 1977; Markus, Crane, Bernstein, & Siladi, 1982; Markus, Smith, & Moreland, 1985). These self-schemata enable perceivers to detect features and higher-order thematic structure in their own behavior and in that of others to which they otherwise would be insensitive. These schemata are focally active in the interpretation and comprehension of the social world (for a review of schema functioning, see Markus & Zajonc, 1985). Notions about the general cognitive consequences of self-structures can also be found in Bowlby's

(1980) attachment theory and in objects relations theory (Greenberg & Mitchell, 1983).

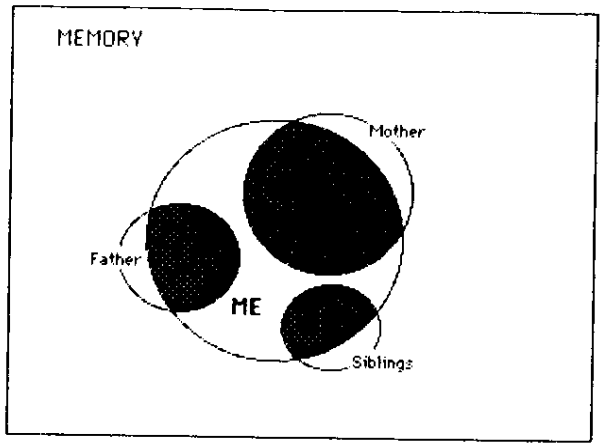
From an integration of these three sets of ideas, we suggest that the self-definitional project is quite different for men and women and that, as a result, they will develop different types of self-schemata. In the following sections we first detail the nature of separateness and connectedness self-schemata, discuss the possible developmental origins of these divergent self-schemata, and finally explore the ways that these self-schemata may influence thought.

The Nature of Connectedness and Separateness Self-Schemata

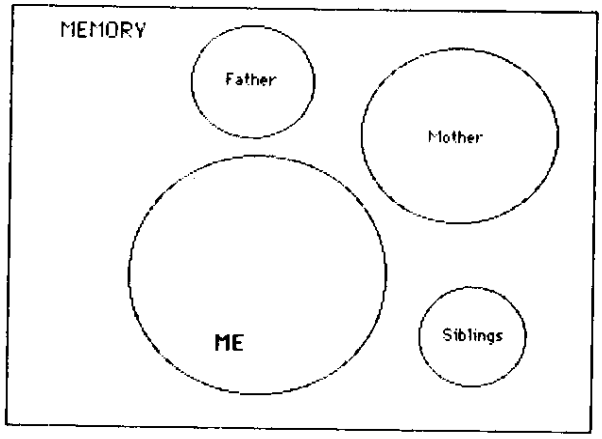
All individuals establish some structure in which they conceptualize the self as distinct from others (Hallowell, 1955). An understanding of how the self is different from others (i.e., of one's "individuality") is assumed to be essential to healthy functioning. One's understanding of and participation in the social world depends on this differentiation. Yet people can individuate themselves and experience themselves as distinct in a variety of ways. Thus, although people everywhere will ask "who am I?" (see Shweder & Levine, 1984), we reason that not everyone will construct the same answer to the question.

Specifically for females, a first and core self-schema is likely to establish the self as "interdependent or connected" (see Figure 5.1). This is the first answer to the "who am I?" question. This schema roughly parallels the "contextual" or "relational" structures (Hamaguchi, 1985) that are thought to characterize individuals in many non-Western societies, such as Japan. Such structures do not imply a merging of self and others or a lack of individuation. Rather, they emphasize the importance of others in defining the self. One's individuality or uniqueness is thus a result of one's configuration of relationships. Furthermore, interaction and interpersonal relationships are important as ends in themselves.

For males, a first and core self-schema is likely to establish the self as "autonomous or separate" (see Figure 5.1). In this self-schema, the self is viewed as discrete and as separate from the individual's situation or context. Individuality is achieved through delineation of the boundaries between self and other individuals. Such a schema is characterized by what Geertz (1975) has called the "Western conception of the person," which assumes that the individual is a "bounded, unique, more or less integrated motivational and cognitive universe . . . a distinctive whole set contrastively against other such wholes and against a social and natural background" (p. 225). The bounded self is seen as relatively independent of social roles or relationships. Relationships are important primarily as a means of affirming, verifying, or defending the self.



ME AS CONNECTED



ME AS SEPARATE

FIGURE 1. Two possible representations of self and other in memory.

REFINING THE CORE SELF-SCHEMATA

With development the basic connectedness self-schema is likely to become differentiated into multiple domain-specific self-schemata. A girl may begin with a general sense of herself-as-interdependent with others and with further social experience refine and specify the diverse nature of this interdependence. Exactly which self-schemata will be constructed depends on the meaning that is given to the normative tasks of connecting with or separating from others. How these tasks are personalized and assume specific self-relevant form is a function of individuals' unique social and

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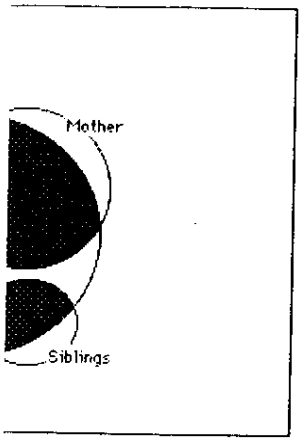

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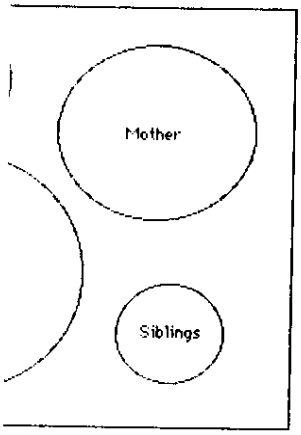

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developmental history (Cantor & Kihlstrom, 1987). It is unlikely that individuals will articulate or become aware of a connectedness schema per se. Yet the tendency to connect to others through affection, commitment, dependency, obligation, and responsibility that is the hallmark of the schema will underlie many of the other more specific self-schemata.

Some women will elaborate schemata that derive in a fairly straightforward fashion from their sense of themselves as connected. They will develop schemata of themselves as understanding and caring, as loving and nurturant, or as responsible, considerate, conscientious, or sensitive. Others may create a more general gender schema, defining themselves primarily in terms of their social roles (for a discussion of gender schemata and other specific attribute-based schemata, see Bem, 1981, and Markus, 1977). All these self-schemata, however, will have as their referent the self-in-relation with another. One cannot manifest one's responsibility, conscientiousness, or sensitivity without an actual or implied other to receive one's actions. Women may, of course, also develop schemata of themselves as autonomous or separate in nature, that is, themselves as independent, creative, or competent. Yet when these latter self-schemata are developed within a context of basic connectedness or interdependence they may also implicate or depend on the reactions and evaluations of others.

With development, the basic separateness self-schema is likely to become the foundation for more specific self-schemata of independence, assertiveness, instrumentality, and competitiveness. These schemata have as their referent not the self in relation with another, but the self in contrast or comparison with another. To make these comparisons, the self must be separated from others. Men may also develop schemata of themselves as connected, but if these schemata are developed against a backdrop of separateness they may assume a somewhat different form. For example, when viewing the self as connected, the connection will involve an exchange between two separate entities rather than the interdependence of these entities.

Cultural Variations in Self-Schemata

The recent literature on culture and personhood contains extensive discussions about the nature of self. This literature can be useful in drawing out the phenomenological experience of having a self that begins in connection or one that begins, instead, in separation. These theoretical discussions (Dumont, 1970; Geertz, 1973; Schneider, 1976; Shweder & Bourne, 1984; White & Kirkpatrick, 1985) underscore an important point: differences in cognition should *not* be viewed as deficits among the group possessing the least Western, individualist, or masculine orientation. Furthermore, it should not be assumed that the less Western groups will naturally develop with education and modernization toward a more Western mode of

thought. Instead, recent theorists of selfhood stress the influence of culture on perception and thought, where culture is defined as a shared set of meanings that structure one's perception of the self and the world (for recent discussions, see Cousins, 1987; Miller, 1984; Shweder & Bourne, 1984). From this view, "self" can have multiple conceptual representations depending on the assumptions that are used to create it.

In the perspective we have developed here, we assume that the representations of self typically constructed by girls and boys will be somewhat different because girls and boys inhabit different interpersonal environments, *and* because different assumptions are immediately brought to bear in their development as they are perceived as male or female.

The distinction between the self-as-connected and the self-as-separate maps roughly onto the distinction between individualist and collectivist selves and onto the difference between Western and Eastern selves. Examples of collectivist selves are the Japanese, the Chinese, the Indians, the Africans, and many people of the Pacific. The distinction is an old one and it has been given a number of other labels—egocentric versus sociocentric, individualized versus contextualized, or individual centered versus situation centered. The general difference highlighted in these distinctions seems to capture at least some of the important differences between the self-structure of Western women and men.

For example, to the Japanese self, interdependence is everything (Lebra, 1976; Marsella et al., 1985). One's self-esteem and one's future are tied always to one's social relationships with others. Lebra (1976) defines the essence of Japanese cultures as an "ethos of social relativism" that translates into a constant concern for belongingness, dependency, empathy, occupying one's proper place, and reciprocity. She quotes the Japanese proverb "The nail that stands out gets pounded down." According to many analyses of Japanese culture, the Japanese feel most fully human in the company of others. The goal is not one of functioning autonomously, but rather one of functioning interdependently.

For the individualist self, however, it is the independent, nonconforming, assertive self that is the desired future self. Its exemplary proverb is quite different: "It's the squeaky wheel that gets the grease." Rather than being essential to the self-definition, interpersonal relations are important to the extent that they allow one to realize and express his or her separate and unique potential. Freedom from a concern with how people think and feel is often the highest goal. Independence is everything (Marsella et al., 1985).

Similarly, Dixon (1976) presents a paradigm of the African world view as contrasted with a European world view. He cites evidence that Europeans separate the self from the other, perceiving the self as in contrast to and separate from all else. Africans, on the other hand, are said not to create such a gap between the self and the world. The world, and the others in it,

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are viewed as an extension of one another. Dixon argues that with such a sense of self, the immediate social environment cannot be escaped; the individual must respond in terms of the needs of immediate environment because they are experienced as needs of the self. A defining feature of a Western self is freedom from environmental control, and thus it can choose to manipulate, act on, or defer environmental demands. An African self is experienced as part of the environment. Such differences in the conceptualization of the self/other divide have implications for the way information about the world is processed.

In analyses of how the collectivist and individualist theories of personhood may influence thinking, Shweder and Bourne (1984) asked respondents in India and America to describe a number of close acquaintances. They found the descriptions of the Indians to be more concrete and extensively qualified according to the context of the relationship. Yet on an independent test of abstract cognitive skills that included a variety of labeling and sorting tasks, they found no differences among the two groups. Similarly, Miller (1984) asked Indian Hindus and Americans for their patterns of attribution about hypothetical events. Hindus explained most actions in terms of features of the situation, while Americans used many more global traits and internal dispositions to explain behavior. Again, no differences were found between the two groups in tests of abstract cognitive skills. Instead, the difference in attribution seemed best explained in terms of differences in the individualistic and sociocentric theories of the person.

In a recent study, Cousins (1987) examined the impact of these two divergent theories on the perception of the self. He used two different free-response formats, the TST (Twenty Statements Test) and a questionnaire asking subjects to describe themselves in several situations (me at home, with friends, at school). On the TST the Japanese descriptions were more concrete and role specific ("I play tennis on the week-end"), while the American descriptions included more global psychological characterizations ("I am optimistic"). When the social context was provided for the self-descriptions, however, this pattern of results was reversed: the Japanese scored higher on global psychological characterizations of themselves than did Americans. Once a particular interpersonal context was specified, the Japanese also described themselves in abstract terms.

We have reviewed these studies primarily because they suggest that those with sociocentric theories of themselves and the world are not appropriately characterized as having either undifferentiated, submerged views of the self, or as having some type of cognitive deficit. For those with sociocentric selves, like those with connected selves, the most natural and readily accessible modes of perception and thought are those that stress the importance of the immediate interpersonal situation, context, or experience. In addition, these studies represent initial forays into how divergent theories of the self may influence thought. We are not suggesting these

differences across cultures map exactly onto the differences between Western men and women. Futhermore, the differences discussed here are global differences thought to generalize across men and women within any given culture. We suggest, however, that self-schemata of connectedness and separateness are divergent theories of the self and that they influence not just self-description and explanations for behavior, but a wide array of other perceptual and cognitive tendencies as well.

We reason then that all individuals in Western cultures will experience a powerful press to become "autonomous centers" and to develop and express their own essential uniqueness. This is the imperative that accompanies a belief in individualism. As a result, there should be a great deal of similarity in the general content of the self-concept of women and men in Western cultures and this will be increasingly so in the urban elite subcultures. Still there may be subtle but powerful differences in the nature of the self-concepts that are constructed by women and men because of the relatively greater tendencies of women to automatically focus on and incorporate *others* into their self-structure.

Origins of the Connectedness and Separateness Self-Schemata

We are proposing that differences in the structure and functioning of the self-concept derive from multiple sources. Following on Chodorow's (1978), Dinnerstein's (1977), and Miller's (1986) basic notions, one very important difference between men and women may be in their types of relations with others and in the meaning of these relations.

From Chodorow's perspective, one of the key features of the first important social environment (the child and the mother) for girls, as opposed to boys, is that of gender similarity. As children begin to individuate themselves and wonder "who am I?," girls are afforded a readily accessible answer—"I am like my mother." This answer is often encouraged directly by mothers and others in the social environment. Sons are not provided with the same experience of similarity and continuity with their mothers; a key feature of their social environment is the difference from their mothers. According to Chodorow (1978), the mother experiences the son as more of an "other," as an "external object," and thus the mother encourages the son to view himself as distinct and separate from the mother. An initial answer to the "who am I" question would then be "I am not like my mother." Chodorow assumes that gender is made salient enough to young children that they can use it in making similarity/difference distinctions.

Block (1984) also argues that male children experience a major discontinuity and sense of separation not experienced by female children as the mother, after about 18 months, automatically begins to disengage from the

son. From this perspective, however, mothers begin distancing because they are consciously or unconsciously attempting to foster appropriate gender-role definitions. Such distancing between mother and son is also noted in the primate world where males are pushed into the outside world sooner than females and are essentially "peripheralized" (Nash & Ransom, 1971).

From Miller's (1986) perspective, the basic gender issue is not an issue of continuity versus distinctness from mother but a more global issue of the societal power differential between men and women. Women must learn to relate to others and be carefully attuned to others if they are to survive in male-dominated society. "Subordinates, then, know much more about the dominants than vice versa. They have to. They become highly attuned to the dominants, able to predict their reactions of pleasure and displeasure. . . . If a large part of your fate depends on accommodating to and pleasing the dominants, you concentrate on them" (pp. 10–11).

A more general social learning perspective provides yet another framework for understanding the development of different core schemata in males and females. Within this framework, maleness and femaleness are modeled by same-sex parents and significant others who foster and encourage identification by providing examples and reinforcing appropriate behavior. Males model autonomy and sharp self–other boundaries while females model connectedness and interdependence in relationships. Once established these sex-linked differences in self-definition will thus tend to perpetuate themselves.

Parents provide conceptions of how the child should be now, but they also provide a vision of the child's future. As the daughter tries to comprehend the roles worth imagining (Erikson, 1968), the mother is readily available, and in most cases, a willing model. As a result, the daughter will attend closely to the mother for in the mother is the outline of a future possible self (Markus & Nurius, 1986). To the extent that the mother models a subordinate social role for her daughter, however, the daughter's sense of the possible will be limited. As a son attempts to imagine his future, the mother typically does not offer herself as a model. The son is provided a model through his father. If the father models a dominant role, he may experience a relatively more expansive set of possibilities for the future.

A basic assumption common to these varied perspectives is that all individuals need to define themselves and will naturally look to their ongoing experiences for self-definitions. Where these perspectives differ is in which aspects of the social environment they claim as critical or essential for self-definition. However, self-definition in all these frameworks involves some assessment of similarity with others and difference from others.

A focus on difference with others is a natural extension of a normative task of discovering a unique self and then defending it from influence. A focus on continuity with or similarity with others follows from a normative

task of attending to and knowing about others. Within the first normative task, a bounded, "true" self must be protected and concerns about differences between this internal truth and the presented social self naturally arise. When the normative task focuses on knowing and being attuned to the environment, the "true" self is the social, connected self. Concerns about differences between the true internal self and a presented external self are decidedly less relevant from the perspective of the connected self.

A consequence of the fact that the self-definition process normally occurs within a framework of continuity and similarity for daughters and discontinuity and differences for sons is that a view of the self as self-in-relation—the core of the connectedness self-schema—is fostered in daughters. From this sense of continuity comes the sense that to know about herself, the daughter must know about another. From very early on, learning about the self then involves a careful attention to and analysis of another. The daughter learns in this way that attention to others is critical and that others are a powerful source of self-relevant information.

A pattern of focusing on and attending to others is heavily reinforced by societal beliefs about what a woman should do to be a "good self." Continual practice in this mode provides girls with the opportunity to become exquisitely skilled in being sensitive to others—in hearing them, in sharing their internal states, in empathizing with them, and in learning from them. With increasing elaboration of this self-schema, girls become " experts" in knowing what others are thinking, in feeling what they are feeling. As a result of this expertise, they will feel relatively comfortable relying on such knowledge about themselves and others as a basis for action. In contrast, a separateness self-schema will focus boys' attention on their own skills, attributes, and talents. Others will be used as reference points for comparison. Rather than learning about the self in relationship with others, the autonomous self learns by comparing self with others.

How the Connectedness and Separateness Self-Schemata May Influence Thought

Differences in the Content and Structure of Connectedness and Separateness Self-Schemata

We have suggested that connectedness and separateness self-schemata can differ in their content, their structure, and their function. Our basic assertion is that, for women, relations with others will be especially significant in their self-definition. Thus women will be particularly sensitive and responsive to others, and they will have well-elaborated knowledge and understanding of others. From extensive studies in cognitive personality and

social psychology, we know that cognitive structures influence thought in specific and systematic ways (see Fiske & Taylor, 1984; Markus & Zajonc, 1985).

Building on this work we can assume that individuals with connectedness self-schemata and their derivatives are especially sensitive and responsive to information that is potentially revealing of this aspect of self. These schemata summarize and integrate information that is relevant to their view of self. Furthermore, these schemata process information efficiently and retain it well. Given the attention to others that is essential for self-schemata based in connectedness, individuals will develop considerable expertise in interpersonal domains. In contrast, a separateness self-schema is sensitive to a very different type of information. These schemata are comprised of the integration of representations of the self-as-separate, and they privilege the processing of information that is relevant to this view. Individuals with such schemata will be especially responsive to stimulus configurations that are potentially informative of separateness, both their own and others.

A further claim of our approach and one that is much more difficult to evaluate is that the schemata of men and women differ not only in their content but in their structure as well. This difference in structure has a variety of consequences. The first is that the experience of reality for those with a connectedness self-schema may often be a shared reality such that what is experienced is a result of the synthesis of the individual's own experience *and* what she believes or infers the others' experience to be. In this sense, knowledge of others is used in shaping one's experience and a shared or negotiated understanding is an end in itself.

More specifically, given the proposed structure of the connectedness self-schema, when those aspects of the self that articulate its connectedness are active (see Figure 5.1), some of the representations of the others (e.g., mother, father, siblings) to which it is connected are necessarily active as well. Moreover, when schemata of important others are active, the self, or some aspects of it, will also be active because some of the representations of important others are representations of that person in relation to the self. Others are thus partially represented *within* the self-schema of connectedness.

Block (1984) has suggested that women are particularly facile at fitting or assimilating information into their existing structures. Men, in contrast, are likely to accommodate and change their structures as a result of incoming information, experiencing greater difficulty finding similarity in apparently disparate elements. She attributes this difference to the experience of male children in responding to change and discontinuity in their environment as a result of the mother pulling away at an early age. Similarly, in a provocative discussion of "maternal thinking," Ruddick (1980) suggests that mothers must preserve life, but most importantly, they must encourage

growth and welcome change. The mother must be prepared for a child that changes continually and finally moves away. She argues that a mother's conceptual schema for herself, her child, and the world must necessarily be open and responsive. Her structures must be easily able to respond and assimilate children who are "irregular, unpredictable, often mysterious" (p. 352).

Differences in Style or Mode of Thinking

The difference in content and structure that have been outlined above have direct consequences for the way one thinks. The activation of the connectedness self-schema occasions a mode of processing in which one is particularly sensitive to the surrounding social environment. Such attention to others is necessitated by the structure of the connectedness self-schema. Representations of others are not included in separateness self-schemata and the reactions of others are not focal for such a schema. For those with a separateness self-schema, precisely mapping the interpersonal domain is less important because relatively less information is needed from it.

A further consequence of difference in the structure of separateness and connectedness self-schemata is that women, in contrast to men, will have a style or mode of perceiving and thinking that can be characterized as more connected in that the surrounding context is incorporated into the representation of the focal person or object. As a result of this pervasive tendency to include self when representing other, and to include other when representing self, it may seem unnatural and relatively difficult for those with a preponderance of connectedness self-schemata to extract the self from the perceptual and cognitive process at any time. As a result, for those with a predominance of connectedness-based schemata, extracting the self and realizing the state of so-called objectivity, in many cases, is not a meaningful process.

A mode of processing in which one is sensitive to the interpersonal environment may be related to what Belenky et al. (1986) have referred to as "women's way of knowing." Connected knowers, they argue, begin with an interest in other people and they learn through empathy with these others. In so doing they are characterized by a nonjudgmental stance and by struggling to see if they have understood the other's perspective before giving a judgment. Starting with a premise of connection with others, they avoid disagreeing, arguing or making negative judgments because such behavior would seem to violate the assumption of connection and may endanger the connection. They suggest that connected knowers then are more inclined "to believe" than "to doubt" because doubting the other may also threaten the connection. Here, as always, it is the connection with others that is self-affirming and that is the ultimate reality.

Essential to separate knowing as described by Belenky et al. (1986) is

critical thinking or doubting (see also Elbow, 1973). Doubters, unlike believers, do not worry about a lack of connection. Separate knowers can pull themselves away from an argument or an idea and look for something wrong—an error or a contradiction. The very goal for a separate knower is to keep the self out of the discourse, to be objective, to respond only to the arguments. This goal is completely inconsistent with a self-schema of connectedness. Connected knowers, Belenky et al. (1986) propose, are more comfortable with what is pejoratively labelled gossip. "Gossip concerns the personal, the particular, . . . but it does not follow that it is a trivial activity" (p. 116). Based on an analysis of gossip by Spacks (1982), they argue that gossipers give each other information, but most importantly they tell each other about themselves and they create a mutual reality through the interpretations they make of the information. As Spacks says, "response to news matters more than news itself" (p. 28).

In a recent analysis, Bruner (1985) draws a similar distinction to that of separate and connected knowers. He distinguishes between "paradigmatic" and "narrative" modes of thought. He argues that the first is the mode that characterizes science and logic, while the second is imaginative and constructive and tries to search for "the meaning of historical and personal events in their full comprehensive richness" (p. 101).

A Selective Review of Gender Differences

In this section we attempt to organize a wide array of literature that has examined gender differences in some aspects of thinking. It is important to acknowledge at the outset that this body of research is unsystematic, largely atheoretical, and the gender-related differences obtained are usually small. However, these data may still be useful for an initial assessment of some of our claims. Our goal is to determine if a variety of puzzling and unrelated gender differences can be organized and somewhat better understood by assuming that individuals' core self-schemata and their domain-specific derivatives differ in content and structure, and that these schemata can influence many aspects of thinking. Necessarily, this review is not meant to be exhaustive.

Spatial Abilities

Reports of differences between men and women in spatial abilities have intrigued researchers for over 30 years. Spatial ability tasks are thought to be comprised of at least two separate factors (Halpern, 1986). One is a visualization factor that emphasizes the ability to imagine how objects will appear when they are rotated or transformed in some way. A current and commonly used test is the Shepard–Metzler Mental Rotation test (Van-

denberg & Kuse, 1978), which requires subjects to keep a complex form in memory while deciding what it would look like after it is rotated in three-dimensional space.

A second spatial ability factor is orientation, which emphasizes the ability to detect relationships and perceive patterns. A classic test of orientation is the rod-and-frame test, which requires that subjects position a rod to the vertical within a tilted frame (Witkin, Dyk, Faterson, Goodenough, & Karp, 1962). This test is said to assess "the extent to which the person perceives part of a field as discrete from the surrounding field as a whole, rather than embedded in the field" (Witkin, Moore, Goodenough, & Cox, 1977, pp. 6–7). Witkin et al. (1962) found that individuals classified as egotistical personalities could also be called egotistical in their perceptions. These people were field independent such that their perception was not influenced by the visual framework. Other studies showed a relationship between field dependence and characteristics indicating a sensitivity and receptivity to social context. Witkin and Goodenough (1977) wrote that a field-dependent person is "interested in people, wants to help others, has a concern for people, has wide acquaintanceship, knows many people, and is known to many people" (p. 672).

Although differences between men and women in field dependence and in spatial abilities have received more attention than all other gender differences together, the meaning of these differences remains unclear (see Burnett, 1986; Caplan, MacPherson & Tobin, 1985; Halpern, 1986; Sanders, Cohen, & Soares, 1986). The current picture suggests that men are consistently better than women at some spatial relations tasks. These differences between men and women in spatial abilities, although often small, are important because they are thought to underly substantial differences in math ability and perhaps in math interest as well. Most recent explanations center on brain-based differences such as sex-related differences in brain lateralization. Building on the early suggestion that these differences are probably best interpreted as a reflection of individual differences in cognitive style, we suggest that differences in how men and women represent themselves is another causal factor worthy of serious consideration.

Many spatial tasks seem to require the ability to decontextualize the self, that is, to remove the self from the present perspective in the environment and to assume instead an alternative perspective. Keeping a three-dimensional object in memory while rotating it requires mentally removing one's self from the initial viewing perspective and rapidly tracking the object's movement from a detached or separated perspective. Having a sense of self as separate, bounded, or noninterrelated may, facilitate performance on spatial tasks.

With a connectedness schema, women may have more difficulty in assuming the detached, separated perspective that is helpful to this task. The context is vitally important to a connected self. Those with connected

selves will thus be relatively less familiar with removing the self from the current perspective. As a result, they are more wedded to the perspective or the orientation suggested by their initial perception of a figure. Tasks involving spatial manipulations can be solved by visualizing the self as constant and manipulating an internal image of the object or, alternatively, by visualizing the object as constant and then mentally envisioning the self moving to another perspective on the object. In either case a separate and bounded self will be easier to manipulate. And this is especially the case if the bounded self is visually or spatially represented.

We have argued earlier that boys at a relatively early age are encouraged —perhaps forced—to create a separate sense of self, a self that does not include the mother. In making this separation, they must necessarily rely on their preverbal visual/spatial skills as these are the means most available to them at this age. The early self-structure of separateness may thus be grounded in visual, spatial, or other somatic representations of the self-as-separate in space, and as detached from the environment and the context. As the separateness self-schema develops and is confirmed through interactions with the mother, these representations are repeatedly employed and further elaborated and may continue to comprise the core of the separateness self-schema.

Since girls are not pushed to differentiate from the mother as early as boys, they are likely to have some verbal capacities to bring to bear on the task when differentiation becomes necessary. Moreover, girls are often verbally precocious and able to employ a verbal mode of representation considerably earlier than boys (e.g., Maccoby & Jacklin, 1974). As a result, when beginning to individuate the self and to create a representation of the self, girls may be more likely to use verbal representations. Furthermore, the representation of self-as-connected, as in-relation, or as interdependent may lend itself more easily to verbal representation than nonverbal representation.

Because of their experience with representing the most important object in the environment—the self—in visual and spatial terms, this mode of rep-

Because of their experience with representing the most important object in the environment—the self in visual and spatial terms, this mode of representation may become especially well-elaborated and finely tuned for men. They will then have an advantage with problems that can be solved by using a visual representation (Johnson, 1984). Furthermore, when problems require a separation of self from the problem space, males may also have an advantage because of their tendency to separate the self from the environment in the service of self-definition. The male advantage in spatial tasks has been thought to emerge most clearly in adolescence (Maccoby & Jacklin, 1974). Recent work, however, suggests that when carefully tracked differences in spatial ability can be seen at a much earlier age (Johnson & Meade, 1987).

Social Sensitivity, Empathy

If males have an advantage when tasks require nonverbal and decontextualized representations of objects, females should have an advantage when tasks afford or require a verbal representation, and an appreciation of the interdependence or connection among separate objects and events. Lewis (1985) claims that interaction with humans as opposed to things requires a vicarious experience of the other's feelings and thus necessitates a self with permeable boundaries. Unfortunately, there has been much less systematic attention to defining interpersonal or social sensitivity and to formulating tasks to assess abilities of this sort or to compare differences in this ability. Most hypotheses about the greater sensitivity of women are derived from studies in which sensitivity is inferred as a mediating mechanism. For example, a recent review of interpersonal processes in close relationships (Clark & Reis, 1988) suggests that women are disturbed by relationships in which they receive more than they give, while this form of inequity does not appear to bother men. Such a finding can be used to suggest that women are more sensitive to the needs and feelings of the other.

As connectedness self-schemata become active and begin to exert their selective and directive influences on thought, individuals will automatically attend to and encode a diverse array of information—information about the self and information about the others to whom the self is connected. As one consequence of the operation of these complex connected self-schemata, females may have a greater capacity for empathy. Empathy is defined here as a vicarious affective or cognitive responding to another's state of mind. In the connectedness self-schema, important others are represented as part of the self, and thus perceivers may be as sensitive to stimuli relevant to these others as they will be to what appears as more purely self-relevant stimuli. In this sense information about these others *is* self-relevant information. As a consequence, empathic responding is almost an unavoidable response.

The literature on empathy is as fraught with controversy as the literature on spatial abilities. The review by Maccoby and Jacklin (1974) concluded that there was no evidence of sex differences in empathy, but more recent reviews have forced a reexamination of these ideas. As with spatial abilities, it is the definition of and measurement of empathy that creates challenge and confusion in this field. However, Hoffman (1977) (reviewing primarily studies with children) found that females were significantly more empathic than males. In a more recent meta-analysis, Eisenberg and Lennon (1983) found large sex differences in favor of females when measures of self-report were used, but fewer differences when physiological measures of one's reaction to another's state are compared.

From our perspective, more empathic responding should be expected when the others involved are importantly self-defining. The argument is

that those with a separateness self-schema can also respond vicariously in the required manner, but that, in most cases, the response will require effort as opposed to being relatively automatic. For those with a connectedness self-schema, information about others is self-defining, and responses from these others are essential for completing the self. As indirect support of this idea, many general surveys report that women are much more likely than men to claim the well-being of their parents, children, or spouses as important sources of concern (Brody, 1981; Campbell, Converse, & Rodgers, 1976). Such concern over others may be almost inevitable for those with connectedness self-schemata. In contrast, when information about others is safely compartmentalized into separate structures relevant to these others (see Figure 5.1), such automatic activation or intrusion can be controlled by focusing on the self.

It is well documented that women experience a significantly higher level of psychological distress than men (Al-Issa, 1982). Recent analyses suggest that this distress may come not from a deficit in effective coping skills, but from a much greater involvement by women in the lives of those around them (Dohrenwend, 1977; Kessler & McLeod, 1984). Dohrenwend, for example, found that women considered a much greater variety of events to be stressful than did men. The additional events not typically considered stressful by males included life crises that occurred to the respondents' family, friends, and neighbors. Kessler and McLeod (1984) found that men are as distressed as women by serious crises that befall their children or spouses. However, men showed much less concern with the diversity of events that occur to members of the extended family, friends, and coworkers. We suggest that because of their connected self-schemata, women are automatically sensitive and responsive to information about the troubles of others. Furthermore, due to the greater complexity of their connectedness schemata, such information receives a more elaborate encoding and subsequently is easily remembered and highly accessible in working memory. Even without an explicit belief or decision that one should be concerned about another, the processes of attention and concern may be underway.

Other than studies of empathy, there are few studies that explore sensitivity to social cues (see Maccoby & Jacklin, 1974). Based on the reasoning that attending to others is the basis of self-definition and self-validation, we would expect women to reveal a genuine expertise on tasks that require careful, subtle, or quick attention to and analysis of others. The choice of tasks examined to reveal this difference is critical here, however, because men and women alike must be relatively expert in the social domain (Lykes, 1985). Without such skills it is impossible for anyone to function effectively. There are a handful of findings, however, suggestive of women's expertise in social sensitivity. Hall (1978), for example, in a review of 75 studies finds that females are significantly better than males in decoding or interpreting visual and auditory cues about another's affective state.

Memory

Although most people believe than men and women remember different kinds of information, there is little empirical work to document gender differences in memory (Crawford, Herrmann, Vaughan, & Robbins, 1987). While there is no reason to expect differences in digit span, for example, there is every reason to anticipate, based on the reasoning outlined above, that women may remember interpersonally relevant material more efficiently than men. The self-in-relation schema occasions more complex or elaborate encodings of such material. A meta-analysis of facial identification studies (Shapiro & Penrod, 1986) suggests that women are indeed superior at recognition memory for faces, and that this result holds true particularly when the stimuli are faces of women. Such a finding suggests that, as with empathy, gender differences may reveal themselves most clearly in ambiguous situations where the stimuli are impoverished or where quick or difficult judgments are required.

Other approaches to gender and memory suggest that women provide the collective memory and that they are the keepers of stories and myths. Such accounts often imply that women remember because it is their role to help preserve and strengthen cultural tradition. Our view suggests that women may remember interpersonal events and social experiences because with their connected self-schemata they cannot do otherwise.

Intuition

Throughout the literature, there are references to women's "intuition" or to a special "sixth sense." Deutsch (1944) referred to the intuition of women and their ability to directly understand or perceive reality without the apparent contribution of any explicit or conscious reasoning processing. Intuition is frequently used to refer to strongly held, but unanalyzable, hunches about what is happening in a given social situation. Rather than anything mysterious, such apparent intuition may be a product of the automatic activation of connectedness self-schemata that immediately make accessible a great deal of information about the self and the other, and about their relation. Similarly, Miller (1986) suggests that this sixth sense probably develops as the subordinates learn to pay very careful attention to the dominants.

The expertise that we have suggested characterizes women in the interpersonal domain may allow them to survey a problem and then to "know" exactly what to do. In this process, they would not necessarily have access to the rapid appraisal and multiple inferences that gave rise to this "immediate" understanding. Moreover, attempts to specify them could interfere with performance. In theory, experts have different types of knowledge representation in which the elements are unitized and thus can be

activated immediately as a whole. Experts can do a number of things better than novices: recognize when input information is relevant to the domain of their expertise; integrate this information with previously acquired information; and make greater use of contextual cues to improve recall (Chase & Simon, 1973; Spilich, Vesonder, Chiesi, & Voss, 1979). Such qualities of thought in women may give rise to what appears as pure, noninferential knowledge in the interpersonal domain.

Moral Reasoning

Gilligan's (1982) groundbreaking work on moral development is directly related to the ideas we have outlined. Drawing on Chodorow's (1978) theorizing, she argues that there are two very different approaches to morality. One, the masculine approach, is born of separation and individuation; the other, the feminine approach, is focused on attachment and caring.

An overriding concern with relationships follows from an appreciation of one's fundamental relatedness and the extent to which the core self is constituted by relations with others. The reluctance to judge others and a tendency to accept others' points of view result from a desire to preserve the connection to these others. In an extension of Gilligan's (1982) work, Lyons (1983) asked subjects to describe themselves and then coded their responses for mentions of relations with others or concern for others. Those who mentioned having relationships and/or concern with others in characterizing themselves were more likely to consider the response of the others in their moral judgments. Conversely, those who described relationships in instrumental terms or referred to their skills in interacting with others more frequently used a consideration of rights in their moral judgments.

Gilligan's work has been criticized for providing a simple dichotomy and for focusing on difference instead of exploring the issue of morality more broadly (Harding, 1987). Furthermore, recent studies claim that it is factors related to gender such as level of college education or amount of work experience outside the home that is related to the individual's moral stance rather than gender per se (cf. Walker, de Vries, & Trevethan, 1987; Sher, 1987; for a summary of studies up to 1983, see Lifton, 1985). Other findings indicate that, depending on the task at hand, both men and women can be characterized as utilizing various degrees of each moral stance. This critical examination of Gilligan's work is directly relevant to our framework as well. We propose that it is the way men and women are socialized and the way they take meaning from this socialization that contributes to differences in how they make the self/nonself distinction. As men's and women's typical patterns of social interaction and interpersonal experience change, so too will their structures for organizing this experience.

Concluding Comments

We have argued that individuals with divergent schemata of the self—me-as-connected to others (a connectedness self-schema) and me-as-separate from others (a separateness self-schema)—are likely to differ in both the form and content of their basic perceptual and cognitive processes.

We began our analysis with a discussion of the probable nature of the basic connectedness or separateness self-schemata. In the course of attempting to describe these critical mediating structures, a number of important questions have been raised. Because the view of the self-as-separate, bounded, and autonomous has been the model for the ideal self in virtually all of Western psychology (Lykes, 1985), it is relatively easy to characterize this model and to speculate about the nature of self-as-separate representations. Much less consideration, however, has been given to the form of the interdependent self or to the nature of self-as-connected representations. Are relational schemata somehow more open and more flexible because they require input from the social environment before they are instantiated? Is a self-concept that is rooted in connectedness a more variable or a more complex self because its precise nature depends on relations with diverse others? And, in general, what does it mean to say that representations are shared or joint, or to say that some representations include the self together with the other?

Recently, theorists such as Hamaguchi (1985) have written insightfully about the nature of Asian selves. He describes the Japanese self as being constantly redefined and as including one's share of the lifespace that is commonly shared by both oneself and other actors. In this theory of "relational" selves, as in all analyses of non-Western selves, however, no separate attention is given to describing the self-structures of women. Moreover, it is important to keep in mind that the connected selves that Western women are developing are constructed within a culture that is the world's most extreme in terms of its press for autonomy and unfettered individualism. The development of a conception of self takes place within a cultural and a historical context. This means that developing a self-schema requires an integration of the general cultural view of the self and the specific view presented as gender appropriate within this context. The finding of general differences between Western and non-Western conceptions of self that cut across men and women in these cultures suggests that the cultural world view asserts a strong influence on all members of the culture. This is not to say that men and women do not differ within a given cultural framework, but it implies that the self-schemata of women from different cultures may differ markedly. The form these differences may take has yet to be charted.

Throughout the chapter we have speculated about the various developmental origins of connectedness and separateness self-schemata. We have

argued that these core self-schemata develop early in life and are repeatedly reinforced by early socialization experiences. How these self-schemata influence later experience depends on the nature of the interaction between the early socialization and the current situational demand (Deaux & Major, 1987). To the extent that men and women are placed in situations that differentially reinforce their sense of themselves as connected and autonomous, their early tendencies and strategies will be accentuated. Furthermore, following Sedney's (1987) analysis of the development of gender identity over the lifespan, we anticipate that the specific forms taken by the connectedness and separateness schemata may well change during the course of maturation.

The last section of the chapter was devoted to hypothesizing about how connectedness and separateness self-schemata may influence perceptual and cognitive processes. We have argued that the nature of one's core self-schema may shape not just self-perception but perception and cognition generally. In attempting to assess these ideas, we briefly reviewed a variety of research areas that focus more or less directly on thinking. The findings are generally consistent with the idea that divergent theories of the self differentially constrain thinking. While a more systematic review of the research is clearly indicated, this initial analysis suggests that by focusing on the structure and function of the self-concept, we may be able to organize and at least partially explain a diverse array of sex and gender differences, ranging from differences in the rotation of three-dimensional figures to differences in capacity for empathy and susceptibility to social influence.

What remains now to be done is a careful analysis of which aspects of perception and cognition are the most likely to be systematically influenced by the nature of the self-schema and to explore the persuasiveness of this influence. It follows, for example, that those with a connectedness self-schema and those with a separateness self-schema will have somewhat different strategies for scanning or charting the terrain of the social environment. In addition, there is a diverse array of additional cognitive phenomena that may be influenced by the nature of these core self-schemata. For example, because of their expertise in interpersonal domains, will women reveal less pluralistic ignorance and also be less susceptible to the false consensus bias in which people assume that other people think, feel, and act as they do? Is it the case that women with different "ways of knowing" will be interested in different problems than men and will frame them in divergent ways? Will some problems be inherently more compelling to women because they involve seeking similarity, interdependence, integration, or convergence? One can also speculate about gender differences in other areas that imply a connection or relation between the self and other. These include social comparison, social facilitation, vicarious learning, imitation, suggestibility, and hypnosis. In the process of

answering these questions, the hope is that we can further understand the precise way in which the self-system actively mediates, regulates, and constructs the individual's thoughts, feelings, and actions.

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