Relationships, Human Behavior, and Psychological Science

Harry T. Reis¹ and W. Andrew Collins²

¹University of Rochester and ²University of Minnesota

ABSTRACT—Extensive evidence attests to the importance of relationships for human well-being, and evolutionary theorizing has increasingly recognized the adaptive significance of relationships. Psychological science, however, has barely begun to consider how relationships influence a broad array of basic social, cognitive, emotional, and behavioral processes. This article discusses contemporary theory and research about the impact of relationship contexts, citing examples from research on social cognition, emotion, and human development. We propose that the validity and usefulness of psychological science will be enhanced by better integration of relationship contexts into theories and research.

KEYWORDS—relationship; social cognition; emotion; development

A recent cartoon in the New Yorker depicts a middle-aged, probably long-married couple reading quietly in their living room. The man turns to his wife and says, "I can't remember which one of us is me." This cartoon embodies an idea whose time has come in the psychological sciences: that human behavior varies significantly depending on relationship contexts and the cognitive, emotional, and social mechanisms that have evolved for recognizing, evaluating, and responding to those contexts—who else is present and who else is affected by, or has had an effect on, present circumstances. This idea follows from the uncontroversial but often overlooked fact that most human activity involves coordinating one's actions with the actions of others, and that the relative success or failure of such coordination is a principal determinant of productivity and well-being, whether in families, friendships, organizations, neighborhoods, or societies.

Psychological science rarely integrates relationship contexts into its theories and research. One reason for this gap has been the historical focus of psychology on the behavior of individuals.

Address correspondence to Harry Reis, Department of Clinical and Social Sciences in Psychology, University of Rochester, Rochester, NY 14627; e-mail: reis@psych.rochester.edu.

Another has been a shortage of valid concepts, empirical knowledge, and rigorous methods for introducing relationship processes into mainstream psychological research. Recent advances in relationship science—empirical research on relationship processes and their effects—suggest that this void may soon be filled. A virtual explosion of research has provided analytical and methodological tools that allow most psychological or behavioral processes to be investigated from a relationship perspective. The premise of this article is that such investigations will advance the completeness and accuracy of psychological science.

WHY RELATIONSHIPS MATTER

Abundant evidence attests that associations, often powerful ones, exist between the quality and quantity of relationships and diverse outcomes, including mortality rates, recovery from coronary artery bypass surgery, functioning of the immune system, reactions to stress, psychiatric disturbance, and life satisfaction. These effects do not appear to be artifacts of personality, temperament, behavior, or lifestyles, but instead reflect the direct influence of relationship events on biological processes (e.g., Kiecolt-Glaser & Newton, 2001).

How did the processes by which relationship events affect human biology evolve? Many accounts posit that living and working in small, cooperative groups has been the primary survival strategy for the human species, because social organization buffered early humans from the dangers of the natural environment. Thus, it was adaptive for the human mind to develop a series of mechanisms—Bugental (2000) called them the "algorithms of social life"—for regulating social relations. Social organization is composed of interlocking relationships among individuals within a social network.

Although no definitive list of innate systems for regulating social relations and responding to social circumstances exists, many processes of long-standing interest among behavioral researchers are likely candidates: cooperation and competition, adherence to social norms, coalition formation, attachment, face perception, social inclusion and exclusion, communication of

emotion, romantic jealousy, empathy, and commitment, for example. These processes are not applied equally to all of an individual's contacts, but rather are applied selectively, depending on the existing relationship and the particular problem to be solved. People become psychologically attached primarily to caregivers and intimates, and cooperation predominates within in-groups. Social interaction involves determining what sort of relationship exists and therefore which processes are most relevant. Growing evidence that these processes are manifested in nonhuman species and that they are governed to some extent by nonconsciously regulated neurobiological systems suggests that responsiveness to relationship contexts is deeply wired into human architecture.

Relationships may be characterized in terms of the properties that describe the involved parties' interdependence with each other—the manner in which individuals alter their behavior in order to coordinate with others' actions and preferences. Thus, persons in relationships respond (or not) to each other's wishes, concerns, abilities, and emotional expressions; they modify their behavior to be together (or not); they allocate tasks between themselves; they react to each other's behaviors and circumstances, misfortune, and happiness; and they take the fact of their interdependence into account in organizing everyday life and longer-term plans. Central to most conceptualizations of relationship is the idea that these patterns of mutual influence are more informative about relationships than are nominal categories (e.g., spouses, co-workers, friends) or simple static descriptors (e.g., length of acquaintance, nature or degree of affect).

Evidence for differential effects of relationship contexts is available in many areas of research. We next describe three such areas to illustrate the importance of such evidence for psychological science.

SOCIAL COGNITION

Much research has investigated the cognitive processes by which individuals perceive, interpret, and respond to their social environments. In most such studies, no relationship exists between the subjects and the objects of thought, who are often, for example, strangers, hypothetical people described by the experimenter, famous persons, or social groups. Even when a relationship does exist, its possible influence on the results obtained is rarely considered. This approach tacitly implies that the principles governing cognition about people who are familiar or close do not differ materially from the principles governing cognition about acquaintances and strangers (or, for that matter, inanimate objects). Increasingly, theory and research challenge this assumption.

Take, for example, one of the most robust social-cognitive phenomena: the *self-serving attributional bias*, which refers to the fact that people give themselves more credit for success and less responsibility for failure than they give strangers. This bias, reported in virtually every textbook in the field, is not observed when the self is compared with close relationship partners, who are accorded the same attributional generosity as is the self (Sedikides, Campbell, Reeder, & Elliot, 1998). Other phenomena that reflect self-serving biases also vary depending on the closeness of the relationship.

Another example concerns the well-documented self-referential effect: the enhancement of memory when information is encoded with reference to the self, rather than, for example, another person. This effect is significantly smaller when the other person is an intimate rather than a stranger or acquaintance (Symons & Johnson, 1997). Partners in close or committed relationships typically adopt an interdependent frame of reference ("we," rather than "you and I"), perhaps because, following the logic of a connectionist model, close relationships entail a greater number of direct connections and overlapping links than distant relationships do (Smith, Coats, & Walling, 1999). Even more suggestive is a recent neural imaging study (Lichty et al., 2004) showing substantial overlap—most strongly, in the right superior frontal gyrus and prefrontal cortex—in the brain regions activated by hearing one's own name and hearing the name of a close friend, but no overlap in the areas of activation associated with hearing one's own name and hearing the name of a familiar (but not close) other person. The degree of overlap in the own-name and close-friend conditions was more pronounced to the extent that the relationship with the other was experienced as a close relationship.

Relationship context may also influence social cognition when the close partner is not present. A long-standing and sophisticated program of experimentation has shown that representations of significant others from one's past may affect one's inferences, recollections, evaluations, and feelings about a new acquaintance when the new acquaintance resembles the significant other (and thereby activates mental schemas associated with the preexisting relationship; Andersen & Chen, 2002).

It has long been recognized that social cognition is designed to facilitate the individual's transit through social life. These and similar studies represent an advance in psychological science, demonstrating that which particular social-cognitive process is activated, and the output of its operation, depends critically on the nature of the ongoing relationship between the cognizer and relevant others. Moreover, Bugental (2000) has argued that evolved brain mechanisms tend to be specialized, perhaps as distinct modules, to fit the varying role requirements of different relationship contexts. If so, humans' extraordinary capacity to quickly recognize (within milliseconds) close friends or even distant acquaintances expedites activation of different cognitive processes with different partners.

EMOTION

Ever since Darwin emphasized the social communicative function of emotion in the survival of species, researchers have recognized that emotions have both evolutionary significance and relevance to social life. It is thus somewhat ironic that "interpersonal functions [of emotion] have generally been given short shrift in comparison to intrapersonal functions...[although most researchers] believe that emotions are brought into play most often by the actions of others, and, once aroused, emotions influence the course of interpersonal transactions" (Ekman & Davidson, 1994, p. 139). Although not all interpersonal transactions involve partners in ongoing relationships, many do. Consequently, many researchers now acknowledge that affect should be examined in its relationship context.

Several emotions are intrinsically relationship-specific; they are unlikely to arise outside of relationships (e.g., jealousy, maternal and romantic love, grief over loss). For most other emotions, the likelihood, intensity, and nature of expression typically are influenced by the individual's relationship with the target of the emotion. For example, a rude bus driver likely elicits a weaker and different response than a rude spouse, junior colleague, or teenaged daughter. This observation accords with the definition of emotion as a response to environmental events that have significance for personal well-being. Different relationships necessarily imply different consequences for personal well-being.

Diverse studies demonstrate links between the emotioneliciting power of situations and their relationship context. For example, the intensity of elicited emotions, particularly the so-called hot emotions, varies with the closeness of a relationship. This pattern can be explained by Berscheid and Ammazzalorso's (2001) emotion-in-relationships model, according to which expectancy violations are the cause of emotion. The more interdependent two persons are, the stronger, more numerous, and more consequential their expectations of each other, and thus, the more intense the emotions they elicit. Moreover, people's willingness to communicate about emotional experience depends on their relationship with the person with whom they are communicating. Studies conducted by the first author and his colleagues indicate that people are more willing to express both positive and negative emotions to the extent that a relationship is intimate, trusting, and communal (i.e., a relationship in which partners are responsive to each other's needs), regardless of whether the emotion was triggered by the partner or someone else. Similarly, emotional displays may be suppressed when the emotion is perceived to have relationshipimpairing potential. For example, East Asians are more likely than European Americans to suppress certain emotion displays, perhaps reflecting their greater potential to harm relationships in collectivist than in individualist cultures. Although the tendency to experience emotion is widely believed to be hard-wired, behavioral responses to emotion-eliciting events may be shaped to a significant extent by interactions within close relationships.

A further example of the links between emotion and relationship context is that in communal relationships, relative to less caring ones, individuals are more likely to show empathic compassion for a partner's misfortune, better understand each other's emotions (the occasional instance of motivated misunderstanding notwithstanding), and are more likely to share in each other's emotional experience through such processes as emotional contagion, physiological synchrony, vicarious arousal, and rapport (Clark, Fitness, & Brissette, 2001).

Thus, attention to relationship contexts advances understanding of emotional experience and expression.

RELATIONSHIPS AND DEVELOPMENT

Rudimentary social interaction skills are evident at birth, or soon thereafter. Newborns attend to the faces of members of their species. Other innate mechanisms for relating to others (e.g., attachment, or a proximity-seeking bond between child and caregiver) begin to emerge shortly after birth. Infants contribute to these early relationships by orienting clearly and consistently to their caregivers, and caregivers contribute by attending closely to their infants' behavior and emotions. Patterns of exchange and interdependence are apparent from the early weeks of life. A key sign of the importance of early relationships is that infants reliably turn to caregivers for reassurance and confidence in the face of threatening or stressful circumstances, a phenomenon known as the secure base. A critical mass of research now shows that these and other such abilities provide an essential infrastructure for many vital activities (relating to other people, exploring the environment, striving for achievement, solving problems creatively, caring for children and other people in need, engaging in health-promoting behavior) throughout life. Moreover, it is increasingly evident that the development of these abilities (and their underlying psychological traits) depends on the child's early relationships.

Caregiver-child pairs vary in the degree to which their relationships readily and unambiguously provide the secure base and the resulting emergent sense of security. Existing evidence indicates a substantial degree of continuity between early experiences and diverse relationships during childhood, adolescence, and adulthood. Discontinuities between earlier and later relationships typically are related to pronounced disruptions or stressors in the intervening years. Several explanations have been suggested for these temporal links. One possibility is that unsatisfying or restricted early relationships disrupt normal development, in turn affecting later behavior and relationships. Research with nonhuman species and with human children reared in orphanages with inadequate care arrangements has shown that even minor deprivation of contact with responsive individuals results in abnormal development of the brain and hormonal systems that regulate coping with stress (Gunnar, 2000). One researcher (Siegel, 1999) has even proposed that the "mind" develops at the intersection of neurophysiological

Volume 13—Number 6 235

processes and interpersonal relations. A more limited possibility is that early relationships are key sources of expectations about social relations. These "residues" of early relationships have been found repeatedly to be related to the characteristics of later relationships in childhood, adolescence, and adulthood (Roisman, Madsen, Hennighausen, Sroufe, & Collins, 2001). Little evidence supports one popular alternative hypothesis—that the long-term implications of attachment security are better attributed to individual differences in temperament (Thompson, 1998).

The evidence is compelling that relationships are significant in nearly every domain of activity. From infancy to old age, having friends and relating successfully to other people is associated with desirable outcomes in virtually all human domains: school, work, coping with negative events, adaptation during life transitions, parenthood, self-worth, and emotional well-being (Hartup & Stevens, 1997). This fact underscores the adaptive significance of relationships in human evolution and highlights the need to study development as a process that unfolds in relational contexts.

CONCLUDING COMMENT

Diverse emerging evidence indicates that relationship contexts have the potential to influence a diverse array of cognitive, emotional, and behavioral processes. Important challenges remain if these trends are to be cultivated into a systematic body of knowledge. Chief among these challenges is the necessity for identifying and evaluating the boundaries for relationshipcontext effects, and articulating their operation in a theoretically integrated way: To what extent do which different interpersonal circumstances affect the operation of which processes? Similarly, which individual differences moderate the degree to which interpersonal circumstances influence relationship outcomes and their behavioral effects? Other key questions for further advances in this area of research concern mechanisms. Although the evidence we have cited is suggestive, it remains to be determined how the external reality of relating is translated into the internal reality of basic cognitive, emotional, and biological processes. Finally, the rudimentary theoretical and methodological tools currently available must be supplemented by additional, even more sophisticated models and techniques. Such work promises to allow psychological science to more fully capitalize on a cherished axiom: that behavior is a product of the interaction between the properties of the person and the properties of the environment. To individuals, few features of the environment have greater salience or impact than whom they are with (or thinking about), and the nature of their relationship with that person. Fuller integration of the role of relationship contexts at all levels of psychological theorizing, research, and application is likely to augment the validity and utility of psychological science.

Recommended Reading

- Berscheid, E. (1999). The greening of relationship science. American Psychologist, 54, 260–266.
- Collins, W.A., & Laursen, B. (Eds.). (1999). Minnesota Symposium on Child Psychology: Vol. 30. Relationships as developmental contexts. Mahwah, NJ: Erlbaum.
- Hinde, R.A. (1997). Relationships: A dialectical perspective. East Sussex, England: Psychology Press.
- Kelley, H.H., Berscheid, E., Christensen, A., Harvey, J., Huston, T., Levinger, G., McClintock, E., Peplau, L.A., & Peterson, D. (1983). *Close relationships*. New York: Freeman.
- Reis, H.T., Collins, W.A., & Berscheid, E. (2000). The relationship context of human behavior and development. *Psychological Bulletin*, 126, 844–872.

Acknowledgments—We gratefully acknowledge the enormous contributions of Ellen Berscheid to the conceptual framework from which this article emerged.

REFERENCES

- Andersen, S.M., & Chen, S. (2002). The relational self: An interpersonal social-cognitive theory. *Psychological Review*, 109, 619–645.
- Berscheid, E., & Ammazzalorso, H. (2001). Emotional experience in close relationships. In M. Hewstone & M. Brewer (Eds.), *Blackwell handbook of social psychology* (Vol. 2, pp. 308–330). Oxford, England: Blackwell.
- Bugental, D. (2000). Acquisition of the algorithms of social life: A domain-based approach. Psychological Bulletin, 126, 187–219.
- Clark, M., Fitness, J., & Brissette, I. (2001). Understanding people's perceptions of relationships is crucial to understanding their emotional lives. In M. Hewstone & M. Brewer (Eds.), *Blackwell handbook of social psychology* (Vol. 2, pp. 253–278). Oxford, England: Blackwell.
- Ekman, P., & Davidson, R. (Eds.). (1994). The nature of emotion: Fundamental questions. New York: Oxford.
- Gunnar, M.R. (2000). Early adversity and the development of stress reactivity and regulation. In C. Nelson (Ed.), Minnesota Symposium on Child Psychology: Vol. 31. The effects of adversity on neurobehavioral development (pp. 163–200). Mahwah, NJ: Erlbaum
- Hartup, W.W., & Stevens, N. (1997). Friendships and adaptation in the life course. *Psychological Bulletin*, 121, 355–370.
- Kiecolt-Glaser, J., & Newton, T. (2001). Marriage and health: His and hers. Psychological Bulletin, 127, 472–503.
- Lichty, W., Chyou, J., Aron, A., Anderson, A., Ghahremani, D., & Gabrieli, J. (2004, October). Neural correlates of subjective closeness: An fMRI study. Poster presented at the annual meeting of the Society for Neuroscience, San Diego, CA.
- Roisman, G.I., Madsen, S., Hennighausen, K., Sroufe, L.A., & Collins, W.A. (2001). The coherence of dyadic behavior across parentchild and romantic relationships as mediated by the internalized representation of experience. Attachment & Human Development, 3, 156–172.
- Sedikides, C., Campbell, W., Reeder, G., & Elliot, A. (1998). The self-serving bias in relational context. *Journal of Personality and Social Psychology*, 74, 378–386.

236

- Siegel, D.J. (1999). The developing mind: Toward a neurobiology of interpersonal experience. New York: Guilford.
- Smith, E.R., Coats, S., & Walling, D. (1999). Overlapping mental representations of self, in-group, and partner: Further response time evidence and a connectionist model. *Personality and Social Psychology Bulletin*, 25, 873–882.
- Symons, C., & Johnson, B. (1997). The self-reference effect in memory: A meta-analysis. *Psychological Bulletin*, 121, 371–394.
- Thompson, R.A. (1998). Early sociopersonality development. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *The hand-book of child psychology* (Vol. 3, pp. 25–104). New York: Wiley.

Volume 13—Number 6 237