SOCIAL COGNITION IN RELATIONSHIPS: BUILDING ESSENTIAL BRIDGES BETWEEN TWO LITERATURES

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If thinking is for doing, as S. Fiske (1992) perceptively noted, we might ask whether some forms of human doing are more important than others are. The guiding premise of this special issue of Social Cognition suggests an affirmative response: Thinking is for relating. This view has a long tradition in psychology. As early as 1890, William James proposed that social understanding operates in the service of social interaction. The fundamentally relational nature of social cognition was also highlighted in the titles of two seminal texts: Tagiuri and Petrollo’s (1958) Person Perception and Interpersonal Behavior and Heider’s (1958) The Psychology of Interpersonal Relations. Given the central role that relationships and interaction play in human goals and behavior, it is readily apparent that the study of social cognitive processes, as they operate in the context of social and personal relationships, lies at the heart of social psychology. However, in the 1970s and 1980s, as social cognition researchers explored affinities with cognitive psychology, the pivotal role that relationships occupy was downplayed, if not disregarded (Fiske, 1992).

Only recently have interpersonal functions and ramifications for social cognition recaptured researchers’ attention. One catalyst was the explosion of research on relationships, growing out of the first International Conference on Personal Relationships in Madison, Wisconsin, in 1982, which provided a set of established relationship phenomena and constructs ready-made for investigations of associated social cognitive processes (see Berscheid, 1994; Berscheid & Reis, 1998, for reviews). Interestingly, these phenomena often were predicated with
social cognitive processes as underlying mechanisms, albeit in the absence of explicit evidence.

Subsequent appeals for cross-pollination between social cognition and relationship research, voiced repeatedly (e.g., Berscheid, 1994; Fiske, 1992; Harvey & Orbuch, 1991; Reis & Knee, 1996; Schneider, 1991) have not gone unheard. A growing number of researchers are investigating social cognitive processes in the context of relationships, and many others are actively exploring ways to integrate this link into their conceptual models. The studies selected for this special issue represent some of the most exciting and potentially generative research programs within this emerging tradition. They exemplify the rapprochement between these areas, illustrating how closer collaboration may benefit both fields. To be sure, these articles describe relatively elementary efforts at exploring social cognition within relationships—the oft-stated need for further research seems particularly apt in this instance. We hope these articles will inspire readers to perceive and pursue not only proximal connections within and between the topics discussed, but also more distal links among social-cognitive and relational constructs and phenomena.

To provide a context for the articles that follow, we begin with a brief overview of the theoretical intersection of the two research areas.

THEORETICAL LINKAGES BETWEEN SOCIAL COGNITION AND RELATIONSHIP RESEARCH

Both social cognition and relationship research have strong ties to goal theories. Many, if not most, of people's most important life goals concern the attainment, maintenance, and enhancement of desired types of relationships. This simple principle has been demonstrated across a wide range of theoretical perspectives and research methods, including self-rated goals (Reis, 1990), motives (Kasser & Ryan, 1996), strivings (Emmons, 1989), personal projects (Little, 1989), life tasks (Cantor & Malley, 1991), and desired future selves (Markus & Nurius, 1986). Motivational accounts of human aspirations and self-regulated behavior invariably include relationship-relevant constructs, such as relatedness (Deci & Ryan, 1991), belongingness (Baumeister & Leary, 1995), attachment (Bowlby, 1969), intimacy (McAdams, 1989; Reis & Shaver, 1988), and communion (Bakan, 1966). Even the most superficial perusal of popular literature, music, and cinema could not miss the overarching role of relationships and relational striving in human activity.

If social cognizers are viewed as motivated tacticians choosing among several viable possibilities the strategy best suited for attaining desired ends in a given situation (Fiske & Taylor, 1991; Kruglanski, 1996; Sedikides & Strube, 1995), then it is inevitable that social cognition will
frequently revolve around relationships. People are not so much concerned with knowing what others are like as with what it will be like to interact with them. Furthermore, given the centrality of relational goals and activity to the self, it seems likely that both evolved and learned forms of social cognition would be designed to address key issues in the development and maintenance of relationships, as well as to capitalize on relational interdependence in dealing with major life tasks. In other words, at their core social cognitive processes probably reflect people’s need to make sense of interactions with others, to understand the relational implications of behavior, and to act within a relational context. Thus, to the extent that social cognition is an action-control system (Gollwitzer & Moskowitz, 1996), it is likely to operate most efficiently and effectively when adapted to relational contexts and concerns.

The link between social cognitive processes and relationship-relevant goals is evident in evolutionary theorizing. Although this connection is seldom explicit, certain social-cognitive processes seem likely to have evolved for the specific purpose of facilitating relational functioning (Barkow, Cosmides, & Tooby, 1992). As Cosmides and Tooby (1992) elaborated:

the mind consists of a set of adaptations, designed to solve the long-standing adaptive problems humans encountered as hunter-gatherers. Such a view is not controversial to most behavioral scientists when applied to topics such as vision or balance. Yet adaptationist approaches to human psychology are considered radical—or even transparently false—when applied to most other areas of human thought and action, especially social behavior. Our ancestors ... needed to construct ... a social map of the persons, relationships, motives, interactions, emotions, and intentions that made up their social world. “(p. 163; emphasis added).

Many of the most important problems our human ancestors faced either concerned relationships directly, or were best addressed by cooperative action. Such vital matters as mate selection, reproduction, child-rearing, monitoring potential sexual rivals, resource and food acquisition, and protection against predators, for example, all had obvious relevance to relationships. For these reasons, although specific arrangements vary markedly, social life in all recorded human societies tends to be organized around ongoing relationships—that is, dyads, groups, and networks in which significant life activities are carried out by individuals who know each other and expect to continue interacting in the foreseeable future (Hinde, 1996). Relational functioning is therefore unquestionably significant in evolutionary adaptation (Kenrick & Trost, 1997).
Several examples will highlight this general contention. For example, in a recent application of social cognitive processes to evolutionary theory, Cosmides and Tooby (1992) suggest that confirmation bias is part of a cognitive system designed to detect violations of conditional rules pertaining to social contracts—that is, confirmation bias simplifies “cheater” detection. Also, processes intrinsic to perceptual and cognitive attunement in threatening circumstances, or when separated from attachment figures, may promote reestablishing contact under certain conditions (Bowlby, 1969). The structure of language and communication has been shaped by the need for, and possibilities of, interaction within relationships (Buck & Ginsburg, 1991; Pinker & Bloom, 1992). Tendencies to perceive in-groups and out-groups in distinctly different ways may enable cooperation and bonding with one’s in-group, and competition with out-groups (Caporael & Brewer, 1991). And finally, emotions, a set of processes with broad evolutionary significance, play an important role in channeling cognitive activity toward matters of personal concern (Clore, Schwarz, & Conway, 1994; Frijda, 1986). In that some of the most potent human emotions arise from relationship-relevant events (or their absence)—love, jealousy, grief, loneliness, anger, and guilt, for example—it seems likely that relationship circumstances would exert far-reaching effects on emotion-relevant cognition.

In summary, whether or not one favors an evolutionary account of these processes, two propositions seem unassailable: Social cognition operates to facilitate efficient goal attainment, and many of our most prominent and influential goals focus on relationships. It therefore seems inevitable that social cognition research should be concerned with identifying the manner in which interpersonal factors moderate social cognition, and that relationships research should be concerned with the underlying impact of social cognitive processes. This special issue is dedicated to elucidating this intersection, and hopefully to making it a high-traffic area.

RELATIONSHIP RESEARCH MAY PROVIDE SPECIAL INSIGHTS INTO THE NATURE OF SOCIAL COGNITION

The concept of relationship, as distinct from interaction, by its very nature implies an essential role for social cognition. That is, the concept of relationship implies that the interaction of two individuals will proceed differently if they have a relationship with each other than if they do not, and this difference is due primarily to internalized representations of the partner and the relationship. Below, we first describe special insights that relationship research can provide for social cognition theories. We then recommend modifying existing theories of social cognition to ac-
count for (a) the role of ongoing relationships in shaping cognitions and cognitive processes, (b) the dominant role of emotional processing in relationships, and (c) the full range of relationship contexts and features that influence social cognition.

ROLE OF ONGOING RELATIONSHIPS IN SHAPING SOCIAL COGNITION

Although definitions of relationship vary, most scholars would agree that the existence of a relationship indicates that two or more individuals have interacted in the past, that they possess some awareness of their history with each other and the nature of their relationship, and that they expect to interact again in the future (Reis, 1995). Obviously, then, social cognition provides a repository for information about past experience and an imagined future, and a set of processes by which these data influence current behavior.

Social cognition about relationships, termed "relationship cognition" by Berscheid (1994), to date has been investigated largely with constructs familiar to social cognition researchers. For example, Baldwin's (1992) discussion of relationship schemas lists three components: schemas about the self and the partner, and an interaction script generalized from prior experience. Internal working models, the linchpin of attachment theory, are characterized by mental models of self-in-relation-to-others (Shaver, Collins, & Clark, 1996). Other familiar social cognition constructs that appear regularly in the relationship cognition literature include: expectations, attributions, stereotypes, accessibility, and autobiographical memory.

Nevertheless, because social cognition principles are typically studied with persons acting independently in relatively noninvolving circumstances, the manner in which relationships moderate operation of these principles has only begun to receive attention. Several of the research programs represented in this special issue have contributed to this trend. For example, Aron and Fraley show how close others may be "included in the self"—that is, the closer one feels to a partner, the greater the likelihood that information processing about that partner will resemble cognition about the self, rather than about strangers. Outsiders also appear to link mental representations of individuals in a close relationship (Sedikides, Olsen, & Reis, 1993), much as they do members of social groups (Brewer & Brown, 1998), suggesting that the existence of a relationship may figure prominently in organizing social perception (as pointed out in Heider's 1958 discussion of unit relations). To the extent that these and related findings prove generalizable, many established principles about social cognition will require qualification when applied
to significant, as opposed to distant, others. Self-enhancement biases may be extended to close friends, for example (Brown, 1986; also see Baumeister & Leary, 1995, pp. 503-505, who list several other examples of self-cognition extended to close relationship partners).

Cognition about the self may also incorporate aspects of cognition about others. Relationships in this sense may mirror Markus and Kitayama's (1991) observation that in many non-Western cultures, the self is best construed in relational, rather than autonomous, terms. Moretti and Higgins' article illustrates this point, demonstrating that self-guides perceived to be shared with significant others (parents, in this case) predicted emotional and interpersonal functioning in women. Even in individualistic societies, close relationships may extend the self to other persons.

That relatedness may influence the manner in which information is processed has also been shown in other areas. For example, research by Andersen and colleagues, represented herein by Baum and Andersen, indicates that significant others are symbolized in memory by substantially richer, more accessible mental models than those that symbolize less consequential others. Wegner, Erber, and Raymond's (1991) concept of transactive memory proposes that individuals in ongoing relationships may specialize in remembering different information, in essence consigning the general task of maximizing memory capacity to the relationship rather than individuals (see also Hollingshead, 1998). Finally, attitude change is also affected by the relationship between the source and recipient of a persuasive message (Nye & Brower, 1996).

In short, implications of the concept of relationship go beyond the fact that so much of social cognition is devoted to thinking about past, present, and potential relationship partners, and the consequences of our interactions with them. Relationships moderate the manner in which information is processed, indicating that theories of social cognition must necessarily consider the relational context of perception and thought if they are to fully and accurately describe the operation of social cognition in natural circumstances. Of course, as social cognitive theorists have long argued, such differences in information processing matter not only in their own right, but also because they affect subsequent behavior in interpersonal circumstances.

EMOTIONAL AND COGNITIVE PROCESSING IN RELATIONSHIPS

Modifying existing theories of social cognition to account for relationship factors is likely to have the special benefit of advancing understanding of how cognition and emotion interact in the service of goal attainment. As
noted earlier, social cognition is often studied in relatively dispassionate settings, which may differ from those in which relational activity normally occurs. Paralleling roughly similar distinctions offered by others, Epstein (1994) distinguished between two general social-cognitive systems, one rational, thoughtful, and controlled, and the other experiential, emotional, and non-deliberate. Casual observation suggests that there are few contexts more capable of activating the experiential system than close relationships. For example, Berscheid noted that "...cognitive processing in active relationship interaction situations is different from that observed in our typical research paradigms and some, but probably not all, of the difference is due to the fact that when people are up close and personal, as they usually are in relationships, they constitute highly 'emotogenic stimuli'" (1999, p. 263). Moreover, because much interaction in close relationships involves automatic, routinized sequences (Berscheid, 1994), and also because relationship partners are likely to be interdependent (often substantially so) on personally significant matters, social cognition within relationships is often dominated by emotional, automatic, and unintentional processing.

Several articles in this special issue illustrate the importance of this contention. Rejection-sensitive women in Ayduk, Downey, Testa, Yen, and Shoda's research, for example, were particularly responsive to conflict and rejection cues in the social environment, and they tended to react with hostility whenever they sensed rejection. Their emotional reactions, induced by chronically accessible sensitivity to rejection, led them to act in a relationship-destructive fashion, perhaps as a means of protecting self-esteem. The greater sensitivity of attachment-preoccupied individuals to conflict, as shown by Fishtein, Pietromonaco and Barrett's subjects—and to conditioned rejection contingencies in Baldwin and Meunier's research—may embody a similar defensive process. Contending with distance or conflict in a relationship while simultaneously maintaining self-esteem may be a daunting task, one that activates conflicting goals. Just how cognitive processes contribute to the emotional regulatory behavior that arises in such dilemmas may reveal important clues about the integration of these oft-considered independent processes.

RANGE OF RELATIONSHIP CONTEXTS AND FEATURES

By and large, social cognition has been investigated within a narrow selection of relationships, primarily romantic and parent-child relationships. Although these relationships are undoubtedly important, we believe that expanding the range of relationships studied will facilitate the development of process models that transcend specific types of rela-
tionships. More than a decade ago, Clark and Reis (1988) noted the value of contrasting commonly studied relationships with less popular exemplars—coworkers, cousins, neighbors, and moderately acquainted friends, for example. If anything, the need for such research seems more compelling than ever.

One reason behind this observation is that although diverse relationships may share certain features, the factors that distinguish among them may have important albeit nonobvious ramifications. For example, close friendship and romance may both be emotionally close, but generally only the latter involves sexuality and mating. To the extent that cognitive or behavioral processes are posited to derive from general features of relationships, such as closeness, shared history, or outcome interdependence, it is important to demonstrate these principles across various relationship exemplars. Otherwise, the generality of findings may be causally misspecified.

More subtly, reliance on between-persons research designs in this field limits generalizability by confounding variance attributable to persons with variance attributable to relationship factors. For example, social support processes might be studied by relating behavioral or cognitive responses to another person’s signals of distress to various qualities of the helper-helpee relationship. A between-persons design—for example, by having each participant nominate a confidant and then interact with this person—is likely to underestimate the strength of this effect because most people probably have at least one relatively supportive relationship, thereby restricting the range on the principal variable. A within-persons design, comparing the same individual’s response to distress cues emanating from close and less close others, examines a more appropriate question: How do support processes differ in close and less close relationships? This logic is most clearly evident in the articles by Aron and Fraley and by Baum and Andersen. Both studies demonstrate that cognitive processes may vary with the degree of closeness in a relationship. Therefore, research that manipulates or measures a wide range of closeness is most likely to reveal effects of closeness on relationship cognition. Social Relations Analysis (Kenny, 1994) is particularly well-suited toward distinguishing person, partner, and relationship effects, although there are other less specialized analytic methods that can also address relationship processes from a within-person perspective (Gable & Reis, in press).

Finally, we note the need to examine systematically both partners in a relationship. Moretti and Higgins obtained a measure of identified self-guides by comparing individuals’ own ideals with those ascribed to their parents. Their findings lead naturally to questions about shared reality: To what extent do parental self-guides reflect parents’ actual ideals
for their children, as opposed to the child’s projection? Similarly, Aron and Fraley’s “inclusion of other in the self” implies questions about reciprocity and accuracy—for example, to what extent do the other-qualities being incorporated accurately reflect the other’s self-conception? Note that neither the Moretti-Higgins or Aron-Fraley theoretical model requires interpersonal symmetry or accuracy. These models would still be important if other-representations turned out to be largely projections, wishful thinking, or even random error; however, certain theoretical premises would need to be reconsidered. More generally, questions about shared reality have important theoretical implications for the literature, although they are rarely investigated directly (but see Hardin and Higgins [1996] for an exception). Several of the theories discussed in this special issue are founded on the assumption that socially shared cognition is a hallmark of relational life. Directly studying interpersonal cognition is likely to provide a novel and informative perspective on social interdependence.

SOCIAL COGNITION RESEARCH MAY PROVIDE SPECIAL INSIGHTS INTO THE NATURE OF RELATIONSHIPS

Above we discussed some ways in which the understanding of social cognition is enhanced by studying relationships. Our goal in this section is to illustrate how the social cognitive approach can help answer a central and enduring question in the study of relationships: “What do people take from their relationship experiences and how does this legacy influence subsequent relating?” Much theorizing of the early psychodynamic scholars concerned the psychological legacy of relationships and its implications for later functioning (e.g., Horney, 1937; Sullivan, 1953). Principles generated within this tradition, while often interesting and insightful, were imprecise, unconstrained by evidence, and typically untestable. Thus, they became for some an article of faith, while for others they engendered dissatisfaction and skepticism, prompting a shift in attention from intrapsychic phenomena to observable behavior. As the limitations of focusing exclusively on behavior became evident, however, efforts to articulate and understand the psychological mediators of relationship experiences have resumed. Developments within the fields of cognition and social cognition have given new legitimacy to studying phenomena astutely identified by psychodynamic clinicians, such as transference, influences operating outside of awareness, and chronically accessible motives. The social-cognitive approach differs from the psychodynamic approach in emphasizing precise, fine-grained, process analyses of nonobservable intrapsychic phenomena and in requiring evidence for hypothesized
psychological processes and their outcomes (Taylor, 1998). An important by-product of this requirement is the development of subtle, unobtrusive methods for assessing cognition, affect, and motivation.

This evolution of thinking about the legacy of relationship experiences is particularly well illustrated in the case of attachment theory (Bowlby, 1969, 1973, 1980), which, as the articles in the special issue testify, is currently a dominant influence in relationship research. Work with troubled youngsters prompted John Bowlby to reject the psychodynamic focus on unobservable intrapsychic representations of relationships in favor of a behavior-centered account of the mother-child relationship and its implications for the child's later behavior. Infancy researchers who initially espoused Bowlby's attachment theory generated a wealth of careful observational data identifying prototypical secure and insecure coping responses of infants to an age-saliency interpersonal stressor: separation from mothers (Ainsworth, Blehar, Water, & Wall, 1978). These responses were shown to reflect the quality of parenting and to predict subsequent personal and interpersonal functioning.

Although Bowlby's child-focused attachment theory emphasized behavior, he recognized the need account for the psychological legacy that children carry from early relationship experiences into subsequent relationships. Drawing on work in the emerging discipline of cognitive science, notably Craik's idea that people carry a model of external reality and of their own possible actions inside their heads (Craik, 1943), Bowlby proposed that individuals develop mental models of themselves in relation to others. These models reflect early caretaking experiences and influence subsequent interactions and relationships by enabling individuals to forecast the probable availability of attachment figures, perceive events, and to construct plans. But, as Bretherton and colleagues have noted, when Bowlby introduced the internal working model construct, "it was little more than a metaphor with useful connotations" (Bretherton, Ridgeway, & Cassidy, 1990, p. 275). The task of clarifying, elaborating, and operationalizing the working model construct awaited advances in social cognitive research.

A major impetus for applying social-cognitive paradigms and principles to working models or mental representations of relationships was Hazan and Shaver's (1987) extension of childhood attachment research to adult relationships. Their self-report measure of general orientations to romantic relationships, extrapolated from Ainsworth et al.'s (1978) behavior profiles characterizing types of infant attachment with the primary caregiver. The measure captured the imagination of adult relationship researchers, in part because of its high face validity and ease of administration and because it operationalized a theoretically viable link between early-life and later relationship experience. Nevertheless, the
original Hazan and Shaver measure did not distinguish among affect, cognition, motivation, and behavior, all components of working models in Bowlby’s original conceptualization (Collins & Read, 1994; Reis & Knee, 1996; Shaver et al., 1996). Efforts to grapple with these and related difficulties spawned a new wave of research asking: What precisely are the psychological structures that underlie people’s understanding of relationships, and by what processes do these structures influence thinking, feeling, and acting in relationships?

Three factors made it possible to begin elaborating in earnest the working models construct. First, approximately two decades of social cognition research had articulated principles and developed research paradigms needed to illuminate the role of cognition, affect, and motivation in relationships. Second, relationship researchers became increasingly interested in the young adult population for whom the field had developed unobtrusive measures of cognitive-affective structures and their dynamic relationship to each other and to behavior. Third, as romantic relationships became an important focus of study, it became desirable to extend working models of parental relationships, the traditional focus of psychodynamic and attachment approaches, to adult romantic relationships. This more ecumenical view of working models made it necessary to consider how working models operate and evolve over the lifespan.

The articles in this special issue represent this second wave of research, grappling with the task of developing precise, testable accounts of the content, structure, organization, and dynamics of the psychological legacy that people bring to current relationships. The articles draw on, and, to varying degrees, integrate two basic traditions in social cognition: how psychological processes give meaning to our perceptions of people and events; and how universal principles of information processing apply to the social domain.

THE MEANING SYSTEMS TRADITION

The meaning systems tradition emphasizes the rich conceptual systems by which individuals construct meaning in social situations and how ascribed meaning predicts behavior (Chiu, Dweck, Tong, & Fu, 1997; Epstein, 1989; Murphy & Medin, 1985). Within this tradition the psychological legacy of past relationships is viewed as a knowledge structure or schema consisting of the basic building blocks of meaning systems—such as goals, beliefs and expectancies; the subjective value of different outcomes; attributional biases; scripts for regulating affective and behavioral responses; and so on. The emphasis is on describing the content of these schemas and how their organization generates observed
behavior (Baldwin, 1992; Bradbury & Fincham, 1992; Crick & Dodge, 1994; Dweck & Leggett, 1988; Mischel, 1973; Mischel & Shoda, 1995).

The model of rejection sensitivity described by Ayduk et al. is one example of a "meaning systems" account of the two basic types of insecure attachment: avoidant and preoccupied/anxious-ambivalent. If, as Bowlby observed, early rejection experiences sensitize individuals to the pain and possibility of rejection, they may become overly concerned about rejection from significant others. In situations where rejection is possible and meaningful, hypervigilance to cues of rejection fosters a tendency to readily perceive rejection. Children who expect rejection may learn to regulate the distress evoked by anticipated or perceived rejection by actively avoiding situations with rejection potential, or they may attempt to quell their distress by repeatedly seeking reassurance. When they perceive or anticipate rejection they may overreact in ways that increase the probability of rejection, and in this way their rejection expectations are maintained.

Baum and Andersen's article provides another, albeit indirect, example of this "meaning-systems" approach. Their work demonstrates that emotional reactions to a person may be affected by their resemblance to exemplars of significant others encoded in memory. In other words, perceptions of another person, and presumably interactions with them, are in part determined by the internalized legacy of past relationship experience with others. The self-guides described by Moretti and Higgins also show how mental representations that reflect past personal relationships influence self-regulation. And finally, Fishein et al., adopting a goal approach to conceptualizing attachment styles, showed how the goals of intimacy and closeness, which are central to a preoccupied orientation, may shape the mental representation of relationship information in ways that facilitate goal attainment.

UNIVERSAL INFORMATION PROCESSING TRADITION

The second tradition applies established knowledge about universal principles of information processing to relationships, on the assumption that similar constraints apply to both social and nonsocial information. In contrast with the meaning systems approach, the specific content of cognitive models is of little concern. The original focus of this tradition was on identifying deviations from the "rational scientist" model of social judgment and decision making (Taylor, 1998). This focus is exemplified in Sedikides et al.'s study of mate selection, which reveals violations of rational decision principles similar to those documented in nonsocial domains. Evidence of the limits of people's capacity for explicit, conscious reasoning and decision making has prompted the information
processing tradition to consider questions of how information is stored or represented in memory, how and when it is retrieved, and how it influences processing of new information.

A current popular emphasis is on automatic processes—that is, those processes that relate new stimuli to stored mental representations rapidly, efficiently, and often outside of conscious awareness (Bargh, 1996; Wegner & Bargh, 1998). This type of information processing—heuristic, affect-driven, spontaneous, and characterized by speedy judgments based on minimal input—is distinct from the traditionally studied rational type of information processing, which can be characterized as emotionally neutral, contemplative, flexible, integrated, coherent, controlled, slow, thoughtful, and episodic. Determining how information is stored and linked with other information, and how individuals first select among various available information structures in response to internal and external cues, and then enlist these structures in enacting behavior, is the focus of much research (for reviews, see Carlson & Smith, 1996; Higgins, 1996; Smith, 1998).

As noted above, scholars of close relationships, from psychodynamic theorists to present-day researchers (e.g., Berscheid, 1994), generally concur that automatic processes are particularly likely to operate in close relationships for two reasons. First, automatic processes are likely to be activated by cues that prompt well-practiced routines of the sort common in the daily life of established couples (Berscheid, 1994). Much of the supportive interchange between close relationship partners is probably routinized, which may help account for the generalized positive perceptions of close relationship partners shown in many studies. Second, automatic processing tends to occur when people feel emotionally aroused or threatened, a type of processing deemed “hot” cognition by Metcalfe and Mischel (1999) who distinguish it from cool rational processing. The “hot” system is thought to generate impulsive, reflexive, and stimulus-driven behavior. As conceptualized by Ayduk et al., rejection sensitivity is a “hot” system readily activated whenever rejection is a possibility, for example, during conflict with a significant other.

Whereas social psychologists have paid considerable attention to automatic processes pertaining to the self or to generic others, systematic investigation of automatic processes operating in close relationships is just beginning. The articles in this special issue illustrate how paradigms that have proved fruitful in elucidating self-relevant information processing can be applied to information processing in close relationships.

Using unobtrusive cognitive measures, Aron and Fraley demonstrated that the degree of overlap in the content and organization of knowledge structures about self and close other can be used to index relationship closeness. Borrowing from associative network formulations
of memory, Baldwin, and Meunier, and Ayduk, et al. construe the psychological impact of prior relationship experiences as taking the form of propositional "if...then" constructs. In this model of memory, activation of one construct activates or inhibits activation of other structurally linked constructs. Both articles characterize representations of relationship experiences as encompassing differential expectations of acceptance and rejection and use semantic priming to unobtrusively test hypothesized links between acceptance/rejection and other constructs. Baldwin and Meunier examine "if...then" propositions presumed to describe attachment orientations. Whereas secure attachment style is represented by an "if success then acceptance" link, the preoccupied style is defined by an "if failure then rejection" link. According to Ayduk et al., rejection sensitivity predisposes certain women to show an automatic activation of a "hostility" construct whenever the "rejection" construct is activated.

Baum and Andersen conceptualize the psychological mark of prior relationships in schema terms, and then draw on schema theory to describe transference, which they view as the ready activation and application of mental representations of significant others to new acquaintances (see also Andersen & Glassman, 1996; Chen & Andersen, in press). Schematic models generally assume that when new information provides a sufficient match for a particular schema, that schema is retrieved from memory and used to "go beyond the information given" and "fill in the blanks" in evaluating a new person, and setting goals and expectations for interaction. Their research shows that a positive mood can be created by expecting to interact with someone who resembles a positive significant other. Their transference model may help explain why we sometimes feel that we have liked or disliked a new acquaintance forever, and why expectations developed in one relationship are applied to some new relationships but not others.

The Fishtein et al. and Moretti and Higgins articles also illustrate implications of the psychological legacy of prior relationships for current goal-directed activity. Fishtein et al. sought to explain how conflicted relationships may facilitate attainment of intimacy and closeness by preoccupied persons. Toward this end, they applied Linville's (1985) self-complexity model to mental representations of relationships. Whereas everyone had relatively complex understandings of the negative aspects of conflicted relationships, only those persons with a preoccupied orientation also had complex knowledge about positive aspects of conflicted relationships. By facilitating attention to, and memory for, positive as well as negative features, positive complexity may help preoccupied people experience intimacy and closeness in conflicted rela-
tionships. The ability of preoccupied people to attend to both positive and negative aspects of troubled relationships is consistent with the view that preoccupied attachment develops in the context of inconsistent, rather than negative, parenting.

Finally, Moretti and Higgins's article builds on self-discrepancy theory (Higgins, 1987) to address the classic question of how internalized representations of a significant other (i.e., a parent) helps guide goal-directed behavior. According to self-discrepancy theory, people experience distress when aware of discrepancies between their actual selves (i.e., how they perceive themselves to be) and their self-guides (i.e., how they should be or would like to be). The goal of distress reduction prompts efforts to minimize discrepancies between the actual self and self-guides. *Internalized* self-guides, defined as the overlap between self-guides and the expectations parents are perceived to have of oneself, predicted women's personal and interpersonal functioning. *Independent* self-guides, defined as self guides that did not overlap with perceived parental expectations, predicted men's functioning. These findings support claims that close relationships play somewhat different roles in the self-regulatory systems of men and women (Cross & Madson, 1997).

In sum, the articles in this special issue persuasively demonstrate that recent developments in cognitive and social-cognitive psychology—both in terms of theoretical principles and research paradigms—make it possible to move from older, relatively static, global trait-like conceptualizations of relationship beliefs and expectations to more dynamic, multicomponent information-processing models. In our opinion, this view has exceptional potential for advancing the field's current understanding of the impact of past relationship experience on current beliefs and feelings, and of the implications of this legacy for personal and interpersonal functioning. The next generation of relationships research will benefit greatly from incorporating these models into its theoretical and empirical agenda.

CONCLUSION

Although we have described implications of relationships for social cognition research and vice versa, to treat these topics as independent entities is somewhat misleading. As discussed earlier, social cognition operates in service of relating to others, is specialized for specific functions essential to relating, and provides a mechanism by which experiences gained in one relationship come to influence subsequent relationships. In other words, social cognition is central to relating, and cannot be fully appreciated outside a relational context. Similarly, rela-
tionships depend on processes by which people go beyond the information given to impart meaning to social events. If it is true that social cognition is for relating, then it is also true that relating occurs by way of social cognition.

The articles in this special issue illustrate the importance of relationship thought within the broad domain of relational activity. Yet, as studies begin to reconsider and elucidate cognitive mediators of relational activity, it is essential to keep sight of actual behavior, of partners' actual dispositions and beliefs, and of the situational and structural constraints that influence relationships. Much as we laud the contribution of social cognition to the study of relationships, we caution researchers to remember that social cognition is rooted in real-life interaction. Half a century ago, attachment theory was born out of Bowlby's dissatisfaction with the exclusive focus of the prevailing psychodynamic approach on what was going on inside the person's head to the neglect of actual interaction. In this spirit, the studies reported in this special issue lead us to propose three types of questions for the next generation of research.

1. How do relationship cognitions correspond to the actual relationship experiences they purport to reflect? And the complementary question, what functions and motives help explain distortions and biases? For example, in the work of Ayduk et al., to what extent do women's rejection expectancies reflect actual rejection experiences, both historically and contemporaneously? To what extent do rejection expectations reflect early parent-child experiences, qualities of more recent relationships, or other factors, such as temperament-based anxieties or self-serving justifications? Aron and Fraley's research leads us to wonder about the degree to which partner qualities incorporated into the self reflect the partner's actual characteristics or one's own (perhaps wishful) interpretations thereof. Similarly, for Moretti and Higgins, a logical next step would be to document the extent to which people's perceptions of their parents' goals for them reflect their parents' actual goals. In other words, to what extent is the perception of shared reality veridical?

2. What are the implications of relationship cognition for the course and conduct of actual relationships? For example, how does the transference process documented by Baum and Andersen affect the persistence and course of new relationships? Do transference-induced positive moods engender mutually rewarding interactions in the manner of a behavior confirmation process? Can positive transference set in motion a positively reinforcing cycle that facilitates development of a satisfying long-term relationship? Or, how does deliberative decision-making, as outlined by Sedikedes et al., coordinate with the more affect-driven system outlined by Baum and Andersen? What factors determine which
processes predominate upon encountering a prospective dating partner who reminds one of someone previously liked or despised? How may transference interfere with rational decision-making? In the case of rejection sensitivity, under which circumstances does a woman's hostile, negative behavior elicit expectancy-fulfilling rejection responses from her partner, as Downey, Freitas, Michaelis, and Khouri (1998) have shown? It will be interesting to demonstrate in observable behavior the impact Baldwin and Meunier's model of contextually induced schemas. Finally, the greater complexity of attachment-preoccupied individuals regarding positive aspects of relationships, as shown by Fishein et al., suggests differential reactions to the ebb and flow of positive and negative events in ongoing relationships. All of these implications await empirical investigation, the results of which seem likely to have important theoretical and practical consequences.

3. How do intra-individual processes come together in the interactive life of a relationship? This final question poses perhaps the most daunting challenge of all. Relationships do not occur between a person and a stimulus target; they occur between two individuals, each of whom can be expected to display the various processes described above. Thus, the interplay of two sets of expectations, two sets of accessibility biases, and two sets of internalized representations of the others will have to be scrutinized. Assessing these processes in coacting individuals is likely to raise the level of conceptual and empirical complexity exponentially. It will also, we hope, raise the level of our knowledge, as well as the spirit of intellectual challenge in the research process.

During the past two decades, social cognition researchers have concentrated on pinpointing cognitive-affective processes pertaining to the self and generic others, according relatively limited attention to the operation of these processes in ongoing relationships. In contrast, relationship researchers have emphasized context, interaction, and dispositions with less attention to the processes by which social information is perceived, interpreted, integrated, and acted upon. An ongoing association between social cognition and relationship research will help researchers illuminate the dynamic interplay between interpersonal events, cognitions, and relationships over time. Whereas the earlier foci were appropriate given the need for nascent areas of research to begin with the most basic questions, we believe that it is now time for researchers in both areas to move to the next level of complexity. The articles in this special issue exemplify the potential of such a merger to enhance our understanding of how important relational phenomena originate, operate, and are maintained. This synthesis is likely to prove generative for both areas.
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