

# ATTRACTION AND CLOSE RELATIONSHIPS

ELLEN BERSCHEID, *University of Minnesota*  
HARRY T. REIS, *University of Rochester*

## THE STUDY OF INTERPERSONAL RELATIONSHIPS

A chapter devoted to theory and research on interpersonal attraction did not appear in this *Handbook* until its third edition (Berscheid, 1985b). That chapter outlined the historical development of the area and reviewed the robust body of theory and research that had accumulated since the early 1960s, when interest in attraction phenomena increased dramatically. At the time the chapter was being written, the study of interpersonal attraction was in transition:

Investigators are turning from a focus upon attraction phenomena as they occur in initial encounters between strangers to a study of attraction in the context of ongoing relationships; from a view of attraction as a monolithic global construct to a recognition that it is fruitful to differentiate varieties of attraction; from an exclusive study of the mild forms of attraction (e.g., liking) to studies that include the more intense forms (e.g., love); from investigations of a single stimulus at a single point in time and its influence on attraction to an interest in how a variety of causal conditions may contribute to an attraction phenomenon and how they all may evolve

and change over time; from an exclusive focus upon how the characteristics of the individual (or of the other, or of their combination) influence attraction to a consideration of how these characteristics may interact with environmental variables, both physical and social, to affect attraction and how attraction itself may subsequently influence all of these variables. (Berscheid, 1985b, pp. 417–418)

Today, all of these transitions have been made. Most important is the shift in focus from attraction as it may or may not occur between strangers in first encounters to attraction phenomena as they are embedded in ongoing interpersonal relationships. In addition to attraction between naturally formed relationship partners, many other facets of relationships have captured the attention of social psychologists in the past decade. The shift from an almost exclusive focus on attraction to a wide variety of other relationship phenomena is reflected in the titles of *Annual Review of Psychology* surveys beginning in the late 1970s: "Interpersonal Attraction and Relationships" (Huston & Levinger, 1978); "Interpersonal Processes in Close Relationships" (Clark & Reis, 1988); and, most recently, "Interpersonal Relationships" (Berscheid, 1994). The inclusion of the phrase "close relationships" in the title of this chapter reflects this change in focus. It also reflects the fact that social psychology has become an important contributor to the development of a science of relationships.

## The Science of Interpersonal Relationships

Many of the questions traditionally addressed by the social and behavioral sciences, as well as by the biological and

For their comments on an earlier draft, the authors would like to thank Art Aron (State University of New York at Stony Brook), Susan Hendrick (Texas Tech University), Hal Kelley (University of California at Los Angeles), George Levinger (University of Massachusetts at Amherst), Caryl Rusbult (University of North Carolina at Chapel Hill), Jeff Simpson (Texas A & M University), and Susan Sprecher (Illinois State University); and for their help in preparing this manuscript, the authors would like to thank Jason Lopes, Hilary Ammazza-Iorso, and Nora Langenfeld (all of the University of Minnesota).

health sciences, are fundamentally questions about interpersonal relationships. Scholars in these sciences have come to recognize that they share a common interest in relationship phenomena and that their disciplines have much to gain from the development of a science of relationships.

The multidisciplinary effort to further knowledge about interpersonal relationships began to emerge in the late 1970s. In 1977, for example, George Levinger, a social psychologist trained in both psychology and sociology, collaborated with Harold Raush, a clinical psychologist, to produce an edited volume entitled *Close Relationships: Perspectives on the Meaning of Intimacy*, and in 1979, Robert Hinde, a British ethologist and developmental psychologist, published *Towards Understanding Relationships*. These works were closely followed by *Close Relationships* (Kelley et al., 1983b), authored by a group of social, clinical, and developmental psychologists who provided a conceptual framework for the study of relationships. In 1982, the first conference of the International Society for the Study of Interpersonal Relationships, organized by British social psychologists Robin Gilmour and Steve Duck, was held at the University of Wisconsin, Madison, and many of the conference papers subsequently appeared in *The Emerging Field of Interpersonal Relationships* (Gilmour & Duck, 1986).

As these events indicate, the science of interpersonal relationships is international in character, as well as multidisciplinary. It is also one of the most rapidly growing areas in the social and behavioral sciences. There now exist two international organizations of relationship scholars, each with its own journal. The inaugural issue of the *Journal of Social and Personal Relationships* appeared in 1984 and that of *Personal Relationships* in 1994. Several current book series are devoted to relationship theory and research, including the *Advances in Personal Relationships* series, now in its fifth volume (Perlman & Bartholomew, 1994). In addition, relationship theory and research appear in almost all social psychological journals and book series, which reflects not only social psychologists' enduring interest in relationship phenomena but also the fact that most core social psychological questions engage relationships.

### Psychology's Contribution to Relationship Science

Although the disciplines of sociology, of marital and family therapy, and of communication studies are also important, psychology is central to the endeavor to understand relationships. Within psychology, the subdisciplines of developmental psychology, clinical and counseling psychology, and social psychology are especially important contributors to relationship theory and research.

An exemplar of the close relationship, the parent-child relationship, has been of special interest to developmental psychologists, who traditionally approached questions of socialization from an "individualistic" point of view, seek-

ing monadic laws governing the behavior of a single individual. Deeply influenced by Kurt Lewin (see Marrow, 1969), Robert Sears (1951), in his seminal presidential address to the American Psychological Association, urged developmental psychologists to expand their horizons to the dyadic unit, "one that describes the combined actions of two or more persons." As Sears (1951) observed:

A diadic [sic] unit is essential if there is to be any conceptualization of the *relationships* between people, as in the parent-child, teacher-pupil, husband-wife, or leader-follower instances. To have a science of interactive events, one must have variables and units of action that refer to such events. (p. 479)

Sears's call for dyadic research went unheeded until Richard Bell (1968) concluded in his powerful review of the socialization literature that the reigning view of socialization as resulting from the parents' influence on the child was too limited. Although positive correlations between the parent's and child's behaviors routinely had been interpreted as demonstrating the effect of the parent's influence on the child, Bell argued that the child's influence on the parent was a compelling alternative explanation of many findings. Today, an improved understanding of the developmental significance of children's relationships—their relationships with peers as well as with adults—has been characterized as one of psychology's most significant advances in the past few decades (Hartup, 1989).

Clinical and counseling psychologists also traditionally took an individualistic approach to human behavior and to the treatment of distress; psychoanalysis is a prime example. As the divorce rate escalated in the 1960s and 1970s, however, the public increasingly demanded expert help with their relationships. As a consequence, mental health professionals began to practice relationship therapy, and today, many embrace a "systems" approach to the treatment of distressed individuals in which the individual is viewed as embedded in a dysfunctional system of relationships which itself warrants treatment (e.g., see Christensen, 1983; Segraves, 1990).

### Social Psychology and Relationship Science

Along with developmental, clinical, and counseling psychology, social psychology is playing a central role in the development of a science of relationships. One important reason for its centrality is that social psychologists focus on the processes that underlie social behavior. Prominent among such processes are those that result in interpersonal attraction, a phenomenon in which social psychologists have displayed an enduring interest.

A focus on process and an interest in attraction are legacies of social psychology's Lewinian heritage. Generally

credited as the founder of experimental social psychology, Kurt Lewin also is often regarded as the first formal systems theorist in psychology (see Deutsch, 1954). Lewin rebelled against the individualistic approach to behavior, which concentrated the search for the causes of behavior in the properties of individuals (e.g., in their personalities). In his Field Theory, Lewin proposed that an individual's behavior is a function not only of the properties of the individual but also of the "field" in which the individual is located (Lewin, 1936; 1951). His well-known formula,  $B = f(P, E)$ , expressed his view that the properties of the person (P) interact with the properties of the environment (E) to influence behavior (B). The individual and the environmental field in which the individual is embedded thus were viewed as an interdependent system where a change in the state of one would produce a change in the state of the other. Because Lewin conceived the field as including the social and the physical environment, an individual's relationships were theorized to be an important influence on his or her behavior.

Lewin thus instilled in the heart of social psychology an interest in interpersonal relationships. Lewin himself was interested in close relationships, as his 1940 article entitled "The Background of Conflict in Marriage" reflects (Lewin, 1940/1948). As a result of Lewin's influence, many social psychologists began to theorize about and experimentally investigate important relationship phenomena. Lewin's student, Leon Festinger, for example, developed the Theory of Informal Social Communication (Festinger, 1950), which inspired the doctoral dissertation research of Festinger's student, Stanley Schachter, who described temporal patterns of interaction and affect among group members in his classic study, "Deviation, Rejection, and Communication" (Schachter, 1951; see Levine & Moreland, 1998, in this *Handbook*).

The field approach to understanding behavior began to fade in the late 1960s, however, as learning theory approaches, especially behaviorism, became dominant in psychology. Retreating from its early interest in interpersonal relationships, social psychology became increasingly individualistic (see Steiner, 1974). The shift in focus was exemplified by Festinger, who took his Theory of Informal Social Communication, which attempted to predict patterns of interaction in a group under conditions of information uncertainty, and turned it inside out in his Theory of Social Comparison Processes (Festinger, 1954), which attempted to predict when an individual would seek out others to reduce information uncertainty (see Tyler & Smith, 1998, in this *Handbook*). Festinger's theoretical orientation was to become even more individualistic just a few years later when, in his Theory of Cognitive Dissonance (1957), he turned to theorizing about cognitive processes in the mind of a single individual (see Eagly & Chaiken, 1998, and Pittman, 1998, both in this *Handbook*).

Festinger's interest in cognitive processes was another legacy of his mentor's approach to understanding behavior. Lewin, unlike his learning theory contemporaries in psychology who were preoccupied with the study of rats and other infrahuman animals, had emphasized that people may perceive and interpret the same stimulus situation differently. In stressing that it was the individual's interpretation of the meaning of the stimulus that influenced the individual's behavior, not the interpretations of outsiders such as the experimenter, Lewin put the O (the Organism's cognitive interpretation of the stimulus situation) between the learning theorists' Stimulus and Response. Social psychology was thereby set on a cognitive, or S-O-R, track from its beginning.

While Festinger was burrowing into the mind of a single individual, two other of Lewin's students, John Thibaut and Harold Kelley, produced what is arguably the single most important theoretical contribution to relationship research, *The Social Psychology of Groups* (Thibaut & Kelley, 1959). Although the book's title suggests that it is addressed to the behavior of persons within larger groups, Thibaut and Kelley's Interdependence Theory is in fact addressed to the dyad and to phenomena that occur within close relationships, particularly romantic and marital relationships. Kelley, too, subsequently became interested in matters of cognition, especially causal attribution processes, but he has consistently maintained his interest in ongoing relationships, as his later publication of *Personal Relationships: Their Structures and Processes* (1979) and his coauthorship of *Close Relationships* (Kelley et al., 1983b) reflect.

Partly as a result of their interest in processes underlying social behavior, social psychologists developed an interest in the antecedents and consequences of interpersonal attraction, or the disposition to think, feel, and act positively toward another person. By the late 1960s, enough theoretical and empirical work on attraction had accumulated that a book, albeit a slim book, could be devoted to the topic (Berscheid & Walster, 1969). Although social psychology's emphasis on experimentation may have delayed the investigation of attraction in ongoing relationships, where experimentation is rarely possible, social psychological theory and experimental research on attraction formed an important base from which explorations of relationship phenomena have been made in recent years.

We will not return to the historical beginnings and development of attraction theory and research in this chapter. Rather, we refer the reader to the previous edition of this *Handbook* for an account of these (Berscheid, 1985b). We shall, however, discuss many of those early and enduring contributions, often in their revised and updated form, as we present in this chapter an overview of social psychology's theoretical and empirical contributions to relationship science. These contributions are accelerating for many reasons, but most important among them is increased appreci-

ation that knowledge about interpersonal relationships is essential to the further development of social psychology.

**The Contribution of Relationship Science to Social Psychology** The cognitive revolution that swept through psychology in the 1960s and 1970s produced exciting new methods that made the empirical analysis of cognitive processes feasible. The potential of these developments to illuminate social perceptual and cognitive processes was quickly seized upon by social psychologists who had maintained their traditional interest in cognition even during behaviorism's heyday. As a result of the rush to take advantage of methodological advances in the study of social cognition, the study of problems more directly associated with social interaction over extended periods of time became increasingly infrequent. Moreover, the social stimulus most often examined in studies of social cognition was minimal—often only a stranger's face or essay or other property—and its effect usually was assessed at only a single point in time.

Unfortunately, and in contrast, no major methodological or technological advances had appeared to render relationship research any less difficult than it always had been. Because the essence of a relationship lies in the partners' interaction and the influence that each exerts on the other's behavior, the fundamental aim of relationship research is to understand the causal dynamics underlying regularities observed in the partners' interaction pattern over time. This shift from the individual level of analysis, with which psychologists are most familiar, to the dyadic level of analysis, essential to relationship research, remained fraught with epistemological (see Berscheid, 1986), conceptual, methodological, and statistical problems, as we shall elaborate throughout this chapter.

Many problems confronted by relationship researchers derive from the fact that the causal conditions that may be responsible for regularities in the partners' interaction pattern are more numerous and complex than those usually considered in the causal analysis of a single individual's behavior. Kelley et al. (1983a) classify these causal conditions into two types: personal and environmental. Personal causal conditions include the characteristics of the individual (P) (e.g., a "neurotic" personality), the characteristics of the partner (O), and the interaction of the partners' characteristics ( $P \times O$  conditions), or causal factors located in neither partner but rather in the conjunction of the partners' attributes (e.g., attitudinal similarity). Environmental causal conditions include the social environment (e.g., the social network within which the relationship is embedded) and the physical environment (e.g., an airplane), which may make some kinds of interaction more probable than other physical environments would.

Causal conditions of all these types not only may interact with each other to influence the partners' relationship behavior, but in turn, the partners' behavior may result in

changes in one or more of these causal conditions, which subsequently will affect their relationship. Thus the microevents of interaction and the relatively stable causal conditions influencing that interaction must be viewed as a continuous feedback loop that works its effects on the relationship over time. The fact that relationships and the phenomena that occur in them are inherently temporal often requires that relationships be tracked for extended periods of time (see "Relationship Satisfaction and Stability," later in this chapter). Thus the use of longitudinal designs assumes particular importance in relationship research, despite the considerable investment of resources that such studies require.

To compound the problems posed by the causal complexity and the temporal nature of most relationship phenomena, the most powerful tool for investigating causal dynamics—experimentation (see Aronson, Wilson, & Brewer, 1998, in this *Handbook*)—is often denied relationship researchers for ethical reasons. Even simply asking people to describe their ongoing relationships in interviews or on questionnaires does not always avoid ethical dilemmas, for such procedures may initiate thought and action processes that subsequently influence the relationship in ways that neither the investigator nor the participant anticipated (Rubin & Mitchell, 1976).

These and other difficulties associated with relationship research long kept social psychological relationship researchers imprisoned in their laboratories, often using the experimental method to examine attraction phenomena between strangers on a single occasion. In the early 1980s, however, social psychologists' frustration with the limitations of their experimental research with strangers, along with the public's demand for increased understanding of ongoing personal relationships, led many to lay down their experimental scalpels and leave the causally pristine conditions of the laboratory to venture out into the conceptual and methodological jungles of naturalistically formed ongoing relationships. There, as we shall discuss in this chapter, they came face to face with all the problems they had feared and many more they could not have imagined. Creatively adapting tools from their own discipline, borrowing methods and theory from other disciplines, and improvising as they went along, they began to hurdle many of the obstacles that had been viewed as insurmountable barriers to understanding the mysteries of human relationships. As this chapter reflects, their enthusiasm and confidence accelerated with each success, resulting in the sprawling and dynamic field that the young science of relationships is today.

There is growing evidence that social cognition researchers are now reaching the same stage that interpersonal-attraction researchers did in the early 1980s. As social cognition theory and research has matured (e.g., see Wegner & Bargh, 1998, and Gilbert, 1998, both in this *Handbook*), more social cognition scholars are actively confronting the fact that perception and cognition usually

take place in the context of ongoing relationships in the course of an individual's daily life, rather than under the highly structured and minimal stimulus conditions of the laboratory, where the referent of the cognitive processes examined is typically a stranger or hypothetical other of no emotional or motivational import to the individual. As one theorist of social cognition has emphasized, social understanding operates in the service of social interaction: "People's interpersonal thinking is embedded in a practical context, which implies that it is best understood . . . by its observable and desired consequences for social behavior" (S. T. Fiske, 1992, p. 878).

From the perspective of social cognition theory and research, an existing relationship can be viewed as a contextual variable that influences all behavior—emotion, cognition, and action—in social situations. For example, social psychologists often study the social stimulus of self-disclosure by creating a situation in the laboratory in which an individual's responses to a stranger's or hypothetical other's disclosure can be examined. The individual's response to that disclosure, however, is likely to be radically different depending on its relational context; it very much matters whether the source of the disclosure is a stranger or hypothetical other, a best friend, parent, spouse, or employer. The significance of this fact for our understanding of human behavior is that disclosures from hypothetical others are never received in daily life, disclosures from total strangers are rarely received, but disclosures from others with whom the individual shares a relationship are frequently received and may have a strong impact on the individual's subsequent behavior.

Further advances in social cognition thus are increasingly recognized to depend on gaining an understanding of cognitive processes as they occur in ongoing association with others with whom the individual is interdependent for the achievement of his or her goals and in which the actions that result from those processes have potent consequences for the individual's well-being. However, the same is true of most other social psychological questions. As Berscheid and Peplau (1983) put it, "No attempt to understand human behavior, in the individual case or the collective, will be wholly successful until we understand the close relationships that form the foundation and theme of the human condition" (p. 19). Current recognition that interpersonal relationships, social cognition, and other areas of social psychological knowledge are mutually interdependent for further advance promises to benefit social psychology over the next decade.

### Overview of the Chapter

We have sketched the outlines of the science of relationships, identified its major contributors, and briefly described its historical development, paying special attention to social psychology's role in furthering relationship

knowledge. Next, in "The Concept of Relationship," we discuss several issues associated with the relationship construct. Then, in "Relationship Beginnings," we review what is known about the antecedents and consequences of attraction in first encounters, the base from which many social psychologists began their exploration of relationship phenomena. One important consequence of attraction in an initial encounter is that it often portends that the relationship will continue to develop. In "Developing Relationships," we discuss theories and evidence addressed to the progression of relationships over time, highlighting relationship cognition, or the partners' thoughts and expectations about the relationship that help determine its quality and whether it will endure or dissolve. What causes some relationships to endure and others to fail, the most frequently asked question about relationships, will be discussed in the following section, "Relationship Satisfaction and Stability." Because most people regard satisfactory close relationships as essential to their happiness, a good deal of evidence pertinent to that assumption has been gathered, as we shall discuss in "Relationships and Well-Being." Finally, we will offer "Concluding Comments" about the future of relationship research and the role that an understanding of relationships is likely to play in the further development of social psychology.

### THE CONCEPT OF RELATIONSHIP

As the relationship field has grown, it has become clear that there is considerable variance in how the term "relationship" is defined and that how relationships should be conceptualized deserves more attention. In their commentary on issues facing the relationship field, Sarason, Sarason, and Pierce (1995) note, "Either explicitly or implicitly, most research on personal relationships is directed at one of three levels of analysis: individual, dyadic, and systemic" (p. 615). The systemic approach, which "seeks to account for the links, not only between the two participants in a personal relationship, but also with others in the social network who influence and are influenced by members of the target dyad" (Sarason, Sarason, & Pierce, 1995, p. 615), is relatively rare within social psychology, although more common within sociology.

The individual level of analysis focuses on individuals in relationships and usually depends on the individual's self-report of relationship variables. For example, people frequently are asked to describe their relationships along certain dimensions, usually on structured questionnaires. Such studies often rely on the validity of the individual's self-report of his or her own and the partner's relationship behavior. The problems involved in assuming that self-reports of autobiographical events, especially relationship events, are veridical are well known (e.g., see Berscheid, 1994; Harvey, Hendrick, & Tucker, 1988). In recent years, in fact, more relationship researchers have viewed these re-

ports as social constructions constituting interesting data in themselves, rather than as substitutes for systematic observation, and have been using account narrative methodology to investigate relationship questions (e.g., Gergen & Gergen, 1988; Harvey, Weber, & Orbuch, 1990; Sternberg, 1995). The problems inherent in using the partners' self-reports as a substitute for observation of relationship events are frequently exacerbated by the obtaining of reports from only one relationship partner. Gathering data from both members of the couple is still atypical, but it is clear from such studies that there are often substantial discrepancies in the partners' reports of relationship events (e.g., Christensen, Sullaway, & King, 1983).

Some of the partners' discrepancies are systematic and are associated with gender (see Deaux & LaFrance, 1998, in this *Handbook*). Gender differences, in fact, are ubiquitous in relationship findings. For example, in addition to differential interpretations of what constitutes a close relationship, significant gender differences have been observed in patterns of friendship, interaction styles, intimacy, love, mate preference, social support, loneliness, responses to stress and conflict, emotional expression, and nonverbal communication, to name just a few (e.g., see Beall & Sternberg, 1993; Canary & Dindia, in press; C. Hendrick, 1988; Maccoby & Jacklin, 1974; Peplau, 1983). There are many reasons why relationship phenomena should be so pervasively influenced by gender. For example, men and women are socialized differently from birth, with many of these practices addressed to the regulation of social behavior generally and close relationships in particular (Deaux, 1976; Huston & Ashmore, 1986; Maccoby, 1990), and sex hormones themselves influence many socially relevant behaviors (e.g., dominance, nurturance, and emotional expressiveness; Dabbs, 1994).

The fact that relationship behavior is permeated with gender differences adds complexity to relationship theorizing because any comprehensive model must address these gender differences in the phenomena considered. Moreover, empirical tests of most relationship hypotheses must include both males and females. Unfortunately, the literature reveals that it is often easier to recruit females than males to participate in relationship studies. Thus when gender differences are not directly examined, the findings tend to be more generalizable to women than to men. Although some have argued that men and women are more alike than different in their relationship behavior, and often exhibit behaviors that differ only in strength rather than in kind (e.g., Duck & Wright, 1993), the possibility of an interaction between gender and the behavior of interest can never be discounted.

Even more problematical for relationship researchers is the fact that gender is often confounded with power in society in general and in many mixed-sex relationships in particular, with women possessing relatively less power

than men. For example, a frequent finding in relationship communication behavior is that men interrupt women more than women interrupt men; when the usual power positions of opposite-sex partners are reversed, however, women interrupt men more than men interrupt women (Geis, 1993). When investigators do not explicitly address the gender-power confound in opposite-sex relationships, relationship behaviors may be mistakenly attributed to gender rather than to power.

In contrast to the individualistic approach, it is the dyadic approach that distinguishes relationship theory and research from other areas of social psychology. It "explicitly recognizes that relationships reflect patterns of interaction between two people whose appraisals of relationships develop in the context of their ongoing interactions" (Sarason, Sarason, & Pierce, 1995, p. 615). Thus, as Sarason, Sarason, and Pierce emphasize, relationships do not simply reside in people's heads; they grow out of interaction, and they have distinctive emergent properties. The dyadic approach to the study of relationships was elaborated by Kelley et al. (1983a), who argued that the concept of relationship refers to two people whose behavior is interdependent in that a change in the state of one will produce a change in the state of the other. The fundamental observational base in the study of personal relationships thus concerns the influence that partners have on each other's behavior. As this implies, a relationship between two people is viewed as residing in neither one of the partners but, rather, in their interaction with each other. That interaction constitutes the living tissue of the dynamic organism called "relationship," and the causes and consequences of the partners' pattern of interaction are what must be understood.

Relationship scholars differ, however, on how much interaction between two people, and what kind of interaction, must take place before they are willing to say that two people are in a relationship. The issue is not merely philosophical. For example, to trace the development of a relationship over time, the "beginning" of the relationship must be identified. Some relationship development theorists place the relationship beginning at the point at which one individual becomes aware of the other (Berscheid & Graziano, 1979; Levinger, 1974). The relationship may not develop beyond this initial impact, however, and most relationship scholars would not be willing to call that single event a relationship. Even an extended initial interaction in which both persons strongly influence each other's behaviors would not constitute a relationship in the eyes of some theorists. Homans (1979), for example, maintains, "Not until a person enters into repeated exchanges [interactions] with the same other may we even begin to speak of a relationship existing between them" (p. xviii).

Some relationship theorists go further and assert that even "strings" of interactions do not necessarily constitute a relationship (Hinde, in press). Many social interactions

are role-based, for example; thus the interaction pattern characteristic of the relationship is stereotypical for all persons occupying those roles. Social psychologists usually are not interested in such interactions (although many sociologists are); rather, social psychologists tend to examine relationships in which the interaction pattern is relatively unique as contrasted with the partners' interaction patterns with other persons or with the interaction patterns characteristic of other partners.

Finally, most relationship scholars would not view two persons as being in a relationship with each other unless both have represented and organized their past interactions in memory and this mental schema is relatively idiosyncratic (although the schema will, of course, share many similarities with the partners' other relationships, past and present). These cognitive representations of the relationship constitute an important contextual feature of the partners' future interactions with each other, for they will influence how the partners interpret events that occur in those subsequent interactions (a point to which we shall return in "Developing Relationships").

In sum, most relationship scholars agree that, at minimum, for two people to be in a relationship with each other, they must interact and, as a consequence of that interaction, each partner's behavior must have been influenced. What kind of relationship it is—close or superficial, for example—depends on the properties of the interaction pattern.

### Close Relationships

One reason relationship researchers have not devoted a great deal of effort to explicating the concept of relationship is that they very early set their sights on understanding "close" relationships, believing that the dimension of closeness underlies most relationship phenomena of interest (see Clark & Reis, 1988). Unfortunately, the construct of closeness itself often remained unexamined; many theorists and investigators simply assumed that everyone understood what constituted a close relationship. Even scholars who recognized that the construct needed explication often defined closeness with reference to other vague and ill-defined constructs: "Such words as *love, trust, commitment, caring, stability, attachment, oneness, meaningful, and significant*, along with a host of others flicker in and out of the numerous conceptions of what a 'close relationship' is" (Berscheid & Peplau, 1983, p. 12).

The ambiguity surrounding conceptions of closeness did not initially constitute an obstacle to the study of close relationships, because close relationships usually were identified by commonly accepted conventions whose underlying assumptions were rarely questioned. One convention, still often used, was simply to ask individuals themselves to identify their close relationships, using whatever criteria they believed to be pertinent. It gradually became

recognized, however, as Milardo (1988) and others have discussed, that subjective interpretations of closeness vary across gender (Peplau & Gordon, 1985), age (Dickens & Perlman, 1981), and culture (Markus & Kitayama, 1991).

Another long-standing convention was based on the assumption that family relationships are close relationships and that, conversely, most close relationships are family relationships. As divorce and serial marriage became more frequent in the 1960s, however, and as the shape of the family began to change dramatically, the validity of the assumption that these types of relationships are always close became increasingly doubtful (see Berscheid, Snyder, & Omoto, 1989a). Not only did it become apparent that family relationships are not necessarily close relationships, it became difficult to identify a "family" relationship even if the investigator was willing to assume that all such relationships are close. The proliferation of nontraditional family forms, in fact, resulted in family scholars asking the question "What is family?" with distressing frequency (see Gubrium & Holstein, 1990; Scanzoni et al., 1989). As a consequence, and although marital and parent-child relationships are still considered to be exemplars of the close relationship, it became apparent that the closeness construct needed explication to facilitate the identification of close relationships without reference to their form or type.

Kelley et al. (1983a) argue that close relationships are those in which the partners are highly interdependent, and that their interdependence will be revealed in certain properties of their interaction pattern. Although relationship scholars differ as to which interaction properties are the best indicators of interdependence and thus differentiate close from nonclose relationships, Kelley et al. observe that most would require the interaction pattern to reveal that the partners frequently influence each other's behavior (i.e., cognitive, affective, and conative), that each person's influence on the partner's behavior is diverse (e.g., not limited to certain kinds of behavior in few situations), that the influence is strong, and, moreover, that all these properties have characterized the partners' interaction pattern for a considerable duration of time.

Some researchers also would regard the intensity and positivity of affect generated by the partners' interaction as a criterion of closeness, requiring that the partners like, love, or otherwise feel positive regard for each other. Berscheid (1983), however, observes that relationships that would be classified as close on other grounds frequently are characterized by the experience of strong negative affect and argues that positive affect is a poor criterion of closeness. Other theorists give prominence to yet other criteria. Aron and his associates (e.g., Aron et al., 1991), for example, view a close relationship as one in which partners include the other in their conceptions of self and perceive a "oneness" with the other.

Relationships classified differently as a result of investi-

gators' different concepts of closeness will produce different associations between closeness and other variables. For example, using the convention of asking people to identify their own closest relationship and then to evaluate that relationship's degree of closeness relative to the closeness of their other relationships and to the relationships of other people, Berscheid, Snyder, and Omoto (1989b) compared these "subjective closeness" evaluations with those obtained from their Relationship Closeness Inventory (RCI). The RCI, whose validity and reliability have been favorably assessed in Japanese as well as American culture (Gudykunst & Nishida, 1993), attempts to assess frequency, diversity, and strength of the partner's influence. Subjective closeness evaluations of the closest relationship were found to be severely skewed toward high closeness, but the RCI's (transformed) scales produced a more normal distribution of closeness, suggesting that even relationships that individuals identify as their closest are not necessarily very close. These investigators also found that another frequently used criterion of closeness, the positivity and negativity of emotions and feelings experienced in the relationship, produced yet another closeness distribution, one again skewed toward high closeness but not as severely skewed as the subjective closeness measure. As these investigators predicted, positivity of affect was significantly correlated with subjective feelings of closeness but not with closeness as measured by the RCI. Finally, illustrating that how the investigator defines and measures closeness will influence observed associations with other variables, Berscheid et al. found that neither positive affect nor subjective closeness predicted romantic relationship breakup nine months later in their study, but closeness as measured by the RCI did.

Aron, Aron, and Smollan (1992) subsequently factor-analyzed responses to several closeness measures, including the RCI and the Inclusion-of-Other-in-Self Scale (IOS; Aron et al., 1991). The IOS was derived from the Self-expansion Model (Aron & Aron, 1996), which views closeness as the degree to which cognitive representations of the self overlap with those of the partner. It depicts a series of two circles, one labeled "self" and the second "other," that overlap to varying degrees and asks respondents to select the set that best describes their relationship. Aron et al.'s analyses indicated that "feeling close" (e.g., especially as measured by subjective closeness measures such as the IOS) and "behaving close" (e.g., especially as measured by the RCI) may be relatively independent subdimensions of closeness. Closeness as measured by the IOS predicts relationship stability over three months, and it is associated with subjective ratings of closeness and intimacy (Aron, Aron, & Smollan, 1992) as well as with response latencies and recall errors on social cognition tasks, demonstrating confusion between the traits of self and a close other (Aron et al., 1991; see also Omoto & Gunn, 1994).

People's subjective estimates of the closeness of their relationships depend, of course, on their beliefs about what constitutes a close relationship. Individual differences in lay conceptions of closeness have only recently become of interest (Helgeson, Shaver, & Dyer, 1987; Rusbult, Onizuka, & Lipkus, 1993; see also Fletcher & Thomas, 1996). These conceptions, and the degree to which a specific relationship qualifies as a close one in the individual's eyes, have obvious implications for the individual's relationship behavior.

### Establishing Interdependence

Establishing that two persons' behaviors are interdependent is essential to determining that they are in a relationship. Perhaps the most obvious way to establish that two people are interdependent and to identify regularities in their interaction pattern is to observe them interacting with each other. Although reactivity of observation has long been a concern in observational relationship studies because of the intimate nature of many relationship behaviors, recent research suggests that the problem may not be as great as previously supposed (Jacob et al., 1994). But because actual observation of the partners' interaction is expensive, difficult, and time-consuming, most social psychological relationship research is conducted at the individual level of analysis and systematic observation of interaction is relatively rare (but see "Relationship Beginnings"). Observational research of relationship interaction has been conducted primarily by developmental psychologists, who frequently observe children's social interactions (see Ruble & Goodnow, 1998, in this *Handbook*), and by marital researchers, many of whom have attempted to distinguish the patterns of interaction that are characteristic of distressed couples from those of satisfied couples in order to facilitate the development of effective therapeutic techniques (see "Relationship Satisfaction and Stability".)

**Correlation between Partners' Behaviors** If the partners are interdependent, their base rates of important behaviors will be correlated (e.g., the rate of negative behavior displayed by the wife will be positively correlated with the rate of negative behavior displayed by the husband, Wills, Weiss, & Patterson, 1974). Although such correlations suggest that the partners are interdependent, they do not unequivocally establish that fact, for each partner may be independently reacting in a similar way to other stimuli. For example, the cause of the wife's negative behavior may lie in her neurotic personality (a P causal condition), and the husband's negative behavior may stem from his poor health and physical discomfort (also a P causal condition); thus both are likely to display high rates of negative behavior with any person with whom they interact. The true



cause of the correlation between the partners' base rates of negative behavior also may lie in their common social or physical environments, to which they are independently responding; that is, each individual would respond to any partner in that particular environment with a high rate of negative behavior.

Correlations obtained between relationship partners on behavioral dimensions of interest often present a special problem for relationship researchers because most conventional statistical techniques require that the observations analyzed be independent (e.g., that the rate of the husband's negative behavior be independent of the wife's rate of negative behavior). If, however, the investigator has succeeded in identifying persons who are in a relationship with each other, the partners' behaviors will not be independent, as will be revealed by a correlational analysis of the two sets of behavioral observations (see Kenny & Judd, 1986, for a discussion of some implications of, and solutions to, dependence of observations, as well as Kashy & Snyder, 1995). Thus analyses of such data must separate individual-level effects from dyadic-level effects (i.e., effects that reflect the partners' interdependence). Gonzalez and Griffin (1997) show how some traditional methods of handling dyadic interdependence (e.g., averaging across partners) may misrepresent the sources of variance underlying interdependent data, and they present a series of user-friendly procedures for calculating individual- and dyadic-level effects. Their methods are especially important in view of what has been termed the "exchangeability problem" (Griffin & Gonzalez, 1995); in some dyadic research, observations obtained from one partner (e.g., the wife) are easily assigned to one column and observations obtained from the other partner (e.g., the husband) are assigned to the other column for analytical purposes, but in other instances (e.g., same-sex roommates) there may be no apparent basis on which to make assignments to one column or the other. Kenny (1988) has demonstrated that the seemingly arbitrary decision to assign observations obtained from one partner to a particular column and those obtained from the other partner to the other column may have a profound effect on the correlation coefficient obtained; thus, it is necessary to use the cumbersome intraclass correlation coefficient rather than the traditional Pearson coefficient when partners are indistinguishable.

**Sequential Analysis** Rather than simply tallying base rates of interaction behavior, some relationship researchers record the temporal sequence of interaction behaviors. These behavioral events are then subjected to sequential analysis to establish that the partners are interdependent with respect to those behaviors (Gottman, 1979). Sequential analysis allows the researcher to determine whether the individual's behavior (e.g., a disparaging comment) and the partner's behavior that preceded it (e.g., a hostile re-

mark) should be viewed as a single stimulus-response sequence. Sequential analysis thus goes directly to the heart of relationship phenomena—the partners' interdependence. Sequential analysis of interaction microevents helps identify regularities in the partners' interaction pattern, and, by contrasting patterns between known groups (e.g., distressed and nondistressed marital couples), it tells investigators what they need to explain causally.

Sequential analysis of social interaction not only is labor-intensive for the investigator, but it requires the mastery of statistical and analytical skills that are seldom used by social psychologists. When continuous measurements are recorded (e.g., continuous measurements of skin conductance), a time-series analysis may be performed to detect dependencies between the partners' behaviors. When the data are categorical (e.g., discrete negative or positive behaviors performed by the partners), as is more frequently the case in social interaction research, log-linear analysis and lag-sequential analysis may be performed. Bakeman and Gottman (1986) offer an introductory treatment of the latter, and Bradbury and Fincham (1991) provide a beginner's introduction to both techniques, along with an extensive bibliography of works graded by sophistication and difficulty. (More general discussions of relationship methodology are available in Harvey, Christensen, & McClintock, 1983; Montgomery & Duck, 1991; Robins, 1990; and Thompson & Walker, 1982.) Sequential analytic methods are relatively new and complex, and many are still in the process of development and are mathematically controversial. For these reasons, as well as the labor and expense of collecting and coding appropriate data, studies using these techniques are rare (but see "Relationship Satisfaction and Stability").

**The Social Relations Model** The Social Relations Model (SRM) developed by David Kenny and his associates (e.g., see Kenny & La Voie, 1984) provides a means by which investigators may establish the partners' interdependence and also determine the extent to which the individual's personal properties contribute to his or her interaction behavior. Use of the SRM requires that each of the relationship partners (P and O) not only interact with each other, but that each interact with several other persons as well. P's interactions with O and with other persons in the group are observed, as are O's interactions with P and with those same others. All interactions are then coded with respect to the behavior of interest (e.g., P's negative behavior toward O), with analyses partitioning the variance in P's behavior across interactions into an "actor" effect (e.g., P, the husband, is critical of everyone with whom he interacts, not just of O, his wife), a "partner" effect (e.g., everyone who interacts with the wife is critical of her, not just her husband), and a "relationship" effect (e.g., the husband primarily gives and the wife primarily receives criticism in

their relationship with each other). In order to establish dyadic reciprocity, O's interactions are then subjected to the same analyses.

Kenny terms the actor and the partner effects "individual-level" effects. Significant individual-level effects indicate that a personal property of P (e.g., P's neuroticism, a personal causal condition whose effect may be a tendency for P to criticize others and for P to receive criticism from others) is an important contributor to the behavior observed in the interactions between P and O (e.g., the overall rate of negativity). If analyses of O's interactions also reveal significant individual-level effects, then an O causal condition is also contributing to the negativity of the interactions between P and O. If only these individual-level effects were observed, the investigator would doubt that the negativity observed in P and O's interaction is a function of their relationship, or that P and O are interdependent in this way; rather, it is more likely that P and O simply happen to be two unhappy people who frequently give and receive criticism, regardless with whom they interact, and that these two misanthropes happened to find each other. If a significant relationship effect is obtained in each of these two analyses, however, and if P's relationship effect is significantly correlated with O's relationship effect, then evidence that the two partners are interdependent will have been obtained. As Kenny puts it, we would have evidence of "dyadic reciprocity," which always constitutes evidence of interdependence. In our example, the investigator would conclude that "negative reciprocity" is a regularity in the couple's interaction pattern.

Like sequential analysis, SRM methodology is still evolving, some of its mathematical assumptions are both complex and controversial, and the expensive and labor-intensive data collection requirements of this method preclude its frequent use in relationship research. When it is used, however, it may yield insights into relationship phenomena not often provided by other methods (see "Relationship Regressions").

### Relationship Taxonomies

The attempt to conceptualize and measure a close relationship with respect to its interaction infrastructure, and without reference to its outward form or type, has been regarded as the greatest strength of psychology's approach to close relationships (Blumstein & Kollock, 1988). Nevertheless, relationship knowledge remains severely fragmented along the lines of relationship type (e.g., marital, friendship, parental). Type of relationship also is confounded with disciplinary approach, as well as with the characteristics of individuals customarily found within that type of relationship and with the relationship phenomena of interest. Whether relationship scholars will be able to develop a generic body of knowledge about the causal dy-

namics of relationships that transcends relationship type is an important question facing the relationship field (Berscheid, 1994).

In addition to efforts to conceptualize and assess relationship closeness across relationship types, the identification of other structural dimensions that underlie all relationships may facilitate an integration of relationship theory and research. An early study by Wish, Deutsch, and Kaplan (1976) found that four dimensions seemed to underlie people's ratings of several different types of relationships: cooperative/friendly versus competitive/hostile, equal versus unequal, intense versus superficial, and socioemotional/informal versus task-oriented/formal. This last dimension appeared to incorporate two of the three dimensions previously found in a study by Marwell and Hage (1970): intimacy (e.g., relationships characterized by a high number of different activities, different locations, and high role-set overlap) and regulation (e.g., relationships in which the definition of activities, times, and locations are left to the partners). None corresponded, however, to Marwell and Hage's third dimension, visibility, which was defined as private versus public relationships that are open to intrusion.

More recently, sociologists Blumstein and Kollock (1988) have suggested that five dimensions define relationship property space: kin versus nonkin; sexual-romantic versus nonsexual-romantic; cohabiting versus noncohabiting; hierarchical versus egalitarian; and cross-sex versus same-sex. In contrast, Scanzoni et al. (1989) have argued that "sexually based primary relations" may be the most useful classificatory construct because it is positioned midway between the more abstract concept of close and the more concrete constructs of marital or romantic cohabitation or other lifestyles.

Another potentially useful taxonomy has been offered by anthropologist Alan Fiske (1992), who argues that one of four fundamental relationship models directs an individual's behavior in all social interactions: (1) communal sharing (e.g., all group members are treated equally and share a common identity); (2) authority ranking (e.g., people attend to each other's status in a hierarchical order); (3) equality matching (e.g., the principle of quid pro quo predominates); and (4) market pricing (e.g., people rationally weigh the utility of their behavior in achieving desired outcomes in interaction). Fiske's classification scheme has produced interesting empirical findings (Fiske, 1993; Fiske, Haslam, & Fiske, 1991), and further support for two classifications in the model, communal sharing and authority ranking, has been provided by Haslam (1994).

The communal-relationship classification in Fiske's taxonomy was previously proposed by Clark and Mills (1979; Mills & Clark, 1994), who distinguished between communal relationships, in which response to the partner's needs and concern for the other's welfare are the norms

that govern the giving and receipt of benefits, and "exchange" relationships, in which benefits are given with the expectation of receiving a comparable benefit in return or as payment for a benefit previously received from the other. Clark and Mills (1993) emphasize that their distinction differs from that of closeness; although communal relationships tend to be the individual's closest and most important relationships, this is not always true. Clark and her colleagues have gathered considerable evidence that people's responses to the same behavior exhibited by their partners differ depending on which of these two relationship orientations the partners have adopted (see "Developing Relationships").

Other taxonomies have been developed for specific types of relationships (e.g., romantic relationships; see "Relationship Beginnings"). These and other relationship classification schemes imply that individuals will differently interpret what may appear to observers to be exactly the same behavior on the part of their partner, and thus will respond to that behavior differently, depending on the kind of relationship it is. As this suggests, information about how relationships are mentally represented (see "Developing Relationships") can be expected to further the development of a relationship knowledge base that transcends the boundaries of relationship type and facilitates the integration of relationship knowledge.

## RELATIONSHIP BEGINNINGS

Most relationship scholars would say that two persons have not begun a relationship if they have never interacted in some way, as we have discussed, and many would require not only that they have interacted but that their interaction has left residual effects on them. Attraction is one such residual effect. Attraction in opposite-sex romantic relationships has been most frequently examined, but the beginnings of friendship have received some attention (e.g., Hays, 1985). (For reviews of the adult friendship literature, see Blieszner & Adams, 1992; Dickens & Perlman, 1981; Fehr, 1996; and Perlman & Fehr, 1986.)

### The First Encounter

Many of the conditions responsible for the partners' initial interaction are located in their social and physical environments. These environmental forces can be arrayed along a dimension that represents the extent to which the partners are compelled to interact with each other or do so voluntarily.

**Voluntariness of Interaction** The degree to which the partners' interactions are voluntary or involuntary is often overlooked, for several reasons. First, the conditions pro-

ducing interaction in involuntary relationships usually lie in the relationship's external environment, which is infrequently investigated in relationship research (see Bradbury, Cohan, & Karney, in press). Second, relationship scholars appear to have been influenced by the popular belief that whether, and with whom, one forms a relationship are matters of personal choice. Third, social psychologists traditionally have focused on romantic relationships, which are viewed as voluntary in western culture and thus governed primarily by personal rather than by environmental causal conditions. For these and other reasons, layperson and scholar alike have tended to discount the influence of environmental factors on interpersonal relationships and have emphasized volitional personal factors, particularly attraction to the other, as the major causal factors producing relationship initiation and continuance. For many years, in fact, attraction was assumed to be both necessary and sufficient for interaction to occur (see Berscheid, 1985b, for a history).

The voluntariness dimension plays an important, if sometimes implicit, role in many relationship theories. Thibaut and Kelley (1959), however, explicitly recognize that some relationships are involuntary in that they are characterized neither by attraction to the partner nor by satisfaction with interaction outcomes. Theories influenced by Interdependence Theory concepts similarly assume that relationships may be initiated and maintained despite the personal preferences of the interactants. For example, Levinger's (e.g., 1965) concept of "barriers" to relationship dissolution, Johnson's (1991a) concept of "structural commitment" to a relationship, and Berscheid and Lopes's (in press) Temporal Model (see "Relationship Satisfaction and Stability" for a discussion of these theories) all assume that environmental forces sometimes mandate that an individual initiate and maintain interaction with another for reasons extrinsic to the quality of their interaction and to the positivity of sentiment felt for the partner.

In addition to Interdependence Theory, Murstein's (1970) Stimulus-Value-Role Theory of Marital Choice highlights the voluntariness dimension. It distinguishes between initial interactions that take place in "closed" fields, where individuals are virtually forced to interact, from those that take place in "open" fields, where people are free to interact or not as they wish. The significance of whether the first interaction is voluntary or involuntary for understanding the further development of the relationship is that if the environmental conditions are such that the partners' initial interaction is involuntary, one can expect their interaction to continue only if those conditions do not change (e.g., they continue to work in the same office). If the interaction is voluntary, however, continuation of the relationship depends largely on the attraction to each other that the partners develop and maintain in their interactions.

The distinction between involuntary and voluntary in-

teraction is important for another reason. To the extent that the interactants are aware of the environmental and personal conditions influencing their relationship, certain psychological processes may be generated that will affect the relationship's subsequent quality and future. For example, Seligman, Fazio, and Zanna (1980) induced dating couples to adopt either an "intrinsic" cognitive set, in which they were encouraged to think about their enjoyment of each other as motivations to continue the relationship, or an "extrinsic" set, in which external reasons and pressures to continue the relationship were emphasized. These investigators found that individuals whose awareness of their extrinsic reasons for continuing the relationship had been heightened subsequently viewed the probability of marrying their partners as significantly lower than did individuals in the intrinsic and control groups, and they also reported less love (but not less liking) for their partners. Correlational data support the association between certain relationship outcomes and the partners' perception that their motivation for continuing the relationship is intrinsic or extrinsic to the quality of their interaction (Fletcher et al., 1987; see also Blais et al., 1990).

Although the utility of positing a voluntariness dimension underlying relationships has been the subject of some debate (Johnson, 1991b; Rusbult, 1991), many relationship scholars are finding it useful with respect both to premarital and marital relationships (Rempel, Holmes, & Zanna, 1985) and to friendships (Fischer, 1975; see also Palisi & Ransford, 1987). An understanding of many important relationship phenomena might be furthered by increased attention to the facts that (1) many of the needs and purposes that relationships satisfy differ with respect to whether they are intrinsic or extrinsic to the nature and quality of the partners' interaction and (2) such differences are typically associated with different constellations of the environmental conditions in which the relationship is embedded.

**The Social Context** Who initiates an interaction with whom for the first time depends on the "field of availables" (Kerckhoff, 1974). Although the persons available for interaction often are considered to be those within close physical proximity to the individual, the results of early research on proximity and affiliation revealed that it is interaction accessibility, not distance per se, that is important (Festinger, Schachter, & Back, 1950), a conclusion underscored by recent advances in telecommunication. As a consequence, theorists have become more sophisticated in predicting the probability of first interaction, as Parks and Eggert's (1991) Social Contextual Model of relationship initiation illustrates. These theorists emphasize that in addition to physical distance, "communicative distance"—or the number of members of their communication networks an initiator and his or her potential partner would have to go through to reach each other—is important. Con-

sistent with their prediction that increases in communicative distance are associated with decreases in first-interaction probability, these investigators report that in one study two-thirds of the respondents had met at least one member of their partner's network of close associates prior to meeting the partner.

Parks and Eggert emphasize that initial-interaction probability also is a function of social norms that dictate who is an appropriate or inappropriate partner, as was reflected in Winch's (1958) early coinage of the phrase "field of eligibles" with respect to mate selection. These social norms influence not only the individual's choice of persons with whom he or she attempts to interact, but also members of the individual's social network, who may facilitate initial encounters with desirable partners and prevent encounters with undesirable persons. Although little information is yet available on the role that members of the individual's network play in relationship initiation, what evidence there is suggests that it is an active one (Liu, Campbell, & Condie, 1995).

Persons in the partners' social network also may influence whether initiated relationships progress. The "social withdrawal" hypothesis, which predicts that partners withdraw from their social networks as their relationship develops, and which thus suggests that the effect of the network's approval or disapproval of the relationship will diminish over time, has failed to receive strong support (for discussions see Parks & Eggert, 1991; Reis & Wheeler, 1991; and Surra, 1990). With respect to romantic relationships, for example, Milardo, Johnson, and Huston (1983) found that as a courtship progressed, partners tended to maintain contact with about the same number of people; they interacted with kin and best friends as frequently as before but interacted with lesser friends and acquaintances somewhat less often (see also Lin, 1992, reported in Reis & Wheeler, 1991). Moreover, romantic partners' perceptions of others' approval or disapproval have been shown to be strongly associated with further development of the relationship (Johnson & Milardo, 1984; Parks, Stan, & Eggert, 1983; Sprecher & Felmler, 1992; see Surra, 1990, for a review). A useful model to guide further investigation of the social network's influence on developing relationships has been offered by Surra and Bohman (1991).

In sum, although questions of affiliation were originally confounded with questions of attraction, it is now evident that who interacts with whom may be different from who is attracted to whom. Further evidence of the difference has been provided by Surra and Milardo (1991), who distinguish between "interactive" networks, consisting of people with whom one engages in interaction, and "psychological" networks, composed of people whom the individual feels close to or believes to be important. Surra and Milardo report that in one study 75 percent of the persons people identified as members of these two networks belonged to only one, not both; moreover, there was no corre-

lation between the sizes of the two networks, nor was there an association between the size of the psychological network and frequency of daily interaction with persons in that network. It should be noted that other researchers have found numerous differences between men's and women's interactive networks (Fischer & Phillips, 1982; Wellman, 1992). Many of these gender differences may be the consequence of gender differences in affiliative motive. For example, using the experience sampling method, Wong and Csikszentmihalyi (1991), as well as O'Connor and Rosenbloom (1996), have found that women appear to spend more time than men in social interaction.

### The Concept of Attraction

An individual's attraction to another is no doubt the most frequent cause of voluntary attempts to initiate interaction with that other. An understanding of the antecedents of attraction is important not only for understanding voluntary relationship initiation but also for predicting the influence that all first encounters will have on the developing relationship. For example, when the first interaction is involuntary, attraction may develop and sustain the relationship after the conditions that compelled the initial interaction have evaporated. Research on the effects of an individual's expectation of future interaction (Darley & Berscheid, 1967; Miller & Marks, 1982), where external constraints dictate that the individual frequently interact with another in the future, illustrate that the prospect of involuntary interaction may generate cognitive processes that increase the attractiveness of the partner. Moreover, the attraction generated may be strong enough that when the initial constraints are removed and individuals are given the freedom to choose a more desirable interaction partner, they may voluntarily choose to interact with the same, objectively less desirable partner that fate initially assigned to them (Berscheid, Boye, & Darley, 1968).

Although attraction is no longer confused with affiliation, the concept of attraction has received little explication. Early researchers conceptualized attraction as an attitude, or a predisposition to respond to another in a positive way, whether the response consisted of positive appraisals of the other's attributes, positive feelings and emotions experienced in association with the other, or positive actions taken toward the other (see Berscheid, 1985b). Even though relationship scholars have become deeply interested in affective phenomena within relationships (e.g., see Fitness & Strongman, 1991), especially emotional phenomena as evidenced by indicators of physiological arousal, they typically differentiate only between positive and negative affect; finer differentiations of emotional states are rarely made (but see Gottman & Krokoff, 1989).

Moreover, most relationship investigators still define attraction to the partner and to the relationship with respect

to one bipolar dimension (e.g.,  $-10$  to  $+10$ ), as opposed to viewing affectional space as defined by two independent dimensions, one positive and one negative (see Berscheid, 1985b, for a discussion). The traditional bipolar view still reigns (but see Gottman & Levenson, 1992), even though studies of the structure of affect consistently reveal that positive and negative affect are relatively independent dimensions (Cacioppo & Berntson, 1994; Watson & Tellegen, 1985; Zevon & Tellegen, 1982). Moreover, it has been persuasively argued that distinctive positive and negative affective systems within individuals produce both intra-individual variations in emotional state and interindividual differences in emotionality (Tellegen, 1985). The independence of positive and negative affect is supported by research on affective experiences in relationships; for example, positive and negative affective experiences appear to interact with the age of the relationship such that their association with each other and with many relationship outcomes differ over the course of the relationship (see "Relationship Satisfaction and Stability").

### Principles of Attraction in First Encounters

Positive or negative sentiment for others has long been regarded as the theme of interpersonal relationships (Heider, 1958). The frequent finding that the evaluative factor underlies symbolic representations of people and objects is often interpreted in evolutionary terms (e.g., Osgood, Suci, & Tannenbaum, 1957); an individual's ability to evaluate whether another person or object is "good for me or bad for me" is presumed to be critical to well-being and survival. Not surprisingly, people's judgments of whether another is likely to enhance or harm their welfare is the underlying theme of the well-established principles of interpersonal attraction.

**Familiarity** The most basic principle of attraction is familiarity. As opposed to the unfamiliar, familiar people usually are judged to be safe and unlikely to cause harm. The general effect was experimentally demonstrated long ago by Hartley (1946), who asked people to give their impressions of various national groups, including such fictitious groups as the "Danerians." Although there was no consensus about the specific characteristics of Danerians and other unfamiliar groups, people agreed that they possessed undesirable qualities and disliked them. Subsequent investigations of the "mere exposure" hypothesis (Zajonc, 1968) have confirmed that repeated exposure to a stimulus enhances attraction to it under a wide range of conditions (e.g., see Bornstein, 1989, and Harrison, 1977, for reviews).

Familiarity is no doubt partly responsible for the ubiquitous finding that people are more likely to initiate relationships with people in close physical proximity than they are with people even a short distance away (Segal, 1974).

Not only does physical proximity usually facilitate ease of initiating interaction, but it increases familiarity with the other prior to the interaction attempt. Brockner and Swap (1976), for example, found that the more an individual had seen but not interacted with another, the more likely he or she was to choose to interact with that person. The effect of increasing familiarity in long-term relationships is not as clear and may not be as sanguine. For example, the known principles of attention dictate that, other things being equal, familiar persons lose their ability to capture each other's attention over time (Berscheid & Graziano, 1979). There is also evidence that familiarity may be antagonistic to individuals' ability to inspire sexual desire in their partners (see Berscheid, 1985b).

As the prevalence of long-distance relationships has increased in the United States, in part because of an increase in the number of dual-career couples, investigations of the association between attraction and frequency of interaction have increased as well. At least one longitudinal study of marital interaction indicates, not surprisingly, that as marital satisfaction decreases, so does the frequency of spouses' interaction (Johnson, Amoloza, & Booth, 1992), a finding consistent with White's (1983) earlier evidence that frequency of marital interaction affects marital happiness but marital happiness has an even stronger effect on marital-interaction frequency (see also Zuo, 1992). Reissman, Aron, and Bergen's (1993) finding that experimentally increasing the amount of time couples spent together did not enhance relationship satisfaction supports the likely causal directionality of the association between interaction and satisfaction in cohabiting couples.

Studies of couples who have been involuntarily separated geographically have produced mixed results (see Guldner & Swensen, 1995, for a brief review). Using U.S. census data, Rindfuss and Stephen (1990) found that marital noncohabitation was surprisingly common and, examining data from a national longitudinal sample, concluded that noncohabitation is associated with a higher probability of subsequent marital dissolution. However, Govaerts and Dixon's (1988) cross-sectional comparison of commuter and noncommuter marriages found no difference in satisfaction, nor did Guldner and Swensen's (1995) cross-sectional study of relationship quality in separated and proximal couples. It is not yet clear when partner separation makes the heart grow colder rather than fonder.

**Reciprocity of Attraction** Individuals generally view others who like them as potential sources of help and unlikely sources of harm. Virtually all attraction theorists view another's expression of esteem as a valuable reward that the recipient is likely to reciprocate, as Backman and Secord (1959) were the first to demonstrate experimentally. Using the Social Relations Model method, Kenny and his associates (Kenny & La Voie, 1982, 1984; Kenny &

Nasby, 1980) have found that although there are individual effects in attraction (i.e., some people tend to be liked more by others than other people are, and some people tend to like others more than other people do), these actor and partner effects are relatively small compared to relationship, or attraction reciprocity, effects. Kenny (1994b) has calculated dyadic reciprocity correlations from ten studies and concludes that attraction reciprocity becomes more substantial in longer-term relationships, as one might expect as people gradually learn of their partner's sentiments.

The proposition that, relative to people who possess high self-esteem, people who dislike themselves should be more comfortable with others who dislike them is a relatively old one in the literature, dating back to Deutsch and Solomon (1959), who found some support for the hypothesis but also observed a strong positivity effect such that even people who have a poor opinion of themselves are likely to reciprocate another's expression of esteem (see Berscheid, 1985b). Swann and his associates (see Swann, 1990) have exhumed the congruency-versus-positivity hypothesis in the context of Self-verification Theory, which posits that people gravitate toward relationship partners who see them as they see themselves. Although people clearly seem to prefer positivity in first encounters with strangers in laboratory situations, and in dating situations as well, Swann, Hixon, and De La Ronde (1992) found that spouses who possessed negative self-concepts were more committed to (e.g., desired more to remain in the relationship with) marital partners who negatively evaluated them than they were to partners who thought well of them, but the opposite was true of spouses with positive self-concepts. These authors speculate that people with negative self-concepts may seek positive evaluations in some contexts and unfavorable but self-verifying appraisals in other contexts, including long-term close relationships. In addition to Self-verification Theory, Interpersonal Congruency Theory (Backman, 1988; Secord & Backman, 1961; see also Snyder & Cantor, 1998, in this *Handbook*) importantly details how an individual's self-views and personality dispositions engage relationship factors and processes.

**Similarity** Following Newcomb's (1961) demonstration that similarity is a potent determinant of attraction, in a classic longitudinal study of friendship formation among housemates who were initially strangers to one another, Byrne (1971) and his associates collected a great deal of evidence suggesting that attraction is a linear function of attitudinal similarity. Most of this evidence was derived from Byrne's "bogus stranger" experimental paradigm, in which the similarity of the individual's attitudes to those of a stranger were systematically varied. Noting that Byrne's experimental procedure typically did not include a control group of individuals who possessed no attitudinal information about the stranger, Rosenbaum (1986) included such a

control group and found that while attitude dissimilarity produced repulsion, attitude similarity did not generate attraction beyond that felt for the control stranger (whom, Byrne, Clore, and Smeaton [1986] were quick to point out, was probably assumed by control individuals to be similar to themselves). Rosenbaum thus speculates that Newcomb's findings were a result not of attraction to similar housemates but rather dislike of those who were discovered to be dissimilar.

The similarity-attraction effect has been further elaborated by evidence that the kind of similarity shared may interact with the individual's personal characteristics to influence attraction. For example, Jamieson, Lydon, and Zanna (1987) demonstrated that the personality variable of self-monitoring (see Snyder, 1979; Snyder & Cantor, 1998, in this *Handbook*) moderates the effect; attitudinal similarity influenced attraction more than similarity in activity preference for low self-monitors but the reverse was true for high self-monitors. This and other evidence (e.g., Snyder, Berscheid, & Glick, 1985) suggest that differential personality dispositions may be associated with differential attention to the kinds of information that first encounters yield and with differential influence of that information on attraction (see "Developing Relationships").

The kind of similarity shared and the closeness of the relationship also have been shown to interact to influence attraction. Tesser's (1988) Self-evaluation Maintenance Model assumes that people are motivated to maintain or increase their positive evaluation of themselves, and that relationships with others influence self-evaluation through reflection and comparison processes generated by others' performances on dimensions relevant to the individual's self-concept. Tesser, Millar, and Moore (1988) demonstrated that when a close partner's performance surpasses the individual's on a dimension highly relevant to the individual's self-concept, the individual's self-esteem may be threatened and attraction to the partner diminished, in contrast to when the outstanding performance is given by a nonintimate; when a close partner outperforms the individual on a dimension not relevant to the self, however, attraction to the partner is increased.

The possibility that the similarity-attraction association in first encounters is often mediated by individuals' assumptions that similar others are more likely than dissimilar others to like them was first investigated by Walster and Walster (1963). Although that study often has been represented as confirming such mediation (Berscheid, 1985b), a closer examination of the data reveals only weak and statistically insignificant support for the hypothesis. More recently, however, Condon and Crano (1988) experimentally manipulated both attitudinal similarity and the positivity of another's evaluation and found that although both variables influenced attraction, partial correlational analyses indicated that the similarity-attraction association was strongly

mediated by individuals' inferences of the stranger's positive evaluation of them. These investigators conclude that the similarity-attraction effect is best explained by an expectation of mutual need gratification based on reciprocal liking. In naturalistic interactions, of course, liking and similarity undoubtedly feed on each other, with liking helping to produce, via avoidance of disagreement and conflict with liked persons, the perception of greater similarity and mutual understanding than actually exists (Levinger & Breedlove, 1966; see also Sillars, 1985), which in turn should enhance attraction. There is also evidence that marital partners become more similar over time. Gruber-Baldini, Schaie, and Willis (1995), for example, found that spouses became more similar in their verbal skills and attitudinal flexibility.

Both similarity and dissimilarity (in the form of "complementarity"; Winch, 1958) have been assumed to be associated with interaction compatibility, often defined as the ratio of facilitating events to interfering and conflictful events in the partners' interaction, and thus with a positive emotional tenor to the relationship as well as satisfaction with it (Berscheid, 1985a; Levinger & Rands, 1985). The weight of the evidence is still on the side of similarity, however; evidence for complementarity is scarce (Berscheid, 1985b). Houts, Robins, and Huston (1996), for example, found that the more similar that individuals' role performance preferences and leisure interests were to those of the other sex in their sample of married couples, the more compatible they were with the person they had married.

Similarly, using the Unstructured Dyadic Interaction Paradigm (Ickes et al., 1990), in which the interaction behavior of two strangers waiting to participate in a psychological study is videotaped (with permission to use the tape for research purposes obtained later, thereby avoiding reactivity of observation), Ickes and his associates have found that dissimilarity of partners' sex-role orientation (Bem, 1974) is associated with interaction incompatibility (Ickes & Barnes, 1978). Dyads composed of masculine men and feminine women (a dissimilar and "complementary" sex-role orientation combination) typically express less involvement and less liking for each other than do partners with similar sex-role orientations. Ickes (1985) theorizes that individuals with masculine orientations can apply a high level of instrumental capability to interaction but only a low level of "expressive" (i.e., feminine) skills (e.g., nurturant and emotionally supportive responses), that those with feminine orientations can apply expressive but not instrumental skills, and that androgynous people can apply either, depending on the situation.

Studies of dating couples generally support Ickes's theory. Both men's and women's relationship satisfaction have been found to be associated with the individual's own expressive competence and with perceptions of the partner as feminine (Lamke et al., 1994). Examinations of spouses'

sex-role orientations also reveal that the traditional sex-typed combination is associated with lower marital satisfaction than are other combinations (Zammichieli, Gilroy, & Sherman, 1988), and that marital satisfaction is positively associated with the femininity of the partner, whether the partner is male or female (Antill, 1983; King, 1993). Using longitudinal data, Huston and Houts (in press) found that problems in courtship were positively associated with both men's and women's negative affectivity and inversely associated with their expressiveness; moreover, these dispositional characteristics continued to be associated with satisfaction two years after marriage. For example, both husbands and wives with expressive personalities were more affectionate and more in love with their partners, and reported less conflict in the relationship, leading Huston and Houts to conclude that the impact of these personality dispositions on marriage is as strongly evident when the couples are newlyweds as it is later in marriage.

**Physical Attractiveness** There now is a great deal of evidence that physical attractiveness, a readily discerned personal characteristic in face-to-face first encounters (Funder & Dobroth, 1987; Goldstein & Papageorge, 1980), influences the partners' interaction. Since the first systematic demonstrations of its influence on attraction in dating relationships (Walster et al., 1966) and in other interaction settings, including nursery schools (Dion & Berscheid, 1974; see also Berscheid & Walster, 1974b), physical attractiveness has continued to be the subject of a great deal of research (for surveys, see Bull & Rumsey, 1988; Hatfield & Sprecher, 1986b; and Patzer, 1985).

Several meta-analytic studies of the physical-attractiveness literature have been conducted. For example, Dion, Berscheid, and Walster's (1972) finding that physical attractiveness is linked to the inference of positive personal qualities—the “what is beautiful is good” stereotype effect—has been replicated so many times that Eagly et al. (1991) could conduct a meta-analysis to examine the stereotype's strength and generality across studies. Although people do ascribe more favorable personality traits and more successful life outcomes to attractive people as opposed to those of lesser attractiveness, Eagly et al. characterize the average magnitude of the beauty-is-good effect as “moderate,” with differential inferences being largest on social-competence dimensions, intermediate on personal-adjustment and intellectual-competence dimensions, and nonexistent on indices having to do with integrity and concern for others. Recent evidence indicates, however, that the content of the stereotype may differ across cultures. Wheeler and Kim (in press) found that what is “good” in collectivist cultures, which stress harmony in relationships, is different from what is regarded as good, and thus as characteristic of physically attractive people, in individualistic western cultures. For example, North Americans per-

ceived attractive persons to be high in potency while Koreans did not, and Koreans perceived attractive people to be higher in integrity and concern for others but North Americans did not.

The results of Feingold's (1992b) meta-analysis of studies that have examined the extent to which the physically attractive and unattractive possess certain personal characteristics are consistent with Eagly et al.'s findings. Feingold found that compared to the unattractive, attractive people are less lonely and more popular, as well as more socially skilled and sexually experienced, but associations with personality measures and mental ability generally are trivial. In a methodologically rigorous study, Diener, Wolsic, and Fujita (1995) found only small associations between attractiveness and subjective well-being and between attractiveness and such resources as money and energy.

It is not clear to what extent the lack of observed association between physical attractiveness and certain other personal characteristics in most studies is due to the tendency of investigators to focus on the college student population, whose variability on mental ability, adjustment, and other dimensions may be attenuated in contrast to the general population. For example, examining the influence of attractiveness on adjustment across the life span, and including studies of the association between adjustment and attractiveness in psychiatric patients, Burns and Farina (1992) estimate that attractiveness accounts for 6 to 16 percent of the variance in subjective, sociometric, and behavioral measures of adjustment from age four through seventy-five. Moreover, examining data from large-scale quality-of-life surveys in the United States and Canada that included interviewers' ratings of respondents' physical appearance, economists Hamermesh and Biddle (1994) found that plain people earn less than people of average looks, who earn less than the attractive. They estimate the “penalty” for plainness to be about 5 to 10 percent and the “premium” for beauty only slightly less; moreover, holding demographic and labor market characteristics constant, these effects were mostly independent of occupation, and the effects for men were at least as great as for women. It is difficult to account for such results from studies of the general population without speculating about the cumulative, and thus substantial, effects that inferences about an individual's interior qualities on the basis of appearance may have. Zebrowitz, Olson, and Hoffman's (1993) finding of the “differential stability” of physical attractiveness over the life span (i.e., relative to peers, the attractive remain attractive, although the absolute level of attractiveness decreases with age for both men and women) suggests that the effects of such inferences may accumulate.

*Physical Attractiveness and Interaction* More information has become available on the association between physical attractiveness and an individual's social interactions. Using the Rochester Interaction Record (see Reis &



Wheeler, 1991), in which individuals are asked to record in a structured diary every social encounter lasting ten minutes or longer and to rate the interaction along several dimensions (e.g., intimacy). Reis and his associates (Reis, Nezelek, & Wheeler, 1980; Reis et al., 1982) have found that a male college student's physical attractiveness is associated with the number, percentage, and average length of opposite-sex interactions per day, as well as the number of different women interacted with; no such associations were observed for females. For both men and women, however, attractiveness was associated with perceived interaction pleasantness.

Other evidence of the impact of physical attractiveness on interaction comes from research using the "expanded" Unstructured Dyadic Interaction Paradigm, in which individuals view the videotape of their interaction and report the thoughts and feelings they recall having experienced. Garcia et al. (1991) found that individuals' physical attractiveness was strongly associated with both their own and their randomly selected partners' interaction behavior. For example, men's physical attractiveness was correlated with the percentage of positive thoughts and feelings that both partners reported, as well as with the amount of time they smiled at each other; and, among other effects, women's attractiveness was strongly associated with the frequency and duration of talking, with "interactional involvement," with partners' liking for each other, and with their ratings of interaction quality. The number of significant correlates between the interaction features of opposite-sex interactions and women's attractiveness exceeded those for men's attractiveness by about three to one, leading these investigators to conclude that a woman's attractiveness has greater influence on such first-encounter interactions than a man's does.

*Determinants of Physical Attractiveness* Observers' perceptions of any one individual's attractiveness level tend to correlate only modestly, just as individuals' perceptions of their own attractiveness correlate only modestly with others' perceptions (Diener, Wolsic, & Fujita, 1995). Physical-attractiveness researchers have reliably identified attractive and unattractive individuals only by aggregating the judgments of many raters and by choosing stimuli that reflect maximum consensus (Berscheid & Walster, 1974b). When many raters are used, judgment appears to be consistent across cultural groups. For example, Cunningham et al. (1995) found that the mean correlation between the attractiveness judgments of photos of Asian, Hispanic, and black and white American women made by recently arrived native Asian and Hispanic students and by white Americans was remarkably high.

Physical-attractiveness researchers have focused almost exclusively on facial attractiveness, seldom investigating the contribution of other morphological characteristics to attractiveness judgments. Singh's (1993) examination of

female waist-to-hip ratio is an exception to this rule. Another exception is a study conducted by Alicke, Smith, and Klotz (1986), who assessed the relative and combined influence of faces and bodies of varying attractiveness in a factorial design and found strong main effects for both face and body, as well as a strong face-body interaction that appeared to have its source in significantly decreased attractiveness judgments when a highly attractive face was paired with an unattractive body.

Interest in identifying the determinants of facial attractiveness has grown. Two approaches to the question predominate. In the first, representing the more usual route taken throughout the years (Finck, 1891), the size and arrangement of facial features are measured in order to identify configurations associated with perceptions of attractiveness. Examining only female faces and male judges in the United States, Cunningham (1986), for example, found several features to be associated with men's attractiveness judgments of women, including large eyes (but see Grammer & Thornhill, 1994, who find small eyes preferred), small nose, prominent cheekbones, and large smile. Studies of features associated with women's judgments of men's attractiveness find that such attributes as a broad jaw are attractive (Cunningham, Barbee, & Pike, 1990).

In contrast to an empirically inductive approach to identifying the determinants of facial attractiveness, Langlois and her associates (Langlois & Roggman, 1990; Langlois, Roggman, & Musselman, 1994) have taken a theoretically deductive route, drawing on evolutionary theory and on cognitive theory. To account for previous findings that even young infants prefer attractive to unattractive faces (Langlois et al., 1991) and that judgments of facial attractiveness are more similar than different across cultures (Jones & Hill, 1993; McArthur & Berry, 1987; Perrett, May, & Yoshikawa, 1994), these theorists assume that (1) evolutionary pressures favor human attributes close to the population mean and (2) cognitive processes favor prototypical (often average) category members. In support of their hypothesis that faces representing the mathematical average of faces in a population should be perceived as attractive, Langlois and her associates have consistently found that both male and female computer-generated composites, or "averaged" faces, are judged to be more attractive than the individual faces that contribute to the composite.

The "attractive-is-average" findings have been controversial. Some have argued that while averaged faces are attractive, the faces judged most attractive are not average (Perrett, May, & Yoshikawa, 1994). Others have argued that the averaging procedure produces symmetrical faces and it is their feature of symmetry, rather than their averageness, that is associated with attractiveness (see Grammer & Thornhill, 1994, and Langlois, Roggman, & Musselman, 1994, for conflicting evidence on this issue). Still others have proposed that average faces are more familiar and familiarity is itself associated with attractiveness, an

argument that is integral to Langlois's hypothesized mechanism whereby averaged faces are found to be attractive. On the basis of their own data, Langlois, Roggman, and Musselman (1994) find that the association between perceived attractiveness and perceived familiarity in randomly selected samples of male and female individual faces is strong and positive; moreover, averaged faces are perceived as more familiar than the individual faces contributing to the composite.

Langlois's work on facial attractiveness suggests that familiarity may underlie the physical-attractiveness principle of interpersonal attraction, just as it underlies the principles of similarity and attraction reciprocity. All attraction principles thus appear to be specific manifestations of an underlying preference for the familiar and safe over the unfamiliar and potentially dangerous.

### Mate Selection

The question of who mates with whom is an especially important outcome of attraction, not only for the individual but also, as Darwin (1871) observed, for the future of the species. Identification of the determinants of mate selection continues to be of interest (see Surra, 1990, for a review), particularly to those who take an evolutionary view of human behavior (see Buss & Kenrick, 1998, in this *Handbook*).

**Homogamy in Mate Selection** In his article "Assortative Mating in Man," Harris (1912) concluded, "The statistical facts reviewed in this essay make it highly probable that a great variety of physical and mental characters influence human matings, and in such a way that, on the average, similar individuals tend to marry." He added, "These results will probably be received with much skepticism" (pp. 191-192). Whether for this reason or others, the matter has been regularly examined over the years and always with the same result (e.g., Burgess & Wallin, 1943; Surra, 1990; Vandenberg, 1972). Buss (1985) concludes from his review of the evidence that levels of assortative mating have not changed substantially in the past fifty years. With the exception of biological sex, reflecting the fact that men prefer to mate with women and vice versa, positive assortment—or like mating with like—appears to occur along virtually every dimension examined, including personality dimensions (e.g., Caspi & Herbener, 1990).

Positive assortment often has been taken as evidence that like prefers to mate with like, an unwarranted conclusion given that an individual's fields of availables and eligibles are overwhelmingly composed of similar persons. Thus, if the individual is to mate at all, it is likely to be with someone similar along many dimensions. Preferences for specific qualities in a mate frequently have been inves-

tigated, however, usually with special attention to gender differences in desired attributes.

**Gender Differences in Mate Preference** Most recent studies of mate preference have been carried out under the aegis of sociobiological theory, which assumes that humans have been selected to maximize gene replication, and thus reproductive success, but that the differential biology of reproduction results in gender differences in sexual strategies and mate preference (see Buss, 1994; Kenrick & Trost, 1989). Trivers's (1972) Parental Investment Theory, for example, proposes that because women invest more in their offspring, they are more discriminating in their choice of a mate; men, who invest less than women, are hypothesized to be less discriminating and more competitive with other men for access to fertile women. Kenrick et al. (1990) have modified Parental Investment Theory to recognize that features preferred in casual mating partners may differ from those preferred in long-term (e.g., marital) partners, a distinction seldom made in mate preference studies (but see Regan & Berscheid, in press).

Buss and Barnes (1986) examined attribute preference in married couples and college students and found that, overall, men and women generally value the same characteristics (e.g., "good companion," "kind," "considerate," and "intelligent"). However, three gender differences were found in both samples: men more than women preferred mates who were physically attractive, while women more than men preferred mates who had good earning potential and were college educated. Buss (1989) subsequently replicated these findings across many cultures, and Feingold's (1992a) meta-analyses of studies conducted mostly in the United States reveal that the largest gender differences in self-reports of desired attributes are obtained for cues to resource acquisition (e.g., status and ambition), with women more likely than men to value these characteristics. Similarly, using a large U.S. probability sample, Sprecher, Sullivan, and Hatfield (1994) found the same gender differences observed in previous research and that these differences were generally consistent across age and racial groups.

Although Feingold's (1990) meta-analyses indicate that women rate physical attractiveness as less important than men do, the effect sizes associated with this gender difference are larger in self-report than in behavioral research paradigms (see Feingold, 1992a, for a discussion of factors that may produce artifactual gender differences in mate preference studies that rely on self-report data). An example is provided by an experimental study conducted by Sprecher (1989) in which students indicated how attracted they were to an opposite-sex person and, later, told what influenced their feelings. Although men and women's actual behavior showed no differences in preference (their choice of a partner was most influenced by the other's

physical attractiveness), their self-reports showed the usual gender difference: males were more likely to say that the woman's physical attractiveness influenced their choice, whereas women were more likely to claim that the man's earning potential and expressiveness were responsible for their choice.

Gender differences in self-reports of mate preference are often interpreted in evolutionary terms (e.g., Buss & Schmitt, 1993; Kenrick & Trost, 1989); that is, both men and women are believed to value reproductive investment, but because women's fertility and reproductive value are closely associated with their age and health, men are said to value female beauty because it signifies youth and fertility (see Kenrick & Keefe, 1992, for cross-cultural evidence of age preferences in mates and a persuasive evolutionary explanation of these); women, on the other hand, are believed to especially value men who can provide the qualities and investments associated with high earning power. Another explanation for the ubiquitous gender difference in mate preference is women's universal lower status, power, and access to valuable resources. Howard, Blumstein, and Schwartz (1987) provide some evidence in favor of this social and proximal causal interpretation and, in opposition to the evolutionary and ultimate causal interpretation, conclude that some of the mate preferences they find in their samples of homosexual and heterosexual couples do not serve clear reproductive purposes; some, in fact, are clearly contrary to successful reproduction.

A proximal causal interpretation of preference for physically attractive mates also has been advanced by Gangestad (1993), who notes that although men typically claim to care more about this attribute than women do, it is an important preference of both sexes. For example, Buss's (1989) cross-cultural data indicate that gender accounts for less than 10 percent of the variance in preference for this characteristic, which is consistent with Feingold's (1990) meta-analytic findings of studies conducted largely in the United States. Gangestad and Buss (1993) reanalyzed Buss's (1989) preference data from twenty-nine cultures to investigate a hypothesis derived from the "parasite theory" of sexual selection (see Grammer & Thornhill, 1994), which proposes that people select mates on the basis of resistance to parasitic pathogens (e.g., bacteria) and that physical attractiveness signals immunocompetence and high disease resistance. Both men and women in geographical areas with relatively greater prevalence of pathogens were found to value a mate's physical attractiveness more highly than people in areas with relatively little pathogen incidence did (after controlling for such factors as average income and geographical region). In another analysis of Buss's data, Gangestad (1993) indexed women's access to financial resources in each of the countries surveyed and, controlling for parasite prevalence, found that women's greater economic power appears to be associated with in-

creased preference for physically attractive men. This finding suggests that the lower economic and social status typical of women relative to men may be responsible for their lesser emphasis on men's physical attractiveness compared to men's financial and social resources.

Others have found within-sex differences in preference for the physically attractive. Simpson and Gangestad's (1991) Sociosexual Orientation Inventory differentiates a "restricted" orientation, in which individuals tend not to have sexual relations with their partner before the partner invests in the relationship, from an "unrestricted" orientation, in which individuals are more likely to have sexual relations without their partners' commitment. Both men and women with an unrestricted orientation claim to care more about their romantic partners' sex appeal and physical attractiveness and less about their partners' kindness and understanding and other internal qualities than do those with a restricted orientation (Simpson & Gangestad, 1992).

Not only may within-sex individual differences such as sociosexual orientation modify the usual between-sex effects, but certain partner characteristics may interact with other partner attributes to influence preference. Jensen-Campbell, Graziano, and West (1995), for example, demonstrated that a male's dominance, which often signals social and economic resource power and which has been found to be a trait attractive to females (Buss, 1989; Sadalla, Kenrick, & Vershure, 1987), strongly interacts with the male's prosocial behavior to influence desirability. Preference also may vary depending on whether the individual is choosing a short-term sexual partner or a long-term mate. Kenrick et al. (1990) find that whereas men have lower requirements for a sexual partner than women do, men are nearly as selective as women in their requirements for a long-term partner, a finding inconsistent with the Parental Investment Theory.

Preferences aside, there is a good deal of evidence that men and women of similar levels of physical attractiveness tend to pair with each other. Although the "matching hypothesis" of social choice is not always found when sought, it has been demonstrated by some investigators (e.g., Berscheid et al., 1971), and studies of *de facto* paired individuals (e.g., spouses) have consistently affirmed that romantic partners tend to be of similar physical-attractiveness levels (e.g., Price & Vandenberg, 1979). Indeed, in a longitudinal study, White (1980) found that similarity of physical attractiveness was predictive of courtship progress, and Feingold's (1988) meta-analysis of studies examining the physical attractiveness of relationship partners revealed that for romantic couples, the correlations between partners' attractiveness levels were consistent and averaged about .49. For friends, however, Feingold found a matching effect only for men.

Kalick and Hamilton (1986) have argued that although there is *de facto* matching on the physical-attractiveness di-

mension, it may not be the result of people's preference for others of their own attractiveness level. Their reanalysis of the Berscheid et al. (1971) dating choice data revealed that although there was a small but statistically significant matching effect, it was dwarfed by a strong tendency for everyone to choose the most attractive partner. Using a computerized mate selection simulation procedure that assumed that all individuals demand an attractive partner regardless of their own attractiveness, with the more attractive being able to satisfy their demand (pairing assortatively) and thus leaving individuals of lesser attractiveness to mate among themselves (and so also pairing assortatively, but not by choice; see Burley, 1983), Kalick and Hamilton found substantial intracouple attractiveness correlations in the upper range of those reported in actual studies of existing couples. Aron (1988), however, has discussed the dubiousness of several assumptions underlying this simulation and identified several factors that may account for *de facto* matching in naturalistic situations as opposed to the laboratory. One of these factors is undoubtedly the reluctance of a man to approach an attractive woman when the possibility that the woman may reject his approach is salient, as it often is in naturalistic situations (e.g., Bernstein et al., 1983; Huston, 1973).

### Love

Love is a particularly important variety of attraction. It also is an important element in mate selection. For example, the simple statement "I love you" almost always precedes discussions of marriage, according to King and Christensen's (1983) Guttman scaling of events associated with progress in courtship. The association between love and marriage appears to have grown even stronger over the past few decades in the United States, particularly for women. In the mid-1960s Kephart (1967) found that most women claimed that the absence of love for their partner would not necessarily deter them from marriage if he possessed the other qualities they desired in a mate, while most men reported that they would not marry unless they were in love. However, Simpson, Campbell, and Berscheid's (1986) replication of Kephart's study in the mid-1980s revealed that no matter how ideal a prospective partner might be on all desired dimensions, the overwhelming majority of both men and women claimed they would not marry unless they were in love with their partner; for men, love as a prerequisite to marriage rose from 65 percent in the mid-1960s to 86 percent, and for women, from 24 to 80 percent.

Love does seem to make a difference. In their fifteen-year follow-up of dating couples who had participated in their Boston Couples Study (see Hill, Rubin, & Peplau, 1976), Hill and Peplau (in press) found that although love was not enough to guarantee a happy and stable relationship, putative measures of love were significant predictors

of whether the couple eventually married and stayed married. And, in a quasi replication of Blood's (1967) examination of the happiness of "love matches" versus arranged marriages in Japan, Xiaohe and Whyte (1990) found that wives in Chinese love matches were more satisfied than their arranged-marriage counterparts regardless of the length of the marriage; in fact, freedom of choice of a mate was the strongest predictor of wives' evaluations of the quality of their marriages. Contreras, Hendrick, and Hendrick (1996), too, have found that *eros*, a love-style associated with romantic love, is strongly associated with marital satisfaction.

Love has remained the focus of much theory and research in recent years. Attraction theorists and investigators initially assumed that the causal antecedents of all forms of attraction were the same; the strong forms, such as love, were believed to differ from liking and the other mild forms (e.g., respect) only in magnitude. Anecdotal observation suggested, however, that greater and greater liking in opposite-sex relationships typically led to a lot of liking, not love, and especially not romantic or passionate love. As a consequence, researchers were forced to recognize that the antecedents of romantic love may be qualitatively different from those typical of milder forms of attraction (Berscheid & Walster, 1974a). Rubin (1970) was the first to demonstrate that love and liking are measurably different, by showing that scores on his Love Scale, but not on his Liking Scale, were highly correlated with self-reports of loving the partner in opposite-sex relationships and that, moreover, Love Scale scores more strongly differentiated between opposite-sex dating partners and same-sex friends than did Liking Scale scores.

Two decades of research on love have underscored that love is a complex and multifaceted phenomenon. Remarkable on Sternberg and Barnes's (1988) collection of the views of many current contributors to the study of love, Rubin (1988) concludes that the science of love is still in its infancy, as indicated by the facts that love theorists and investigators have yet to develop a common conceptual vocabulary and that most have developed their own taxonomies of love, each making little contact with others' taxonomies.

**Taxonomies of Love** The identification and cataloguing of different kinds of love has been a frequent methodological approach to love at least since the Greeks. Although many love taxonomies have been offered, few have been accompanied by theories adequate to guide empirical research by specifying the unique observable manifestations of each type of love proposed, as well as its causal antecedents and consequences (see Kelley, 1983b). Nevertheless, many recent taxonomies represent substantial improvements over past offerings.

For example, several recent investigators have taken an

empirically inductive approach to identifying subtypes of love. A particularly interesting study of the natural-language concept of love that illustrates some of the difficulties in classifying types of love was conducted by Fehr and Russell (1991). These researchers asked their respondents to list as many types of love as came to mind; ninety-three different types were mentioned (e.g., "love of money"). Respondents' ratings of several of these types as to "how good an example" each was of "love" yielded typicality ratings for each type and a glimpse into the love prototype. Maternal love received the highest typicality rating and thus was regarded as the best example of love, followed by parental love, friendship, sisterly love, romantic love, and brotherly love (in that order); several other types of love received relatively low typicality ratings, including passionate love, sexual love, and platonic love. Fehr and Russell (1991) concluded from the results of their "prototype approach" to love that "the folk definition of love is complex and provides no sharp boundary between love and other, related experiences" (p. 435).

Other investigators, taking a "psychometric approach" to the problem of defining love (Sternberg & Beall, 1991), have attempted to identify the dimensions that underlie the feelings, attitudes, and events that people report having experienced in putative love relationships, usually heterosexual dating relationships. Deriving his Triangular Theory of Love and tripartite taxonomy from such an approach, Sternberg (1986; 1987) theorizes that many popularly recognized subtypes of love can be accounted for by different weightings of three components: intimacy, passion, and decision/commitment (see Aron & Westbay, 1996, for supporting evidence). The intimacy component is associated with liking, as was suggested by Sternberg and Grajek's (1984) identification of several indicators of relationship intimacy, including a desire to promote the partner's welfare, giving and receiving emotional support to the partner, and sharing one's self and possessions with the partner. Other studies confirm that these elements are integral to love. Fehr (1988), for example, asked respondents to list characteristics of love and found that trust, caring, honesty, and friendship emerged as central attributes, a finding that she notes is consistent with other studies using similar procedures (e.g., Steck et al., 1982). This finding is also consistent with Shaver et al.'s (1987) examination of laypersons' rankings of the similarity of emotion terms and their finding that such terms as love, affection, liking, attraction, and caring formed a closely associated cluster, which, the authors conclude, comprise the core of love (see also Shaver, Morgan, & Wu, 1996).

As opposed to intimacy or liking, Sternberg associates the passion component with drives that lead to romance, physical attraction, and sexual consummation. The passion and intimacy components together are viewed as the principal ingredients of romantic love. The decision/commit-

ment component, on the other hand, refers to the short-term decision that one loves the partner and the long-term commitment to maintain the love. The intimacy and decision components together constitute "companionate love," and the presence of all three components in a relationship is labeled "consummate love." Sternberg theorizes that the three components have different time courses and different underlying mechanisms (e.g., the development of intimacy is presumed to follow a course hypothesized by Berscheid's, 1983, Emotion-in-Relationships Model; see "Developing Relationships"), and thus his theory emphasizes that love is a dynamic phenomenon that is likely to change in character over the course of the relationship.

Another taxonomy of love, which similarly identifies basic components that are theorized to blend in different ways to produce different kinds of love, has been offered by Lee (1976, 1988). On the basis of an examination of individuals' reports of their experiences in love relationships as well as of philosophical and literary discourses on love, Lee concludes that love is composed of three primary "love-styles": eros, or erotic love; storge, or friendship love; and ludus, or game-playing, uncommitted love. Numerous other kinds of love are proposed to result from various combinations of the primary love-styles. Hendrick and Hendrick (1992), building on Lasswell and Lasswell's (1976) scale, which assessed six of Lee's love-styles, have developed a Love Attitudes Scale that asks respondents to answer items with reference to a specific love relationship. Researchers using the Love Attitudes Scale report associations between love-style and numerous other variables, including gender (e.g., men are more ludic than women; Hendrick & Hendrick, 1986) and relationship satisfaction (Contreras, Hendrick, & Hendrick, 1996; Grote & Frieze, 1994).

Numerous other typologies have been advocated. One of the oldest is the distinction between romantic and companionate love (Berscheid & Walster, 1978; Walster & Walster, 1979), subsequently elaborated by Hatfield (1988; see also Hatfield & Rapson, 1987, 1993). Another is Davis and Todd's (1982) distinction between friendship and romantic love that resulted from their "ideal case" approach to the taxometric problem. Yet another is Kelley's (1983b) distinction among passionate, pragmatic, and altruistic love. Still others have been offered (e.g., Beach & Tesser, 1988; Berscheid, 1985b), and even these do not exhaust the typologies proposed.

**Romantic Love** Romantic love is what has captured most researchers' attention. Indeed, it was an interest in romantic love that originally spurred the differentiation between liking and love decades ago. Although there is currently a surfeit of love taxonomies, virtually all include romantic love (or one of its presumed synonyms—e.g., passionate love, eros, erotic love, "limerance" [Tennov,

1979), addictive love). There is some evidence to support the inclusion of romantic love in any taxonomy. For example, Hendrick and Hendrick (1989) factor-analyzed college students' responses to the Triangular Theory of Love scale, Davis and Latty-Mann's (1987) Relationship Rating Form, Hatfield and Sprecher's (1986a) Passionate Love Scale, Hazan and Shaver's (1987) Adult Attachment Style Scale, as well as their own Love Attitudes Scale, and found five factors underlying responses. The first factor was characterized by passionate love and related characteristics, the second by closeness and the absence of conflict. Hendrick and Hendrick suggest that these two factors may roughly correspond to the romantic versus companionate love distinction, but they reject a simple two-factor solution to love as premature.

In addition to Hendrick and Hendrick's finding of a primary factor seemingly associated with romantic love, this type of love has emerged as distinct in other investigations as well. In her cluster analysis of love "prototypes" (e.g., romantic love, parental love, infatuation), Fehr (1994) ultimately finds two clusters that, she asserts, depict a passionate-love grouping and a companionate-love grouping. Fehr suggests that if one were to think of these love categories as a hierarchy, then "love" would form the apex, and companionate and passionate love would be at the next-lower level, with subcategories such as friendship and maternal love under, say, companionate love. As Fehr notes, however, her data do not address whether laypeople actually organize these kinds of love in this way.

A study that does examine how romantic love may figure in laypersons' cognitive organization of love was conducted by Berscheid and Meyers (1996; Meyers & Berscheid, in press). Using their "social categorical approach" to the problem of defining love, Meyers and Berscheid found clear evidence that the "love" and "in-love" categories are hierarchically arranged such that membership in the latter category is encapsulated within the love category, and that members of the in-love category also are usually named in a "sexually attractive/desired" category while those in the love category rarely are. Love thus appears to be a generic term, probably meaning intimacy and liking, while romantic love is a subspecies of love that incorporates all the characteristics of other forms of love (e.g., familial, maternal, brotherly) but contains a strong sexual component as well, which supports Sternberg's hypothesis that romantic love is composed of the intimacy/liking and passion components. Meyers and Berscheid's results underscore that romantic love deserves a special place in any taxonomy of love, but also that the venerable romantic versus companionate love taxonomic distinction might be better viewed as romantic/companionate love versus companionate love alone—or, possibly, love "with" and love "without" sexual desire (see also Sprecher & Regan, in press).

**Romantic Love and Sexuality** Love scholars do not agree on the role of sexuality in love (Hendrick & Hendrick, 1992). Aron and Aron (1991) have sorted the theories that have treated either love or sexuality or both into five categories: (1) theories of sexuality that ignore love or consider love merely to be the result of sexual desire (e.g., Freud, 1921/1951); (2) theories that emphasize sexuality and regard love to be a minor feature of sexuality (e.g., Bowlby, 1969/1982); (3) theories that view sexuality and love as separate (e.g., Reik, 1949); (4) theories that view sexuality as a minor component of love (e.g., Sternberg, 1986); and (5) theories that relatively ignore sexuality and focus on love. Perhaps the theoretical statement that forges the strongest connection between sexuality and love is Bushy (1988) evolutionary framework, described earlier, which views behaviors that fall into the category of love to be those associated with reproductive success (e.g., resource display to attract a mate, sexual intimacy, parental investment) and posits that these "acts of love" existed among humans long before the linguistic category of "love" developed to refer to them.

Generalized arousal, if not specifically sexual arousal is integral to Berscheid and Walster's (1974a) Two-Factor Model of Love, in which it is argued that because romantic love is often associated with emotional events, it must follow the rules of other emotions. Moreover, because peripheral physiological arousal has been shown to be involved in most emotional experiences (Schachter & Singer, 1962; see Pittman, 1998, in this *Handbook*), Berscheid and Walster theorize that people will experience romantic love when (1) they are strongly aroused physiologically, and (2) situational cues indicate that romantic love is the appropriate interpretation for their feelings. Many of the experiments often cited as supportive of the Two-Factor Model have demonstrated that arousal stemming from an extraneous source (e.g., aerobic exercise) can be misattributed by the individual as having been caused by the romantic partner, thereby increasing attraction to the partner (e.g., Dutton & Aron, 1974; White, Fishbein, & Rutstein, 1981). In most naturalistic situations, however, increases in arousal caused by the partner should be correctly attributed to the partner, and if the situational context is such that romantic love appears to be the correct interpretation of the fact that the other possesses arousal-generating capability, then experiences of partner-instigated arousal should be associated with increases in attraction, including feelings of romantic love. In an important set of studies, Allen et al. (1989) have demonstrated that an arousal-attraction effect is possible even when the individual's attention is directed to the actual arousal source. These investigators have interpreted their own and previous misattribution findings with reference to the Hullian "response facilitation" effect, in which general arousal has been shown to facilitate the dominant response in a stimulus situation (the dominant response in

many misattribution studies is attraction to the romantic partner).

Sexual arousal, of course, is a type of arousal frequently experienced in romantic relationships. Other studies directly examining the effect of extraneous sexual arousal on attraction seem to support Allen et al.'s response facilitation interpretation. Stephan, Berscheid, and Walster (1971), for example, found that men who evaluated a woman while sexually aroused perceived her as more attractive than did men who were not aroused. In addition, Derner and Pyszczynski (1978) found that men who completed Rubin's Love and Liking scales (with respect to a woman to whom they were attracted) after they had been exposed to sexually arousing materials evidenced higher scores on the Love Scale, but not the Liking Scale, compared to a control group exposed to nonarousing materials. Further investigation of the response facilitation hypothesis with respect to the effects on attraction of both generalized arousal and sexual arousal appears to be warranted, particularly in light of recent evidence that simply thinking about a romantic partner under a state of arousal may enhance attraction (Sinclair et al., 1994). Differential influence on attraction of thinking about another under different arousal conditions may be partly responsible for Wilson and Kraft's (1993) finding that simply thinking about a relationship may change an individual's attitudes toward it, as well as findings by Tesser and his associates (e.g., Tesser & Paulhus, 1976) that thinking about another may polarize sentiment toward that other. At the least, it has become increasingly clear that not enough is known about the association between sexual arousal and romantic love (Hatfield & Rapson, 1987; Regan & Berscheid, 1995, 1996).

*Individual Differences* The romantic-love literature is shot through with individual-difference findings, only a few of which will be highlighted here. Gender differences abound, as usual (e.g., see Peplau & Gordon, 1985). Sprecher and Metts (1989), for example, find that on their Romantic Beliefs Scale, which assesses attitudes that have been identified as constituting a "romantic love ideal," men score higher than women, although a feminine gender-role orientation is more positively associated with romanticism than a masculine orientation is. The frequent finding that men tend to be more romantic than women (Dion & Dion, 1988) is consistent with Hill, Rubin, and Peplau's (1976) observations in the Boston Couples Study that men tend to fall in love more quickly than women do, while women tend to fall out of love more readily.

One particularly interesting gender difference has been identified by Aron and Henkemeyer (1995), who, further exploring Tucker and Aron's (1993) findings, found substantial correlations between passionate love and several relationship-relevant variables for women, including a moderately positive correlation for marital satisfaction; for

men, however, variations in passionate love were largely independent of satisfaction and other relationship qualities (but see Sprecher & Regan, in press). Passionate love in this study was assessed by Hatfield and Sprecher's (1986a) scale, which is heavily weighted with sexual-attraction items. Whether sexual attraction is differentially associated with relationship satisfaction for men and women is worthy of further investigation.

In their program of research, Dion and Dion (1973, 1988) have identified several personality variables associated with romantic love, as assessed by their own Romantic Love Questionnaire. For example, individuals possessing an internal locus-of-control orientation report having been in fewer romantic relationships than those with an external locus-of-control orientation, who tend to experience romantic love as being more mysterious and volatile than internals do. Dion and Dion also find that individuals who are high in self-esteem and low in defensiveness report having experienced romantic love more frequently, but people with low self-esteem report more intense experiences of love, describe them as being less rational, and evaluate their partners more favorably than those with high self-esteem do. These associations between self-esteem and romantic love perhaps telegraphed Hazan and Shaver's (1987) findings that endorsement of a "secure" adult attachment-style orientation toward relationships, as opposed to an "insecure-anxious" or "insecure-avoidant" style, is correlated with an individual's romantic relationship history (see "Developing Relationships").

In addition to individual differences, cultural and national differences in romantic love are of growing interest (Dion & Dion, 1996; Hatfield & Rapson, 1996). Sprecher et al. (1994) examined young adults' orientations toward love in Japan, Russia, and the United States and found that although love attitudes and experiences were similar in all three countries, there were several significant cross-cultural differences (e.g., Americans scored higher on passionate love). Dion and Dion (1993) have reviewed several theories that hypothesize that western individualistic culture should be more conducive to romantic love than collectivist culture is, but their findings that the personality dimensions of internal control, high self-esteem, and self-actualization—all putative indicators of individualism—are associated with fewer and less intense experiences of love do not support these hypotheses. Dion and Dion (1993) suggest, instead, that individualism may be antithetical to love and intimacy, both of which usually involve dependency on others.

## DEVELOPING RELATIONSHIPS

The processes by which two people may progress from their first encounter to develop a closer relationship has been of increasing interest to relationship scholars as they

have moved from an examination of first encounters between strangers in the laboratory to naturalistically formed relationships. Most agree that whether the individual develops an expectation that future interactions will be rewarding is critical to the continued development of the relationship, and thus first encounters serve a gatekeeping function in open-field settings. Even in closed-field settings, where goals extrinsic to the interaction compel continued interaction with another, a punishing initial interaction sometimes leads individuals to anticipate that the achievement of their extrinsic goals will prove too costly because they require continued interaction with that partner, causing those goals to be abandoned and the relationship to be terminated.

### Relationship Cognition

If the relationship survives the first encounter, the expectations it creates about the nature of the partner and the nature of the future interactions with him or her often cast their influence far beyond that first interaction. The fact that initial expectations may influence future interaction is now well established (see Fiske, 1998, in this *Handbook*). This effect often takes the form of a self-fulfilling prophecy in which individuals behave in ways consistent with their expectations and thereby elicit from their partners the very behaviors they expected their interaction partners to exhibit. Snyder, Tanke, and Berscheid (1977), for example, found that men who had been led to believe that a woman with whom they were about to have a "get-acquainted" telephone conversation was physically attractive, after the conversation rated her as being a more skilled and enjoyable partner than men who had been led to believe that she was unattractive. When external observers evaluated the women's contribution to the conversation, which had been recorded separately from the men's, they agreed with the men's favorable impressions of their partners; thus the men had elicited the very behaviors they had expected their female partners to exhibit on the basis of their false impression of her physical attractiveness.

Investigators often create expectations by providing the individual with information prior to interaction, a situation not unusual in naturalistic situations, in which people frequently have biographical information about another, often transmitted by friends and acquaintances prior to actual interaction. In addition to such prior information, cues provided in the first microseconds of interaction (e.g., physical attractiveness, age) also create interaction expectations. Many of these inferences that help guide the individual's subsequent interaction behavior are formed quickly and spontaneously, often without the individual's awareness (Uleman et al., 1996).

Although early impressions of interaction partners tend to be reasonably accurate (Ambady & Rosenthal, 1992; Kenny et al., 1992), partners gain new information about

each other as their interactions continue. However, additional information that would disconfirm the individual's initial expectations tends to be overlooked. Initial expectations have been shown to direct the individual's attention toward the partner's interaction behaviors that confirm the initial expectations and away from disconfirming behaviors (e.g., Zady & Gerard, 1974; Berscheid et al., 1976), to produce expectancy-congruent interpretations of those of the partner's behaviors that are noticed (Brewer & Treynor, 1981), and to influence retrieval of information about the partner from memory (Trafimow & Wyer, 1993). Initial impressions of the partners and the relationship thus may attain a kind of functional autonomy that leads to their preservation even when they are contradicted by new evidence (Olson, Roese, & Zanna, 1996), thereby providing yet another illustration that the partners' current interaction is importantly a function of their past interactions (see Kelley et al., 1983b).

**Relationship Schemata** The initial impressions of the partner and of the interaction often form the core of a "relationship schema" (Planalp, 1987). Like other organized mental representations, relationship schemata are presumed to guide the categorization and subsequent interpretation of new information about the partner and the relationship and to influence relationship behavior and affect, just as other social schemata have been shown to do, an assumption that is consistent with many well-established theoretical schools of thought about interpersonal relationships, including Object Relations Theory (Mitchell, 1988), Interpersonal Theory (Safran & Segal, 1990), and Symbolic Interactionism (Stryker & Statham, 1985). Baldwin (1992, 1995) theorizes that a relationship schema generally has three components: (1) a self schema that represents how the self is experienced in interaction with another; (2) a partner schema that represents attributes of the partner; and (3) an interpersonal script that specifies expected sequences of interaction, presumably generalized from repeated past interactions. These scripts are characterized as "if-then" contingencies (e.g., "If I act weak, then my partner will take care of me").

Baldwin's view contrasts with most cognitive models, which conceive social schemata as generalized representations of self or of other persons in isolation from each other. Although mental representations of others usually are viewed as organized around person constructs, it is now recognized that certain aspects of the interpersonal field, including relationship status and type of relationship, may modify this tendency (Cantor, Mischel, & Schwartz, 1982). For example, Fiske et al.'s (1991) finding that confusions of one person with another most frequently occur between persons with whom the individual has experienced a similar type of relationship illustrates that relationship is an important element in the representation and organization of



social information. Further confirmation that relationships influence the organization of social knowledge has been provided by Sedikides, Olsen, and Reis (1993), who found that if two individuals are described as close-relationship partners, information about each is mentally linked both at the time of encoding and during later recall.

Cognitive representation of close-relationship partners have been found to differ from cognitive representations of acquaintances in how they influence information processing. For example, Aron et al. (1991) found that when people were asked to decide whether a series of traits were true of themselves, reaction time latencies were slower for traits on which the individuals and their spouses differed than for traits on which they were similar, but there was no such divergence for trait similarity with superficially known others (e.g., an entertainment personality). Aron et al. interpret their results as indicating that cognitive representations of self and spouse are integrated, and hence harder to distinguish, than are representations of self and others who are less well known, an interpretation that is consistent with Prentice's (1990) finding that representations of the self and familiar others differ less than do representations of self and unfamiliar others.

Similarly, a series of experiments by Andersen and her colleagues (see Andersen & Glassman, 1996) demonstrates that significant others are mentally represented in distinctive, relatively complex, and chronically accessible cognitive categories that may be more influential than more inclusive other-categories (e.g., stereotypes). Once activated, a category of a significant other may influence judgment and affect in a manner that resembles the clinical construct of transference. Andersen and Baum (1994), for example, demonstrated that when a previously unknown experimental partner was portrayed as having several traits that individuals earlier had used to describe a liked or disliked significant other, subsequent recollections and evaluations of the experimental partner indicated transfer of the individual's personal schema of the significant other onto the experimental partner.

Most research on the nature and impact of relationship schemata examines representations about self and others in general, or prototypes. Yet, studies such as Andersen and Baum's (1994) suggest that people also store in memory concrete exemplars of particular individuals and occurrences (Smith and Zarate, 1992), supporting Srull and Wyer's (1989) view that people often form situation-specific representations of others that are functionally distinct from general characterizations (see also Mischel & Shoda, 1995). Thus, expectations about others may be contextualized according to the type of situation or social-role characteristics of the interaction. Representations of relationships at all levels of abstraction appear to influence interaction behavior under certain circumstances (Reis & Knee, 1996). For example, Zuroff (1989) showed that pro-

types affect judgments about general matters, but not about specific instances, presumably because the latter are more likely to be based on more concrete exemplars.

The type of framework that will organize these varying levels of mental representation into a coherent self-in-relation-to-others model remains an open question, though clearly it will be considerably more diverse and complex than currently available models. Such a framework may be hierarchical, moving from abstractions about "others in general," at the highest levels, to generalizations about particular individuals, at middle levels, to highly differentiated representations of specific others in particular roles, at lower levels (Baldwin, 1992; Collins & Read, 1994). This possibility gains credence in view of recent theoretical models proposing that varying levels of complexity can be accommodated within a single processing network (Kunda & Thagard, 1996; Schell, Klein, & Babey, 1996). A multi-level model would appear to have far greater potential than single-level models to account for the diversity and ambivalence of affect and behavior so typical of close relationships (Pierce, Sarason, & Sarason, 1992).

*Automatic Processing* Researchers investigate the impact of relationship schemata on thought, emotion, and behavior often by examining people's explicit, consciously derived descriptions of relationships, partners, and social interaction (Fletcher & Thomas, 1996). However, recent research on the distinction between automatic and controlled processing suggests that much information processing proceeds without the individual's awareness (see Wegner & Bargh, 1998, in this *Handbook*). Bargh (1994) has identified four features of pure automatic processing: unintentionality, uncontrollability, operation outside of conscious awareness, and efficiency. Automatic processes are likely to predominate when behavior has become routine through repetition or when cognitive resources are taxed by the demands of other mental activities, circumstances that occur frequently in established relationships (Berscheid, 1994). Some implications of the distinction between automatic and controlled processing for communication and interaction in close relationships have been outlined by Scott, Fuhrman, and Wyer (1991) and by Surra and Bohman (1991).

The proposition that many important elements of relationship cognition operate outside conscious awareness has a venerable history within psychology, beginning with Freud's view of the unconscious. Dual-process models have become popular as researchers have attempted to account for conscious and nonconscious cognition within a single theoretical framework (Greenwald & Banaji, 1995). One such model that may be especially useful for relationship research has been proposed by Epstein (1994), who posits two cognitive processing systems, one rational and the other experiential. The experiential system is viewed as

affective, associationistic, and illogical, frequently relying on simplifying heuristics, mental shortcuts, and broad generalizations, and as more likely to operate outside of awareness. Epstein's concept of an experiential system deserves attention because behavior in close relationships often involves routinized sequences of interaction, well-entrenched schemata about self in relation to others, and emotionally significant encounters.

The special relevance of automatic information processing to relationship cognition also can be seen in the impact of chronically accessible constructs. Such constructs, which presumably arise from repeated experiences within an individual's social interaction history, have been shown to influence selective attention, expectation formation and confirmation, social inference and memory, and the induction of affective states (Higgins, 1996). Fletcher, Rosanowski, and Fitness (1994) found, for example, that strongly held beliefs about the importance of intimacy and passion in successful heterosexual relationships facilitated judgments about these qualities under conditions of high cognitive load, which requires automatic processing. Another example is provided by Baldwin et al.'s (1993) finding that individuals possessing a secure attachment style are quicker to recognize words representing positive interpersonal themes, whereas those with an insecure attachment style recognize negative words more quickly. Andersen's studies (e.g., Andersen & Baum, 1994) also indicate that, once activated, chronically accessible constructs may affect how previously unknown persons are perceived.

The consequences of automatic processing are also illustrated by experiments in which evocative stimuli are used to prime certain constructs. For example, Baldwin, Carrell, and Lopez (1990) showed that people evaluated their performance more negatively when disapproving schemata were activated through subliminal exposure to the scowling face of a personally significant other. Similarly, Hardaway (1990) reviewed many studies in which the psychodynamically significant phrase "Mommy and I are one" (or a comparable stimulus) was presented subliminally, presumably activating schemata relevant to the mother-child relationship, and concluded that such priming usually results in "a modest but reliable improvement in adaptive behavior" (p. 184). Although situationally induced priming effects are probably short-lived in naturalistic settings, especially when more chronically accessible constructs interfere (Bargh, Lombardi, & Higgins, 1988), these studies demonstrate that relationship schemata operating outside of awareness may have potent effects on behavior.

Theorizing about the automatic versus controlled distinction is relatively recent, but it seems likely to add important insights into relationship cognition. For relationship researchers, the distinction may yield new clues for answering some of the persistent questions about relationships that are important to scholars and laypersons alike

(e.g., why views of a partner in a long-term relationship persist change even when change seems warranted; why dysfunctional interaction patterns persevere, even in the face of concerted effort to change them). For social cognitive researchers, an understanding of relationship cognition holds great promise for elucidating the important but undervalued role of social context in social information processing (S. T. Fiske, 1992).

*Attachment Theory's Internal Working Models* Ideas similar to the relationship schema concept appear in many relationship theories, but none devotes as much attention to it as does Attachment Theory. Born out of John Bowlby's attempts to explain the infant-caregiver bond, Attachment Theory assigns a central place to relational schemata concerned with security, dependability, and self-worth (Bowlby, 1969/1982, 1973, 1980). An "attachment behavioral system," manifested in behaviors that keep the child in close proximity to adult caregivers and that therefore promote survival in evolutionary terms, is seen as serving the proximate goal of maintaining the individual's feelings of security. Felt security, believed to be experienced subjectively in emotional terms, is theorized to provide the child with a secure base from which to explore the environment and a safe haven when threatened.

Bowlby theorizes that from their interactions with caregivers, infants generalize "internal working models" of relationships that reflect the caregiver's availability and responsiveness to meeting the infant's needs. This internal model, believed to be generalized to other significant partners later in life, is viewed as incorporating two complementary schemata, one referring to the self and the other to the attachment figure. The former characterizes the self as worthy or unworthy of love and care, whereas the latter describes the infant's expectations that caregivers will be available, sensitive, and responsive. The internal working model is viewed as the mechanism by which the attachment behavioral system fulfills its epistemic and motivational functions. Epistemically, the model organizes, represents, and summarizes historical information about the individual's interactions with the caregiving environment; motivationally, it provides needs, goals, and behavioral strategies that are useful in predicting and controlling social interaction.

Much of the appeal of Attachment Theory rests on its attempt to explain how past relationship experiences influence current behavior. Once formed, internal working models are theorized to structure expectations, information processing, and approach and avoidance motives in ways that elicit confirmatory feedback. Consistent with this notion, attachment assessments appear to have some stability. Observers' initial attachment classifications of infants have shown longitudinal consistency through midadolescence (Elicker, Englund, & Sroufe, 1992), and adults' self-assess-

ments of their own attachment "style" (see Hazan & Shaver, 1987) remained unchanged in time spans ranging from one week to four years in approximately 70 percent of subjects (Baldwin & Fehr, 1995; Kirkpatrick & Hazan, 1994). Moreover, continuity may span generations, as demonstrated by Benoit and Parker (1994), who found that maternal representations of attachment were associated with both their infants' and their own mothers' attachment classifications (see also Fonagy, Steele, & Steele, 1991; Main, Kaplan, & Cassidy, 1985). In accord with the less-than-perfect stability found in these studies, however, attachment theorists believe that healthy individuals continuously revise their attachment schemata to reflect their ongoing experience, as Bowlby's term "working" implies. Although Kojetin (1993) and Kirkpatrick and Hazan (1994) have found that changes in adults' attachment styles tend to reflect actual relationship experiences, the relative impact of contemporary relationship functioning on attachment style, in contrast to the role of historical and dispositional factors, is not yet understood (Baldwin & Fehr, 1995; Kobak, 1994). Further indication that attachment styles are not set in stone is provided by Weinfeld (1996), who found no evidence of continuity from age one to age nineteen in a sample originally chosen for high risk of poor developmental outcomes.

Bowlby views attachment behavior as characteristic of humans "from the cradle to the grave." Despite the many important differences between infant-caregiver relationships and adult romantic relationships (Hazan & Shaver, 1994), Hazan and Shaver (1987) hypothesized that romantic relationships serve many of the same functions in adulthood that relationships with caregivers serve in childhood (e.g., felt security, a secure base), and that feelings of romantic love, for example, can be considered manifestations of the attachment behavioral system. Specifically, romantic beliefs and experiences are believed to be organized into one of three orientations toward romantic relationships, called adult attachment styles, intended to parallel the three primary types of infant-caregiver attachment identified by Ainsworth et al. (1978); attachment styles are viewed as reflecting significant variations among individuals in their feelings of security, anxiety, and trust in relationships and how they habitually cope with these feelings. To assess attachment style, Hazan and Shaver asked people to endorse the one style most characteristic of their feelings and experiences from brief descriptions of the three: (1) avoidant (e.g., "I am somewhat uncomfortable being close to others"); (2) anxious/ambivalent (e.g., "I find that others are reluctant to get as close as I would like"); and (3) secure (e.g., "I find it relatively easy to get close to others and am comfortable depending on them").

Many variations on Hazan and Shaver's attachment style classification procedure have been offered (e.g., Feeney, Noller, & Callan, 1994; Simpson, 1990). Collins

and Read (1990), for instance, ask people to rate themselves on a series of items reflecting three dimensions believed to embody attachment styles: comfort with closeness, perceived dependability of others, and anxiety about relationships. Another popular approach has been advanced by Bartholomew and Horowitz (1991), who split Hazan and Shaver's "avoidant" category into two groups, one labeled "fearful" of intimacy and the other "dismissing" of it. Their four categories derive from a factorial combination of two independent dimensions, models of self and models of others, both evaluated along a positivity-negativity continuum. A recent series of confirmatory factor analyses by Griffin and Bartholomew (1994) indicates that these two dimensions may underlie many of the methods currently used to assess adult attachment style. One advantage of Bartholomew and Horowitz's approach is its demonstrated construct validity across several relationship domains (e.g., peer, family, romantic) and data collection methods (e.g., self-ratings, other-ratings, interview-based ratings).

Numerous cognitive, affective, and behavioral correlates of attachment style and dimensions have been identified (Shaver, Collins, & Clark, 1996). Although most of these studies rely on self-report, some evidence relates attachment style to such observed behaviors as caregiving under stress (Kobak & Hazan, 1991; Simpson, Rholes, & Nelligan, 1992), self-disclosure (Mikulincer & Nachshon, 1991), reaction times and other social cognitive tasks (Baldwin et al., 1993; Mikulincer, 1995), psychophysiological response (Dozier & Kobak, 1992; Feeney & Kirkpatrick, 1996), and social participation (Tidwell, Reis, & Shaver, in press).

Despite enthusiasm for the concept of internal working models and individual differences in attachment style, there is as yet surprisingly little consensus about the precise nature and operation of attachment schemata. For example, although attachment style is typically assessed by conscious self-report, the operation of the associated relationship schema on behavior is believed to occur outside of awareness (Main, 1991; Reis & Kneec, 1996). Internal working models of attachment thus would seem to exemplify Epstein's (1994) experiential mode of information processing, which is typically affective, implicit, and automatic. The belief that working models of attachment operate outside of awareness underlies research conducted with the Adult Attachment Interview (AAI) (George, Kaplan, & Main, 1985; van Ijzendoorn, 1995), a lengthy interview protocol from which the coherence and accessibility of adults' understanding and recollections about attachment relationships are coded. AAI-based ratings are concerned primarily with metacognitive features of the interviewee's narrative (e.g., openness, complexity, elaboration, internal coherence, availability of memories, appropriateness of emotional responses) rather than its content, an important

distinction that may contribute to the reported lack of correlation between AAI-coded retrospections about relationships with attachment figures during childhood and self-reported adult attachment styles (Crowell, Treboux, & Waters, 1996).

Another issue that requires more attention is the nature and organization of the cognitive representations that constitute an internal working model. A multitude of diverse concepts—attitudes, beliefs, coping mechanisms, autobiographical memories, emotions, motives, goals, personality traits, metacognitive strategies, and behavioral plans and tactics—have been collected under the umbrella of the internal working model construct. Although the width of its conceptual swath contributes to the appeal of the construct, it adds ambiguity as well. Collins and Read (1994), for example, observe that the concept remains vague and ill-defined and propose a hierarchically organized connectionist network as one possible resolution. But empirical evidence illuminating how complex elements are organized into an integrated network of mental representations presumed to influence an individual's relational experience has yet to be obtained.

**Trust** Trust of relationship partners figures prominently in theorizing about adult attachment style, which is viewed as a relatively stable dispositional trait. Holmes (1991) and his colleagues, however, have argued that trust is better conceptualized in relationship-specific terms. Their definition of trust, which resembles such features of the secure attachment style as dependability, includes "people's abstract positive expectations that they can count on partners to care for them and be responsive to their needs, now and in the future" (Holmes & Rempel, 1989, p. 188). They distinguish their view of trust as a feature of the relationship from more traitlike views by emphasizing the diagnostic role of noncorrespondence between the partner's and the individual's interests. An individual's trust is hypothesized to be enhanced when the partner forgoes self-interest to benefit the individual, whereas situations in which the partner's self-interest corresponds will not enhance trust because they are attributionally ambiguous and the individual cannot determine whether the partner has the individual's or selfish interests at heart. This proposition links trust with responsive caring, an important component of intimacy (Reis & Shaver, 1988).

Holmes and his colleagues (e.g., Holmes & Rempel, 1989) view trust as a process of uncertainty reduction, the ultimate goal of which is to reinforce assumptions about a partner's dependability with actual evidence from the partner's behavior. They hypothesize that once trust develops, partners may cognitively buttress that trust against threat. Experimental evidence confirms that highly trusting individuals not only may assimilate potentially threatening information about their partners, but they may engage in cog-

nitive activity designed to reinterpret that information in a manner that bolsters trust and positive appraisals of the partner (Murray & Holmes, 1993). Murray and Holmes (1996) discuss several specific strategies for fending off doubts, which include overlooking faults, denying the significance of faults, and recasting faults as virtues. Other investigators also have found evidence that the imposition of a threat to an existing relationship may result in cognitive activity that effectively reduces the threat (Johnson & Rusbult, 1989; Simpson, Gangestad, & Lerma, 1990), thereby reinforcing trust of the partner.

**Attribution in Relationships** Social psychological attribution theories (see Gilbert, 1998, in this *Handbook*) have been an important source of theory and research directed toward understanding how people interpret relationship events. However, differences between the kind of attributions that occur in ongoing relationships and those typically investigated in classic attribution research have required relationship researchers to modify their endeavors. One noteworthy difference is that the two traditional loci of personal causation, oneself and the other (e.g., the partner), must be supplemented with a third locus, the relationship itself (Fletcher & Fincham, 1991), as has been suggested by recent evidence linking the process of thinking about the relationship to a variety of relationship outcomes (Acitelli, 1992; Cate et al., 1995). Another important difference is that relationship attributions concern partners who are behaviorally and affectively interdependent, and such interdependence is likely to bias their attributions (Noller & Ruzzene, 1991).

Much relationship attribution research focuses on the extent to which marital partners attribute each other's behaviors to benign or malignant causes. Bradbury and Fincham's (1990) review of such studies concludes that there is a reliable association between attributional generosity and marital quality; relative to satisfied spouses, distressed spouses are more likely to attribute negative events to global, stable, and personal characteristics of their partners, and positive events to specific and unstable causes. The significance of this differential pattern stems from the causal impact that attributions are likely to have on subsequent behavior. When a partner's actions are attributed to ephemeral or external factors, spouses are more likely to overlook bad behavior or react constructively, a process termed "accommodation" by Rusbult and her colleagues (Rusbult, Yovetich, & Verette, 1996; see "Relationship Satisfaction and Stability"), whereas attributing negative behaviors to a partner's enduring personal qualities is more likely to lead to conflict escalation.

Although many relationship attribution studies have relied on paper-and-pencil measures and correlational designs, Fincham and Bradbury (1991) have assessed attributions in the context of actual interaction and examined their

longitudinal correlates, finding that the more spouses attributed their partner's negative behaviors to benign causes, the greater their marital satisfaction one year later (Fincham & Bradbury, 1993). Nevertheless, the causal impact of marital relationship attributions remains ill defined. As Bradbury and Fincham (1990) note, the results of clinical outcome studies are significantly more ambiguous than the results of experimental and correlational studies. One reason for the discrepancy may be that attributional biases in naturalistic situations sometimes mask other influences operating in relationships; for example, partners sometimes construct non-threatening accounts of a partner's bad behavior as a means of warding off doubts and anxieties (Murray & Holmes, 1996), as previously discussed. Another reason is that an individual's implicit theory of relationship may influence the nature and impact of attributions. A six-month longitudinal study by Knee (1996) found that early dissatisfaction in dating relationships predicted breakups more strongly for "entity" lay theorists, who view relationship behaviors as the product of relatively fixed, immutable traits, than for "incremental" theorists, who stress flexibility and growth.

Adding further complexity is the fact that the kinds of attributions formally described by attribution theory constitute only a small fraction of the kinds of explanations that arise in natural thoughts about relationships (e.g., excuses, blame; Bradbury & Fincham, 1990). Planalp and Rivers (1996) suggest that explanations in naturalistic settings typically are more concrete and grounded in specific knowledge about the self, other, relationship, and situation than in the abstract dimensions of classical attribution theory (i.e., locus, stability, specificity); more useful, they argue, would be an explanatory coherence model (Thagard, 1989), which posits that current events are compared to existing causal schemata until an adequate fit is obtained. Yet another problem is that automatic judgments about the causes of events that are made without awareness may differ from the products of conscious and deliberate thought, which has led some researchers to investigate when people spontaneously make causal attributions (Holtzworth-Munroe & Jacobson, 1988). Bradbury and Fincham (1990), following Weiner (1985), hypothesize that causal attributions are most likely after unexpected negative relationship events that have important implications for the self. Another condition likely to induce conscious attributional thought is when the individual's attention is explicitly turned toward that task by relationship partners, marital therapists, and, of course, the experimenter in the classic attribution research paradigm. More investigations are needed of possible differences between event explanations that occur spontaneously and automatically in relationships and those that result when thought is more deliberate.

**Relationship Memory** Relationship researchers have a special interest in autobiographical memory for at least two

reasons. First, empirical evaluation of many theoretical propositions depends on people's recollections of their relationship experiences, even though most relationship researchers recognize, in principle if not always in practice, that self-reports of past relationship events are at best an uncertain substitute for external observations of these events (Metts, Sprecher, & Cupach, 1991). Second, current memories about past relationship events may reflect the meaning of those events to the individual, which is likely to be associated with the individual's current relationship behavior.

On conceptual grounds, there is no particular reason to distinguish memory for relationship events from the more general literature on autobiographical memory for personal events (see Smith, 1998, in this *Handbook*), especially because many important instances of the latter involve the former. Although it seems reasonable that the extensive literature demonstrating the biasing effects on memory in general of mood and emotion or of cognitive accessibility, for example, should be relevant to the special case of relationship memory, relationships possess special properties that may limit the generalizability of this literature to memory for relationship events. For example, for relationship events there is always another person who possesses memories of the same event. The individual's awareness of this fact may curb self-serving embellishments, although partners' memories for the same event are frequently discrepant nonetheless (Christensen, Sullaway, & King, 1983; Surra, 1987), and agreement between partners' memories may reflect one partner's dominance in the creation of a shared account, rather than concurring independent memories (Surra, 1996). In addition, as Wegner and his colleagues theorize, close-relationship partners may develop "transactive memory," an interpersonally coordinated system in which each partner specializes in retaining only certain types of memories or knowledge (Wegner, Erber, & Raymond, 1991; Wegner, Giuliano, & Hertel, 1985).

Insight into relationship memory has been advanced by Ross (1989; Ross & Buehler, 1994), who theorizes that personal recall is an active, constructivist process guided by the individual's implicit theories concerning the stability of relevant events. For example, McFarland and Ross (1987) compared evaluations of dating partners obtained two months earlier with individuals' recall of those earlier impressions and found that those whose impressions had become more favorable over time recalled that they had had more favorable impressions initially than was actually the case, whereas those whose impressions had become more negative recalled more negative initial impressions. Similarly, Sprecher (1996), who asked people to describe their romantic relationships once each year for four years and state how the relationship had changed during the pre-

vious year, found that ratings of perceived change were more similar to current feelings about the relationship than to actual changes.

Increased recognition that relationship memory in part reflects people's attempts to comprehend the meaning of their current interpersonal circumstances has led to the growing popularity of account narrative methodology in relationship research. Harvey, Weber, and Orbuch (1990) have theorized that people are motivated to construct coherent narratives to help make sense of major life events (e.g., divorce) and, moreover, that the particular content of these accounts often serves psychological functions (e.g., self-esteem maintenance, perceived control). Indeed, there is evidence that interpersonal scripts that reflect not only personal beliefs but also consensually shared cultural beliefs and maxims may be used to create a coherent pattern among a series of relationship events (Acitelli & Holmberg, 1993). In one representative study, Holmberg and Veroff (1996) asked spouses to tell the story of their courtship and marriage one year later and three years later; by the third year, their recollections had changed to reflect more closely their personal beliefs pertinent to these events (e.g., egalitarianism) and their cultural beliefs about gender roles.

Evidence that motivated reinterpretation contributes to the formation of relationship narratives has been provided by Murray and Holmes (1993, 1994, 1996), who propose that people in relationships "construct idealized images of their partners to sustain feelings of confidence and commitment in the face of disappointing realities" (Murray & Holmes, 1996, p. 91). These investigators have found that relationship satisfaction is positively correlated with the tendency to evaluate partners more positively than partners evaluate themselves, and that such idealization also predicts more constructive conflict resolution styles and less ambivalence eight months later (Murray, 1995). Other studies corroborate the beneficial impact of an idealized view of the relationship. For example, Rusbult et al. (1996) report several studies showing that perceiving one's own relationship as possessing more positive qualities and fewer negative qualities than others' relationships facilitates commitment and satisfaction.

In addition to providing justification for continuing a relationship, reconstructed relationship accounts may justify dissolving it. Vaughan (1990) suggests that initiators of breakups not only redefine their partners in negative terms, but they also reconstruct the history of the relationship; "The good times are forgotten or explained away" (p. 29). Several longitudinal studies confirm Vaughan's hypothesis (e.g., Holmberg & Veroff, 1996; Sprecher, 1996), and Buehlman, Gottman, and Katz (1992) find that a recasting of relationship events in a negative light is predictive of subsequent divorce. Self-serving biases in memory for relationship events in some instances may be beneficial; examining the perceptions of both ex-spouses following di-

voice, Gray and Silver (1990) found that perceiving the other as responsible for the divorce was correlated with better postdivorce adjustment.

### Theories of Relationship Development

Because nearly all relationship scholars view mutual influence as the defining quality of a relationship, an increase in the partners' mutual influence is seen as marking the growth of an adult relationship (Burgess & Huston, 1990; Duck & Gilmour, 1981; Gilmour & Erber, 1994; Levinger, 1983). (The extensive literature on the development of children's friendships is beyond the scope of this chapter; see Bukowski, Newcomb, & Hartup, 1996, for a recent collection of papers.) Some researchers approach adult relationship development by studying the differing stages through which relationships may progress (Levinger & Snoek, 1972); others address the processes that may guide relationship partners through these stages (Morton & Douglas, 1981). Both approaches tend to assume that relationship development entails increasing levels of interaction and outcome interdependence, but theories of relationship development sometimes overlook the fact that some properties of relationships go beyond the properties of the individuals involved and their interaction with each other (Duck & Sants, 1983; Hinde, 1995).

As Levinger (1980) has observed, people pursue relationships with only a small fraction of the persons they meet, even if the initial encounter has produced attraction. Furthermore, as discussed earlier, attraction is not always characteristic of a developing or established relationship; for this reason, "developing" relationships usually are conceived in terms of increases in the partners' impact on each other, regardless of whether that impact is associated with attraction, repulsion, or indifference. Most relationship theorists would agree with Altman (1974): "Following initial contact, persons evaluate immediate rewards and costs from the exchange and make forecasts, or projections, of potential rewards from future exchange. If evaluations and forecasts are favorable, the relationship should continue to grow; if they are negative, the bond should terminate or proceed slowly" (p. 128). Despite agreement with this general proposition, there are many differences in how theorists conceptualize the stages through which relationships may pass, as well as how they describe the causal processes presumed to be crucial to further development at each stage.

**Self-disclosure** Social psychologists have been interested in adult relationship development at least since Newcomb's (1961) pioneering study of the acquaintance process, but research was especially stimulated by Altman and Taylor's (1973) Social Penetration Theory. Altman and Taylor theorize that relationships develop through the reciprocal exchange of information, beginning with rela-

erely nonintimate topics and gradually progressing to more personal and private aspects of the self; depth and breadth of self-disclosure are viewed as the hallmarks of a fully developed close relationship. Social Penetration Theory led to the widespread popularity of laboratory research on self-disclosure. These studies document that self-disclosure is correlated with liking and perceived acquaintance, which is consistent with the theory's proposed graduated pattern of deepening reciprocal revelation as well as the hypothesis that deepening acquaintance leads to attraction and vice versa. In a recent meta-analysis of self-disclosure studies, Collins and Miller (1994) found clear empirical support for three specific links between self-disclosure and attraction: (1) people who engage in more intimate disclosures tend to be liked better than people who disclose less; (2) people disclose more to those whom they initially like; and (3) people like others as a result of having disclosed to them. Collins and Miller (1994) attribute these associations to an inferential process: "Disclosing to another communicates that we trust that person to respond appropriately, that we value his or her opinions and responses, that we are interested in knowing them and having them know us" (p. 471).

Studies of self-disclosure using the Social Relations Model method indicate that there are both individual-level effects (i.e., some people disclose more to others, and some people receive more disclosures) and relationship effects, or self-disclosure reciprocity (see Kenny, 1994b, for an overview and discussion). Studying self-disclosure in ongoing relationships, Miller and Kenny (1986) found that most (nearly 87 percent) of the variance in self-disclosure patterns for highly intimate topics in a group of forty-five sorority women was due to relationship factors. Other studies have helped elaborate the role of disclosure in ongoing relationships. For example, short-term longitudinal studies by Hays (1984, 1985) and Berg and McQuinn (1986) indicate that self-disclosure may reach high levels very quickly in a new relationship, and that this acceleration may predict relationship longevity. Similarly, the longitudinal Boston Couples Study suggested that after a relatively short period of time, dating couples may have little new factual information to disclose to each other (Rubin et al., 1980). These studies also indicate that, even in very intimate relationships, most conversations tend to be relatively nondisclosing and mundane. High self-disclosure thus appears to be more characteristic of a relationship's peak moments than its everyday discourse.

As the well-documented principle of self-disclosure reciprocity implies, one partner's disclosure is likely to elicit from the other disclosures matched in topical content and depth; deviations from disclosure reciprocity, either excess or shortfall, tend to engender discomfort. Derlega et al. (1993) observe that although "reciprocity is 'normative,' meaning it is a common and expected occurrence [it] is not invariant or automatic" (p. 37). For example, recipi-

ents may use nonreciprocity to signal to a discloser that they do not wish to deepen their relationship (Miell & Duck, 1986; Miller & Read, 1987). Moreover, disclosures that are perceived to be manipulative, indicative of pathology, or situationally inappropriate are unlikely to be reciprocated (Wortman et al., 1976), and chronically high levels of distressed self-disclosure about personal problems may generate discomfort in listeners and lead to avoidance (Ashworth et al., 1976). Indiscriminately high levels of self-disclosure to multiple partners that violate the expectation of privacy and uniqueness in a relationship also are unlikely to be reciprocated (Jones & Archer, 1976). Finally, in long-term communal relationships, partners may establish reciprocity over time, lessening the need for immediate and similar disclosures (Mills & Clark, 1994).

One shortcoming of much self-disclosure research is the failure to take into account situational and personal goals. Although early research presumed that greater acquaintance was the preeminent goal in social interaction, it probably is only one of several goals (Berger & Bradac, 1982). Moreover, self-disclosure may serve purposes other than acquaintance, such as unburdening oneself about a distressing event, eliciting advice or pity, extracting private information or favors (Miell & Duck, 1986; Miller & Read, 1987), or even terminating a relationship (Tolstedt & Stokes, 1984). Another shortcoming concerns the nature of what is being disclosed. Echoing an earlier distinction proposed by Morton (1978), Reis and Shaver (1988) hypothesized that disclosure of self-relevant feelings and emotions is more central to relationship development than is the disclosure of factual information. Early theorizing about self-disclosure largely concerned the former (e.g., Jourard, 1964, 1971), but most researchers have assessed the latter. Support for Reis and Shaver's hypothesis has been provided by a diary study in which people kept detailed records of their social interactions for ten days (Lin, 1992); factual and emotional self-disclosure were highly correlated, but when their effects were statistically controlled, the correlation of relationship intimacy with emotional self-disclosure was highly significant, whereas factual self-disclosure was unrelated to relationship intimacy. The hypothesis also is supported by Pennebaker's (1989, 1990) findings that the act of revealing previously suppressed traumatic memories is most likely to be beneficial when it fosters emotional insight and clarity, and by the work of Mendolia and Kleck (1993), who found that people instructed to discuss their emotional reactions to a distressing film showed better long-term adaptation than those told merely to recount the sequence of events in the film (see also Greenberg & Safran, 1987).

As in other relationship phenomena, there are gender differences in self-disclosure. Dindia and Allen's (1992) meta-analysis of disclosure studies reveals that men generally self-disclose less than women do, particularly in same-

sex interaction. These and similar findings may reflect women's greater reliance on verbal discourse in relationships, while men may become equally close through shared activities and experiences (Crosby, 1991; Duck & Wright, 1993; Wood & Inman, 1993). Auxiliary support for this hypothesis is provided by evidence that men "in peer relationships that emphasize competition and challenge, learn to avoid revealing weaknesses and may associate self-disclosure with loss of control and vulnerability" (Derlega et al., 1993, p. 63). Thus, socialization pressures may lead men to disclose selectively to women rather than to men, although recent cross-cultural data suggest that a preference for female recipients may not typify same-sex interaction in nonwestern cultures (Reis, in press).

The importance of self-disclosure notwithstanding, researchers now recognize that there is more to a deepening relationship than self-disclosure. Burgess and Huston (1979), for example, observe that in comparison to superficial relationships, close relationships usually involve more interaction for longer periods of time in more diverse settings; synchronized goals and plans; shared feelings and emotional responses; enhanced feelings of liking, trust, and commitment; and appreciation for the uniqueness of the relationship (see also Levinger, 1983). Self-disclosure research still dominates the literature (see Derlega et al., 1993, for a recent review), but research on relationship intimacy, which more broadly incorporates these additional factors, has increased (Prager, 1995; Reis & Patrick, 1996).

**Intimacy** One of the most popular social psychological terms, "intimacy," has been used variously to refer to feelings of closeness and affection between interaction partners; the state of having revealed one's innermost thoughts and feelings to another person; relatively intense forms of nonverbal engagement (notably, touch, eye contact, and close physical proximity); particular types of relationships (especially marriage); sexual activity; and stages of psychological maturation. This multiplicity of usage not only reflects conceptual and linguistic ambiguity; it also undoubtedly reflects the multifaceted nature of the phenomenon (Acitelli & Duck, 1987), as Prager's (1995) proposal that intimacy be considered a "fuzzy" category in the Roschian sense suggests.

For many years, intimacy was considered to be an inevitable by-product of mutual self-disclosure (Altman & Taylor, 1973; Jourard, 1964). However, many observers criticized the assumed equivalency of intimacy and self-disclosure (Acitelli & Duck, 1987; Wellman, 1992), and theorists now recognize their conceptual, if not empirical, independence. Similarly, Reis and Patrick (1996) assert that "intimacy" and "closeness," two terms often used synonymously in everyday language, also should be recognized as distinct. They suggest that whereas closeness entails high levels of contact and behavioral interdependence

(Berscheid, Snyder, & Omoto, 1989b; Wellman, 1992), intimacy involves mutual perceptions of understanding, validation, and caring.

As relationships develop, intimacy may grow through metacognitive processes. If intimacy is viewed as "a subjective appraisal, based on interactive behaviors, that lead to certain relational expectations" (Chelune, Robison, & Kommor, 1984), then the demands of reciprocity require that each partner consider to some extent the other's expectations. Monsour, Betty, and Kurzweil (1993) illustrate how shared relationship perceptions (e.g., an individual's impressions of how the partner perceives the individual's thoughts and feelings about the relationship) contribute to intimacy development. When the relationship itself becomes the object of thought as intimacy deepens (Acitelli & Young, 1996), partners are likely to develop beliefs about how the other thinks about the relationship. In most instances, however, direct communication undoubtedly is the usual medium through which metacognitions evolve (Montgomery, 1988).

Reis and Shaver's (1988) Intimacy Model, which has been elaborated by Reis and Patrick (1996), proposes that the growth of intimacy involves more than shared cognition. Intimacy is theorized to develop if the partner's response to self-relevant disclosures leads the individual to feel understood, validated, and cared for. Their definition of intimacy not only corresponds to lay descriptions, which generally feature these and related constructs (Helgeson, Shaver, & Dyer, 1987; Waring et al., 1980), but these three qualities appear to characterize well-functioning intimate relationships. With respect to understanding, for example, Swann, De La Ronde, and Hixon (1994) have found that congruence between self-perceptions and a partner's appraisals are associated with intimacy among married couples but not among dating couples, for whom being idealized appears to be more important. Validation, in which one partner expresses respect for the other's personal qualities and point of view, has been demonstrated to be associated with relationship satisfaction in studies of marital communication (Gottman, 1994; Notarius & Markman, 1993), as well as selective affiliation (Wheeler, 1974). Finally, the third component, feeling cared for, is consistent with Attachment Theory's emphasis on felt security, as well as with the association between self-disclosure and liking noted earlier (Collins & Miller, 1994).

The interactive process of responsiveness to disclosure is integral to Reis and Shaver's view of intimacy. Responsiveness often is communicated through verbal channels. Davis (1982) has found empirical support (Davis & Perkowski, 1979) for her proposition that verbal responsiveness is a function of three parameters: (1) the probability with which each partner responds to the other's communicative acts; (2) the proportion of responses whose content is relevant to the speaker's message; and (3) the



proportion of responses that elaborate appropriately on the speaker's message. Responsive listening has been shown to distinguish distressed and nondistressed married couples and constructive and destructive marital problem solving (Gottman, 1994; Notarius & Markman, 1993), and Lin (1992) has found that perceived responsiveness is a stronger predictor of relationship intimacy than is the extent of self-disclosure.

Responsiveness also may be manifested in nonverbal communication, a process that seems particularly important in intimate relationships, given that nonverbal cues often derive meaning from the partners' shared knowledge and private signals. For example, close conversation partners may regulate their level of intimacy by systematically varying their nonverbal behaviors (Patterson, 1994). It is less well understood how nonverbal factors influence the development of intimacy in ongoing relationships, although it seems likely that partners' greater familiarity with each other would enhance the meaning attributed to nonverbal signals and hence magnify their impact.

In contrast to those who view intimacy as an attribute of a relationship, some theorists have approached intimacy phenomena from the perspective of an individual's dispositional preference for, or avoidance of, intimate relationships. Several studies of adult attachment style, for example, suggest that intimacy is what avoidant individuals want to avoid but what anxious/ambivalent people seek (Bartholomew, 1990; Mikulincer & Erev, 1991; Tidwell, Reis, & Shaver, *in press*). McAdams (1980, 1989) has developed a projective method for assessing intimacy motivation, which he defines as "a recurrent preference or readiness for experiences of warm, close and communicative interaction with other persons" (McAdams, 1992, p. 224). The intimacy motive, viewed as distinct from more status-asserting social motives such as need affiliation, has been shown to be related to higher self-disclosure, responsive listening, and interpersonal concern in the context of friendship (McAdams, Healy, & Krause, 1984). In addition, Nezlek and Pilkington (1994) find that persons who perceive risk in intimacy report less-rewarding social lives on several socioemotional dimensions (see also Descutner & Thelen, 1991). Unfortunately, it is not easy to integrate studies that examine intimacy from relational and dispositional perspectives, largely because most relationships never become highly intimate, even when the participants are initially attracted to each other and are not particularly averse to intimacy.

**Theories of Interpersonal Involvement** Most theorists agree that relationships proceed systematically from a superficial stage to deeper and more interdependent levels of involvement. But their implicit assumption that all relationships develop at approximately the same rate, and that this advancement is both linear and monotonic, is "patently du-

bious" (Berscheid, 1985b, p. 467), as has been demonstrated by Huston and Surra and their associates, who also have shown that different trajectories of progression from courtship to marriage provide important clues about the nature of the relationship (Huston, 1994; Huston et al., 1981; Surra, 1987). These investigators ask spouses to recreate the path from acquaintance to marriage in terms of their probability of marriage at each stage. The resulting graphs are coded along three dimensions: length of courtship, acceleration of commitment (defined as the time taken to move from 25 to 75 percent likelihood of marriage), and the number of downturns on the graph. Couples whose courtship is "accelerated" move beyond superficial contact and become committed to marriage relatively rapidly, reporting less conflict and more love and satisfaction as newlyweds than other couples do. On the other hand, "prolonged" courtships, which last longer and show more downturns in the probability of marriage, are characterized by greater ambivalence and conflict, weaker feelings of love and attachment, and a greater probability of separation or divorce two years after marriage.

Levinger and his associates (Borden & Levinger, 1991; Levinger & Snoek, 1972) theorize that relationships pass through three levels of relatedness, distinguished by increasing "intersection" between partners: Level 1, in which the individual is aware of the other without interaction, but the other may not reciprocate the awareness; Level 2, in which interaction is brief, governed primarily by social roles, and involves little personal disclosure or mutual concern; and Level 3, characterized by mutual relationship, in which partners possess shared knowledge of each other, assume some responsibility for each other's welfare, and share private norms for regulating their association. Two processes are hypothesized to govern the progression from awareness to mutuality: interpersonal disclosure and mutual investment, whereby partners coordinate their activities and begin to share responsibility for their mutual well-being.

An important implication of Levinger's model is that different factors may assume importance for the relationship's growth at different stages. For example, partners in less-involved stages of relationship development may be particularly interested in gathering information to reduce uncertainty about the partner and decide whether or not to deepen the relationship (Berger & Bradac, 1982), and Rands and Levinger (1979) have shown that praise, criticism, and affectionate behaviors increase as levels of relatedness increase. Another stage-related distinction is suggested by Swann, De La Ronde, and Hixon's (1994) finding that intimacy was greatest among dating individuals when they felt idealized by their partners but that intimacy was more closely related to congruence between spouses' self-conceptions and their partners' view of them. That the processes relevant to regulating relationships may

vary at different levels of involvement also is illustrated by Clark and Mills's (1979; Mills & Clark, 1994) research, discussed earlier, on communal relationships (in which members benefit each other out of concern for the other's welfare) and exchange relationships (in which benefits are provided with the expectation of receiving comparable benefits in return). In contrast to people in exchange relationships, who mentally keep track of inputs and outcomes and feel exploited when the benefits they have given are not repaid, people in communal relationships tend to avoid attending to each other's inputs and outcomes and, rather, respond to their partners' needs.

Researchers who emphasize cognitive and motivational processes take a somewhat different approach to processes of deepening relationship involvement. The Self-expansion Model proposes that people are motivated to enter a close relationship in order to "expand the self" by enlarging their personal store of traits, attributes, and abilities (Aron & Aron, 1986, 1996; Aron, Aron, & Smollan, 1992). The degree of closeness in an existing relationship is conceptualized in terms of the extent to which cognitive structures representing the self and partner overlap (Aron et al., 1991), as previously discussed. Supporting their proposition that new relationships are kindled by the desire for self-expansion, Aron, Paris, and Aron (1995) found that after falling in love, as contrasted to before, people listed more words and phrases as characteristic of the self, suggesting that they felt as if they had acquired some of their partners' qualities. This model proposes that the decrease in romantic love typical of long-term relationships results from plateaus in self-expansion; if so, joint participation in novel and exciting activities may offer possibilities for enhancing long-term relationships that pleasant but non-self-expanding activities do not (Reissman, Aron, & Bergen, 1993).

### Emotion Regulation in Relationships

Most emotion theorists agree that relationships are among the most potent and frequent sources of emotion. Lazarus (1994a) observes, for example, that "most emotions involve two people who are experiencing either a transient or stable interpersonal relationship of significance" (p. 209), and Ekman and Davidson (1994), summarizing the views of several emotion theorists, conclude that all believe that "emotions are brought into play most often by the actions of others, and, once aroused, emotions influence the course of interpersonal transactions" (p. 139). Bowlby (1988), too, states that "there are, in fact, no more important communications between one human being and another than those expressed emotionally" (p. 156). But, despite agreement among emotion theorists that relationships provide the most important context for emotional experience, theo-

retical and empirical elaboration of this fact by emotion researchers is sparse (e.g., see Shaver, Morgan, & Wu, 1996).

Relationship researchers have begun, however, to identify the interpersonal processes that underlie emotional experience in relationships. Three facets of the association between emotion and relationships have been investigated. First, relationships have been shown to be a frequent source of positive emotion. Clark and Watson (1988) documented, for example, that positive affect is more commonly linked to socializing than to any other everyday life activity, and some theorists view extraversion, one of the "Big 5" dimensions of personality, to be a measure of positive affectivity. Second, relationships are a common source of negative emotion. Negative relationship events (e.g., conflict, loss, alienation, and jealousy), or negative emotions caused by the absence of a relationship (e.g., loneliness), are commonly cited reasons for psychological distress and unhappiness and the presented reasons for seeking mental health intervention (Berscheid, Gangestad, & Kulakowski, 1984; Reis, 1990). Third, the behavior of relationship partners may help regulate emotion arising from other sources; seeking and relying on the supportive responses of significant others is a common method of coping with stress and negative emotions (Lazarus & Folkman, 1984), and conversely, interaction with depressed individuals may diminish existing good moods (Coyne & Downey, 1991).

**Evolutionary Models** Following Darwin's (1872/1965) emphasis on the evolutionary significance of emotional communication in relationships, most contemporary emotion theorists recognize the adaptive significance of emotional and relational processes for reproduction and survival. Bowlby's Attachment Theory (1969/1982, 1973, 1980), discussed earlier, draws heavily on evolutionary concepts for understanding emotion regulation in relationships. Through natural selection, several interconnected behavior-regulating systems designed to foster the infant's proximity with caregivers, especially during times of threat or distress, are presumed to become "hardwired." When safely in the presence of caregivers, infants instinctively feel secure, allowing other behavioral systems (such as exploration) to predominate. But when the infant's "felt security" is threatened, or when caregivers are felt to be distant, anxiety is aroused. Such anxiety elicits behavior intended to reestablish proximity to the caregiver (e.g., crying, clinging, and searching) that persists until the infant's "set-goal" of desired proximity is restored or until feelings of hopeless frustration or exhaustion set in (Sroufe, 1996). Attachment thus is viewed as an emotionally driven homeostatic process.

The premise that adult romantic relationships may serve some of the same functions that infant-caregiver relation-

ships do has resulted in a body of evidence suggesting that the pattern of emotions evoked by romantic relationships conforms with Attachment Theory's predictions (see Shaver & Hazan, 1993, for a review). Various affects associated with romantic love appear to be interpretable under the umbrella of Attachment Theory, including passionate arousal experienced in the early stages of romance (Shaver, Collins, & Clark, 1996); security and contentment felt in long-term stable relationships (Berman, Marcus, & Berman, 1994); jealousy and romantic obsession (Hindy & Schwarz, 1994; Sharpsteen & Kirkpatrick, in press); and the grief, despair, and sense of isolation that usually follow bereavement or divorce (Parkes, 1972; Weiss, 1975). Vormbrock's (1993) survey of the literature on wartime and occupational separation concludes that prolonged marital separation creates anxiety and depression, conceptually analogous to children's demonstrations of protest and apathetic withdrawal when separated from their caregivers. Spouses also tend to experience conflicting emotions and conflict at reunion, as Cafferty et al. (1994) found in their study of soldiers deployed during the Gulf War.

Attachment Theory was intended to illuminate general processes applicable to most persons, but research adopting an individual-difference perspective is more common. Kobak and Sceery (1988) summarize interpretations of the theory's predictions about emotional experience and regulation that should be characteristic of individuals possessing different attachment styles: "Secure attachment would be organized by rules that allow acknowledgment of distress and turning to others for support, avoidant attachment by rules that restrict acknowledgment of distress and the associated attachment attempts to seek comfort and support, and ambivalent attachment by rules that direct attention toward distress and attachment figures in a hypervigilant manner that inhibits the development of autonomy and self-confidence" (p. 142). Recent laboratory experiments tend to support these predictions. Simpson, Rholes, and Nelligan (1992) found that secure women waiting to participate in an anxiety-provoking interview sought more support from their partners than did avoidant women, and secure men provided their partners more support than did avoidant men. In another study, Simpson, Rholes, and Phillips (in press) found that observers of dating couples discussing a major relationship problem rated anxious/ambivalent women as displaying higher levels of anxiety and engaging in more negative behaviors than secure women, whereas avoidant men were seen as less warm and supportive than secure men. This finding is consistent with those of Mikulincer, Florian, and Weller's (1993) study of Israelis during the 1990 Iraqi missile attacks: secure persons sought support to alleviate their distress, anxious/ambivalent persons focused on emotion regulation (e.g., wishing they felt differently), and avoidant persons reported more

attempts at emotional distancing (e.g., trying to forget). Reliance on emotional distancing during an attachment interview was positively correlated with autonomic activity in Dozier and Kobak's (1992) laboratory study, suggesting a defensive reaction.

An unresolved question concerns the role of threat and anxiety in activating attachment-related processes of emotion regulation. Many theorists, following Bowlby's lead, assert that the attachment system operates only when the individual's sense of felt security is threatened. Among these are Kobak and Duemmler (1994), who identify three kinds of activating conditions: fear-provoking circumstances, challenging situations, and interpersonal conflict. Supporting their view are studies examining such putative attachment-activating circumstances as death anxiety (Mikulincer, Florian, & Tolmacz, 1990), breast cancer (Bellg, 1995), relationship conflict (Feeney, 1995; Gaines et al., 1997; Scharfe & Bartholomew, 1995), and problem-solving conversations between spouses (Kobak & Hazan, 1991) and parents and their adult children (Doane & Diamond, 1994). Attachment behavior may be commonplace in everyday life, however. Tidwell, Reis, and Shaver (in press), examining detailed social interaction diaries kept over one week, found that compared to secure and ambivalent individuals, avoidant persons reported lower levels of enjoyment and positive affect and higher levels of negative affect, especially in opposite-sex interaction, while anxious/ambivalent individuals reported more emotional lows and highs in opposite-sex interaction during the week. Other studies have shown that insecure attachment style is associated with dispositional affective disorders, including depression, dysphoria, loneliness, and chronic anxiety (summarized in Sperling & Berman, 1994); interpersonal orientation and ego-functioning, assessed via self-report and peer-report measures (Bartholomew & Horowitz, 1991; Kobak & Sceery, 1988); and eating, drinking, and sexual behavior disorders (Brennan & Shaver, 1995). Resolution of the question of when attachment-related processes of emotion regulation are activated requires explicit comparison of arousing and nonarousing conditions, a contrast attempted in only a handful of studies (e.g., Pietromonaco & Barrett, 1996; Simpson, Rholes, & Nelligan, 1992; Simpson, Rholes, & Phillips, in press).

Attachment Theory is commonly cited as an example of the value of viewing social phenomena from an evolutionary perspective. Buck and Ginsburg (1991, 1997) provide another illustration. Citing evidence from both vertebrate and invertebrate species, they propose that "spontaneous communication" between individuals is fundamental to life. Spontaneous communication, which they define as "nonintentional, non-propositional, affective communication about feelings and desires or emotions and motives"

(Buck & Ginsburg, 1991, p. 156), is viewed as highly adaptive because it allows individuals to coordinate their activities for mutual benefit, facilitates bonding and cohesive behavior, and helps establish clearly defined, well-organized social hierarchies. Spontaneous affective communication also is theorized to provide a common foundation for various types of emotion-related social interaction, including altruism, empathy, rapport, and responsiveness. For example, nonverbal communication, considered by many to be the main channel for affective and relational communication (Knapp & Hall, 1992), relies significantly on the human face, an evolutionarily adapted, highly visible, and usually reliable marker of spontaneous affect (Ekman & Friesen, 1975; Fridlund, 1992). Given that human facial musculature has evolved to a high degree of complexity (Izard, 1978), and given that facial displays are widely considered to be involved in emotional experience (Ekman & Friesen, 1975), the ability to convey emotional information to others through facial expressions may have facilitated various behaviors that made survival or reproduction more likely. Emotional contagion, or "the tendency to automatically mimic and synchronize facial expressions, vocalizations, postures, and movements with those of another person and, consequently, to converge emotionally" (Hatfield, Cacioppo, & Rapson, 1992, pp. 153-154), is another example of this phenomenon.

Berscheid also takes an evolutionary perspective in her Emotion-in-Relationships Model (Berscheid, 1983; Berscheid, Gangestad, & Kulakowski, 1984), one of the few theories that explicitly addresses the role of relationship interaction infrastructure in emotion. Building on Mandler's (1975) theory of emotion, which postulates that the human nervous system incorporates a "hardwired" attention-reorienting mechanism that generates emotional arousal whenever unexpected changes in environmental conditions interrupt organized sequences of behavior, Berscheid proposes that emotion occurs in relationships when the partner's behavior interrupts the individual's ongoing goal-directed behavior sequences. For example, discovering that one's spouse is having an affair not only interrupts everyday routines, but also is likely to interrupt many long-term plans and goals and thereby should generate intense negative emotion. Berscheid defines "emotional investment" in a relationship as the degree to which an individual's ongoing behavioral sequences are "meshed" with a partner's, such that performance of those behavioral sequences and the attainment of goals is dependent on the other partner's performance of appropriate behaviors at appropriate times in the sequence. Because relationships are affectively quiescent when interdependent sequences of activity run smoothly, partners in long-term relationships are theorized to underestimate their emotional investment in the relationship and their partners' po-

tential to cause emotion. In support of this reasoning, Simpson (1987) found that relationship closeness, defined in terms of behavioral interdependence (*cf.* Berscheid, Snyder, & Omoto, 1989b), predicted emotional distress three months after the breakup of dating relationships better than relationship satisfaction did.

Although Berscheid's model has not received a great deal of empirical attention, it explains certain aspects of emotional experience in relationships not easily accounted for by other theories, including the well-documented decrease in intense positive emotion in the early years of marriage: "In order for a person to experience intense positive emotion in a relationship, at least through the unexpected completion of plans, the individual's partner must facilitate these plans, and yet the individual must not expect that the partner will do so. These conditions are most likely to be met in the initial stages of a relationship when the partner's actions . . . are still unexpected and surprising. As time wears on, however, the partner—and what he or she can and will do—becomes increasingly known, predictable, and expected" (Berscheid, Gangestad, & Kulakowski, 1984, p. 453), and therefore not the occasion for positive emotion. Furthermore, because it stresses meshed "organized action sequences," which develop in a relationship through repetition over time and therefore tend to be associated with automatic rather than controlled processing, Berscheid's model implies that the individual's experience of strong emotion in the relationship signals that the partner has interrupted organized sequences and plans of which the individual may not be fully aware.

#### Other Models of Emotion Regulation in Relationships

One of the central problems of social life is regulating the emotion aroused by the actions, or absence of expected action, of others. Nearly all models of social competence propose, and many empirical studies have demonstrated, that optimal regulation involves neither overcontrol (i.e., inhibition of emotion, shyness, and lack of overt reactivity to others) nor undercontrol (i.e., lack of impulse control, hyperreactivity, and frequent frustration) but moderate, flexible use of emotion displays and an ability to profit from the supportive reactions of others (Eisenberg & Fabes, 1992). Indeed, it is a staple of the literature on childhood social relations that either extreme of emotional expression is associated with a broad variety of psychological and social adjustment problems, both concurrently and prospectively (Block & Block, 1980; Hartup, 1983). Social adjustment is similarly linked to emotional adaptability in adults. For example, Aronoff, Stollak, and Woike (1994) asked people who had been categorized as either high or low in their ability to cope with anxiety-arousing material to engage in a series of six interpersonally challenging tasks with a partner (e.g., telephone a stranger) and found that less ego-

adaptable individuals were significantly more distant and affectively disengaged from their partners than were highly ego-adaptable individuals.

Although most research on emotional regulation has focused on dispositional factors, some social psychologists have attempted to identify situational influences on emotion regulation. A prominent example is Tesser's Self-evaluation Maintenance Model (Erber & Tesser, 1994; Tesser, 1988), which proposes that there are two affective responses to successful accomplishments by a close other: (1) reflection, in which the self "basks in the reflected glory" of the other's performance; and (2) comparison, which engenders jealousy. According to Tesser, the process that predominates depends on the hedonic self-relevance of the activity in question; on highly self-relevant tasks, out-performance by a close other produces facial expressions characteristic of negative emotions (e.g., envy and jealousy), whereas on tasks with little self-relevance, pride and other positive expressions are more common (Tesser, Millar, & Moore, 1988; see also Pilkington, Tesser, & Stephens, 1991; Tesser, 1980).

It also has been suggested that people may strategically present their own emotional state in order to create impressions that elicit desired behaviors from relationship partners (e.g., appearing angry to induce submissiveness) (Clark, Pataki, & Carver, 1996). In addition, a set of experiments by Erber, Wegner, and Theriault (1996) indicates that people may modify their mood in order to prepare for interactions in which their existing mood would be inappropriate or unhelpful (e.g., when interacting with a depressed other). Although the role of self-presentational factors in emotional expression is generally not well understood, an exception is provided by research on self-esteem and affect regulation. Baumgardner, Kaufman, and Cranford (1990) summarize research conducted by several investigators indicating that individuals with low or uncertain self-regard are especially prone to attempt to regulate emotion through public self-presentation tactics, such as boasting, self-handicapping, and criticizing others.

Finally, social cognitive theories have not overlooked the impact of relationships on emotion and mood. Representative of this approach is Forgas's Affect Infusion Model (Forgas, 1995), which proposes that under certain information-processing conditions, affective states will influence judgments about a variety of matters, including relationships and relationship partners. For example, in one set of studies, people evaluated their relationships as closer and more positive when they were in a good mood than when they were in a sad mood (Forgas, Levinger, & Moylan, 1994). Moreover, people in a sad mood appear to attribute serious relationship conflict to internal, stable, and global factors, whereas those in a good mood are more likely to cite external, unstable, and specific causes (For-

gas, 1994), a noteworthy pattern corresponding to attributional differences between distressed and nondistressed couples that have been associated with differences in marital problem solving and stability.

**Communication of Affect in Relationships** Relationship quality is often defined in terms of the quality of emotional communication between partners. Noller and Ruzzene (1991) observe that "it is taken for granted that marital harmony is strongly related to effective communication between spouses, and that effective communication, to some optimal degree, involves spouses' understanding of each others' thoughts and feelings" (p. 204). Thus many research programs that aim to identify and understand marital dysfunction and instability focus on how spouses represent emotion to each other and react to each other's displays of emotion (see "Relationship Satisfaction and Stability"). Researchers have become particularly interested in those aspects of emotional communication that take place outside of conscious awareness, including emotional contagion (Hatfield, Cacioppo, & Rapson, 1994); physiological synchrony (Levenson & Ruef, 1992); spontaneous affective communication (Buck & Ginsburg, 1991); and vicarious emotional responding (Eisenberg et al., 1991).

**Empathy** The process of attending to, interpreting, and responding to another person's expressions of emotion is commonly referred to as empathy. Like other common-language terms, "empathy" has multiple meanings that have obscured conceptual understanding. Wispé (1986) distinguishes between "sympathy," defined as "heightened awareness of the suffering of another person as something to be alleviated," and "empathy," or "the attempt by one . . . self to comprehend unjudgmentally the positive and negative experiences of another self" (p. 318). Davis's (1983, 1994) multidimensional measure of empathy also differentiates these two components, referring to them as empathic concern and perspective taking, respectively. A further refinement distinguishes empathy from "empathic accuracy," which Ickes (1993, 1997) defines as the degree to which an individual can accurately infer another person's thoughts and feelings. Although the literature often uses these terms interchangeably, they describe conceptually distinct processes.

The most explicit studies of sympathy examine its impact on helping. For example, Batson (1991) has demonstrated that other-oriented concern for the welfare of others (as distinguished from helping induced by more egoistic motives) enhances helping and other prosocial behaviors. Helpfulness also is more likely in persons characterized by relatively high levels of dispositional sympathy (Eisenberg & Fabes, 1990). In both peer and romantic relationships, sympathy is associated with sensitivity to others, self-dis-

closure, warmth, and supportiveness (Davis & Kraus, 1991). Reis and Patrick (1996) suggest that of all the constructs for which the generic term "empathy" is used, "sympathy" seems most likely to capture the motivation for pursuing close relationships and for engaging partners responsively.

Empathy in the sense of perspective taking is the tendency to seek to understand circumstances from another person's viewpoint. The importance of empathy in close relationships, including the psychotherapeutic relationship, was highlighted by Rogers (1961), who felt that genuinely adopting the other's frame of reference was essential to an intimate relationship. Subsequent studies of the therapist-client relationship have underscored the importance of empathy in predicting successful therapy outcomes and client satisfaction (e.g., Lafferty, Beutler, & Crago, 1989). However, such studies generally confound Wispé's two components, both conceptually and operationally. Eisenberg and Fabes (1990) propose that, as a cognitive skill, empathy may operate in the service of other relational motives, such as sympathy; sympathetic arousal, for example, may impel people to use whatever perspective-taking skills they possess, as demonstrated by Eisenberg et al.'s (1989) finding that the more emotionally aroused individuals felt while viewing a videotape in which a mother discussed her child's serious injuries, the more help they offered.

Even the most highly motivated attempts to take another's perspective may fail, suggesting that empathy is useful primarily when it is also accurate. Several commentators have recounted the long and torturous history of methodological and conceptual ambiguities that have plagued the study of "empathic accuracy" (Ickes, 1997; Kenny, 1994a). These obstacles include the classic measurement artifacts first identified by Cronbach (1955), as well as the intrinsic difficulty of determining what one person is thinking or feeling at the same moment that the perceiver is drawing inferences. Partly as a result of innovations such as the Social Relations Model procedure (Kenny, 1994a), previously discussed, and the use of videotapes that facilitate objective comparisons between an individual's thoughts and feelings at a given moment and an observer's intuitions (Ickes et al., 1990), a greater understanding of empathic accuracy has been achieved.

Among the time-honored questions addressed in this "new wave" of research is whether some people have more empathic accuracy than others. Davis and Kraus (1997) meta-analyzed thirty-six studies investigating thirty-two different predictor variables and found that good judges are intelligent, cognitively complex and flexible, well adjusted, and trusting; of equal interest is the fact that extraversion, femininity, and self-reported empathic ability did not predict empathic accuracy (see also Ickes, 1993). Davis and Kraus also conclude that the correlation between self-rated and actual empathic accuracy is essentially nil, confirming

Ickes's (1993) finding that people "have little insight regarding their own relative level of empathic skill" (p. 65). On the other hand, an individual's empathic accuracy as rated by friends and acquaintances did reliably predict actual ability. Recent research also continues to document that friends understand each other's thoughts and feelings better than strangers do (Colvin, Vogt, & Ickes, 1997; Kenny, 1994a).

New light also has been shed on the ubiquitous assumption that women's nonverbal decoding skills are better than men's. Well-entrenched explanations of this presumed difference range from evolutionary to social-status interpretations (i.e., persons with lower status or power must attend more closely to intentions and motives conveyed nonverbally). However, Graham and Ickes's (1997) thoughtful analysis refutes any sweeping declaration of a gender difference, finding a modest advantage for women in only the special case of decoding nondeceptive facial expressions; in particular, they find no evidence that women infer the specific content of others' thoughts and feelings better than men. However, there may be sex differences in the extent to which men and women are willing to use these inferences sympathetically in social interaction (Reis, in press).

As a general rule, empathy appears to be a powerful tool for enhancing the quality of close relationships. The ability to correctly infer a partner's thoughts and feelings, and to respond supportively, provides the foundation for relationship-enhancing behaviors, including accommodation, social support, intimacy, and effective communication and problem solving (Bissonnette, Rusbult, & Kilpatrick, 1997; Ickes & Simpson, 1997). Nevertheless, empathic accuracy may be detrimental at times, such as when one partner exploits empathically inferred vulnerabilities or when partners correctly perceive relationship-threatening content (Simpson, Ickes, & Blackstone, 1995).

## RELATIONSHIP SATISFACTION AND STABILITY

No single question in relationship research has captured more attention than why one relationship endures and another dissolves. If that question were answered, relationship researchers would know a great deal more about the causal dynamics of relationships than they do now. In addition, identification of the determinants of stability has practical implications for individuals, who often experience adverse consequences from the dissolution of their close relationships (see "Relationships and Well-Being"), as well as for society, which suffers high costs from the disruption of close relationships, especially marital and parental relationships. As befits a question of great theoretical and practical import, almost all disciplines currently contributing to relationship science address relationship

stability. Moreover, all assume that satisfaction with the relationship is an important determinant of its stability. As a consequence, the satisfaction and stability literatures are voluminous.

### Overview of Research on Satisfaction and Stability

Most studies of relationship stability focus on dating and marital relationships. Adult friendship stability, for example, is infrequently studied (Blieszner & Adams, 1992). Not only are friendships often viewed as less important than marital relationships, but examining the stability of friendships is difficult because they usually do not have the clearly defined dissolution point that premarital and marital relationships often do. Similarly, a parent-child relationship is rarely declared dissolved by the partners, even if by all reasonable standards it is moribund.

Investigation of the factors associated with marital stability began to assume urgency in the United States as the rate of divorce accelerated from the mid-1960s through the late 1970s. Although it appears that the rate may have leveled off (Kitson, Babri, & Roach, 1985), some demographers estimate that two-thirds of all first marriages now contracted will end in separation or divorce (Martin & Bumpass, 1989). In marriages with at least one previously divorced partner, the probability of divorce is still greater (Cherlin, 1992). Thus, there has been acute interest in the causes of marital-relationship dissolution. Identification of the antecedents of premarital-relationship dissolution, of interest in itself, has assumed additional significance because of the presumed similarity between these factors and those associated with marital dissolution.

Three research traditions have been prominent in the investigation of premarital and marital stability: the sociological tradition, as represented by the field of marriage and the family; the clinical marital and family therapy tradition; and the social psychological tradition. Cross-fertilization and homogenization of theory and technique among these approaches are increasing, but each remains distinctive. Although the three approaches differ, all assume that relationship satisfaction is the preeminent causal determinant of stability. Despite the fact that the short answer to the question of why some relationships endure and others dissolve has been that people maintain satisfying relationships and dissolve dissatisfying ones, evidence in support of this assumption is still surprisingly sparse, even in the case of marital relationships (White, 1990). Moreover, when such evidence appears, it tends to be unimpressive (Gottman & Levenson, 1992).

Satisfaction and stability research traditionally have formed separate literatures (Glenn, 1990). With the recent increase in the use of longitudinal methodology, however, the satisfaction-stability association has been more fre-

quently examined. Booth et al. (1986), for example, found that unhappy spouses at the time of first contact were four to five times more likely to divorce over the subsequent three-year period than those who were very happy. Gottman and Levenson (1992) report some longitudinal evidence in support of their Cascade Model of relationship dissolution, in which low marital satisfaction may lead to consideration of separation or divorce, followed by actual separation, followed by divorce. Such a progression has been widely assumed, but as these investigators observe, it has never been adequately demonstrated empirically. The proposed pattern of events may be neither necessary nor sufficient for divorce, and at present, evidence supporting the cascade view is weak (Noller, in press).

Although the hypothesized satisfaction-stability association is a causal and thus temporal one, most studies of satisfaction and stability have been cross-sectional rather than longitudinal. At least a hundred longitudinal studies of marital stability now have been published (see Karney & Bradbury, 1995, for a review), and more are in process (see Bradbury, in press), but these represent only a small fraction of the satisfaction and stability literatures. The need for longitudinal studies has been dramatized in recent years by findings that variables associated at one point in time may show different associations with satisfaction assessed at that same point in time than they do with later satisfaction.

That the correlates of present satisfaction may differ from those predictive of later satisfaction was signaled some years ago by data collected by Braiker (reported in Braiker and Kelley, 1979), who asked couples who had been married less than three years to report retrospectively, from their initial acquaintance through their first six months of marriage, their love for their partners, their experiences of conflict and negativity, and their progress toward commitment and marriage. Although conflict was common, often increasing sharply in the serious dating stage, there was little association between the amount of love and the amount of negative affect and conflict these spouses reported having experienced. Citing the similarity of their findings to those of Orden and Bradburn (1968), who had found no association between married couples' reports of their frequency of engaging in pleasurable activities together and problems in their marriage, Braiker and Kelley concluded that love and conflict/negativity are independent relationship dimensions, a conclusion supported by more recent investigations revealing the relative independence of positive and negative affect (see "Relationship Beginnings"). Braiker and Kelley's finding that love and conflict had little impact on each other in premarital and early marital relationships subsequently was supported by Berg and McQuinn's (1986) finding that conflict did not predict dating status four months later. The finding also received support from Kelly, Huston, and Cate's (1985) lon-

gitudinal study of newlyweds, in which premarital conflict was found to be unassociated with the love the partners reported having felt for each other before marriage; however, premarital conflict not only was revealed to be a precursor of marital conflict, but it predicted marital satisfaction after two years of marriage.

Other studies confirm that isomorphism between concurrent and longitudinal correlates of satisfaction cannot be assumed. For example, Markman (1979, 1981) found that spouses' ratings of the affective impact of their partner's communications were not associated with concurrent satisfaction or even satisfaction one year later, but they strongly predicted satisfaction two and a half and five years later; Smith, Vivian, and O'Leary (1990) also have found that factors associated with current marital satisfaction differ from those associated with later satisfaction. Another example is provided by Gottman and Krokoff's (1989) finding that wives' positive verbal behavior covaried directly with their concurrent marital satisfaction but inversely with their later satisfaction. Although Gottman and Krokoff's study sparked controversy about the best way to assess changes in satisfaction over time (Woody & Costanzo, 1990; see Bradbury, Cohan, & Karney, in press, for a discussion of the issues and a possible resolution) and the finding has failed to be replicated (Gottman, 1993), it is clear that the factors associated with present satisfaction are not necessarily the same factors that are associated with later satisfaction.

One further example will illustrate how complex the study of relationship stability is proving to be and the role that longitudinal studies must play in illuminating the processes by which some relationships are stably maintained while others dissolve. Hill and Peplau (in press) conducted a fifteen-year follow-up of individuals who had participated in the Boston Couples Study, one of the first longitudinal studies of courtship (Hill, Rubin, & Peplau, 1976). Although many correlates of premarital satisfaction also predicted later satisfaction and stability, some variables (e.g., sex-role traditionalism) that were not associated with dating satisfaction and breakup did emerge as significant predictors of later marital satisfaction. Moreover, Hill and Peplau found that the attitudinal correlates (assessed fifteen years earlier) of happy marriages for those who married their college partner, termed "early nesters," differed significantly from those associated with happy marriages for those who later married someone else, or "late nesters." The differential influence of stability predictors for just two groups within this relatively homogeneous sample illustrates that mapping the determinants of marital satisfaction and stability is proving to be a difficult task.

One cause and consequence of the emergence of a multidisciplinary science of relationships has been some melding in recent years of the three major approaches to questions of satisfaction and stability. We next briefly describe

the sociological and clinical approaches that are currently influencing social psychological investigations of stability.

### The Sociological Approach

For many years the stability of premarital and marital relationships was exclusively the concern of scholars of marriage and the family; Terman's (1938) psychological study of the personality correlates of later marital success in his sample of gifted people was an exception. Like Terman, sociologists Burgess and Cottrell (1939) focused on individual-difference characteristics and reported in *Predicting Success or Failure in Marriage* that these could account for about one-fourth of the variance in marital success. Following couples from their engagement through their early years of marriage and mostly using scores from the Thurstone Personality Inventory as predictors, Burgess and Wallin (1953) subsequently found significant but small associations with marital success three to five years later.

A flood of studies in this general tradition followed, many of them large-scale surveys examining the concurrent association between marital satisfaction and a variety of demographic and personality variables. In one of the few longitudinal studies, Kelly and Conley (1987) examined the personality antecedents of marital instability in a panel of couples who were followed from their engagements in the 1930s until 1980 and found that husband's neuroticism, wife's neuroticism, and husband's impulse control as assessed in the 1930s were positively correlated with later instability. Despite the immense number of studies, marriage and family scholars have expressed dissatisfaction with their progress in identifying the determinants of satisfaction and stability and in elucidating the association between the two (e.g., see Adams, 1988; Nye, 1988). Glenn (1990), for example, has characterized the marital-quality literature as incohesive and atheoretical and as having produced "only a modest increment in understanding the causes and consequences of marital success" (p. 818), where marital success is defined as satisfaction in an intact marriage.

Among the many problems that have plagued the study of marital satisfaction and its association with stability and other outcomes is disagreement about how satisfaction should be measured (Sabatelli, 1988). Perhaps the most often used measure of marital satisfaction is the Locke-Wallace Marital Adjustment Test (Locke & Wallace, 1959) or one of its variants (e.g., Kimmel & Van der Veen, 1974). Spanier's (1976) Dyadic Adjustment Scale runs a close second, but a wide variety of other satisfaction scales, including single-item measures, are also used. The noncomparability of many marital-satisfaction scales has been demonstrated, and equivalency tables for three frequently used scales have been proposed (Crane et al., 1990). For social psychologists, whose theoretical interest in relation-



ship satisfaction extends beyond the marital relationship to other relationship types and who thus desire comparability across type, a generic measure of relationship satisfaction developed by S. S. Hendrick (1988), whose scale items do not presume that the partners' relationship is marital, will be useful.

However marital satisfaction is measured, the cross-sectional evidence suggests that relative to the happiness of their never-married counterparts, people in intact marriages are less happy today than they once were (Glenn, 1991; Glenn & Weaver, 1988; Lee, Seccombe, & Sheban, 1991). They also appear to be less happy as contrasted to the happiness reported by spouses in the early 1970s, leading Glenn (1991) to conclude that the rise in divorce in the 1960s and 1970s resulted largely from increased marital failure, not simply from a greater tendency for marital failure to lead to divorce. Such findings underscore the need to identify the determinants of marital satisfaction.

One of the most established findings in sociological research has been that marital success decreases continuously over the course of the marriage but that there is a slight satisfaction upswing in older marriages at the post-parental stage, producing the curvilinear pattern that has been a familiar fixture in marriage and family texts (Glenn, 1990). Most research supporting this pattern has been cross-sectional or retrospective, however, and recent longitudinal research suggests that the satisfaction increase in older marriages may have been a methodological artifact. Analyzing data from men (and some of their wives) who had been recruited for a health study and followed for forty years, Vaillant and Vaillant (1993) found that when respondents were asked to retrospectively plot their happiness, the usual U-curve was found; however, actual measurements of satisfaction at several points during the four decades revealed a continuous decline in satisfaction, particularly for wives (see "Developing Relationships" for a discussion of relationship memory). These data are in accord with Glenn's (1989) estimate that marital success, defined as the percentage of still-married persons who describe their marriage as "very happy," decreases monotonically with age of marriage for at least the first ten years and perhaps as long as twenty-five years, although marriages do become progressively more stable with age (the vulnerable marriages having dissolved earlier). In the absence of additional longitudinal data, however, it is difficult to muster much confidence in estimates of the temporal progression of satisfaction over longer spans of marital duration. Marriages that have survived for many years are undoubtedly very different from those in their cohort that did not, and one important difference should be that they were happier than those that dissolved. Levenson, Carstensen, and Gottman (1994) examined marital interactions between couples in long-term marriages in which the couples differed in age (middle-aged versus older couples)

and found that the interactions of older couples were characterized by greater affective positivity than those of middle-aged couples.

With respect to shorter-term marriages, longitudinal studies have corroborated findings from cross-sectional studies that the steepest drop in satisfaction occurs shortly after marriage and that the decline is similar for wives and husbands (e.g., Kurdek, *in press*). The early satisfaction drop is significant; Leonard and Roberts (*in press*) report from their Buffalo Newlywed Study that during the first year of marriage, satisfaction dropped about two-thirds of a standard deviation, a drop similar in magnitude to that found in other longitudinal data (e.g., Huston & Vangelisti, 1991; Smith et al., 1990). Huston et al. (1987) found that all couples in Huston's longitudinal sample of newlyweds (often referred to as the PAIR project) showed large declines in the frequency of their affectional behaviors shortly after marriage but no corresponding changes in the frequency of negative behaviors, suggesting that reduced positivity rather than increased negativity is responsible for the decline in satisfaction. More optimistically, Lindahl, Clements, and Markman (*in press*) report that the decline in satisfaction in their sample plateaued by year 4, with no further significant decline observed by year 9, the last year assessed.

For many years the early drop in marital satisfaction observed in cross-sectional data was attributed to the advent of parenthood. Huston, McHale, and Crouter (1986), however, found that the degree of decline in PAIR project couples did not differ for parents and a control group of childless couples. On the other hand, Kurdek's (*in press*) longitudinal research suggests that the satisfaction decline in his sample of marital couples was especially high for those who had their own children (but not stepchildren) early in marriage, a finding consistent with other longitudinal examinations of the effect of parenthood on young marriages (e.g., Ruble et al., 1988).

Nevertheless, Huston et al.'s (1987) results suggest that other factors associated with the advancing age of the relationship, not parenthood itself, may be importantly responsible for the early decline in marital satisfaction. Age of the relationship also may be responsible for many previous findings that premarital cohabitation is associated with marital instability; marriages with prior cohabitation have been shown to be older relationships and thus further along on the continuum of dissatisfaction (Teachman & Polonko, 1990). Given the well-documented association between age of relationship and satisfaction, it is clear that relationship age is an important variable that should not be overlooked in studies of satisfaction (see Heaton, 1991, for a sensitive discussion of temporality dimensions and their impact on marital dissolution).

In addition to parenthood, an extraordinary array of other variables has been hypothesized to be responsible for

declines in marital satisfaction. Karney and Bradbury (1995) report that the longitudinal influence of nearly 200 variables on marital satisfaction and stability has been examined with the result that, in general, "positively valued variables—such as education, positive behavior, and employment—predict positive outcomes, whereas negatively valued variables—such as neuroticism, negative behavior, and an unhappy childhood—predict negative marital outcomes" (p. 18). No single factor has proved to be an especially potent predictor of satisfaction, and even groups of variables often account for a relatively small portion of the variance.

The same conclusion might be reached from the premarital satisfaction and stability literatures. For example, Attridge, Berscheid, and Simpson (1995) found that thirteen reliable indicators of variables theoretically associated with relationship quality and stability (e.g., love, trust, closeness, satisfaction, commitment, positive emotion) were all highly correlated with each other and loaded on a single factor. A composite measure representing that factor, although it was significantly associated prospectively with premarital romantic relationship stability, accounted for only about a third of the variance, even when scores from both partners were used to predict stability. Efforts to identify the determinants of dating and premarital relationship satisfaction, then, have been no more successful than those attempting to identify determinants of marital satisfaction. Nevertheless, researchers in the sociological tradition have progressed light-years beyond their early attempts to discover personality correlates of relationship success. The facts that problems of marital satisfaction and stability have not quickly and easily yielded to solution, and that researchers are more confident now about what they do not know than what they do, say more about the complexity of the problems than they do about the efforts to solve them.

### The Clinical Approach

One reason why researchers must persevere in their attempt to identify the determinants of satisfaction is that the treatment of distressed relationships depends on understanding the causal dynamics of dissatisfaction. Thus marital and family therapists have been major contributors to the marital satisfaction and stability literature at least since the mid-1970s, coincident with the dramatic rise in public demand for relationship counseling and therapy (for brief histories of relationship counseling, see Christensen, 1983, and Follette & Jacobson, 1985; for an application of relationship science research to relationship counseling, see Hendrick, 1994). In contrast to investigators who take the sociological approach, which has frequently relied on self-report and large-scale cross-sectional studies, researchers in the clinical tradition have focused on discovering how the behavior of satisfied couples differs from that of the

dissatisfied. Like sociological studies, however, studies taking the clinical approach often have been atheoretical.

Two seminal studies were influential in establishing a clinical paradigm for investigating marital satisfaction. One was conducted by Raush et al. (1974), who brought couples into the laboratory and observed their interactions as they discussed a conflict. The other was performed by Wills, Weiss, and Patterson (1974), who asked individuals to record daily on a Spouse Observation Checklist the spouses' behaviors and the affective impact of those behaviors on themselves. Those affective ratings were then correlated with the individuals' overall daily ratings of marital satisfaction, revealing that their spouses' "displeasing" behaviors contributed more to satisfaction than did "pleasing" behaviors and that partners were more likely to reciprocate a displeasing behavior with a negative behavior of their own than they were to reciprocate positive behavior. Findings that have been frequently replicated (e.g., Jacobson, Waldron, & Moore, 1980; see Weiss & Heyman, 1990 and Reis & Knee, 1996, for discussions).

Following Wills, Weiss, and Patterson's (1974) lead, many researchers in the clinical tradition have roughly invoked social learning theory as their theoretical imprimatur and embraced techniques from experimental psychology in order to investigate and treat marital dysfunction. Social learning theory, originally associated with the application of Hullian learning theory to complex social behaviors (Dollard et al., 1939; Miller & Dollard, 1941), currently is a loose and eclectic collection of learning principles (Miller, 1989). The basic assumption underlying all learning theories is that behavior that is rewarded—whether by a pellet from an experimenter to a rat or a compliment from a husband to a wife—is more likely to be repeated than behavior that is not. Individuals' choices among behavioral options are viewed as a function of their expectation that each option will bring rewarding rather than costly outcomes, with the experience of rewarding outcomes assumed to produce positive affective responses and negative outcomes negative responses. Thus a prominent theme in the clinical approach to questions of satisfaction and stability is the partners' affective responses to each other's interaction behaviors, often as the partners attempt to resolve a conflict in their marriage. The aim has been to identify interaction behaviors that are associated with satisfaction and dissatisfaction and that are amenable to therapeutic intervention.

**Interaction Behavior and Satisfaction** The investigational paradigm of observing the interaction of satisfied and dissatisfied couples as they discuss a conflict has revealed, not surprisingly, that dissatisfied couples exhibit higher rates of negative behaviors (e.g., criticism, inattention, and complaint) than satisfied couples do. Although satisfied couples emit higher rates of such positive behaviors as smiling, laughing, and agreement (see Weiss &

Heyman, 1990, for a review), negative affect appears to differentiate satisfied and dissatisfied couples more reliably than positive affect does (e.g., Gottman & Levenson, 1986).

Differential rates of positive and negative interaction behavior, as opposed to absolute levels of each, appear to be associated with concurrent satisfaction, as well as with later satisfaction and stability. Gottman and Levenson (1992) coded the positivity minus negativity of each spouse's "speaker," as opposed to "listener," interaction behaviors, plotted the cumulative total of these over the course of the interaction, and classified couples as "regulated," if both spouses' speaker slopes were positive, and "unregulated," if one or both were not. Four years later, when these couples were recontacted, nonregulated couples were less satisfied than regulated couples at both measurement times, and were more likely to have considered divorce, to have actually separated, or to have divorced. Although an earlier study by Levenson and Gottman (1985) had suggested that a high level of physiological arousal (reflecting intensity of negative emotion) during a conflict interaction was associated with later decline in satisfaction, no such effect was observed. Gottman and Levenson (1992) conclude that "marital stability requires regulation of interactive behavior at a high set point ratio of positive to negative codes of approximately 5.0" (p. 232), reflecting the fact that positive speaker behaviors were at least five times more frequent than negative behaviors in satisfied couples. Observing that couples can achieve such a set point in different ways, Gottman (1993, 1994) proposes a typology of stable couples that includes "volatile" couples (much negative affect, even more positive affect, and little neutral interaction), "validator" couples (moderate negative and positive affect and more neutral interaction), and "avoider" couples (small amounts of negative and positive affect and much neutral interaction). He notes that this typology is similar to Fitzpatrick's (1988) threefold typology of happily married couples into "traditionals," "independents," and "separates."

Further insight into the role that positive and negative interaction behaviors play in satisfaction has been provided by Huston's longitudinal PAIR project. Huston and Vangelisti (1991) found that although spouses' level of expressed negativity is low at the beginning of marriage and does not change significantly during the first few years of marriage, and although both negativity and satisfaction were strongly associated concurrently for both husbands and wives, the potency of negativity as a predictor of future satisfaction differed for husbands and wives; husbands' negativity toward wives especially predicted declines in wives' satisfaction, but wives' negativity did not have a corresponding effect on husbands' satisfaction.

Using the same sample, Huston and Chorost (1994) subsequently found support for their hypothesis that the effect of negativity differs at least in part because expres-

sions of affection and relationship maintenance behaviors (e.g., talking about and trying to resolve relationship problems) "buffer" the impact of husbands' negativity on wives' satisfaction; decline in wives' satisfaction associated with husbands' negativity was less when husbands exhibited relatively high levels of affectional expression. However, no such buffering effect was evident when wives' affectional and maintenance behaviors were used to try to account for husbands' satisfaction; declines in husbands' satisfaction, in fact, could not be predicted either by wives' initial levels of negativity considered alone or in combination with wives' levels of affectional expression and maintenance behaviors. Huston and Chorost's study is notable because the investigators not only focused on relationship behavior patterns revealed over several days of multiple interactions rather than a single interaction but, in addition, they used a satisfaction measure that did not confound spouses' global evaluations of the relationship with spouses' characterizations of behavioral patterns that were hypothesized to be the causal determinants of satisfaction (see Kelley, 1992, for a discussion of this regrettable tendency in relationship research).

In addition to different combinations of positive and negative behavior, several other interaction patterns are associated with marital distress. One of the best-established associations concerns "affect reciprocity." Although both satisfied and dissatisfied couples often exhibit reciprocity of positive behaviors, dissatisfied individuals exhibit significantly more negative reciprocity, responding to their spouses' negative behavior with negative behavior (Weiss & Heyman, 1990). For example, Levenson and Gottman (1983) assessed autonomic nervous system arousal during spouses' conflict interactions and found that "physiological linkage," or reciprocity of negative emotion as evidenced by the spouses' physiological arousal, accounted for a significant portion of the variance in current marital satisfaction. Only absolute level of arousal (indicating intensity of negative emotion), however, was associated with satisfaction in this sample three years later (Levenson & Gottman, 1985). Filsinger and Thoma (1988), on the other hand, found that both negative and positive behavior reciprocity in premarital couple interaction was correlated with later marital instability as assessed over a five-year period.

In addition to affect reciprocity, an interaction pattern in which one partner's attempt to discuss a relationship problem is met by the other partner's avoidance or withdrawal from interaction also differentially describes satisfied and dissatisfied couples (Levenson & Gottman, 1985; Roberts & Krokoff, 1990). Christensen and Heavey (1990) have shown that (1) the demand-withdraw pattern is associated with the "closeness versus separateness dilemma," in which one partner wants more interdependence and intimacy while the other wants more interdependence and privacy and (2) both self-report and laboratory observation of

interaction reveal that the wife is usually the demander and the husband the withdrawer. Given wives' lesser power in many marital relationships (Falbo & Peplau, 1980; Krokoff, 1987), Christensen and Heavey hypothesized that wives are often demanders because they want more change from the husband than the husband wants from them. Experimental manipulation of whether the husband or the wife wanted the other to change revealed an interaction between this variable and gender in the appearance of the demand-withdraw pattern. Heavey, Layne, and Christensen (1993) replicated this interaction effect, also finding that the wife demand-husband withdraw pattern was associated with declines in the wife's satisfaction one year later, while the husband demand-wife withdraw pattern was associated with an increase in wives' later satisfaction, for reasons that remain unclear.

**Communication** Most researchers working in the clinical tradition highly value observation of actual interaction as opposed to partners' self-reports of their interactions. Coinciding with the cognitive revolution in theories of human learning, however, self-report measures reflecting individuals' interpretation of, and affective reaction to, their partner's interaction behaviors increasingly have been used to supplement observational data. The fact that observers' judgments of the meaning of an interaction behavior often are discrepant from those of the partners themselves was telegraphed very early by the Wills, Weiss, and Patterson (1974) study. These investigators themselves initially coded the behaviors on their Spouse Observation Checklist as "pleasing" or "displeasing" but quickly discovered that their affective classifications often were incongruent with the spouses' own interpretations, and they therefore revised their procedure to obtain the spouses' own ratings of the affective impact of their partners' behaviors.

Subsequent research further established that spouses' interpretations of their partner's behaviors often disagreed with those made by outside observers. For example, Robinson and Price (1980) found that although observers recorded similar rates of pleasing behaviors for high- and low-marital-adjustment couples, low-adjustment spouses, relative to high-adjustment spouses, reported that their partners had performed about 50 percent fewer pleasing behaviors. Similarly, Floyd and Markman (1983) found that nondistressed spouses and distressed husbands rated their partners' behaviors as more positive than observers did, while distressed wives rated their husbands' behaviors as less positive than observers rated them. Not only did "insiders" to the interaction often not agree with the interpretations made by "outsiders" (Olson, 1977), spouses often did not agree with each other, even on such seemingly simple matters as to whether a marital event had or had not occurred in the past week (e.g., Christensen, Sull-

away, & King, 1983). Findings such as these raised many questions about patterns of marital communication and their role in marital dysfunction, and numerous studies now document that dysfunctional communication patterns differentiate distressed couples from satisfied couples (see Noller & Fitzpatrick, 1990, and Noller & Guthrie, 1991, for reviews).

Investigations of marital communication often use a "talk table" procedure, in which spouses are asked to speak in turn while discussing a marital conflict and to rate the affective intent of their sent messages as well as the affective impact of messages they receive (Gottman, 1979). Many studies now show that although both satisfied and dissatisfied couples intend their messages to be positive, such messages frequently have a negative impact on distressed spouses (e.g., Markman, 1981). In general, investigations of accuracy and bias in the decoding of nonverbal messages between spouses (see DePaulo & Friedman, 1998, in this *Handbook*), as well as judgments of the partner's affect and intentions during conflict interactions, indicate that distressed spouses often inaccurately identify their partners' affect and intentions (e.g., Noller & Ruzzene, 1991). That this inaccuracy is more a function of the unhappy relationship than of the distressed spouse's deficient communication skills is suggested by Noller's (1981) finding that dissatisfied spouses are less accurate decoders of their spouses' messages than they are of similar messages from strangers.

Dysfunctional communication patterns also have been implicated in later satisfaction and stability. Noller and Feeney (in press), for example, examined the development of couples' communication problems from the premarital stage through the first two years of marriage and found that differences evident between happy and unhappy couples after two years already had been present at the time of marriage, and that effects of conflict were negative in both the short and the long term. These investigators conclude, however, that although many theorists and researchers have emphasized the effect of communication on later satisfaction, their data provide as much support for the proposition that current satisfaction affects the quality of later communication.

As interest in the role of dysfunctional communication in dissatisfied relationships suggests, and as Bradbury and Fincham (1989) discuss, researchers working in the clinical tradition became increasingly interested in the cognitive events and processes that mediate between interaction behavior and subsequent satisfaction. Fincham and Bradbury's (1991) Contextual Model of marital interaction, for example, represented both a deepening and broadening of the behavioral model that guided much marital-interaction research. This model views the interactant's thoughts and feelings during interaction as forming an important part of the proximal con-

text of interaction, and such variables as relationship expectations as forming the interaction's distal context. Fletcher and Fincham (1991) have incorporated into Bradbury and Fincham's contextual model the distinction between automatic and controlled processing to better account for attributional processes as they occur in ongoing interaction, and they discuss as well the differences in content and process that may characterize attributions made at the controlled and automatic levels (see "Developing Relationships").

**Intervention** The clinical approach to relationship satisfaction and stability has been driven by the need to devise sound therapeutic interventions for distressed couples, as previously noted. Hahlweg and Markman (1988) report meta-analyses of the effectiveness of premarital interventions and behavioral marital therapies and conclude that although there remains a need for well-controlled, long-term outcome studies, behavioral approaches not only are beneficial but the magnitudes of their effects are comparable to those of various other forms of psychotherapy (but see "Mental health: Does therapy help?" 1995).

One premarital intervention based on the wealth of findings that dysfunctional interaction patterns precede the development of relationship satisfaction, and evidence that these patterns can be detected in the couple's premarital interaction independent of their level of premarital satisfaction, is the Premarital Relationship Enhancement Program (PREP) devised by Markman and his colleagues (e.g., Markman et al., 1988). This prevention program aims to improve the couple's communication and problem-solving skills, to clarify their marital expectations, and to educate them about the principles of sexual functioning (Markman, Stanley, & Blumberg, 1994). Both husbands and wives participating in the PREP program, relative to no-treatment control couples, maintained their early levels of marital quality over thirty-six months, and husbands maintained their earlier marital quality over sixty months (Markman et al., 1993).

Bradbury, Cohan, and Karney (in press) note, however, that Markman et al.'s (1993) couples were not at high risk for dissolution. Whether such programs can help couples who suffer greater conflicts remains to be determined. The problems faced by couples who later divorce appear to be qualitatively different from those of couples who remain married (Bentler & Newcomb, 1978), but it is not yet clear whether their different problems are a function of the personal characteristics of the partners, a function of different environmental stresses on the relationship, or both. In their critique of longitudinal research emerging from the clinical approach, Karney and Bradbury (1995) cite the need for a shift in emphasis, from predicting outcomes to understanding the processes by which different relationships arrive at different outcomes, as well as for improved theoretical

models, especially models that incorporate the relationship's environment.

### The Social Psychological Approach

The social psychological approach to satisfaction and stability has been marked by an abundance of theory, by an interest in the processes associated with relationship effects, and by attention to the environmental context of relationships (see Berscheid, in press). Although social psychologists have studied primarily dating and premarital relationships, social psychological studies of marital relationships are becoming more numerous, as are longitudinal studies of all relationship types.

Social psychologists often have taken a "social exchange" theoretical approach to relationship phenomena in general and to satisfaction and stability in particular. Like learning theories, social exchange theories make the twin assumptions that behavior will not be repeated unless it is rewarded in some way and that the fundamental internal dynamic of social interaction is the partners' exchange of rewards and costs. Of the social exchange theories that have influenced social psychological relationship research, the most influential has been Interdependence Theory (Kelley, 1979; Kelley & Thibaut, 1978; Thibaut & Kelley, 1959; see also Rusbult & Van Lange, 1996).

**Interdependence Theory** In contrast to learning theories of human behavior and other social exchange theories (e.g., Homans, 1961), Interdependence Theory proposes that an individual's behavior in a relationship is a function not only of the individual's options but also of the configuration presented by the outcome preferences associated with both the individual's and his or her partner's behavioral options. One of the theory's several contributions has been to identify the ways in which partners may be interdependent with respect to the positive and negative outcomes of their behavior, and thus how relationship partners are likely to coordinate their interaction behaviors over time in order to achieve mutually rewarding outcomes.

Kelley and Thibaut (1978) and Kelley (1979) extended their theory with an analysis of the patterns of interdependence that frequently characterize relationships. This analysis distinguishes between the "given" outcome matrix of a relationship, or "a set of outcomes [associated with different behavioral options] provided to the person by external reward and incentive systems" (Kelley, 1979, p. 69), and the "effective" outcome matrix, which is determined not only by self-interest but also by a variety of broader considerations (e.g., the individual's interest in the partner's outcomes). The effective outcome matrix, which describes the outcomes the individual will actually experience in the situation, is theorized to guide the individual's

behavior in the relationship and to influence relationship satisfaction and stability.

Kelley and Thibaut (1978) also describe a "transformation of motivation" process that often takes place in close relationships and changes the given matrix such that the correspondence of the partners' outcomes is increased. An example of motivation transformation is the movie actor Tom Cruise's response to an interviewer's query about whether he ever felt jealous of his actress wife's success (*USA Weekend*, May 17-19, 1996): "You don't understand," he said, "Her dreams are now my dreams." Borden and Levinger (1991; see also Holmes & Levinger, 1994) have further elaborated the processes by which relationship partners may gradually move from a selfish "I" orientation to a "we" orientation. They propose that in addition to motivation transformation, a process of "dispositional" transformation occurs whereby individuals internalize their partners' personal attitudes and preferences (e.g., develop an interest in football), which also may increase the partners' outcome correspondence over time.

However it occurs, the given matrix clearly becomes transformed in many long-term relationships. Clark and Mills (1979) argue that in most marital relationships the given matrix has been transformed by the adoption of a "communal" rule, that benefits will be given in response to need, rather than by a quid pro quo rule (see "Developing Relationships"). Such joint agreements override the partners' immediate self-interest in interaction, and like other relationship orientations (e.g., traditional sex-role orientation; see "Relationship Beginnings"), they are likely to guide interaction behavior and influence relationship satisfaction and stability.

Several studies have demonstrated that close-relationship partners frequently depart from their immediate self-interest for the greater good of the relationship (Rusbult et al., 1991). One relationship orientation that has important consequences for stability focuses on situations in which one partner has behaved in a manner destructive to the relationship. Constructive responses to the partner's destructive behavior are theorized to be the result of a transformation of motivation in the relationship that "leads individuals to relinquish preferences based on immediate self-interest, and instead act on the basis of broader interaction goals" (Rusbult, Yovetich, & Verette, 1996, p. 69), resulting in a stable "accommodation" relationship orientation and interaction rule. Rusbult, Zembrodt, and Gunn (1982; see also Rusbult, Yovetich, & Verette, 1996) classify the possible responses to the partner's destructive behavior along two dimensions, active-passive and destructive-constructive, yielding four categories of response: Exit, or actively harming or dissolving the relationship; Loyalty, or passively waiting for conditions to improve; Voice, or actively and constructively attempting to improve the situation; and Neglect, or passively allowing conditions to deter-

iorate. Using the "ELVN" typology, Rusbult, Johnson, and Morrow (1986) examined response sequences in interdependent couples and found support for their hypothesis that couple functioning is enhanced when an individual responds constructively to the partner's destructive behavior. The considerable body of research that associates negative reciprocity in interaction to dissatisfaction and instability, previously discussed, also suggests that accommodation is an important factor in relationship stability. Rusbult and her colleagues have demonstrated that an individual's commitment to the relationship is strongly associated with willingness to accommodate (Rusbult et al., in press), as one might expect.

Research supporting Interdependence Theory was for many years confined to laboratory game-playing situations in which the partners were strangers to one another. Few direct examinations of the theory's propositions in ongoing relationships have been conducted because of the difficulty of identifying the partners' behavioral repertoires and outcome matrices, as well as of assessing the theory's other constructs, in naturalistic situations. One notable exception is a longitudinal study of dating partners by Surra and Longstreth (1990), in which the partners' personal activity preferences, their similarity of preference, and conflict were used to predict the partners' actual joint participation in activities and relationship stability. The authors concluded that their results generally support the theory but that the interdependence problems that couples face tend to vary by type of activity and by gender.

Perhaps Interdependence Theory's most important contribution to an understanding of relationship stability has been the theoretical decoupling of satisfaction from stability. Although the satisfaction-stability assumption has been a staple in marital research, family sociologist Willard Waller (1930/1967) long ago expressed some doubt about its validity, cautioning that the stability of a marriage is not always related to the sweetness of its contents (as many unhappy but stable marriages illustrate; see Heaton & Albrecht, 1991). The assumption that satisfaction is the prime determinant of stability remained unexamined theoretically, however, until Interdependence Theory formally addressed the dynamics of relationships that people would prefer to dissolve but feel compelled to maintain.

To account for such nonvoluntary relationships, the theory differentiates between an individual's "Comparison Level" (CL), or "the standard against which the [relationship] member evaluates the attractiveness of the relationship or how satisfactory it is," and the individual's "Comparison Level for Alternatives" (CLalt), or "the standard the member uses in deciding whether to remain in or leave the relationship" (Thibaut & Kelley, 1959, p. 21). CLalt is defined as "the quality of the best of the member's available alternatives . . . [or] the reward-cost positions experienced or believed to exist in the most satisfactory of the

other available relationships" (Thibaut & Kelley, 1959, p. 22). When a relationship's goodness-of-outcomes level falls below that available in the best alternative, the theory predicts that the stability of the relationship is threatened regardless of the individual's previous satisfaction with it.

Relationship stability thus is viewed not solely as a function of the quality of the interior of the relationship but as a conjoint function of the quality of the interior interaction and the quality of exterior alternatives. The theory predicts that even unhappy relationships may be stably maintained and that even satisfying relationships may prove to be unstable if a better alternative presents itself. This general hypothesis has been elaborated and extended in several theoretical models deeply influenced by Interdependence Theory.

*Levinger's Cohesiveness Model* One of the first models inspired by Interdependence Theory was formulated by Levinger (1965, 1976, in press), who hoped to theoretically integrate the fragmented divorce literature. Levinger also drew on Lewin's (1951) Field Theory, which posits forces that attract or repel people from a particular region of their life space (e.g., a particular relationship). These attracting and repelling forces are termed "attraction forces" in Levinger's model, and they are theorized to be associated with relationship satisfaction. In addition to attraction forces, Levinger postulates that stability is influenced by "barrier forces," or costs associated with leaving a relationship should it become dissatisfying and should a better alternative arise. The barriers that may act to contain the partners in the relationship are theorized to be any aspect of the physical or social environment that leads the individual to anticipate sustaining costs (e.g., financial, social) should he or she voluntarily terminate the relationship, as well as internal barriers, such as those that derive from the individual's emotional, religious, or moral commitments toward the marriage or its children. Levinger (1991) theorizes that "barriers only influence one's decision to continue in a relationship if one begins to contemplate exit" (p. 148).

Support for Levinger's model has been provided by Udry (1981), who, using longitudinal data from a panel of white couples from several U.S. urban areas, assessed spouses' perceptions of their marital alternatives (i.e., how much better or worse off they would be without their present spouse, and how easily that spouse could be replaced with one of comparable quality). Not only did goodness of marital alternatives predict disruption, it independently was a better predictor of stability than satisfaction was. Udry concludes that Levinger's theoretical contention that marital satisfaction and marital alternatives are separate and important determinants of marital stability is well founded. A more recent study by Kurdek and Schmitt (1986) also supports the view that attraction to the relationship is independent of alternatives and barriers to leaving the relationship.

These investigators examined attraction to the relationship, barriers to termination, and alternatives in married, cohabiting, gay male, and lesbian couples and found significantly higher barriers and fewer alternatives in married than cohabiting couples (with gay and lesbian couples in between), but no differences among the groups in their attraction scores.

Udry's (1981) study showing the importance of alternatives in the prediction of marital stability has been corroborated by White and Booth (1991), who examined the association between marital happiness and stability in a national panel of married individuals interviewed eight years apart. They found that, in addition to relationship satisfaction, the extent to which there were few alternatives to the relationship and many barriers against dissolving it (e.g., home ownership) was associated with stability. White and Booth conclude that "the rise in the divorce rate has occurred not because marriages are less happy, but because, in the presence of falling barriers and rising alternatives, the threshold of marital happiness necessary to prompt divorce is lower than it used to be" (p. 19). As previously discussed, however, it appears that marriages also are less happy than they once were.

Karney and Bradbury (1995) observe that social psychological theories of satisfaction and stability have neglected the temporal dimension of relationship processes; for example, they generally do not explain how features of the relationship's environment influence satisfaction, how satisfaction then affects other aspects of the relationship, including further changes in its environment, and, finally, how these ultimately culminate in relationship maintenance or dissolution. In a Temporal Model of relationship dynamics, Berscheid and Lopes (in press; see also Berscheid & Campbell, 1981) have elaborated Levinger's theory to address the temporal interplay between the internal quality of the relationship and the presence or absence of external barriers to dissolution. They theorize that changes in macrosociocultural conditions that have reduced barriers to divorce have influenced the likelihood of relationship dissolution not only directly, but also indirectly, by affecting the partners' satisfaction with the relationship. As external barriers to divorce have weakened, "the burden of purpose and justification for maintaining the relationship has increasingly fallen on the 'sweetness' of its contents" (Berscheid & Campbell, 1981, p. 222). When the burden of justifying a relationship is placed so heavily on satisfaction with interaction microevents, they argue, the relationship is more likely to turn sour than it would have had barriers to dissolution been present. Attridge and Berscheid (1994) review data indicating that the escalation of the divorce rate followed closely the progressive weakening of external barriers to marital dissolution, and they present evidence supporting their contention that the absence of barriers to dissolution promotes anxiety.

ety and insecurity about the future of the relationship, thus increasing the costs of the relationship and lowering satisfaction with it. The Temporal Model departs from most social psychological theories of relationship stability in that it explicitly excludes psychological commitment to the relationship, or the individual's intention to maintain the relationship, as a predictive variable and instead highlights more distal causal conditions associated with stability (an approach advocated by Kelley, 1983b, as we will discuss shortly).

**Johnson's Commitment Theory** Johnson's (1991a) concept of "structural commitment" is somewhat similar to Levinger's concept of barriers. Johnson theorizes that an individual's decision to continue a relationship is a function of three distinct subjective experiences of commitment: (1) individuals' feelings that they want to continue the relationship; (2) their feelings that they ought to continue it; and (3) their feelings that they must continue it, which is termed structural commitment. Structural commitment, theorized to be experienced as external to the individual, is viewed as stemming from the individual's assessment of the costs of terminating the relationship that will be posed by the environment, including irretrievable investments in the relationship, social reaction, the difficulty of termination procedures, and the availability of acceptable alternatives. These three forms of commitment are hypothesized to have different behavioral consequences.

**Rusbult's Investment Model** Another important model influenced by Interdependence Theory is Rusbult's Investment Model (Rusbult, 1983, 1991), which proposes that people will feel more satisfied with a relationship to the degree that many rewards are received from the partner and the relationship, few costs are incurred, and each partner has a lower rather than higher Comparison Level. As in Johnson's model, psychological commitment to the relationship plays a central role in the Investment Model. Rusbult theorizes that to the extent the individual is satisfied with the relationship, he or she should be committed to it.

Satisfaction is viewed as only one of three aspects of commitment, however. The quality of the individual's alternatives to the relationship and the individual's "investment" in the relationship—both "intrinsic" investments put directly into the relationship, such as time and money, and "extrinsic" investments, such as shared memories and mutual possessions—are theorized to contribute to commitment, which is viewed as directly mediating decisions to maintain or dissolve the relationship: "Importantly, it is *increasing satisfaction*, the perception that one's alternatives are *becoming less and less attractive*, and the recognition of *increasingly great investment* that leads to increased commitment" (Rusbult, 1991, p. 160, italics in original). Research findings generally support the model. In a longitudinal study of dating relation-

ships, for example, commitment was found to increase as a result of increases in satisfaction, declines in quality of alternatives, and increases in investment size (Rusbult, 1983); interestingly, however, while increases in self-reports of reward were associated with increases both in satisfaction and commitment in these young relationships, variations in costs generally had little impact on either.

Second-generation theories influenced by Interdependence Theory have tended to highlight the importance of the individual's psychological commitment to the relationship and the individual's comparison level of alternatives in the prediction of relationship stability. Each of these constructs has been the focus of much research in recent years.

**Commitment to the Relationship** Commitment, usually viewed as a subjective psychological state of the individual is often defined as the individual's desire or intent to continue the relationship, as previously noted. As the foregoing discussion of models that incorporate commitment and such concepts as barriers and investments suggests, it is sometimes difficult to draw lines of correspondence between the variables theorized to be associated with each concept in the different models (see Levinger, in press, for a discussion of some problems and a further elaboration of his own model). In addition to conceptual ambiguity, the construct of commitment often is assessed by one or only a few questionnaire items, which sometimes raises interpretive problems. For example, as Johnson (1991a) discusses, it usually is not clear what kind of relationship the respondents are expressing their commitment to continuing (e.g., the popular revision of the marriage vows that expresses commitment to maintaining the relationship "so long as we both shall love" expresses an intention to continue one kind of relationship; a loving relationship, but not an unloving one).

A theoretical analysis of commitment that avoids this interpretive problem has been advanced by Kelley (1983b), who observes that the construct of commitment has been invoked primarily to predict relationship stability. He thus focuses attention on the conditions that may underlie the individual's intention to continue the relationship, arguing that to understand and predict stability, one must identify the causal conditions that act to keep the individual in the relationship. Kelley classifies these causal conditions as (1) those responsible for the positive aspects of the relationship, as well as the costs that would be incurred upon leaving the relationship, or the "pros" of the relationship; and (2) those that act to push or draw the individual out of the relationship, or the "cons" of the relationship.

Kelley (1983b) theorizes that the important feature of these causal conditions for the prediction of stability is the "consistency with which, over time and situations, the pros outweigh the cons" (p. 289) for each partner. Specifically, he hypothesizes, "If membership [in the relationship] is to be stable, the average degree to which the pros outweigh



the cons must be large relative to the variability in this difference" (p. 289). Kelley's view of commitment underscores that predicting stability requires not only identifying the causal conditions influencing the relationship at the present time, but also forecasting how each of these conditions is likely to fluctuate in the future. Moreover, because it takes two people to maintain a relationship but only one to dissolve it, such a forecast must be made for each partner, because if only one partner's pros dip below the cons, the relationship may dissolve.

At present, most researchers of relationship stability simply assess the partners' current intentions to continue the relationship. Although Rusbult (1983) and others have attempted to identify the conditions associated with expressions of commitment, few attempt to forecast how each of these conditions is likely to change over time for each partner, even though the "weak link" hypothesis has long figured in discussions of stability; this hypothesis recognizes that it takes two partners to continue a relationship but only one to abort it. Waller and Hill (1951), for example, early proposed a "principle of least interest" whereby the partner who is least interested in continuing the relationship is able to extract favorable conditions for its continuance from the partner and, should these be unfulfilled, it is this partner who is most likely to end it. Similarly, Interdependence Theory suggests that it is the individual whose relationship alternatives are better than the partner's who constitutes the relationship's weak link and whose satisfaction with the relationship should be most diagnostic of the relationship's fate. Social psychological satisfaction and stability studies, like their sociological counterparts, however, frequently examine the attitudes and behaviors of only one relationship partner. One exception is a longitudinal study of romantic relationships in which both partners were assessed on stability indicators; it was found that the strength of the "weak link" partner's standing on these barometers was more diagnostic of the later stability of the relationship than was the strength of the "strong link" partner's standing on the same stability indicators (Attridge, Berscheid, & Simpson, 1995).

There is some evidence, however, that the act of subjectively committing oneself to continuing the relationship may be important in itself and apart from the conditions that led the individual to make that commitment. Psychological commitment appears to activate certain psychological processes that help maintain that commitment. For example, the appearance in the social environment of an attractive and available alternative partner appears to lead individuals who are highly committed to their relationship to devalue the attractiveness of that alternative (Johnson & Rusbult, 1989; Simpson, Gangestad, & Lerma, 1990).

**The Relationship's Exterior** In addition to the role that commitment plays in relationship stability, Interdependen-

dence Theory and its second-generation models emphasize the role of the environmental context of the relationship, especially its social environment.

**Goodness of Alternatives** Since Udry's (1981) seminal study, stability researchers have been increasingly attentive to the degree to which the partners' social environment contains good alternatives to their relationship. A substantial body of research, some of which has been described, now testifies to the predictive utility of assessing an individual's CLalt (e.g., Rusbult, 1983; Simpson, 1987). For example, in two studies in which participants reported on the status of their romantic relationships every week for approximately two months, Drigotas and Rusbult (1992) found that dependence on the relationship, and thus stability, was high when desirable outcomes in the current relationship were perceived to be unavailable elsewhere. In another prospective study, Felmlee, Sprecher, and Bassin (1990) administered a relationship questionnaire to students early and then again late in the semester. Using information provided by the students about the duration of their relationships, a hazard analysis revealed that the rate at which relationships dissolved was a function of the student's level of alternatives (as well as support from the partner's social network and other factors).

Evidence that goodness of alternatives is also a factor in marital stability continues to accumulate. In addition to White and Booth's (1991) study, in which marital dissolution was found to be a function of the individual's perceived goodness of alternatives to the relationship, South and Lloyd (1995) report that risk of marital dissolution is highest in geographical areas where the local market of potential spouses presents an abundance of alternatives to the present relationship. Several ongoing longitudinal studies of marital stability are including CLalt as a predictor (e.g., Rusbult et al., in press; Tallman, Burke, & Gecas, in press), representing a needed shift from a concentration on how stability is influenced by the microevents of interaction and the partners' satisfaction with these to at least one element of the relationship's environment (see Berardo, 1990; Levinger, 1994). More distal sociocultural factors that influence not only the likelihood that good alternatives to the relationship exist but many other aspects of the relationship as well, have yet to receive the attention they deserve (see Berscheid, 1995; in press).

**Social Approval of Others** Since Ridley and Avery (1979) persuasively argued that many features of the relationship's social environment are likely to influence whether a relationship is maintained or dissolved, more attention has been given other aspects of the social network within which the relationship is embedded. However, Felmlee, Sprecher, and Bassin's (1990) and Sprecher and Felmlee's

(1992) findings that the degree of approval the relationship receives from persons in the partners' social environment is a significant factor in premarital-relationship dissolution remain among the few empirical documentations of how the relationship's social surroundings may influence its stability. As Parks and Eggert (1991) have observed, the study of personal relationships has been "peculiarly divorced from the study of the social contexts in which they are embedded" (p. 1). Their own programmatic research on the influence of the relationship's social context, both premarital and friendship relationships, also indicates that relationship progression and stability is positively associated with the level of perceived support from friends and family, as well as the attraction for, and degree of communication with, the partner's social network. These investigators, then, along with others (e.g., Lewis, 1973; Milardo, 1982) have failed to find evidence for the "Romeo and Juliet" effect originally proposed by Driscoll, Davis, and Lipetz (1972), which predicted that parental interference would increase romantic love.

As the influence of the relationship's social context has become of greater interest, theoretical treatments of the nature of this influence on the relationship have become more sophisticated (Milardo & Allan, in press). Of particular promise is Surra and Milardo's (1991) distinction (previously discussed; see "Relationship Beginnings") between "interactive" networks, consisting of people with whom one engages in face-to-face interaction, and "psychological" networks, composed of people with whom the individual feels close or believes to be important. Each type of network is likely to exert different kinds of influence on the stability of the relationship, but these have yet to be identified.

**Equity and Other Resource Allocation Principles** Another social exchange perspective sometimes applied to relationship phenomena is Equity Theory, which proposes that people assess their own and their partners' inputs and outcomes to the relationship and perceive that the relationship is equitable when their own gains from the relationship are equal to their partners' gains. Perceptions of equity are theorized to be associated with satisfaction and stability, while perceptions of inequity—either underbenefit or overbenefit—are hypothesized to be associated with distress and instability. Originally derived from Homans's (1961) concept of "distributive justice" in relationships, as well as concepts associated with Festinger's (1957) Theory of Cognitive Dissonance (see Berscheid, 1985b), equity predictions were originally tested in employer-employee or coworker relationships. In their theoretical elaboration of the equity construct, however, Walster, Walster, and Berscheid (1978) proposed that equity principles apply to close relationships as well. Hatfield and her colleagues subsequently examined equity within marital and dating relationships (see Hatfield et al., 1985), finding some support for their predictions.

A great deal of research on the role that perceptions of justice in general (see Lerner & Mikula, 1994), and perceptions of equity in particular, play in relationship satisfaction and stability is now available (for reviews, see Sprecher & Schwartz, 1994, and Van Yperen & Buunk, 1994). Unfortunately, much of the empirical evidence relevant to Equity Theory predictions is either contradictory, particularly with respect to relationship satisfaction, or nonsupportive, with respect to stability (e.g., Berg & McQuinn, 1986; Cate, Lloyd, & Long, 1988; Cate et al., 1982; Felmler, Sprecher, & Bassin, 1990). As a result, some researchers have concluded that equity principles are unimportant in close relationships; others are attempting to integrate and reconcile these data. Among the latter are Buunk and Van Yperen (1991) who, using Murstein, Cerreto, and MacDonald's (1977) concept of "exchange orientation" (i.e., an individual's predisposition to seek immediate reciprocity from the partner for benefits given), have shown that principles of equity are not of equal importance to everyone; marital satisfaction, in fact, was shown to be related to perceptions of equity only among spouses high in exchange orientation.

Interestingly, Van Yperen and Buunk (1994) have found almost no correlation between an individual's "exchange" orientation and "communal" orientation (Clark et al., 1987). These investigators conclude from their program of research that equity principles are important in close relationships largely for those who are high in exchange orientation or low in communal orientation and for those who possess egalitarian gender-role beliefs. They also have shown that to determine whether the relationship is just and equitable, partners may compare their gains not only with their partners' gains ("relational" comparison), but also with pertinent reference groups ("referential" comparison).

Clark and Mills (1979) very early argued that communal norms of resource allocation, as opposed to other "exchange" norms such as equity and equality, are more likely to apply to close relationships. As do other reviewers of the accumulated literature, however, Clark and Chrisman (1994) observe that the evidence indicates that people sometimes use an equity norm, sometimes an equality norm, and yet other times a norm of mutual responsibility for the fulfillment of their partners' needs. Moreover, with respect to satisfaction, the evidence suggests that, rather than equitable rewards, the sheer number of rewards partners receive from the other appears to most strongly influence relationship satisfaction in both friendship and romantic relationships (Cate et al., 1982; Hays, 1985; see also Desmarais & Lerner, 1994).

Clark and Chrisman (1994) maintain that these findings may not be as contradictory as they seem. These theorists believe that future research should focus on the boundary conditions under which people believe their ideal exchange norm or combination of norms should hold. They also conclude that a given rule may not be exclusively associated

with close and less close relationships; although the communal rule may be most persons' ideal for close relationships, for example, it may not be achieved, leading partners to adopt other rules for the giving and receiving of relationship benefits, depending on such factors as the stage of the relationship and the partners' current satisfaction with it. Clark and Chrisman's analysis will be a helpful guide to future research on how perceptions of justice in the relationship influence stability and satisfaction.

## RELATIONSHIPS AND WELL-BEING

Much of the interest in interpersonal relationships in the social, behavioral, and health sciences derives from the association between satisfying relationships and physical and mental health.

### Relationships and Happiness

Myriad studies of happiness find that people who are more socially involved are also happier. Argyle (1987) concludes from his own comprehensive review that "social relationships are a major source of happiness, relief from distress, and health" (p. 31), a judgment shared by Myers and Diener (1995) and Diener (1984), who review studies of subjective well-being. National surveys reach the same conclusion. For example, Campbell, Converse, and Rodgers's (1976) survey of more than 2,000 Americans named marriage and family life as the best predictors of overall life satisfaction. Older adults' reminiscences about sources of satisfaction in their lives similarly tend to put family and social relations first (Sears, 1977). The evidence is so compelling that Myers (1992) refers to the association of friendship with happiness as a "deep truth" (p. 154).

There is equally compelling evidence of the dark side of relationships. Veroff, Douvan, and Kulka (1981) conducted in-depth interviews with a representative sample of more than 2,000 Americans and found that when asked to describe "the last bad thing that happened to you," half of the respondents recounted an interpersonal event, primarily disruption or conflict in a significant relationship; moreover, of those interviewees who had sought professional help, nearly two-thirds said the reason was a relationship problem. Troubled relationships are indeed the most common presenting problem of psychotherapy seekers (Pinsker et al., 1985; see also Cupach & Spitzberg, 1994; Rook & Pietromonaco, 1987). But despite the wealth of evidence that relationships are people's most frequent source of both happiness and distress, there is inadequate evidence of the causal mechanisms responsible and of the types of relationships that are most beneficial or harmful, even though these issues form the core of much theorizing and research.

Researchers who have examined the association between happiness and relationships have focused on marriage, partly because of the importance of the marital rela-

tionship to individuals and society but also because marital status can be ascertained easily and accurately in surveys. Wood, Rhodes, and Whelan's (1989) meta-analysis of almost a hundred studies relating marital status and reports of life satisfaction, happiness, and general well-being indicates that married persons are, on average, happier than the nonmarried. Other studies suggest that marital quality, rather than marital status per se, matters most to happiness (Brown & Harris, 1978; Gove, Hughes, & Style, 1983). Two gender differences have been identified. First, marriage seems to be associated with somewhat greater benefits in global happiness for women than for men (Wood, Rhodes, & Whelan, 1989); married women report higher life satisfaction than married men do, although they also report higher negative affect (Bernard, 1972; Glenn & Weaver, 1988), a finding that Wood, Rhodes, and Whelan (1989) attribute to women's greater sensitivity to emotional factors in relationships. Second, whereas simply being married accounts for most of the increase in well-being among men, marital quality appears to be the more important predictor among women (Gove, Hughes, & Style, 1983).

Because most studies of happiness and relationships are correlational, the causal association between the two is not clear. Some investigators hypothesize that satisfying relationships and psychological well-being are caused by the same underlying factors. Myers and Diener (1995), for example, theorize that four personality traits contribute to subjective well-being, one of which, extraversion, has been causally implicated in studies of both socializing and temperament. Lykken and Tellegen (1996) assert that about half of the variance in subjective well-being is associated with genetic factors and argue that genetically based predispositions to positive or negative mood are causally responsible for behaviors that promote or disturb interpersonal relationships. Supporting their argument is research indicating that chronically dysphoric persons display behaviors that may result in social rejection (Coyne & Whiffen, 1995).

Over and above stable dispositional differences, however, there is evidence that relationships do enhance well-being. Studies conducted by Csikszentmihalyi, Larson, and their colleagues using the "experience sampling" method, in which people provide detailed descriptions of their current activity when signaled (e.g., by a preprogrammed pager), indicate that individuals' affective states are generally more positive in social settings than in solitude and that their mood changes when they leave or enter the presence of others (Larson & Csikszentmihalyi, 1983). Other investigators using this method confirm that people tend to report more positive affect when signaled in social contexts than when alone (Delespaul, Reis, & deVries, 1996; Diener, Larsen, & Emmons, 1984), and Reis et al. (1996) found that individuals' self-reported mood and vitality were higher on days in which they were more engaged in enjoyable and intimate social interaction.

Social interaction frequently involves experiences that are inherently gratifying (e.g., shared pleasurable activity, receipt of help and advice, relief from stress, and self-esteem enhancement), which should promote well-being. Baumeister and Leary (1995) maintain that "the need to belong," or to maintain meaningful connections with others, is fundamental among human motives, a view shared by most theorists of human development and motivation. For example, relatedness is one of three core human motives in Deci and Ryan's (1991) Self-determination Theory, one of four basic needs in Epstein's (1994) Cognitive-Experiential Self Theory, and the centerpiece of Object Relations Theory (Fairbairn, 1954). If human nature is intrinsically social, as these theories maintain and much evidence testifies, then there should be a fundamental causal link between the satisfaction of relational motives and the individual's experience of well-being.

Nevertheless, there is abundant evidence that relationships, even good ones, are sometimes destructive of well-being. Rook (1994) goes so far as to speculate that bad relationships may diminish happiness more than good relationships enhance it. Most investigators have not distinguished the positive qualities of a relationship from the absence of negative qualities, even though Diener (1984) reported more than a decade ago that positive and negative affect correlated independently with the tendency to socialize. In a study that did differentiate positive from negative social outcomes, Rook (1994) found that the latter better predicted a composite measure of psychological well-being. Her evidence is consistent with findings that negative behavior is a better predictor than positive behavior of marital satisfaction and stability (see "Relationship Satisfaction and Stability"). It is also consistent with accumulating evidence of the independence of positive and negative aspects of behavior (Cacioppo & Berntson, 1994; see also "Relationship Beginnings").

Whatever the mechanism responsible for the association between interpersonal relationships and happiness, Ryff (1995; Ryff & Keyes, 1995) theorizes that there is more to psychological well-being than happiness. Arguing that the prevailing model depicts a narrow view of the requirements for effective human functioning, she finds confirming evidence for her six-factor model, which includes, as one component of well-being, "positive relations with others" (e.g., warmth, trust, and intimacy).

**Loneliness** Spurred by an important conference and subsequent collection of papers (Peplau & Perlman, 1982), research on loneliness, a significant problem for many people, enjoyed great popularity during the 1980s (for reviews, see Marangoni & Ickes, 1989; Rook, 1988; see also Shaver & Brennan, 1991, for assessment scales and psychometric information). Peplau and Perlman (1982) define loneliness as a perceived discrepancy between the desired and

achieved pattern of social relations. Although this definition is widely cited, researchers have focused more on individuals' perceptions of their current social activity than on their desired activity (Rook, 1988). Moreover, because both loneliness and its presumed causes are typically assessed via self-report, it is not clear whether the differences that have been found between lonely people and those not lonely reflect differences in their behavior or in their perceptions. Dispositional factors, social circumstances, and social cognitive tendencies have been empirically associated with loneliness.

**Dispositional Factors** Among the many personality correlates of loneliness are shyness, depression, introversion, self-consciousness, low self-esteem, external locus of control, and insecure attachment (Marangoni & Ickes, 1989). Several social skill deficiencies that predispose people to loneliness also have been identified from ratings by the self, friends, or independent observers; these include lack of assertiveness, situationally inappropriate self-disclosure, and greater self-focus and lesser responsiveness to partners (Jones, 1982; Rook, 1988).

**Social Circumstances** To minimize biases associated with global self-report, Wheeler, Reis, and Nezlek (1983) asked people to keep detailed records for two weeks describing all social interactions lasting ten minutes or longer. Their results indicate that loneliness is negatively associated with the amount of time spent with women and with intimacy and disclosure in interactions with either sex. Because interactions involving women tend to be relatively more intimate, Wheeler, Reis, and Nezlek speculate that the absence of intimacy especially fosters loneliness, a speculation subsequently supported by Kraus et al., (1993), who found that interaction quality mattered more than quantity.

**Social Cognitive Tendencies** Lonely people are generally harsher in their judgments of others. Lonely individuals tend to judge roommates and people in general more negatively (Wittenberg & Reis, 1986), expect to be evaluated negatively by others (Jones, Sansone, & Helm, 1983) and interpret hypothetical scenarios more critically (Hanley-Dunn, Maxwell, & Santos, 1985), and their judgments seem to be especially negative when they are personally involved (Duck, Pond, & Leatham, 1994). Loneliness also has been linked to self-defeating attributions; lonely individuals are more likely to attribute social failure to characterological factors and social success to circumstances (Anderson et al., 1994).

Age and sex differences also have been examined frequently. Despite popular belief to the contrary, loneliness appears to be most prevalent during adolescence, declining gradually over the life span (Rubenstein & Shaver, 1982).

As for sex differences, Borys and Perlman (1985) conclude from their review of the evidence that women tend to receive higher scores than men on scales that explicitly use the words "lonely" or "loneliness," but scales that omit this word tend to find either no difference or higher loneliness among men. They attribute this discrepancy to men's relative unwillingness to admit to feeling lonely. Men's greater reluctance to admit to loneliness may help explain the seeming paradox that despite the strong association between loneliness and depression, women consistently report greater depression than men, even though many studies find that men are lonelier than women.

Rook (1988) comments that although implicit in the loneliness literature is "the idea that the distinctive interpersonal responses of the lonely alienate others or in some other way serve to perpetuate loneliness" (p. 584), empirical evidence for this proposition is sparse and inconsistent. Although loneliness theories focus on causality, loneliness is usually investigated correlationally. De Jong-Gierveld's (1987) demonstration that cognitive variables may mediate the impact of social network experiences on loneliness illustrates that more investigations of the hypothesized causal determinants of loneliness are needed.

Multidimensional conceptions of loneliness also should be explored. The popular UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980) reflects a unidimensional view of loneliness. It does not distinguish between "emotional" and "social" loneliness (Weiss, 1973), for example, which were early recognized to have different antecedents and remedies. Emotional loneliness concerns the lack of an emotionally satisfying, often romantic, relationship, whereas social loneliness refers to a dearth of social network ties. Another important distinction has been made between "state loneliness" and "trait loneliness" (Shaver, Furman, & Buhrmester, 1985). State loneliness is viewed as limited by time and attributable to social transitions, such as changing residence or terminating a close relationship. Trait loneliness is seen as more enduring and cross-situational and closely linked to personality function and mental health, which is the referent of most loneliness theorizing.

### Relationships and Morbidity and Mortality

**Epidemiological Studies** Folk wisdom has long held that "friends can be good medicine," but only with the advent of large epidemiological studies in the 1970s did the association between interpersonal relationships and good health and longevity begin to be verified (see Salovey, Rothman, & Rodin, 1998, in this *Handbook*). Epidemiologists typically investigate the link between the structural features of relationships, frequently termed "social integration," and indicators of mental health, physical health, and mortality. Reviews of these studies commonly conclude

that social integration is associated with better health and lower mortality risk, both in general (e.g., Cohen, 1988) and with respect to specific illnesses such as cancer (Glanz & Lerman, 1992) and cardiovascular disease (Atkins, Kaplan, & Toshima, 1991; Berkman, Vaccarino, & Seeman, 1993). The weight of the evidence is such that few doubt the association, although the causal pathways remain to be discovered and are currently the subject of a great deal of scientific effort.

Community-based prospective studies occupy center stage in the epidemiological literature (Berkman, 1995). Their special methodological advantages typically include (1) very large samples, which permit statistical differentiation of effects whose magnitude may be small; (2) prospective designs, which obviate biased recall of social ties as an alternative explanation; (3) population-based samples, which minimize nonrandom selection and volunteer bias; and (4) minimal attrition rates over long periods of time. Berkman (1995) concludes from her review of the eight major studies currently available that, in each case, mortality rates were significantly lower among persons who were more socially integrated, with broad and varying operationalizations of social integration used (e.g., the extent of social ties with friends, family, and community, or the frequency of social contact). In the first of these studies, the classic Alameda County Study, persons who lacked ties to others were between 1.9 and 3.1 times more likely to have died nine years later (Berkman & Syme, 1979).

House, Landis, and Umberson (1988) conclude, however, that social integration appears to be less strongly associated with women's mortality rates than with men's. Where a ratio of 1.00 indicates no correlation, the relative risk ratio of mortality at the lowest versus highest levels of social integration among men ranged from 1.08 to 4.00, but 1.07 to 2.81 among women, in the five studies they review. House, Landis, and Umberson caution that this difference may be due to differential validity or method variance, but it is also consistent with sex differences observed in the divorce and bereavement literatures, as we shall discuss. It is clear, however, that social integration is beneficial for both sexes and that the association with morbidity is substantial (e.g., the age-adjusted mortality risk of social isolation exceeds the comparable risk for cigarette smoking).

Because epidemiological studies do not address questions of causality, and because the pragmatic requirements of large community surveys make it impractical for researchers to assess more than a few general characteristics, findings in this area generally lack discriminant validity. For example, network size likely covaries with marital and parental status, proximity to kin, type of occupation, and many social qualities, such as attractiveness, extraversion, and capacity for intimacy. Thus, although epidemiological surveys are extremely valuable for identifying an important phenomenon, they have limited ability to enhance under-

standing of the relevant processes and to guide the design of interventions.

**Social Networks** Whereas epidemiological researchers typically characterize social integration in relatively crude ways, many investigators have sought to capture the complexity of social communities. A large and independent discipline devoted to the study of social networks has emerged from their efforts. According to Wasserman and Faust (1994), "the social network perspective views characteristics of the social units as arising out of structural or relational processes or focuses on properties of the relational systems themselves" (pp. 7-8). Structural analysis assumes that the nature and impact of interpersonal relationships depends not on such psychological factors as attraction, but rather on features such as power, influence, resources, and communication channels (Hall & Wellman, 1985). It further assumes that dyadic ties "do not exist in splendid structural isolation" (Hall & Wellman, 1985, p. 31); rather, most dyads are viewed as embedded in large multiple-person networks. These emphases are reflected in the variables that social network analysts tend to study, such as network size, network density (i.e., the extent to which members of a person's network associate directly with each other), homogeneity (i.e., similarity of network members), frequency of contact, and multiplexity (i.e., number of different resources exchanged by two network members). Introductions to social network analysis are provided by Blieszner and Adams (1992), Hall and Wellman (1985), and Wellman and Berkowitz (1988).

As epidemiologists began to identify social isolation as a significant risk factor in morbidity and mortality, social network researchers became interested in identifying the network characteristics most closely associated with illness and death and the processes by which these characteristics produce their effects. It is generally assumed that the most important features of social networks lie in whether they provide social support (Gottlieb, 1985; Mitchell & Trickett, 1980). As a result, tools for assessing structural characteristics of social support networks, as distinct from social networks in general, have been devised (see House & Kahn, 1985, for an overview). An advantage of this approach is that it focuses on relatively objective features of relational activity, irrespective of the sometimes presumed mediating role of perceived support availability and usefulness (see "Social Support" below). Although social network analysis can capture many complex features of networks, the features that have to date been found to be associated with morbidity and mortality tend to be straightforward.

**Network Size** Persons with larger social networks are generally healthier and live longer. For example, Shye et al. (1995) tallied the number of people with whom subjects

aged sixty-five or older reported having had "informal social contact" and found that fifteen years later, the proportion of those still alive who had had small (four to thirteen others), medium (fourteen to nineteen), and large (twenty to thirty-eight) networks was 21, 30, and 37 percent, respectively. This finding is consistent with the results of epidemiological studies previously discussed.

**Frequency of Social Contact** The more frequent individuals' social contact, particularly with others deemed supportive, the better their health, and the lower their mortality risk. In the Alameda County Study, for example, interaction frequency, especially with relatives and friends, significantly predicted mortality rate (Berkman & Syme, 1979).

**Network Density** Mixed results have been reported concerning the association between network density and psychiatric morbidity. Hirsch (1980, 1981) found that low density is associated with mental health in widows, divorced persons, and mature women returning to college. Gallo (1982), however, found a positive relationship between network density and mental health in an elderly sample. House and Kahn (1985) speculate that the differences may be moderated by context; in some situations, such as a life transition, low-density networks may facilitate role freedom, whereas in other contexts, high density may enhance social identity.

**Network Configuration** Stein et al. (1992) found that when spouses perceived that their shared family and friendship networks were small, wives reported higher depression and more psychiatric symptoms.

Although all of these findings indicate a robust association between a few basic structural measures of social integration and health, investigators have yet to take advantage of the more sophisticated social network constructs available. Research is also needed to identify the causal processes responsible for the obtained correlations. Berkman (1995) suggests that multiple pathways, of the kinds proposed for social support, are likely to be involved, which suggests that an understanding of how structural features influence health and well-being inevitably will require attention to mediating psychological and interpersonal process variables.

**Social Support** Social psychologists had long recognized that relationships can be supportive in a variety of ways, but epidemiological and network studies documenting a substantial association between relationships and health and survival galvanized interest in social support. A massive literature has evolved, including reviews by Stroebe and Stroebe (1996) and Vaux (1988), and edited collections by Pierce, Sarason, and Sarason (in press) and Pierce et al. (in press).

The diversity of operational definitions of social support is daunting. Cohen and Wills (1985) distinguish between structural and functional measures of social support. The former measures refer to relatively objective features of social ties and activity, as we have discussed, whereas functional measures pertain to psychological needs and goals associated with relationships. Although several typologies have been advanced, nearly all incorporate three basic themes of relationship provisions: emotional support (e.g., esteem, reassurance of worth, affection, attachment, intimacy); appraisal support (e.g., advice and guidance, information, feedback); and instrumental support (e.g., material assistance). Other relational provisions investigated include group belonging (Cohen & Hoberman, 1983), opportunities to nurture (Cutrona & Russell, 1987), and autonomy support (Ryan & Solky, *in press*). In a typical relationship, these functions tend to covary, making discriminant validity an elusive, albeit much sought after, research target. Nevertheless, many researchers believe that emotional support is more influential than instrumental support (Wills, 1991). It also seems likely that the kind of support that is most helpful depends on the requirements of the situation (Cutrona, 1990).

Social support originally was viewed as observable in social interaction. A great deal of research has explored components of putatively supportive transactions, but correlations between enacted support and perceived support tend to be modest (Lakey & Drew, *in press*), although Cutrona (1986) has identified specific helping acts that appear to be associated with each of six types of perceived social support. Perceived support has been differentiated into support that is believed to be available and support that is actually received. Perceived support tends to correlate better with health status, and some researchers now believe that perceived support should be conceptualized as a general expectation about a partner's likely behavior rather than as a report of specific helpful action (Sarason, Sarason, & Pierce, 1990). Studies showing that perceived social support may be a direct consequence of relationship intimacy (Johnson, Hobfoll, & Zalberg-Linetzy, 1993; Reis & Franks, 1994) and affection (Burlison, 1994) are consistent with this view.

Because perceived support may not be directly traceable to actual interaction events, some researchers have theorized that support is better conceived in dispositional terms. Several dispositional factors have been implicated in perceived support, including social competence, which may facilitate access to supportive relationships (Sarason et al., 1985); neuroticism, which may underlie somatic and social complaints (Watson & Pennebaker, 1989); and dysphoria and negative expectations, which may hinder recognition of supportive behavior (Lakey & Cassady, 1990). Furthermore, it has been asserted that twin studies reveal a genetic component in both structural and functional mea-

asures (Kessler et al., 1992). Nevertheless, in studies in which personality factors have been controlled, perceived social support remains predictive of well-being (Cohen, Sherrod, & Clark, 1986).

Comparatively few studies have investigated who will attempt to provide support and when they will do so. Stroebe and Stroebe (1996) conclude that the probability of help is greater when potential recipients are perceived as needy, as not personally responsible for their plight, and as making appropriate personal efforts to cope. Although supporters often feel valued as a result of their actions, in some instances support giving can be hazardous; for example, Bolger et al. (1996) found that partners of breast cancer patients tended to withdraw when the patient's emotional distress was severe and unrelenting. How giving and receiving support influence an ongoing relationship is not well understood.

Although social support is most often provided by family and close friends, intervention groups composed of less close acquaintances are increasingly popular. In one highly publicized study, women with metastatic breast cancer who participated in weekly sessions of emotionally supportive group therapy survived nearly eighteen months longer, on average, than women in a no-intervention control group (Spiegel et al., 1989). More generally, meta-analyses show that participation in cancer support groups is associated with better emotional and functional adjustment and fewer self-reported symptoms and treatment side effects. In their meta-analysis, Meyer and Mark (1995) found that the effect for actual physical indicators of improvement was not significant, however. Thus, although the desire for emotional support figures prominently in cancer patients' self-reports, the efficacy of such support as provided in peer discussion groups has not been established (Helgeson & Cohen, 1996). It seems plausible that social support may be less influential when provided in a transitory context as opposed to a significant and enduring relationship.

Many reviewers have concluded that social support is associated with health and well-being in the general case (e.g., Burman & Margolin, 1992; Cohen, 1988; Uchino, Cacioppo, & Kiecolt-Glaser, 1996) as well as in adjustment to specific illnesses (e.g., cancer [Helgeson & Cohen, 1996]; cardiovascular disease [Shumaker & Czajkowski, 1994]). Two types of effects have been postulated: main effects, or a monotonic linear relationship between support and well-being, and stress-buffering effects, in which support attenuates the debilitating effects of stress. Considerably more evidence favors the former, although the failure to find significant buffering effects may be due to the very low statistical power to find interactions in typical correlational research (McClelland & Judd, 1993), as well as between-sample differences in baseline stress levels (i.e., in a sample characterized by high stress, buffering may appear as a main effect; see Cleary & Kessler, 1982).

Recent research has shifted toward identifying the causal mechanisms whereby social support enhances well-being. Two broad issues are being addressed. First, the identification of relationship features that lead to health benefits, and second, the identification of pathways by which relationships influence physiological outcomes. With respect to the first issue, Stroebe and Stroebe (1996) list four functions of personal relationships, each of which may engender health-promoting or health-impairing interaction: providing physical and emotional security, establishing a frame of reference for social reality, normative and informational social influence, and cooperative goal-directed activity.

Another possibility, discussed earlier, is that supportive relationships augment personal well-being and health because they are emotionally gratifying, while relationships experienced as unsupportive are conflictual and otherwise dissatisfying and thus contribute to emotional distress and its injurious consequences. From their review of the relevant literature, Uchino, Cacioppo, & Kiecolt-Glaser (1996) conclude that "there is relatively strong evidence linking social support to aspects of the cardiovascular, endocrine, and immune systems" (p. 521). For example, several studies by Kiecolt-Glaser and her associates demonstrate that marital conflict may stimulate adrenal and pituitary hormones, which may impair cardiovascular function and inhibit immune regulation (see Kiecolt-Glaser et al., 1994). Relatedly, in a sample of spouses of cancer patients, Baron et al. (1990) found substantial correlations between immunological competence and all six subscales of a measure of perceived support availability, even after depression and stressful life events were statistically controlled. Finally, social support also may lead to health-enhancing behaviors, such as lower rates of smoking and alcohol consumption (Cohen, 1988).

Auspicious as this evidence appears, caution is warranted. Comprehensive tests of the central hypothesis—that social relationships cause physiological alterations, which in turn cause or prevent disease origin or progression—await future research. Cohen and Herbert (in press) note that even empirically verified processes have not yet been shown to be of sufficient magnitude and stability to have clear clinical significance. Firm conclusions about the role of social support in health also have been hindered by a lack of consensus about what social support is and how it ought to be measured. These caveats notwithstanding, recent findings warrant optimism that causal principles linking relationship circumstances with mortality and morbidity soon will be established.

### Toxic Relationships

Many relationships present a darker health picture for the individuals involved, as we noted earlier. Two pernicious

aspects of relationships are violence and its closely linked emotion, jealousy.

**Violence in Relationships** Physical abuse in close relationships is a problem of epidemic proportions. Research has been directed primarily toward family violence, especially parental abuse of young children (beyond the scope of this chapter) and spouse abuse. Violence in other types of relationships (e.g., abuse between close friends, abuse of parents by their adult children) has been neglected.

It is estimated that severe violent assaults occur in approximately 8.7 to 12.1 percent of American marriages (Dutton, 1996). Less extreme forms of violence have been cited in approximately 10 to 40 percent of marriages, and as many as 72 percent of college students report having experienced physical aggression in at least one dating relationship (O'Leary & Cascardi, in press). Prevalence rates for spouse abuse may be underestimates. Like other stigmatizing counternormative behaviors that transpire in private, spousal violence often goes unreported. Denial of spouse abuse by both perpetrators and victims, as well as by legal, medical, and mental health personnel, also contributes to inaccuracy in prevalence data (O'Leary & Cascardi, in press), although heightened societal awareness of the problem may be reducing this bias.

Researchers typically have sought to identify demographic, personality, social, and, more recently, biological correlates of spousal violence (reviewed by Dutton, 1996, and O'Leary & Cascardi, in press). Studies conducted with community, marital-clinic, and court-mandated or shelter samples have yielded somewhat discrepant findings, perhaps because of socioeconomic factors or differences in level of violence. Furthermore, subtypes of abusive spouses have been identified, and these may represent different causal etiologies (Holtzworth-Munroe & Stuart, 1994). For example, Johnson (1995) distinguishes between common couple violence, which refers to occasional outbursts of violence from either spouse, and "patriarchal terrorism," a form of male violence that is more extensive and systematic. Despite these complexities, certain generalizations appear with regularity. For example, abusers are more likely than nonabusers to come from abusive homes; to use alcohol excessively; to be accepting of aggression as a means of conflict resolution; to possess personality disorders, particularly involving poor emotional control; and to exhibit poor verbal conflict-resolution skills. Contrary to assertions in the media, however, researchers have failed to demonstrate a consistent pattern between sex-role stereotypes and relationship aggression (O'Leary & Cascardi, in press).

These dispositional associations notwithstanding, the fact that spousal aggression eventually may be best understood in terms of relationship processes is underscored by the consistent finding that the same factors that predict marital discord and instability (see "Relationship Satisfaction and Stability") also help predict marital violence. In



the longitudinal Buffalo Newlywed Study, for example, the tendency to express anger during "differences of opinion" was found to be associated with increases in aggression and dissatisfaction, as well as a higher probability of separation or divorce (Leonard & Roberts, in press). In another study, abusive and nonabusive men from distressed marriages showed similar physiological reactions during conflict interactions, although there was a subset (about 20 percent) of abusive men whose heart rates declined, suggesting atypical psychopathology (Jacobson et al., in press). The age of the relationship also appears to be important. Although aggression escalates over time in a significant minority of couples, relationship aggression most often starts early in dating relationships and decreases over the life span (O'Leary & Cascardi, in press). It is unclear whether this trend reflects time-related decreases in emotional arousal in long-term relationships or partners' age-related decreases in aggressiveness.

The spousal-violence literature has made infrequent use of social psychological theory. An important exception is provided by Dutton (1996), whose Nested Ecological Model proposes that several relational factors contribute to marital violence: a fearful attachment history that engenders anger toward intimate partners without appropriate coping skills; exaggerated anxiety about control and intimacy; high need for power coupled with power imbalance in the relationship; and observational learning, chiefly of parents' abusive behavior. Dutton's multifactor approach offers a potentially valuable interface among the social psychological, relationship, and family violence literatures that merits wider empirical attention.

Finally, social psychologists have investigated why women remain in abusive relationships. Rusbult and Martz (1995) examined the impact of several aspects of interdependence by examining decisions to stay in or leave the relationship in a sample of women who had sought refuge at a shelter. Two components of Rusbult's Investment Model, quality of alternatives and investment in the relationship, accounted for about 25 percent of the variance in these decisions and remained significant after relationship satisfaction and commitment were controlled. Data collected by Herbert, Silver, and Ellard (1991) from a sample recruited through media advertisements indicate that women who remain with their partners following physical violence use varying cognitive strategies to bolster their decision (e.g., perceiving positive aspects of the relationship; comparing their relationship to those of women even worse off). These studies illustrate that social psychological theory may further an understanding of violent relationships.

**Jealousy** Many negative emotions, such as guilt (Baumeister, Stillwell, & Heatherton, 1994) and embarrassment (Miller, 1996), have been linked to relationships (see Zajonc, 1998, in this *Handbook*), but none is as intrinsically relational as jealousy. Scholarly interest in jealousy derives,

on the clinical side, from its prevalence as a problem in relationship counseling and, on the conceptual side, from its centrality in the emotional life of relationship participants. Although most jealousy theory and research is relatively recent, a set of clearly articulated findings has emerged.

Jealousy is typically defined as a set of aversive emotions evoked by the fear of losing an important relationship to a rival (Buunk & Bringle, 1987; Lazarus, 1994b). These emotions include anxiety, sadness, and anger, and they are accompanied by suspiciousness, brooding, negative thoughts, and acting coldly toward the partner (Fitness & Fleicher, 1993; Sharpsteen, 1993). Considerable effort has been directed toward distinguishing jealousy from a related emotion, envy. Parrott and Smith (1993) used two different methods to examine laypersons' sense of this distinction; in one, people were asked to recall instances of each emotion, and in the other, they were asked to evaluate carefully constructed vignettes. Jealousy appeared to involve distrust, fear, uncertainty, and righteous anger, whereas envy entailed disapproval of one's feelings, longing for what the other has, and heightened motivation to improve the self.

Several measures assessing an individual's propensity for jealousy have been correlated with numerous dispositional factors (see White & Mullen, 1989, for an overview). Some investigators have attempted to identify jealousy-eliciting circumstances and people's reactions to them. For example, in one experiment, people asked to imagine a jealousy-provoking situation reported more negative emotions and less security in their own relationships than those asked to imagine nonthreatening events, with assessments of chronic disposition to experience jealousy (i.e., trait jealousy) unrelated to these reactions (Bush, Bush, & Jennings, 1988). More recent research, however, suggests that attachment style may moderate emotional reactions to jealousy-provoking circumstances. Sharpsteen and Kirkpatrick (in press), for example, found that whereas secure persons voice concerns about jealousy to their partners, avoidant persons express blame and anger toward the interloper, and anxious/ambivalent persons repress angry feelings (see also Radecki-Bush, Farrell, & Bush, 1993). These findings suggest that reactions to jealousy provocation may be best conceptualized as a person-by-situation interaction.

The goal of specifying the conditions that elicit romantic jealousy figures prominently in studies growing out of the evolutionary perspective (see "Relationship Beginnings"). Evolutionary theorists speculate that jealousy arises out of uncertainty about paternity among men and uncertainty about provision of resources among women (see Buss & Kenrick, 1998, in this *Handbook*). Supporting this view is a study by Buss et al. (1992), who asked people to imagine that their partner had committed an emotional or sexual infidelity; women not only reported greater distress than men did about an emotional infidelity, but they were more autonomically aroused during emotional

than during sexual imagery, whereas the pattern was reversed for men.

Conceptualizing jealousy as an emotional reaction to relationship-threatening circumstances is consistent with Berscheid's (1983) analysis of jealousy in the framework of her Emotion-in-Relationships Model, discussed earlier, in that such circumstances undoubtedly interrupt ongoing behavioral routines and threaten plans and goals. Although Berscheid points out that no established close relationship is immune from jealous emotions, it bears noting that, as a majority of married subjects in Fitness and Fletcher's (1993) study reported, episodes of jealousy often have positive outcomes, and thus jealousy is not inevitably destructive to relationships.

Tesser's (1988) Self-evaluation Maintenance Model, also discussed earlier, provides a useful account for making sense of certain circumstances that elicit jealousy. Deriving their hypothesis from Tesser's model, Salovey and Rodin (1989) contrasted social-relations jealousy, evoked by threats to an established relationship, and social-comparison jealousy, generated by the desire to possess something that belongs to another person, and found that these feelings arise only in response to highly self-relevant relationships and attainments. In a similar vein, Schmitt (1988) found that jealous individuals derogated their rivals only on important self-relevant dimensions, not on unimportant dimensions. That jealousy impairs self-esteem in a manner that may motivate substantial repair efforts was shown by Mathes, Adams, and Davies (1985). This study, along with Sharpsteen's (1995) experiment in which romantic and self-esteem threats were manipulated orthogonally, indicate that fear of relationship loss and self-esteem diminution are at least partly independent processes.

Jealousy most often has been investigated in romantic and marital relationships, even though casual observation suggests that it is common among siblings, close friends, and coworkers. The Salovey-Rodin and Berscheid models seem particularly likely to be helpful in extending jealousy research to all types of relationships. Another potentially useful theory is offered by White and Mullen (1989), who, in addition to predispositional factors, focus on the triangular relationship network among the individual, partner, and rival, as well as the larger friendship and kin networks within which this smaller network is embedded. Their approach is especially useful because jealousy-provoking information is often provided by other network members, and because relationship instability has wider implications for the partners' social networks (Parks & Eggert, 1991; Wellman & Berkowitz, 1988).

### Relationship Dissolution

**Divorce** Because more than half of the persons entering into marriage will experience the disappointment of divorce (see "Relationship Satisfaction and Stability"), re-

search on the sequelae of divorce has assumed special urgency. This research has most often focused on the consequences of marital dissolution for children's well-being and development; fewer studies have been devoted to its effect on the ex-spouses.

Recent meta-analyses conclude that parental divorce has pervasive negative consequences for children both during childhood (Amato & Keith, 1991b) and later in adulthood (Amato & Keith, 1991a); conduct disorders, the quality of adult-child relations, and emotional well-being show the largest effects. Parental divorce also is associated with the child's later marital dissatisfaction and greater likelihood of divorce. Notwithstanding the facts that much of this research is correlational, suggesting the possibility of "third-variable" causation, and that several variables may moderate these outcomes (e.g., continued involvement by noncustodial parents, low parental conflict, financial strain on the custodial parent, children's age and sex; see Hetherington, Stanley-Hagan, & Anderson, 1989), parental divorce clearly represents one of contemporary life's most potent threats to children's well-being.

Not surprisingly, divorce is also negatively associated with the ex-spouses' health and well-being. Divorced individuals have a higher incidence of behavioral and psychological disorders (Hetherington, Stanley-Hagan, & Anderson, 1989), are more likely to be depressed and report lower levels of happiness or life satisfaction (Glenn & Weaver, 1988), and show impaired immunologic functioning (Kiecolt-Glaser et al., 1987) and substantially higher mortality risk (Hemstrom, 1996). Studies of the length of marriage and the time since separation have produced inconsistent findings, some showing the expected associations with postdivorce adjustment, but others showing no effect (Spanier & Thompson, 1984).

Because few longitudinal studies have examined the matter, it is not clear whether the negative factors associated with divorce should be attributed to the event of divorce itself or to dispositional differences between those persons who divorce and those who do not. It also is not clear whether the negative factors associated with divorce are due to the stress that divorce creates or to the absence of benefits that marriage provides. However, several studies show that remarried persons are generally better off than those who stay single following divorce, although they are still worse off than persons who remain wedded to their first spouses (Hemstrom, 1996; Kurdek, 1991). Brody, Neubaum, and Forehand (1988) speculate that success in a remarriage may help people overcome feelings associated with failure in a prior marriage. Some data suggest that the harmful consequences of divorce may have diminished in recent years (Glenn & Weaver, 1988), perhaps because the stigma of divorce has lessened as it has become more commonplace.

Social psychological theory and research have been infrequently used to understand the aftermath of divorce, but

social cognitive research is an exception. For example, Hill, Rubin, and Peplau (1976) found that members of terminated dating relationships tended to report that they had wanted to end the relationship more than their partner did, a perception presumably in the service of feeling control over the dissolution process. In one of the very few studies that assessed both ex-spouses, Gray and Silver (1990) showed that this pattern was still evident an average of three and a half years following separation. Both spouses tended to see their ex-partners as the villain and themselves as the victim, and the individuals' perceptions that they were in control of the divorce process was correlated with less regret, distress, and cognitive preoccupation, and better psychosocial adjustment; ex-spouses' reports of who was to blame for the divorce were not correlated. Stephen (1987) also found that attributions of blame to the partner were associated with less continuing negative impact of the breakup. That cognitive preoccupation, continued conflict, and feelings of guilt are associated with poorer adjustment following divorce has been shown by others as well (Gold, Bubbenzer, & West, 1993; Masheter, 1991; Walters-Champman, Price, & Serovich, 1995).

Ex-spouses' retrospective narratives about their divorce also have been examined. Although these accounts probably suffer from systematic biases in recollection accuracy and self-presentation, they provide insights into how people strive to understand their relationship history. Weber, Harvey, and Stanley (1987) propose that these accounts set the stage for later relationships. That an individual's understanding of a previous marriage will affect behavior in a current romantic relationship is an essential component of Brody, Neubaum, and Forehand's (1988) theorizing about "serial marriage" (defined as three or more marriages, the last two of which follow divorce), which posits that some differences between remarriers and first-time marriers may be facilitative (e.g., deemphasis of romance, greater realism) but others are destructive (e.g., repetition of conflict, less optimistic schemata, disinhibition of divorce). Unfortunately, prospective longitudinal studies of the impact of prior marriage and divorce on subsequent relationships are almost nonexistent; nearly all available studies compare the well-being of divorced persons with that of persons whose marriages are intact, with no attempt to match these samples on important relationship characteristics to investigate whether the negative effects of divorce are due more to the fact of having participated in a stressful, conflictual marriage than to divorce per se.

**Bereavement** Bereavement is the single most frequent cause of involuntary relationship dissolution. Researchers investigating the effects of the death of a close-relationship partner have been faced with a multitude of methodological and conceptual problems, in addition to problems inherent in constructing an empirically grounded knowledge base in the shadow of centuries of folk wisdom about the

effects of bereavement. The facts that all persons can expect to experience the death of a significant other during their lifetime, and that almost half of all nondivorced spouses will experience the death of their partner, imbues the topic with considerable importance. The focus of research has been on conjugal bereavement, although there is some evidence that the loss of a child may be uniquely traumatic (Rubin, 1993).

Stroebe, Stroebe, and Hansson (1993) have collected the views of many contributors to the bereavement literature, spanning diverse perspectives from anthropology, sociology, epidemiology, and social, clinical, and personality psychology. Across these boundaries, many methodological complications are shared. For example, although longitudinal studies are increasing, relatively few include nonbereaved control groups matched on important variables (e.g., age, income, health) and only a handful incorporate prebereavement assessments. The latter control is important because many theorists, supported by suggestive findings in several studies, posit that prebereavement social and personality functioning may be the best predictor of successful coping with loss of a spouse (McCrae & Costa, 1993; Parkes & Weiss, 1983). The vicissitudes of retrospection (see "Relationship Memory" in the section "Developing Relationships") also make prospective studies vital. For example, if recollections are influenced by present conditions and personal theories about change (Ross, 1989), then bereaved persons may idealize their lost relationship and inaccurately attribute their current distress to the loss, a highly salient and socially acceptable cause.

More than any other issue, researchers have sought to substantiate and elucidate the popular belief that bereavement causes profound, and perhaps lasting, psychological distress and ill health. Most agree that the immediate aftermath of spousal death is typified by great sadness, depression, and feelings of loss, as well as extensive disruption of normal cognitive and behavioral activity (Schuchter & Zisook, 1993). Several reviews by Stroebe and Stroebe (1983, 1987, 1993) summarize research on the time course of bereavement: (1) psychological distress is still substantial after six months, improves significantly in twelve to eighteen months, and is essentially dissipated after two to three years for most persons (although about one-third of the participants in their longitudinal Tübingen study still reported depressed affect); (2) somatic complaints follow essentially the same time line as psychological distress; and (3) increased risk of mortality among surviving spouses peaks in the first few months following bereavement, gradually returning to matched control levels after two to three years. Resilience over even longer time periods has been reported in a prospective epidemiologic study of more than 13,000 persons (McCrae & Costa, 1993); ten years after bereavement, nearly all widows and widowers had "returned to baseline" on diverse measures of psychosocial functioning.

Key among the questions raised by these time trends is

how bereavement distress becomes translated into enhanced risk of mortality (morbidity data, with few exceptions, are based on self-reported symptoms of health changes and therefore are less useful). Stroebe and Stroebe (1993) note that the association between bereavement and mortality may be due to statistical artifact, indirect effects (e.g., increased stress due to role changes), and direct effects (e.g., distressed emotions and their consequences). Little evidence is available concerning the relative viability of each alternative, but recent demonstrations of causal links among bereavement, depressed affect, and diminished immunologic competency seem promising (Herbert & Cohen, 1993; Irwin & Pike, 1993).

A long-standing program of research by Wortman and her associates (Lehman, Wortman, & Williams, 1987; Wortman & Silver, 1987, 1989; Wortman, Silver, & Kessler, 1993) challenges many of the commonly accepted conclusions among bereavement scholars, as well as popular beliefs about coping with loss. In their view, the available data do not support, and some even contradict, the beliefs that (1) depression is inevitable following bereavement, (2) the absence of distress indicates pathology, (3) the process of "working through" a loss is necessary to avoid subsequent distress, and (4) eventual recovery and resolution invariably occur (Wortman & Silver, 1987). The position of Wortman and her associates, supported by studies conducted in diverse settings with varied samples, is that there are no universal reactions to bereavement; instead, the impact of events such as loss are likely to be "determined by whether they can be incorporated into an individual's . . . interwoven system of beliefs, assumptions, or expectations related to oneself, others, and the world that provide a sense of coherence and meaning" (Wortman, Silver, & Kessler, 1993, pp. 363-364). Consistent with this argument, which emphasizes mediating social cognitive processes, is Yalom and Lieberman's (1991) finding that 25 percent of surviving spouses showed signs of personal growth within one year after their loss.

Several variables appear to moderate the bereavement-mortality association. In general, bereavement appears to be more distressing and to produce a greater increase in mortality risk for men than for women, for younger than for older persons, and when the death was sudden rather than expected (Stroebe & Stroebe, 1983, 1993). The impact of dispositional variables and social resources also has been examined, reflecting the popularity of stress-and-coping conceptualizations. Stroebe and Stroebe's (1987) Deficit Model, for example, proposes that the intensity and duration of distress following loss depends on the degree to which the survivor's coping resources are adequate to deal with the perceived demands of the situation. That the evidence for the role of such factors has been mixed (Sanders, 1993) may reflect conceptual ambiguity; for example, some researchers seem content to show that persons with high resource levels cope more effectively with bereave-

ment, as they do with most other life stressors, but others investigate whether such resources confer a unique advantage in the special case of bereavement. Support for the latter hypothesis requires a demonstration that a specific factor (e.g., neuroticism) has greater impact on the well-being of the bereaved than it does on a nonbereaved control group, but little such evidence is available.

Researchers also have sought to determine whether relationship factors, both with the decedent and with others in the social network, affect survivor well-being. Some theorists have argued that ambivalence and dependency, when present in a relationship before death, impair successful coping (Parkes & Weiss, 1983). Others have suggested that release from a conflicted relationship should produce relief. These hypotheses are difficult to evaluate in the absence of prospective data, because postbereavement retrospections about a relationship may be biased. As a result, results have been inconsistent, sometimes even within the same study (Stroebe & Stroebe, 1993). The evidence more consistently documents that support from other persons is generally felt to be helpful. Gallagher-Thompson et al. (1993), for example, found that social isolation and interpersonal problems predicted higher mortality thirty months following the death of a spouse. The impact of bereavement on the quality of subsequent relationships has not been examined, although widowers are more likely to remarry than are widows, and to do so sooner (Stroebe & Stroebe, 1983). It is unclear whether this gender difference in remarriage probability is due to the greater psychological distress that men experience following conjugal loss, to women's greater facility in obtaining intimacy and support outside of marriage (Reis, in press), to differences in the type of strains that men and women experience following widowhood (Umberson, Wortman, & Kessler, 1992), or to the substantially greater availability of women in the marriage-eligible elderly population. Finally, although it is widely acknowledged that a death mobilizes social networks to an extent unmatched by other life events and that death alters the constellation of the bereavers' social links, little evidence concerning the long-term consequences of bereavement on the quantity and quality of interaction within social networks is available.

**Relationship Accounts and Healing** Many researchers have become interested in how people make sense of traumatic events in their past relationships and how these efforts contribute to coping. Account narrative methodology, in which people are asked to tell in their own words the "story" of a past relationship event and, in doing so, often provide explanations, justifications, and a time line linking the event to contemporary circumstances, is now frequently used.

Harvey, Weber, and Orbuch's (1990) analysis of the account-making process suggests that people are particularly motivated to construct accounts for significant and nega-

tive life events. Although such accounts are likely to include distorted as well as accurate memories, they usually are perceived as true by the narrator and are therefore psychologically and motivationally significant. Harvey (1995) observes that what is important is "reflecting, analyzing, sifting among images, and allowing oneself to be emotionally moved by this process" (p. 255). Narratives may benefit the individual for several reasons, including self-esteem enhancement and an improved sense of personal control (Weiss, 1975). In this regard, Harvey, Weber, and Orbuch's view is similar to that of Wortman and of Silver (see Tait & Silver, 1989) and their colleagues, previously discussed, in that all argue that the ramifications of negative life events are best understood in terms of the individual's search for meaning in the event and in the outcomes of that search.

That account-making contributes to successful coping is suggested by studies showing that persons whose unresolved search for meaning persists long after the event in question experience heightened distress. For example, recurrent disruptive rumination about incest that had occurred on average twenty years earlier was associated with impaired social functioning and low self-esteem in one study (Silver, Boon, & Stones, 1983). The types of thought that produce resolution, as opposed to counterproductive rumination, have yet to be identified (Greenberg, 1995). Nevertheless, evidence suggests that the mere act of rendering accounts of previously suppressed material may be advantageous. Pennebaker (1989) and associates have conducted a series of experiments in which people have been asked to discuss in some depth, sometimes orally but more typically in anonymous writing samples, their thoughts and feelings about a personal traumatic event. In a typical study (Pennebaker, Kiecolt-Glaser, & Glaser, 1988), students wrote self-disclosing essays on four consecutive days, for twenty minutes each day, about "the most traumatic, upsetting experience of your entire life" that "you have not discussed in great detail with others." Illness-related visits to a university health service dropped by about half among students in the trauma-disclosure condition, whereas visits approximately doubled among control students who wrote about impersonal matters; moreover, a measure of cellular immunologic functioning showed significant improvement among disclosure students. Several other studies, summarized by Petrie, Booth, and Davison (1995), have found immune system enhancement among people who participated in an experiment using the same basic procedure, and other health benefits of this writing task have been observed in samples of the bereaved, unemployed persons, Holocaust survivors, and prisoners (Pennebaker, Mayne, & Francis, 1996).

Pennebaker (1989) theorizes that the writing procedure lessens the substantial physiological cost of suppressing thoughts and feelings about personal trauma. Writing is effective, he proposes, when it fully elaborates emotions sur-

rounding the event and when it facilitates resolution. The latter qualification is supported by a linguistic analysis of writing samples from several studies (Pennebaker, Mayne, & Francis, 1996); visits to health centers and physicians were lower to the extent that during the four days, the essays used proportionally more words indicating insight (e.g., "realize," "understand"), causality (e.g., "because," "infer"), and positive emotion. The hypothesized effects of emotion, however, have been obtained in some studies only through internal analyses—among high disclosers (Pennebaker, Hughes, & O'Heeron, 1987), for example, or people who have disclosed severe traumas (Greenberg & Stone, 1992). Strangely enough, the benefits of "emotion work" may not depend on self-revelation; Greenberg, Wortman, and Stone (in press) found that health center visits were similarly reduced in a group of women asked to visualize and then write about severe traumas they had experienced and another group of women who wrote about the same events imaginatively (because they had not personally experienced them).

Pennebaker's research brings together three strands of theorizing about how people deal with negative relationship events: (1) suppressed expression of negative emotion may impair health and happiness (see also Roemer & Borkovec, 1994; Scheier & Bridges, 1995); (2) the process of constructing coherent accounts about negative life events may facilitate successful coping and adaptation; and (3) relationship partners may be instrumental in encouraging disclosure and developing insightful understanding. Developing and testing more comprehensive theoretical models of these important processes constitutes one of the field's central tasks in the next decade.

## CONCLUDING COMMENTS

The sheer volume of recent research on interpersonal relationships within social psychology and allied disciplines reflects the fact that relationship science in the latter half of the 1990s resembles a boomtown during the gold rush days of the American West. Relationship science is young, sprawling, dynamic, enthusiastic, and growing at a feverish pace. Because it represents a new frontier of the behavioral and social sciences, research immigrants from many disciplines are bringing their theoretical and methodological tools to the relationship domain and, through their pioneering efforts, are settling this new field.

We have highlighted in this chapter the contributions of social psychologists to relationship science, briefly mentioning the current interests and contributions of researchers in other disciplines in order to sketch the context within which social psychological relationship theorists and researchers are presently working. Although the successes of relationship science to date must be shared with many other disciplines, social psychology's contributions to the development of the field have been considerable and

continue to increase dramatically. In light of the magnitude of these contributions, it has struck some observers as surprising that in Jones's (1985) chapter in the previous edition of the *Handbook*, "Major Developments in Social Psychology during the Past Five Decades" (see Chapter 2 in Volume One of this *Handbook*), he failed to explicitly list interpersonal relationships among the central research topics investigated by social psychologists over the past fifty years. Jones undoubtedly did not do so because he perceived all of the topics he listed as engaging interpersonal relationships, as indeed they all do. Moreover, Jones cannot be faulted for not detecting the first tremors that social psychologists' long interest in interpersonal attraction and relationship formation—as evidenced by the seminal works of Newcomb, Heider, Kelley, Altman, Berscheid, Hatfield, Byrne, Levinger, and many others—was about to erupt explosively into a frontal attack on ongoing relationships. At that time, few appreciated the extent to which remarkable progress in the development of basic theory and research in social psychology had made possible the study of the human condition as people experience it in their daily lives, and thus few foresaw the movement from the laboratory to the study of social psychological phenomena *in vivo* and *in situ*.

The contributions of social psychology and the other disciplines vitally concerned with understanding interpersonal relationships obviously are not as integrated as they most surely will be in the years ahead. Although sufficient theoretical and empirical connective tissue between relationship problem areas has not yet developed, these lacunae represent exciting opportunities for newcomers to the relationship field. There lies within social psychology alone a mother lode of opportunity for newfound nuggets of relationship knowledge to be applied to traditional social psychological problems and, conversely, for basic social psychological theory and knowledge to be applied toward the further understanding of relationship phenomena.

Many social psychologists, both those active in relationship science and those presently more concerned with other questions of historical social psychological interest, have observed that in order for both these endeavors to advance, the mutual dependence between basic theory and research in social psychology and relationship theory and research must be more widely appreciated (Berscheid, 1994; S. T. Fiske, 1992; Kelley, 1983a). Just as basic knowledge in each of the disciplines currently contributing to relationship science is essential to understanding interpersonal relationships, "basic knowledge of close relationships is essential to the other disciplines, especially psychology and sociology" (Kelley, 1983a, p. 486, italics in original).

Although relationship research will benefit all subdisciplines of psychology, social psychology stands to profit most from a reciprocal theoretical and empirical dialogue with relationship science. Among the many reasons for the

dependence of advances in social psychology on relationship science is the fact that nearly all social psychological phenomena of interest directly or indirectly engage interpersonal relationships; conversely, of course, understanding relationships depends on knowledge about basic social processes. In this chapter we have discussed evidence pertinent to many of these social processes as they occur in ongoing personal relationships—important among them social cognitive processes. As researchers in social cognition become increasingly frustrated with the limitations of their laboratory studies investigating social cognitive processes between strangers, just as interpersonal attraction researchers became frustrated with the limitations of their laboratory studies of strangers in the early 1980s, the study of cognitive processes within ongoing relationships presents theorists and researchers of social cognition with an inviting avenue to transcend those limitations. Many social cognition theorists and researchers are seizing this opportunity, as we have discussed.

That the study of interpersonal relationships is due to become more prominent within social psychology should not be surprising; it seems inevitable, given the discipline's historical commitment to understanding how the situational context influences social behavior. Although social psychologists have investigated many important contextual factors, none of them, as studies reviewed throughout this chapter testify, is more pervasively influential in people's lives than is the relationship context, and consequently none of them possesses as much potential for advancing the field's progress.

Thus many more social psychologists need to join their colleagues in the scientific attack that is now under way to solve the mysteries of interpersonal relationships. These relationship puzzles must be solved. Human happiness and well-being depend on it. Finding those solutions, in turn, heavily rests on the shoulders of future generations of social psychologists.

## REFERENCES

- Acitelli, L. K. (1992). Gender differences in relationship awareness and marital satisfaction among young married couples. *Personality and Social Psychology Bulletin*, 18, 102-110.
- Acitelli, L. K., & Duck, S. W. (1987). Intimacy as the proverbial elephant. In D. Perlman & S. W. Duck, (Eds.), *Intimate relationships: Development, dynamics, and deterioration* (pp. 297-308). Newbury Park, CA: Sage.
- Acitelli, L. K., & Holmberg, D. (1993). Reflecting on relationships: The role of thoughts and memories. In D. Perlman & W. H. Jones (Eds.), *Advances in personal relationships* (Vol. 4, pp. 71-100). London: Kingsley.
- Acitelli, L. K., & Young, A. M. (1996). Gender and thought in relationships. In G. J. O. Fletcher & J. Fitness (Eds.),

- Knowledge structures in close relationships: A social psychological approach* (pp. 147–168). Mahwah, NJ: Erlbaum.
- Adams, B. N. (1988). Fifty years of family research: What does it mean? *Journal of Marriage and the Family*, *50*, 5–17.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: Assessed in the strange situation and at home*. Hillsdale, NJ: Erlbaum.
- Albak, M. D., Smith, R. H., & Klotz, M. L. (1986). Judgments of physical attractiveness: The role of faces and bodies. *Personality and Social Psychology Bulletin*, *12*, 381–389.
- Allen, J. B., Kenrick, D. T., Linder, D. E., & McCall, M. A. (1989). Arousal and attraction: A response facilitation alternative to misattribution and negative reinforcement models. *Journal of Personality and Social Psychology*, *57*, 261–270.
- Altman, I. (1974). The communication of interpersonal attitudes: An ecological approach. In T. L. Huston (Ed.), *Foundations of interpersonal attraction*. New York: Academic Press.
- Altman, I., & Taylor, D. A. (1973). *Social penetration: The development of interpersonal relationships*. New York: Holt, Rinehart & Winston.
- Amato, P. R., & Keith, B. (1991a). Parental divorce and adult well-being: A meta-analysis. *Journal of Marriage and the Family*, *53*, 43–58.
- Amato, P. R., & Keith, B. (1991b). Parental divorce and the well-being of children: A meta-analysis. *Psychological Bulletin*, *110*, 26–46.
- Ambody, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, *111*, 256–274.
- Andersen, S. M., & Baum, A. (1994). Transference in interpersonal relations: Inferences and affect based on significant-other representations. *Journal of Personality*, *62*, 459–498.
- Andersen, S. M., & Glassman, N. S. (1996). Responding to significant others when they are not there: Effects on interpersonal inference, motivation, and affect. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 3, pp. 262–321). New York: Guilford.
- Anderson, C. A., Miller, R. S., Riger, A. L., Dill, J. C., & Sedikides, C. (1994). Behavioral and characterological attributional styles as predictors of depression and loneliness: Review, refinement, and test. *Journal of Personality and Social Psychology*, *66*, 549–558.
- Amull, J. K. (1983). Sex role complementarity versus similarity in married couples. *Journal of Personality and Social Psychology*, *45*, 145–155.
- Argyle, M. (1987). *The psychology of happiness*. London: Methuen.
- Aron, A. (1988). The matching hypothesis reconsidered again: Comment on Kalick and Hamilton. *Journal of Personality and Social Psychology*, *54*, 441–446.
- Aron, A., & Aron, E. N. (1986). *Love as the expansion of self: Understanding attraction and satisfaction*. New York: Hemisphere.
- Aron, A., & Aron, E. N. (1991). Love and sexuality. In K. McKinney & S. Sprecher (Eds.), *Sexuality in close relationships* (pp. 25–48). Hillsdale, NJ: Erlbaum.
- Aron, A., & Aron, E. N. (1996). Self and self expansion in relationships. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 325–344). Hillsdale, NJ: Erlbaum.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, *63*, 596–612.
- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including other in self. *Journal of Personality and Social Psychology*, *60*, 241–253.
- Aron, A., & Henkemeyer, L. (1995). Marital satisfaction and passionate love. *Journal of Social and Personal Relationships*, *12*, 139–146.
- Aron, A., Paris, M., & Aron, E. N. (1995). Falling in love: Prospective studies of self-concept change. *Journal of Personality and Social Psychology*, *69*, 1102–1112.
- Aron, A., & Westbay, L. (1996). Dimensions of the prototype of love. *Journal of Personality and Social Psychology*, *70*, 535–551.
- Aronoff, J., Stollak, G. E., & Woike, B. A. (1994). Affect regulation and the breadth of interpersonal engagement. *Journal of Personality and Social Psychology*, *67*, 105–114.
- Aronson, E., Wilson, T. D., & Brewer, M. B. (1998). Experimentation in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 99–142). New York: McGraw-Hill.
- Ashworth, C., Furman, G., Chaikin, A., & Derlega, V. (1976). Physiological responses to self-disclosure. *Journal of Humanistic Psychology*, *16*, 71–80.
- Atkins, C. J., Kaplan, R. M., & Toshima, M. T. (1991). Close relationships in the epidemiology of cardiovascular disease. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 3, pp. 207–231). London: Jessica Kingsley.
- Attridge, M., & Berscheid, E. (1994). Entitlement in romantic relationships in the United States: A social exchange perspective. In M. J. Lerner & G. Mikula (Eds.), *Entitlement and the affectional bond: Justice in close relationships* (pp. 117–148). New York: Plenum.
- Attridge, M., Berscheid, E., & Simpson, J. A. (1995). Predicting relationship stability from both partners versus one. *Journal of Personality and Social Psychology*, *69*, 254–268.
- Backman, C. W. (1988). The self: A dialectical approach. *Advances in Experimental Social Psychology*, *21*, 229–260.
- Backman, C. W., & Secord, P. F. (1959). The effect of perceived liking on interpersonal attraction. *Human Relations*, *12*, 379–384.
- Bakeman, R., & Gottman, J. M. (1986). *Observing interaction: An introduction to sequential analysis*. New York: Cambridge University Press.

- Baldwin, M. W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin*, *112*, 461-484.
- Baldwin, M. W. (1995). Relational schemas and cognition in close relationships. *Journal of Social and Personal Relationships*, *12*, 547-552.
- Baldwin, M. W., Carrell, S., & Lopez, D. F. (1990). Priming relationship schemas: My advisor and the Pope are watching me from the back of my mind. *Journal of Experimental Social Psychology*, *26*, 435-454.
- Baldwin, M. W., & Fehr, B. (1995). On the instability of attachment style ratings. *Personal Relationships*, *2*, 247-261.
- Baldwin, M. W., Fehr, B., Keedian, E., Seidel, M., & Thomson, D. W. (1993). An exploration of the relational schemata underlying attachment styles: Self-report and lexical decision approaches. *Personality and Social Psychology Bulletin*, *19*, 746-754.
- Bargh, J. A. (1994). The four horsemen of automaticity: Awareness, intention, efficiency, and control in social cognition. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition*. (2nd ed., pp. 1-40). Hillsdale, NJ: Erlbaum.
- Bargh, J. A., Lombardi, W. J., & Higgins, E. T. (1988). Automaticity of chronically accessible constructs in person  $\times$  situation effects in person perception: It's just a matter of time. *Journal of Personality and Social Psychology*, *55*, 599-605.
- Baron, R. S., Cutrona, C. E., Hicklin, D., Russell, D. W., & Lubaroff, D. M. (1990). Social support and immune function among spouses of cancer patients. *Journal of Personality and Social Psychology*, *59*, 344-352.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, *7*, 147-178.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, *61*, 226-244.
- Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Erlbaum.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachment as a fundamental human motivation. *Psychological Bulletin*, *117*, 497-529.
- Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1994). Guilt: An interpersonal approach. *Psychological Bulletin*, *115*, 243-267.
- Baumgardner, A. H., Kaufman, C. M., & Cranford, J. A. (1990). To be noticed favorably: Links between private self and public self. *Personality and Social Psychology Bulletin*, *16*, 705-716.
- Beach, S. R. H., & Tesser, A. (1988). Love in marriage: A cognitive account. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 330-355). New Haven, CT: Yale University Press.
- Beall, A. E., & Sternberg, R. J. (Eds.). (1993). *The psychology of gender*. New York: Guilford.
- Bell, R. Q. (1968). A reinterpretation of the direction of effects in studies of socialization. *Psychological Review*, *75*, 81-95.
- Bellg, A. J. (1995). *Adult attachment and adjustment to breast cancer*. Unpublished doctoral dissertation, University of Rochester, Rochester, NY.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, *45*, 196-205.
- Benoit, D., & Parker, K. C. H. (1994). Stability and transmission of attachment across three generations. *Child Development*, *65*, 1444-1456.
- Bentler, P. M., & Newcomb, M. D. (1978). Longitudinal study of marital success and failure. *Journal of Consulting and Clinical Psychology*, *46*, 1053-1070.
- Berardo, F. M. (1990). Trends and directions in family research in the 1980s. *Journal of Marriage and the Family*, *52*, 809-817.
- Berg, J. H., & McQuinn, R. D. (1986). Attraction and exchange in continuing and noncontinuing dating relationships. *Journal of Personality and Social Psychology*, *50*, 942-952.
- Berger, C. R., & Bradac, J. J. (1982). *Language and social knowledge: Uncertainty in interpersonal relations*. London: Edward Arnold.
- Berkman, L. F. (1995). The role of social relations in health promotion. *Psychosomatic Medicine*, *57*, 245-254.
- Berkman, L. F., & Syme, S. L. (1979). Social networks, host resistance, and mortality: A nine year follow-up study of Alameda County residents. *American Journal of Epidemiology*, *100*, 186-204.
- Berkman, L. F., Vaccarino, V., & Seeman, T. (1993). Gender differences in cardiovascular morbidity and mortality: The contribution of social networks and support. *Annals of Behavioral Medicine*, *1*, 112-118.
- Berman, W. H., Marcus, L., & Berman, E. R. (1994). Attachment in marital relations. In M. S. Sperling & W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp. 204-231). New York: Guilford.
- Bernard, J. (1972). *The future of marriage*. New York: Bantam.
- Bernstein, W. M., Stephenson, B. O., Snyder, M. L., & Wickland, R. A. (1983). Causal ambiguity and heterosexual affiliation. *Journal of Experimental Social Psychology*, *19*, 78-92.
- Berscheid, E. (1983). Emotion. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson, *Close relationships* (pp. 110-168). New York: W. H. Freeman.
- Berscheid, E. (1985a). Compatibility, interdependence, and emotion. In W. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 143-161). New York: Springer.
- Berscheid, E. (1985b). Interpersonal attraction. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., pp. 413-484). New York: Random House.



- Berscheid, E. (1986). Mea culpas and lamentations: Sir Francis, Sir Isaac, and "The slow progress of soft psychology." In S. Duck & R. Gilmour (Eds.), *The emerging field of personal relationships* (pp. 267–286). Hillsdale, NJ: Erlbaum.
- Berscheid, E. (1994). Interpersonal relationships. *Annual Review of Psychology*, 45, 79–129.
- Berscheid, E. (1995). Help wanted: A grand theorist of interpersonal relationships, sociologist or anthropologist preferred. *Journal of Social and Personal Relationships*, 12, 529–533.
- Berscheid, E. (in press). A social psychological view of marital dysfunction and stability. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Berscheid, E., Boye, D., & Darley, J. N. (1968). Effect of forced association upon voluntary choice to associate. *Journal of Personality and Social Psychology*, 8, 13–19.
- Berscheid, E., & Campbell, B. (1981). The changing longevity of heterosexual close relationships: A commentary and forecast. In M. J. Lerner & S. C. Lerner (Eds.), *The justice motive in social behavior* (pp. 31–60). New York: Academic Press.
- Berscheid, E., Dion, K., Walster, E., & Walster, G. W. (1971). Physical attractiveness and dating choice: A test of the matching hypothesis. *Journal of Experimental Social Psychology*, 7, 173–189.
- Berscheid, E., Gangestad, S. W., & Kulakowski, D. (1984). Emotion in close relationships: Implications for relationship counseling. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (pp. 435–476). New York: Wiley.
- Berscheid, E., & Graziano, W. (1979). The initiation of social relationships and interpersonal attraction. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 31–60). New York: Academic Press.
- Berscheid, E., Graziano, W., Monson, T., & Dermer, M. (1976). Outcome dependency: Attention, attribution, and attraction. *Journal of Personality and Social Psychology*, 34, 978–989.
- Berscheid, E., & Lopes, J. (in press). A temporal model of relationship satisfaction and stability. In R. J. Sternberg & M. Hojjat (Eds.), *Satisfaction in close relationships*. New York: Guilford.
- Berscheid, E., & Meyers, S. A. (1996). A social categorical approach to a question about love. *Personal Relationships*, 3, 19–43.
- Berscheid, E., & Peplau, L. A. (1983). The emerging science of relationships. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson, *Close relationships* (pp. 1–19). New York: W. H. Freeman.
- Berscheid, E., Snyder, M., & Omoto, A. M. (1989a). Issues in studying close relationships: Conceptualizing and measuring closeness. In C. Hendrick (Ed.), *Close relationships: Review of personality and social psychology* (Vol. 10, pp. 63–91). Newbury Park, CA: Sage.
- Berscheid, E., Snyder, M., & Omoto, A. M. (1989b). The Relationship Closeness Inventory: Assessing the closeness of interpersonal relationships. *Journal of Personality and Social Psychology*, 57, 792–807.
- Berscheid, E., & Walster, E. H. (1969). *Interpersonal attraction*. Reading, MA: Addison-Wesley.
- Berscheid, E., & Walster, E. (1974a). A little bit about love. In T. L. Huston (Ed.), *Foundations of interpersonal attraction* (pp. 355–381). New York: Academic Press.
- Berscheid, E., & Walster, E. (1974b). Physical attractiveness. *Advances in Experimental Social Psychology*, 7, 157–215.
- Berscheid, E., & Walster, E. H. (1978). *Interpersonal attraction* (2nd ed.). Reading, MA: Addison-Wesley.
- Bissonnette, V. L., Rusbult, C. E., & Kilpatrick, S. D. (1997). Empathic accuracy and marital conflict resolution. In W. Ickes (Ed.), *Empathic accuracy* (pp. 251–281). New York: Guilford.
- Blais, M. R., Sabourin, S., Boucher, C., & Vallerand, R. J. (1990). Toward a motivational model of couple happiness. *Journal of Personality and Social Psychology*, 59, 1021–1031.
- Blieszner, R., & Adams, R. G. (1992). *Adult friendship*. Newbury Park, CA: Sage.
- Block, J. H., & Block, J. (1980). The role of ego-control and ego-resiliency in the organization of behavior. In W. A. Collins (Ed.), *Development of cognition, affect, and social relations: The Minnesota Symposium on Child Psychology* (Vol. 13, pp. 39–101). Hillsdale, NJ: Erlbaum.
- Blood, R. O. (1967). *Love match and arranged marriage*. New York: Free Press.
- Blumstein, P., & Kollock, P. (1988). Personal relationships. *Annual Review of Sociology*, 14, 467–490.
- Bolger, N., Foster, M., Vinokur, A. D., & Ng, R. (1996). Close relationships and adjustment to a life crisis: The case of breast cancer. *Journal of Personality and Social Psychology*, 70, 283–294.
- Booth, A., Johnson, D., White, L., & Edwards, J. (1986). Divorce and marital instability over the life course. *Journal of Family Issues*, 7, 421–442.
- Borden, V. M. H., & Levinger, G. (1991). Interpersonal transformations in intimate relationships. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 2, pp. 35–56). London: Jessica Kingsley.
- Bornstein, R. F. (1989). Exposure and affect: Overview and meta-analysis of research, 1968–1987. *Psychological Bulletin*, 106, 265–289.
- Borys, S., & Perlman, D. (1985). Gender differences in loneliness. *Personality and Social Psychology Bulletin*, 11, 63–74.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.

- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books. (Original work published 1969)
- Bowlby, J. (1988). *A secure base*. New York: Basic Books.
- Bradbury, T. N. (Ed.). (in press). *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Bradbury, T. N., Cohan, C. L., & Karney, B. R. (in press). Optimizing longitudinal research for understanding and preventing marital dysfunction. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Bradbury, T. N., & Fincham, F. D. (1989). Behavior and satisfaction in marriage: Prospective mediating processes. In C. Hendrick (Ed.), *Close relationships: Review of personality and social psychology* (Vol. 10, pp. 119-143). Newbury Park, CA: Sage.
- Bradbury, T. N., & Fincham, F. D. (1990). Attributions in marriage: Review and critique. *Psychological Bulletin*, 107, 3-33.
- Bradbury, T. N., & Fincham, F. D. (1991). The analysis of sequence in social interaction. In D. G. Gilbert & J. J. Connelly (Eds.), *Personality, social skills, and psychopathology: An individual differences approach* (pp. 257-289). New York: Plenum.
- Braiker, H. B., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 135-168). New York: Academic Press.
- Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin*, 21, 267-283.
- Brewer, W. F., & Treyens, J. C. (1981). Role of schemata in memory for places. *Cognitive Psychology*, 13, 207-230.
- Brockner, J., & Swap, W. C. (1976). Effects of repeated exposure and attitudinal similarity on self disclosure and interpersonal attraction. *Journal of Personality and Social Psychology*, 33, 531-540.
- Brody, G. H., Neubaum, E., & Forehand, R. (1988). Serial marriage: A heuristic analysis of an emerging family form. *Psychological Bulletin*, 103, 211-222.
- Brown, G. W., & Harris, T. O. (1978). *Social origins of depression: A study of psychiatric disorder in women*. London: Tavistock.
- Buck, R., & Ginsburg, B. (1991). Spontaneous communication and altruism: The communicative gene hypothesis. In M. S. Clark (Ed.), *Prosocial behavior: Review of personality and social psychology* (Vol. 12, pp. 149-175). Newbury Park, CA: Sage.
- Buck, R., & Ginsburg, B. (1997). Communicative genes and the evolution of knowledge. In W. Ickes (Ed.), *Empathic accuracy* (pp. 17-43). New York: Guilford.
- Buehlman, K. T., Gottman, J. M., & Katz, L. F. (1992). How couple views their past predicts their future: Predicting divorce from an oral history interview. *Journal of Experimental Psychology*, 5, 295-318.
- Bukowski, W. M., Newcomb, A. F., & Hartup, W. W. (Eds.). (1996). *The company they keep: Friendship in childhood and adolescence*. London: Cambridge University Press.
- Bull, R., & Rumsey, N. (1988). *The social psychology of facial appearance*. New York: Springer.
- Burgess, E., & Cottrell, L. (1939). *Predicting success or failure in marriage*. New York: Prentice-Hall.
- Burgess, E. W., & Wallin, P. W. (1943). Homogamy in marriage: Characteristics. *American Journal of Sociology*, 48, 109-124.
- Burgess, E. W., & Wallin, P. (1953). *Engagement and marriage*. New York: J. B. Lippincott.
- Burgess, R. L., & Huston, T. L. (1979). *Social exchange in developing relationships*. New York: Academic Press.
- Burleson, B. R. (1994). Comforting messages: Significant approaches, and effects. In B. R. Burleson, T. L. Albrecht, & I. G. Sarason (Eds.), *Communication of social support: Messages, interactions, relationships, and community* (pp. 3-28). Thousand Oaks, CA: Sage.
- Burley, N. (1983). The meaning of assortative mating. *Ethology and Sociobiology*, 4, 191-203.
- Burman, B., & Margolin, G. (1992). Analysis of the association between marital relationships and health problems: An interactional perspective. *Psychological Bulletin*, 111, 39-63.
- Burns, G. L., & Farina, A. (1992). The role of physical attractiveness in adjustment. *Genetic, Social, and General Psychology Monographs*, 118, 157-194.
- Bush, C. R., Bush, J. P., & Jennings, J. (1988). Effects of jealousy threats on relationship perceptions and emotions. *Journal of Social and Personal Relationships*, 5, 285-304.
- Buss, D. M. (1985). Human mate selection. *American Scientist*, 73, 47-51.
- Buss, D. M. (1988). Love acts: The evolutionary biology of love. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 100-118). New Haven, CT: Yale University Press.
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, 12, 1-49.
- Buss, D. M. (1994). The strategies of human mating. *American Scientist*, 82, 238-249.
- Buss, D. M., & Barnes, M. (1986). Preferences in human mate selection. *Journal of Personality and Social Psychology*, 50, 559-570.
- Buss, D. M., & Kenrick, D. T. (1998). Evolutionary social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 982-1026). New York: McGraw-Hill.
- Buss, D. M., Larsen, R. J., Westen, D., & Semmelroth, J.

- (1992). Sex differences in jealousy: Evolution, physiology, and psychology. *Psychological Science*, 3, 251-255.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100, 204-232.
- Buunk, B., & Bringle, R. G. (1987). Jealousy in love relationships. In D. Perlman & S. Duck (Eds.), *Intimate relationships: Development, dynamics, and deterioration* (pp. 123-148). Newbury Park, CA: Sage.
- Buunk, B. P., & Van Yperen, N. W. (1991). Referential comparisons, relational comparisons, and exchange orientation: Their relation to marital satisfaction. *Personality and Social Psychology Bulletin*, 17, 709-717.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Byrne, D., Clore, G. L., & Smeaton, G. (1986). The attraction hypothesis: Do similar attitudes affect anything? *Journal of Personality and Social Psychology*, 51, 1167-1170.
- Cacioppo, J. T., & Berntson, G. C. (1994). Relationship between attitudes and evaluative space: A critical review, with emphasis on the separability of positive and negative substrates. *Psychological Bulletin*, 115, 401-423.
- Cafferty, T. P., Davis, K. E., Medway, F. J., O'Hearn, R. E., & Chappell, K. D. (1994). Reunion dynamics among couples separated during Operation Desert Storm: An attachment theory analysis. In D. Perlman & K. Bartholomew (Eds.), *Advances in personal relationships: Vol. 5. Attachment processes in adulthood* (pp. 309-330). London: Jessica Kingsley.
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The quality of American life*. New York: Sage.
- Canary, D., & Dindia, K. (in press). *Sex, gender, and communication: Similarities and differences*. Mahwah, NJ: Erlbaum.
- Cantor, N., Mischel, W., & Schwartz, J. C. (1982). A prototype analysis of psychological situations. *Cognitive Psychology*, 14, 45-77.
- Caspi, A., & Herbener, E. S. (1990). Continuity and change: Assortative marriage and the consistency of personality in adulthood. *Journal of Personality and Social Psychology*, 58, 250-258.
- Cate, R. M., Koval, J., Lloyd, S. A., & Wilson, G. (1995). Assessment of relationship thinking in dating relationships. *Personal Relationships*, 2, 77-96.
- Cate, R. M., Lloyd, S. A., Henton, J. M., & Larson, J. H. (1982). Fairness and reward level as predictors of relationship satisfaction. *Social Psychology Quarterly*, 45, 177-181.
- Cate, R. M., Lloyd, S. A., & Long, E. (1988). The role of rewards and fairness in developing premarital relationships. *Journal of Marriage and the Family*, 50, 443-452.
- Chelune, G. J., Robison, J. T., & Kommor, M. J. (1984). A cognitive interactional model of intimate relationships. In V. J. Derlega (Ed.), *Communication, intimacy, and close relationships* (pp. 11-40). New York: Academic Press.
- Cherlin, A. J. (1992). *Marriage, divorce, remarriage* (2nd ed.). Cambridge, MA: Harvard University Press.
- Christensen, A. (1983). Intervention. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson, *Close relationships* (pp. 397-448). New York: W. H. Freeman.
- Christensen, A., & Heavey, C. L. (1990). Gender and social structure in the demand/withdraw pattern of marital conflict. *Journal of Personality and Social Psychology*, 59, 73-81.
- Christensen, A., Sullaway, M., & King, C. (1983). Systematic error in behavioral reports of dyadic interaction: Egocentric bias and consent effects. *Behavioral Assessment*, 5, 131-142.
- Clark, L. A., & Watson, D. (1988). Mood and the mundane: Relations between daily life events and self-reported mood. *Journal of Personality and Social Psychology*, 54, 296-308.
- Clark, M. S., & Chrisman, K. (1994). Resource allocation in intimate relationships: Trying to make sense of a confusing literature. In M. J. Lerner & G. Mikula (Eds.), *Entitlement and the affectional bond: Justice in close relationships* (pp. 65-88). New York: Plenum.
- Clark, M. S., & Mills, J. (1979). Interpersonal attraction in exchange and communal relationships. *Journal of Personality and Social Psychology*, 37, 12-24.
- Clark, M. S., & Mills, J. (1993). The difference between communal and exchange relationships: What it is and is not. *Personality and Social Psychology Bulletin*, 19, 684-691.
- Clark, M. S., Ouellette, R., Powell, M. C., & Milberg, S. (1987). Recipient's mood, relationship type, and helping. *Journal of Personality and Social Psychology*, 53, 93-103.
- Clark, M. S., Pataki, S. P., & Carver, V. (1996). Some thoughts and findings on self-presentation of emotions in relationships. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 247-274). Mahwah, NJ: Erlbaum.
- Clark, M. S., & Reis, H. T. (1988). Interpersonal processes in close relationships. *Annual Review of Psychology*, 39, 609-672.
- Cleary, P. D., & Kessler, R. C. (1982). The estimation and interpretation of modifier effects. *Journal of Health and Social Behavior*, 23, 159-169.
- Cohen, S. (1988). Psychosocial models of the role of social support in the etiology of physical disease. *Health Psychology*, 7, 269-297.
- Cohen, S., & Herbert, T. B. (in press). Health psychology: Psychological factors and physical disease from the perspective of human psychoneuroimmunology. *Annual Review of Psychology*.
- Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology*, 13, 99-125.
- Cohen, S., Sherrod, D. R., & Clark, M. S. (1986). Social skills

- and the stress-protective role of social support. *Journal of Personality and Social Psychology*, 50, 963-973.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.
- Collins, N. L., & Miller, L. C. (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, 116, 457-475.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644-663.
- Collins, N. L., & Read, S. J. (1994). Cognitive representations of attachment: The content and function of working models. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 5, pp. 53-90). London: Jessica Kingsley.
- Colvin, C. R., Vogt, D. S., & Ickes, W. (1997). Why do friends understand each other better than strangers do? In W. Ickes (Ed.), *Empathic accuracy* (pp. 169-193). New York: Guilford.
- Condon, J. W., & Crano, W. D. (1988). Inferred evaluation and the relation between attitude similarity and interpersonal attraction. *Journal of Personality and Social Psychology*, 54, 789-797.
- Contreras, R., Hendrick, S. S., & Hendrick, C. (1996). Perspectives on marital love and satisfaction in Mexican American and Anglo-American couples. *Journal of Counseling and Development*, 74, 408-415.
- Coyne, J. C., & Downey, G. (1991). Social factors in psychopathology. *Annual Review of Psychology*, 42, 401-425.
- Coyne, J. C., & Whiffen, V. E. (1995). Issues in personality as diathesis for depression: The case of sociotropy-dependency and autonomy-self-criticism. *Psychological Bulletin*, 118, 358-378.
- Crane, D. R., Allgood, S. M., Larson, J. H., & Griffin, W. (1990). Assessing marital quality with distressed and nondistressed couples: A comparison and equivalency table for three frequently used measures. *Journal of Marriage and the Family*, 52, 87-93.
- Cronbach, L. J. (1955). Processes affecting scores on "understanding of others" and "assumed similarity." *Psychological Bulletin*, 52, 177-193.
- Crosby, F. J. (1991). *Juggling: The unexpected advantages of balancing career and home for women and their families*. New York: Free Press.
- Crowell, J., Treboux, D., & Waters, E. (1996). *Are adult attachment models available to consciousness?* Manuscript submitted for publication, State University of New York-Stony Brook, Stony Brook, NY.
- Cunningham, M. R. (1986). Measuring the physical in physical attractiveness: Quasi-experiments on the sociobiology of female facial beauty. *Journal of Personality and Social Psychology*, 50, 925-935.
- Cunningham, M. R., Barbee, A. P., & Pike, C. L. (1990). What do women want? Facialmetric assessment of multiple motives in the perception of male facial physical attractiveness. *Journal of Personality and Social Psychology*, 59, 61-72.
- Cunningham, M. R., Roberts, A. R., Barbee, A. P., Druen, B. B., & Wu, C. (1995). "Their ideas of beauty are, on the whole, the same as ours": Consistency and variability in the cross-cultural perception of female physical attractiveness. *Journal of Personality and Social Psychology*, 68, 261-279.
- Cupach, W. P., & Spitzberg, B. H. (1994). *The dark side of interpersonal communication*. Hillsdale, NJ: Erlbaum.
- Cutrona, C. E. (1986). Behavioral manifestations of social support: A microanalytic investigation. *Journal of Personality and Social Psychology*, 51, 201-208.
- Cutrona, C. E. (1990). Stress and social support: In search of optimal matching. *Journal of Social and Clinical Psychology*, 9, 3-14.
- Cutrona, C. E., & Russell, D. W. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 1, pp. 37-67). Greenwich, CT: JAI Press.
- Dabbs, J. M. (1994). *Testosterone and marriage: Like a rhino and a carriage*. Paper presented at the Relationships Pre-conference, Society for Experimental Social Psychology, Lake Tahoe, NV.
- Darley, J. M., & Berscheid, E. (1967). Increased liking as a result of the anticipation of personal contact. *Human Relations*, 20, 29-40.
- Darwin, C. (1871). *The descent of man, and selection in relation to sex*. London: Murray.
- Darwin, C. (1965). *The expression of the emotions in man and animals*. Chicago: University of Chicago Press. (Original work published 1872)
- Davis, D. (1982). Determinants of responsiveness in dyadic interaction. In W. I. Ickes & E. S. Knowles (Eds.), *Personality, roles, and social behaviors* (pp. 85-139). New York: Springer.
- Davis, D., & Perkowski, W. T. (1979). Consequences of responsiveness in dyadic interaction: Effects of probability of response and proportion of content-related responses on interpersonal attraction. *Journal of Personality and Social Psychology*, 37, 534-551.
- Davis, K. E., & Latty-Mann, H. (1987). Love styles and relationship quality: A contribution to validation. *Journal of Social and Personal Relationships*, 4, 409-428.
- Davis, K. E., & Todd, M. J. (1982). Friendships and love relationships. In K. E. Davis & T. O. Mitchell (Eds.), *Advances in descriptive psychology* (Vol. 2, pp. 79-112). Greenwich, CT: JAI Press.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113-126.
- Davis, M. H. (1994). *Empathy: A social psychological approach*. Madison, WI: Brown & Benchmark.
- Davis, M. H., & Kraus, L. A. (1991). Dispositional empathy and social relationships. In W. H. Jones & D. Perlman

- (Eds.), *Advances in personal relationships* (Vol. 3, pp. 75–115). London: Jessica Kingsley.
- Davis, M. H., & Kraus, L. A. (1997). Personality and empathic accuracy. In W. Ickes (Ed.), *Empathic accuracy* (pp. 144–168). New York: Guilford.
- Deaux, K. (1976). *The behavior of women and men*. Monterey, CA: Brooks-Cole.
- Deaux, K., & LaFrance, M. (1998). Gender. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 788–827). New York: McGraw-Hill.
- Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), *Nebraska symposium on motivation: Vol. 38. Perspectives on motivation* (pp. 237–288). Lincoln: University of Nebraska Press.
- de Jong-Gierveld, J. (1987). Developing and testing a model of loneliness. *Journal of Personality and Social Psychology*, 53, 119–128.
- Delespaul, P., Reis, H. T., & deVries, P. (1996). *Comparison of event-based and experience-sampling diaries*. Unpublished manuscript, Department of Social Psychiatry, Rijksuniversiteit Limburg, The Netherlands.
- DePaulo, B. M., & Friedman, H. S. (1998). Nonverbal communication. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 3–40). New York: McGraw-Hill.
- Derlega, V. J., Metts, S., Petronio, S., & Margulis, S. T. (1993). *Self-disclosure*. Newbury Park, CA: Sage.
- DeRuier, M., & Pyszczynski, T. A. (1978). Effects of erotica upon men's loving and liking responses for women they love. *Journal of Personality and Social Psychology*, 36, 1302–1309.
- Descutner, C. J., & Thelen, M. H. (1991). Development and validation of a Fear-of-Intimacy Scale. *Psychology Assessment*, 3, 218–225.
- Desmarais, S., & Lerner, M. J. (1994). Entitlements in close relationships: A justice-motive analysis. In M. J. Lerner & G. Mikula (Eds.), *Entitlement and the affectional bond: Justice in close relationships* (pp. 43–64). New York: Plenum.
- Deutsch, M. (1954). Field theory in social psychology. In G. Lindzey (Ed.), *The handbook of social psychology: Theory and method* (1st ed., Vol. 1, pp. 181–222). Reading, MA: Addison-Wesley.
- Deutsch, M., & Solomon, L. (1959). Reactions to evaluations by others as influenced by self evaluations. *Sociometry*, 22, 93–112.
- Dickens, W. J., & Perlman, D. (1981). Friendship over the lifecycle. In S. Duck & R. Gilmour (Eds.), *Personal relationships: 2. Developing personal relationships* (pp. 91–122). London: Academic Press.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542–575.
- Diener, E., Larsen, R. J., & Emmons, R. A. (1984). Person  $\times$  situation interactions: Choice of situations and congruence response models. *Journal of Personality and Social Psychology*, 47, 580–592.
- Diener, F., Wolsic, B., & Fujita, F. (1995). Physical attractiveness and subjective well-being. *Journal of Personality and Social Psychology*, 69, 120–129.
- Dindia, K., & Allen, M. (1992). Sex differences in self-disclosure: A meta-analysis. *Psychological Bulletin*, 112, 106–124.
- Dion, K. K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24, 285–290.
- Dion, K. K., & Dion, K. L. (1993). Individualistic and collectivistic perspectives on gender and the cultural context of love and intimacy. *Journal of Social Issues*, 49, 53–69.
- Dion, K. K., & Dion, K. L. (1996). Cultural perspectives on romantic love. *Personal Relationships*, 3, 5–17.
- Dion, K. L., & Berscheid, E. (1974). Physical attractiveness and peer perception among children. *Sociometry*, 37, 1–12.
- Dion, K. L., & Dion, K. K. (1973). Correlates of romantic love. *Journal of Consulting and Clinical Psychology*, 41, 51–56.
- Dion, K. L., & Dion, K. K. (1988). Romantic love: Individual and cultural perspectives. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 264–289). New Haven, CT: Yale University Press.
- Doane, J. A., & Diamond, D. (1994). *Affect and attachment in the family*. New York: Basic Books.
- Dollard, J., Doob, L. W., Miller, N. E., Mowrer, O. H., & Sears, R. R. (1939). *Frustration and aggression*. New Haven, CT: Yale University Press.
- Dozier, M., & Kobak, R. R. (1992). Psychophysiology and adolescent attachment interviews: Converging evidence for repressing strategies. *Child Development*, 57, 1273–1285.
- Drigotas, S. M., & Rusbult, C. E. (1992). Should I stay or should I go? A dependence model of breakups. *Journal of Personality and Social Psychology*, 62, 62–87.
- Driscoll, R., Davis, K. E., & Lipetz, M. E. (1972). Parental interference and romantic love: The Romeo and Juliet effect. *Journal of Personality and Social Psychology*, 24, 1–10.
- Duck, S., & Gilmour, R. (Eds.). (1981). *Personal relationships: 1: Studying personal relationships*. London: Academic Press.
- Duck, S., Pond, K., & Leatham, G. (1994). Loneliness and the evaluation of relational events. *Journal of Social and Personal Relationships*, 11, 253–276.
- Duck, S. W., & Sants, H. K. A. (1983). On the origin of the specious: Are personal relationships really interpersonal states? *Journal of Social and Clinical Psychology*, 1, 27–41.
- Duck, S. W., & Wright, P. H. (1993). Reexamining gender differences in same-gender friendships: A close look at two kinds of data. *Sex Roles*, 28, 709–727.

- Dutton, D. G. (1996). *The domestic assault of women*. Vancouver: University of British Columbia Press.
- Dutton, D. G., & Aron, A. P. (1974). Some evidence for heightened sexual attraction under conditions of high anxiety. *Journal of Personality and Social Psychology*, 24, 366-371.
- Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but . . . : A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin*, 110, 109-128.
- Eagly, A. H., & Chaiken, S. (1998). Attitude structure and function. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 269-322). New York: McGraw-Hill.
- Eisenberg, N., & Fabes, R. A. (1990). Empathy: Conceptualization, measurement, and relation to prosocial behavior. *Motivation and Emotion*, 14, 131-149.
- Eisenberg, N., & Fabes, R. A. (1992). Emotion, regulation, and the development of social competence. In M. S. Clark (Ed.), *Emotion and social behavior: Review of personality and social psychology* (Vol. 14, pp. 119-150). Newbury Park, CA: Sage.
- Eisenberg, N., Fabes, R. A., Miller, P. A., Fultz, J., Shell, R., Mathy, R. M., & Reno, R. R. (1989). Relation of sympathy and personal distress to prosocial behavior: A multimethod study. *Journal of Personality and Social Psychology*, 57, 55-66.
- Eisenberg, N., Fabes, R. A., Schaller, M., Miller, P., Carlo, G., Poulin, R., Shea, C., & Shell, R. (1991). Personality and socialization correlates of vicarious emotional responding. *Journal of Personality and Social Psychology*, 61, 459-470.
- Ekman, P., & Davidson, R. J. (1994). Afterword: What is the function of emotions? In P. Ekman & R. J. Davidson (Eds.), *The nature of emotion* (pp. 137-139). New York: Oxford University Press.
- Ekman, P., & Friesen, W. V. (1975). *Unmasking the face*. Englewood Cliffs, NJ: Prentice-Hall.
- Elicker, J., Englund, M., & Sroufe, L. A. (1992). Predicting peer competence and peer relationships in childhood from early parent-child relationships. In R. D. Parke & G. W. Ladd (Eds.), *Family-peer relationships: Modes of linkage* (pp. 77-106). Hillsdale, NJ: Erlbaum.
- Epstein, S. (1994). Integration of the cognitive and the psychodynamic unconscious. *American Psychologist*, 49, 709-724.
- Erber, R., & Tesser, A. (1994). Self-evaluation maintenance: A social psychological approach to interpersonal relationships. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 211-234). Hillsdale, NJ: Erlbaum.
- Erber, R., Wegner, D. M., & Theriault, N. (1996). On being cool and collected: Mood regulation in anticipation of social interaction. *Journal of Personality and Social Psychology*, 70, 757-766.
- Fairbairn, W. R. D. (1954). *An object-relations theory of the personality*. New York: Basic Books.
- Falbo, T., & Peplau, L. A. (1980). Power strategies in intimate relationships. *Journal of Personality and Social Psychology*, 38, 618-628.
- Feeney, B. C., & Kirkpatrick, L. A. (1996). Effects of adult attachment and presence of romantic partners on physiological responses to stress. *Journal of Personality and Social Psychology*, 70, 255-270.
- Feeney, J. A. (1995). Adult attachment and emotional control. *Personal Relationships*, 2, 143-160.
- Feeney, J. A., Noller, P., & Callan, V. J. (1994). Attachment style, communication, and satisfaction in the early years of marriage. In D. Perlman and K. Bartholomew (Eds.), *Advances in personal relationships: Vol. 5. Attachment processes in adulthood* (pp. 269-308). London: Jessica Kingsley.
- Fehr, B. (1988). Prototype analysis of the concepts of love and commitment. *Journal of Personality and Social Psychology*, 55, 557-579.
- Fehr, B. (1994). Prototype based assessment of laypeople's views of love. *Personal Relationships*, 1, 309-331.
- Fehr, B. A. (1996). *Friendship processes*. Thousand Oaks, CA: Sage.
- Fehr, B., & Russell, J. A. (1991). The concept of love viewed from a prototype perspective. *Journal of Personality and Social Psychology*, 60, 424-438.
- Feingold, A. (1988). Matching for attractiveness in romantic partners and same-sex friends: A meta-analysis and theoretical critique. *Psychological Bulletin*, 104, 226-235.
- Feingold, A. (1990). Gender differences in effects of physical attractiveness on romantic attraction: A comparison across five research paradigms. *Journal of Personality and Social Psychology*, 59, 981-993.
- Feingold, A. (1992a). Gender differences in mate selection preferences: A test of the parental investment model. *Psychological Bulletin*, 112, 125-139.
- Feingold, A. (1992b). Good-looking people are not what we think. *Psychological Bulletin*, 111, 304-341.
- Felmlee, D., Sprecher, S., & Bassin, E. (1990). The dissolution of intimate relationships. *Social Psychological Quarterly*, 53, 13-30.
- Festinger, L. (1950). Informal social communication. *Psychological Review*, 57, 271-282.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.
- Festinger, L., Schachter, S., & Back, K. (1950). *Social pressures in informal groups: A study of human factors in housing*. Stanford, CA: Stanford University Press.
- Filsinger, E. E., & Thoma, S. J. (1988). Behavioral antecedents of relationship stability and adjustment: A five year longitudinal study. *Journal of Marriage and the Family*, 50, 785-795.
- Fincham, F. D., & Bradbury, T. N. (1991). Cognition in marriage: A program of research on attributions. In W. H. Jones

- & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 2, pp. 159–204). London: Jessica Kingsley.
- Fincham, F. D., & Bradbury, T. N. (1993). Marital satisfaction, depression, and attributions: A longitudinal analysis. *Journal of Personality and Social Psychology*, *64*, 442–452.
- Fisher, H. T. (1891). *Romantic love and personal beauty: Their development, causal relations, historic and national peculiarities*. London: Macmillan.
- Fischer, C. (1975). Toward a subcultural theory of urbanism. *American Journal of Sociology*, *80*, 1319–1341.
- Fischer, C. S., & Phillips, S. L. (1982). Who is alone? Social characteristics of people with small networks. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research, and therapy* (pp. 21–39). New York: Wiley.
- Fiske, A. P. (1992). The four elementary forms of sociality: A framework for a unified theory of social relations. *Psychological Review*, *99*, 689–723.
- Fiske, A. P. (1993). Social errors in four cultures: Evidence about the elementary forms of social relations. *Journal of Cross-Cultural Psychology*, *24*, 67–94.
- Fiske, A. P., Haslam, N., & Fiske, S. T. (1991). Confusing one person with another: What errors reveal about the elementary forms of social relations. *Journal of Personality and Social Psychology*, *60*, 656–674.
- Fiske, S. T. (1992). Thinking is for doing: Portraits of social cognition from daguerreotype to laserphoto. *Journal of Personality and Social Psychology*, *63*, 877–889.
- Fiske, S. T. (1998). Stereotypes, prejudice, and discrimination. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 357–411). New York: McGraw-Hill.
- Fitness, J., & Fletcher, G. J. O. (1993). Love, hate, anger, and jealousy in close relationships: A prototype and cognitive appraisal analysis. *Journal of Personality and Social Psychology*, *65*, 942–958.
- Fitness, J., & Strongman, K. (1991). Affect in close relationships. In G. J. O. Fletcher & F. D. Fincham (Eds.), *Cognition and close relationships* (pp. 175–202). Hillsdale, NJ: Erlbaum.
- Fitzpatrick, M. A. (1988). *Between husbands and wives: Communication in marriage*. Newbury Park, CA: Sage.
- Fletcher, G. J. O., & Fincham, F. D. (1991). Attribution processes in close relationships. In G. J. O. Fletcher & F. D. Fincham (Eds.), *Cognition and close relationships* (pp. 7–35). Hillsdale, NJ: Erlbaum.
- Fletcher, G. J. O., Fincham, F. D., Cramer, L., & Heron, N. (1987). The role of attributions in the development of dating relationships. *Journal of Personality and Social Psychology*, *53*, 481–489.
- Fletcher, G. J. O., Rosanowski, J., & Fitness, J. (1994). Automatic processing in intimate contexts: The role of close-relationship beliefs. *Journal of Personality and Social Psychology*, *67*, 888–897.
- Fletcher, G. J. O., & Thomas, G. (1996). Close relationship lay theories: Their structure and function. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 3–24). Mahwah, NJ: Erlbaum.
- Floyd, F. J., & Markman, H. J. (1983). Observational biases in spouse observation: Toward a cognitive/behavioral model of marriage. *Journal of Consulting and Clinical Psychology*, *51*, 450–457.
- Follette, W. C., & Jacobson, N. S. (1985). Assessment and treatment of incompatible marital relationships. In W. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 333–361). New York: Springer.
- Fonagy, P., Steele, H., & Steele, M. (1991). Maternal representations of attachment during pregnancy predict the organization of infant-mother attachment at one year. *Child Development*, *62*, 891–905.
- Forgas, J. P. (1994). Sad and guilty? Affective influences on the explanation of conflict episodes. *Journal of Personality and Social Psychology*, *66*, 56–68.
- Forgas, J. P. (1995). The Affect Infusion Model (AIM): Review and an integrative theory of mood effects on social judgments. *Psychological Bulletin*, *117*, 1–28.
- Forgas, J. P., Levinger, G., & Moylan, S. (1994). Feeling good and feeling close: Mood effects on the perception of intimate relationships. *Personal Relationships*, *2*, 165–184.
- Freud, S. (1951). *Group psychology and the analysis of the ego* (J. Strachey, Trans.). New York: Liveright. (Original work published 1921)
- Fridlund, A. J. (1992). The behavioral ecology and sociality of human faces. In M. S. Clark (Ed.), *Review of personality and social psychology* (Vol. 13, pp. 90–121). Newbury Park, CA: Sage.
- Funder, D. C., & Drobny, K. N. (1987). Differences between traits: Properties associated with interjudge agreement. *Journal of Personality and Social Psychology*, *52*, 409–418.
- Gaines, Jr., S. O., Reis, H. T., Summers, S., Rusbult, C. E., Cox, C. L., Wexler, M. O., Marelich, W. D., & Kurland, G. J. (1997). Impact of attachment style on reactions to accommodative dilemmas in close relationships. *Personal Relationships*, *4*, 93–113.
- Gallagher-Thompson, D., Futterman, A., Farberow, N., Thompson, L. W., & Peterson, J. (1993). The impact of spousal bereavement on older widows and widowers. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 227–239). Cambridge: Cambridge University Press.
- Gallo, F. (1982). The effects of social support network on the health of the elderly. *Social Work in Health Care*, *8*(2), 65–74.
- Gangestad, S. W. (1993). Sexual selection and physical attractiveness: Implications for mating dynamics. *Human Nature*, *4*, 205–235.
- Gangestad, S. W., & Buss, D. M. (1993). Pathogen prevalence and human mate preferences. *Ethology and Sociobiology*, *14*, 89–96.

- Garcia, S., Stinson, L., Ickes, W., Bissonnette, V., & Briggs, S. (1991). Shyness and physical attractiveness in mixed sex dyads. *Journal of Personality and Social Psychology, 61*, 35-49.
- Geis, F. L. (1993). Self-fulfilling prophecies: A social psychological view of gender. In A. E. Beall & R. J. Sternberg (Eds.), *The psychology of gender* (pp. 9-54). New York: Guilford.
- George, C., Kaplan, N., & Main, M. (1985). *The Berkeley Adult Attachment Interview*. Unpublished manuscript, University of California at Berkeley.
- Gergen, K. J., & Gergen, M. M. (1988). Narrative and the self as relationship. *Advances in Experimental Social Psychology, 21*, 17-56.
- Gilbert, D. T. (1998). Ordinary personology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 89-150). New York: McGraw-Hill.
- Gilmour, R., & Duck, S. (Eds.). (1986). *The emerging field of personal relationships*. Hillsdale, NJ: Erlbaum.
- Gilmour, R., & Erber, R. (1994). *Theoretical frameworks for personal relationships*. Hillsdale, NJ: Erlbaum.
- Glanz, K., & Lerman, C. (1992). Psychosocial impact of breast cancer: A critical review. *Annals of Behavioral Medicine, 14*, 204-212.
- Glenn, N. D. (1989). Duration of marriage, family composition, and marital happiness. *National Journal of Sociology, 3*, 3-24.
- Glenn, N. D. (1990). Quantitative research on marital quality in the 1980's: A critical review. *Journal of Marriage and the Family, 52*, 818-831.
- Glenn, N. D. (1991). The recent trend in marital success in the United States. *Journal of Marriage and the Family, 53*, 261-270.
- Glenn, N. D., & Weaver, C. N. (1988). The changing relationship of marital status to reported happiness. *Journal of Marriage and the Family, 50*, 317-324.
- Gold, J. M., Bubbenzer, D. L., & West, J. D. (1993). Differentiation from ex-spouses and stepfamily marital intimacy. *Journal of Divorce & Remarriage, 19*(3-4), 83-95.
- Goldstein, A. G., & Papageorge, J. (1980). Judgments of facial attractiveness in the absence of eye movements. *Bulletin of the Psychonomic Society, 15*, 269-270.
- Gonzalez, R., & Griffin, D. (1997). On the statistics of interdependence: Treating dyadic data with respect. In S. Duck (Ed.), *Handbook of personal relationships* (Vol. 2, pp. 271-302). Chichester, England: Wiley.
- Gottlieb, B. H. (1985). Social support and community mental health. In S. Cohen & S. L. Syme (Eds.), *Social support and health* (pp. 303-326). Orlando, FL: Academic Press.
- Gottman, J. M. (1979). *Marital interaction: Experimental investigations*. New York: Academic Press.
- Gottman, J. M. (1993). The roles of conflict engagement, escalation, and avoidance in marital interaction: A longitudinal view of five types of couples. *Journal of Consulting and Clinical Psychology, 61*, 6-15.
- Gottman, J. M. (1994). *What predicts divorce? The relationship between marital processes and marital outcome*. Hillsdale, NJ: Erlbaum.
- Gottman, J. M., & Krokoff, L. J. (1989). Marital interaction and satisfaction: A longitudinal view. *Journal of Consulting and Clinical Psychology, 57*, 47-52.
- Gottman, J. M., & Levenson, R. W. (1986). Assessing the role of emotion in marriage. *Behavioral Assessment, 8*, 31-48.
- Gottman, J. M., & Levenson, R. W. (1992). Marital processes predictive of later dissolution: Behavior, physiology, and health. *Journal of Personality and Social Psychology, 63*, 221-233.
- Govaerts, K., & Dixon, D. (1988). "... Until careers don't part": Vocational and marital satisfaction in the dual career commuter marriage. *International Journal for the Advancement of Counseling, 11*, 265-281.
- Gove, W. R., Hughes, M., & Style, C. B. (1983). Does marriage have positive effects on the psychological well-being of the individual? *Journal of Health and Social Behavior, 24*, 122-131.
- Graham, T., & Ickes, W. (1997). When women's intuition is greater than men's. In W. Ickes (Ed.), *Empathic accuracy* (pp. 117-143). New York: Guilford.
- Grammer, K., & Thornhill, R. (1994). Human (*Homo sapiens*) facial attractiveness and sexual selection: The role of symmetry and averageness. *Journal of Comparative Psychology, 108*, 233-242.
- Gray, J. D., & Silver, R. C. (1990). Opposite sides of the same coin: Former spouses' divergent perspectives in coping with their divorce. *Journal of Personality and Social Psychology, 59*, 1180-1191.
- Greenberg, L. S., & Safran, J. D. (1987). *Emotion in psychotherapy*. New York: Guilford.
- Greenberg, M. A. (1995). Cognitive processing of trauma: The role of intrusive thoughts and reappraisals. *Journal of Applied Social Psychology, 25*, 1262-1296.
- Greenberg, M. A., & Stone, A. A. (1992). Emotional disclosure about traumas and its relation to health: Effects of previous disclosure and trauma severity. *Journal of Personality and Social Psychology, 63*, 75-84.
- Greenberg, M. A., Wortman, C. B., & Stone, A. A. (in press). Emotional expression and physical health: Revising traumatic memories or fostering self regulation? *Journal of Personality and Social Psychology*.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review, 102*, 4-27.
- Griffin, D. F., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology, 67*, 430-445.
- Griffin, D., & Gonzalez, R. (1995). Correlational analysis of



- Jyad-level data in the exchangeable case. *Psychological Bulletin*, 118, 430-439.
- Grote, N. K., & Frieze, I. H. (1994). The measurement of friendship based love in intimate relationships. *Personal Relationships*, 1, 275-300.
- Gruber-Baldini, A. L., Schaie, K. W., & Willis, S. L. (1995). Similarity in married couples: A longitudinal study of mental abilities and rigidity-flexibility. *Journal of Personality and Social Psychology*, 69, 191-203.
- Gubrium, J. F., & Holstein, J. A. (1990). *What is family?* Mountain View, CA: Mayfield.
- Gudykunst, W. B., & Nishida, T. (1993). Closeness in interpersonal relationships in Japan and the United States. *Research in Social Psychology*, 8, 85-97.
- Guldner, G. T., & Swensen, C. H. (1995). Time spent together and relationship quality: Long distance relationships as a test case. *Journal of Social and Personal Relationships*, 12, 313-320.
- Hahlweg, K., & Markman, H. J. (1988). Effectiveness of behavioral marital therapy: Empirical status of behavioral techniques in preventing and alleviating marital distress. *Journal of Consulting and Clinical Psychology*, 56, 440-447.
- Hall, A., & Wellman, B. (1985). Social networks and social support. In S. Cohen & S. L. Syme (Eds.), *Social support and health* (pp. 23-42). Orlando, FL: Academic Press.
- Hamermesh, D. S., & Biddle, J. E. (1994). Beauty and the labor market. *American Economic Review*, 84, 1174-1195.
- Hanley-Dunn, P., Maxwell, S. E., & Santos, J. F. (1985). Interpretation of interpersonal interactions: The influence of loneliness. *Personality and Social Psychology Bulletin*, 11, 445-456.
- Hardaway, R. A. (1990). Subliminally activated symbiotic fantasies: Facts and artifacts. *Psychological Bulletin*, 107, 177-195.
- Harris, J. A. (1912). Assortative mating in man. *Popular Science Monthly*, 80, 476-492.
- Harrison, A. A. (1977). Mere exposure. *Advances in Experimental Social Psychology*, 10, pp. 39-83.
- Hartley, E. L. (1946). *Problems in prejudice*. New York: King's Crown Press.
- Hartup, W. W. (1983). Peer relations. In P. H. Mussen (Series Ed.) & E. M. Hetherington (Vol. Ed.), *Handbook of child psychology: Vol. 3. Socialization, personality, and social development* (pp. 103-196). New York: John Wiley.
- Hartup, W. W. (1989). Social relationships and their developmental significance. *American Psychologist*, 44, 120-126.
- Harvey, J. H. (1995). *Odyssey of the heart: The search for closeness, intimacy, and love*. New York: Freeman.
- Harvey, J. H., Christensen, A., & McClintock, E. (1983). Research methods. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson, *Close relationships* (pp. 449-485). New York: Freeman.
- Harvey, J. H., Hendrick, S. S., & Tucker, K. (1988). Self-report methods in studying personal relationships. In S. Duck (Ed.), *Handbook of personal relationships: Theory, research, and interventions* (pp. 99-113). New York: Wiley.
- Harvey, J. H., Weber, A. L., & Orbuch, T. L. (1990). *Interpersonal accounts: A social psychological perspective*. Cambridge, MA: Blackwell.
- Haslam, N. (1994). Mental representation of social relationships: Dimensions, laws, or categories? *Journal of Personality and Social Psychology*, 67, 575-584.
- Hatfield, E. (1988). Passionate and companionate love. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 191-217). New Haven, CT: Yale University Press.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1992). Primitive emotional contagion. In M. S. Clark (Ed.), *Emotion and social behavior: Review of Personality and Social Psychology* (Vol. 14, pp. 151-177). Newbury Park, CA: Sage.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Emotional contagion*. New York: Cambridge University Press.
- Hatfield, E., & Rapson, R. L. (1987). Passionate love: New directions in research. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 1, pp. 109-139). Greenwich, CT: JAI.
- Hatfield, E., & Rapson, R. L. (1993). *Love, sex, and intimacy: Their psychology, biology, and history*. New York: Harper-Collins.
- Hatfield, E., & Rapson, R. L. (1996). *Love and sex: Cross cultural perspectives*. Boston: Allyn and Bacon.
- Hatfield, E., & Sprecher, S. (1986a). Measuring passionate love in intimate relations. *Journal of Adolescence*, 9, 383-410.
- Hatfield, E., & Sprecher, S. (1986b). *Mirror, mirror: The importance of looks in everyday life*. Albany: State University of New York Press.
- Hatfield, E., Traupmann, J., Sprecher, S., Utne, M., & Hay, J. (1985). Equity in intimate relations: Recent research. In W. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 91-117). New York: Springer.
- Hays, R. B. (1984). The development and maintenance of friendship. *Journal of Social and Personal Relationships*, 1, 75-98.
- Hays, R. B. (1985). A longitudinal study of friendship development. *Journal of Personality and Social Psychology*, 48, 909-924.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Hazan, C., & Shaver, P. R. (1994). Attachment as an organizational framework for research on close relationships. *Psychological Inquiry*, 5, 1-22.
- Heaton, T. B. (1991). Time related determinants of marital dissolution. *Journal of Marriage and the Family*, 53, 285-295.
- Heaton, T. B., & Albrecht, S. L. (1991). Stable unhappy marriages. *Journal of Marriage and the Family*, 50, 93-98.

- Heavey, C. L., Layne, C., & Christensen, A. (1993). Gender and conflict structure in marital interaction: A replication and extension. *Journal of Consulting and Clinical Psychology, 61*, 16-27.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Helgeson, V. S., & Cohen, S. (1996). Social support and adjustment to cancer: Reconciling descriptive, correlational, and intervention research. *Health Psychology, 15*, 135-148.
- Helgeson, V. S., Shaver, P., & Dyer, M. (1987). Prototypes of intimacy and distance in same sex and opposite sex relationships. *Journal of Social and Personal Relationships, 4*, 195-223.
- Hemstrom, O. (1996). Is marriage dissolution linked to differences in mortality risks for men and women? *Journal of Marriage and the Family, 58*, 366-378.
- Hendrick, C. (1988). Roles and gender in relationships. In S. W. Duck (Ed.), *Handbook of personal relationships* (pp. 429-448). New York: Wiley.
- Hendrick, C., & Hendrick, S. S. (1986). A theory and method of love. *Journal of Personality and Social Psychology, 50*, 392-402.
- Hendrick, C., & Hendrick, S. S. (1989). Research on love: Does it measure up? *Journal of Personality and Social Psychology, 56*, 784-794.
- Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family, 50*, 93-98.
- Hendrick, S. S. (1994). *Close relationships: What couple therapists can learn*. Pacific Grove, CA: Brooks/Cole.
- Hendrick, S. S., & Hendrick, C. (1992). *Romantic love*. Newbury Park, CA: Sage.
- Herbert, T. B., & Cohen, S. (1993). Depression and immunity: A meta-analytic review. *Psychological Bulletin, 113*, 472-486.
- Herbert, T. B., Silver, R. C., & Ellard, J. H. (1991). Coping with an abusive relationship: I. How and why do women stay? *Journal of Marriage and the Family, 53*, 311-325.
- Hetherington, E. M., Stanley-Hagan, M., & Anderson, E. R. (1989). Marital transitions: A child's perspective. *American Psychologist, 44*, 303-312.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In A. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (pp. 133-168). New York: Guilford.
- Hill, C. T., & Peplau, L. A. (in press). Premarital predictors of relationship outcomes: A 15-year followup of the Boston Couples Study. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Hill, C. T., Rubin, Z., & Peplau, L. A. (1976). Breakups before marriage: The end of 103 affairs. *Journal of Social Issues, 32*(1), 147-168.
- Hinde, R. A. (1979). *Towards understanding relationships*. New York: Academic Press.
- Hinde, R. A. (1995). A suggested structure for a science of relationships. *Personal Relationships, 2*, 1-16.
- Hinde, R. (in press). *Relationships: A dialectical perspective*. East Sussex, England: Psychology Press.
- Hindy, C. G., & Schwarz, J. C. (1994). Anxious romantic attachment in adult relationships. In M. B. Sperling & W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp. 179-203). New York: Guilford.
- Hirsch, B. J. (1980). Natural support systems and coping with major life changes. *American Journal of Community Psychology, 8*(2), 159-172.
- Hirsch, B. J. (1981). Social networks and the coping process. In B. H. Gottlieb (Ed.), *Social networks and social support*. Beverly Hills, CA: Sage.
- Holmberg, D., & Veroff, J. (1996). Rewriting relationship memories: The effects of courtship and wedding scripts. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structure in close relationships: A social psychological approach* (pp. 345-368). Mahwah, NJ: Erlbaum.
- Holmes, J. G. (1991). Trust and the appraisal process in close relationships. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 3, pp. 57-104). London: Jessica Kingsley.
- Holmes, J. G., & Levinger, G. (1994). Paradoxical effects of closeness in relationships on perceptions of justice: An interdependence-theory perspective. In M. J. Lerner & G. Mikula (Eds.), *Entitlement and the affectional bond: Justice in close relationships* (pp. 149-174). New York: Plenum.
- Holmes, J. G., & Rempel, J. K. (1989). Trust in close relationships. In C. Hendrick (Ed.), *Close relationships: Review of personality and social psychology* (Vol. 10, pp. 187-220). London: Sage.
- Holtzworth-Munroe, A., & Jacobson, N. S. (1988). Toward a methodology for coding spontaneous causal attributions: Preliminary results with married couples. *Journal of Social and Clinical Psychology, 7*, 101-112.
- Holtzworth-Munroe, A., & Stuart, G. L. (1994). Typologies of male batterers: Three subtypes and the differences among them. *Psychological Bulletin, 116*, 476-497.
- Homans, G. C. (1961). *Social behavior: Its elementary forms*. New York: Harcourt, Brace & World.
- Homans, G. (1979). Foreword. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. xv-xxii). New York: Academic Press.
- House, J. S., & Kahn, R. L. (1985). Measures and concepts of social support. In S. Cohen & S. L. Syme (Eds.), *Social support and health* (pp. 83-108). Orlando, FL: Academic Press.
- House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science, 241*, 540-545.
- Houts, R. M., Robins, E., & Huston, T. L. (1996). Compatibility and the development of premarital relationships. *Journal of Marriage and the Family, 58*, 7-20.
- Howard, J. A., Blumstein, P., & Schwartz, P. (1987). Social or

- evolutionary theories? Some observations on preferences in human mate selection. *Journal of Personality and Social Psychology*, 53, 194–200.
- Huston, T. L. (1973). Ambiguity of acceptance, social desirability, and dating choice. *Journal of Experimental Social Psychology*, 9, 32–42.
- Huston, T. L. (1994). Courtship antecedents of marital satisfaction and love. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 43–66). Hillsdale, NJ: Erlbaum.
- Huston, T. L., & Ashmore, R. D. (1986). Women and men in personal relationships. In R. D. Ashmore & F. K. Del Boca (Eds.), *The social psychology of female-male relations* (pp. 167–210). Orlando, FL: Academic Press.
- Huston, T. L., & Chorost, A. F. (1994). Behavioral buffers on the effect of negativity on marital satisfaction: A longitudinal study. *Personal Relationships*, 1, 223–239.
- Huston, T. L., & Levinger, G. (1978). Interpersonal attraction and relationships. *Annual Review of Psychology*, 29, 115–156.
- Huston, T. L., McHale, S., & Crouter, A. (1986). When the honeymoon's over: Changes in the marriage relationship over the first year. In R. Gilmour & S. Duck (Eds.), *The emerging field of personal relationships* (pp. 109–143). Hillsdale, NJ: Erlbaum.
- Huston, T. L., Robins, E., Atkinson, J., & McHale, S. M. (1987). Surveying the landscape of marital behavior: A behavioral self report approach to studying marriage. *Applied Social Psychology Annual*, 7, 45–72.
- Huston, T. L., Surra, C., Fitzgerald, N., & Cate, R. (1981). From courtship to marriage: Mate selection as an interpersonal process. In S. Duck & R. Gilmour (Eds.), *Personal relationships* (Vol. 2, pp. 53–88). London: Academic Press.
- Huston, T. L., & Vangelisti, A. L. (1991). Socioemotional behavior and satisfaction in marital relationships. *Journal of Personality and Social Psychology*, 61, 721–733.
- Ickes, W. (Ed.). (1985). *Compatible and incompatible relationships*. New York: Springer.
- Ickes, W. (1993). Empathic accuracy. *Journal of Personality*, 61, 587–610.
- Ickes, W. (Ed.). (1997). *Empathic accuracy*. New York: Guilford.
- Ickes, W., & Barnes, R. D. (1978). Boys and girls together and alienated: On enacting stereotyped sex roles in mixed sex dyads. *Journal of Personality and Social Psychology*, 36, 669–683.
- Ickes, W., Bissonnette, V., Garcia, S., & Stinson, L. L. (1990). Implementing and using the dyadic interaction paradigm. In C. Hendrick & M. S. Clark (Eds.), *Research methods in personality and social psychology: Review of personality and social psychology* (Vol. 11, pp. 16–44). Newbury Park, CA: Sage.
- Ickes, W., & Simpson, J. A. (1997). Managing empathic accuracy in close relationships. In W. Ickes (Ed.), *Empathic accuracy* (pp. 218–250). New York: Guilford.
- Irwin, M., & Pike, J. (1993). Bereavement, depressive symptoms, and immune function. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 160–174). Cambridge: Cambridge University Press.
- Izard, C. E. (1978). On the ontogenesis of emotions and emotion-cognition relationships in infancy. In M. Lewis & L. A. Rosenblum (Eds.), *The development of affect* (pp. 389–413). New York: Plenum.
- Jacob, T., Tennenbaum, D., Seilhamer, R. A., Bargiel, K., & Sharon, T. (1994). Reactivity effects during naturalistic observation of distressed and nondistressed families. *Journal of Family Psychology*, 8, 354–363.
- Jacobson, N. S., Gottman, J. M., Waltz, J., Rushe, R., Babcock, J., & Holtzworth-Monroe, A. (in press). Affect, verbal content, and psychophysiology in the arguments of couples with a violent husband. *Journal of Consulting and Clinical Psychology*.
- Jacobson, N. S., Waldron, H., & Moore, D. (1980). A behavioral profile of marital distress. *Journal of Consulting and Clinical Psychology*, 48, 696–703.
- Jamieson, D. W., Lydon, J. E., & Zanna, M. P. (1987). Attitude and activity preference similarity: Differential bases of interpersonal attraction for low and high self monitors. *Journal of Personality and Social Psychology*, 53, 1052–1060.
- Jensen-Campbell, L. A., Graziano, W. G., & West, S. G. (1995). Dominance, prosocial orientation, and female preferences: Do nice guys really finish last? *Journal of Personality and Social Psychology*, 68, 427–440.
- Johnson, D. J., & Rusbult, C. E. (1989). Resisting temptation: Devaluation of alternative partners as a means of maintaining commitment in close relationships. *Journal of Personality and Social Psychology*, 57, 967–980.
- Johnson, D. R., Amoloza, T. O., & Booth, A. (1992). Stability and developmental change in marital quality: A three wave panel analysis. *Journal of Marriage and the Family*, 54, 582–594.
- Johnson, M. P. (1991a). Commitment to personal relationships. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 3, pp. 117–143). London: Jessica Kingsley.
- Johnson, M. P. (1991b). Reply to Levinger and Rusbult. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 3, pp. 171–176). London: Jessica Kingsley.
- Johnson, M. P. (1995). Patriarchal terrorism and common couple violence: Two forms of violence against women. *Journal of Marriage and the Family*, 57, 283–294.
- Johnson, M. P., & Milardo, R. (1984). Network interference in pair relationships. *Journal of Marriage and the Family*, 46, 893–899.
- Johnson, R. J., Hobfoll, S. E., & Zalcberg-Linetzy, A. (1993). Social support knowledge and behavior and relational intimacy: A dyadic study. *Journal of Family Psychology*, 6, 266–277.

- Jones, D., & Hill, K. (1993). Criteria of facial attractiveness in five populations. *Human Nature, 4*, 271-296.
- Jones, E. E. (1985). Major developments in social psychology during the past five decades. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (3rd ed., Vol. 1, pp. 47-107). New York: Random House.
- Jones, E. E., & Archer, R. L. (1976). Are there special effects of personalistic self-disclosure? *Journal of Experimental Social Psychology, 12*, 180-193.
- Jones, W. H. (1982). Loneliness and social behavior. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of theory, research and therapy* (pp. 238-252). New York: Wiley.
- Jones, W. H., Sansone, C., & Helm, B. (1983). Loneliness and interpersonal judgments. *Personality and Social Psychology Bulletin, 9*, 437-442.
- Jourard, S. M. (1964). *The transparent self*. New York: Van Nostrand.
- Jourard, S. M. (1971). *Self-disclosure: An experimental analysis of the transparent self*. New York: Wiley.
- Kalick, S. M., & Hamilton, T. E. (1986). The matching hypothesis reexamined. *Journal of Personality and Social Psychology, 51*, 673-682.
- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin, 118*, 3-34.
- Kashy, D. A., & Snyder, D. K. (1995). Measurement and data analytic issues in couples research. *Psychological Assessment, 7*, 338-348.
- Kelley, H. H. (1979). *Personal relationships: Their structures and processes*. Hillsdale, NJ: Erlbaum.
- Kelley, H. H. (1983a). Epilogue: An essential science. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. L. Peterson, *Close relationships* (pp. 486-503). New York: Freeman.
- Kelley, H. H. (1983b). Love and commitment. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. L. Peterson, *Close relationships* (pp. 265-314). New York: Freeman.
- Kelley, H. H. (1992). Common sense psychology and scientific psychology. *Annual Review of Psychology, 43*, 1-23.
- Kelley, H. H., Berscheid, E., Christensen, A., Harvey, J. H., Huston, T. L., Levinger, G., McClintock, E., Peplau, L. A., & Peterson, D. R. (1983a). Analyzing close relationships. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson, *Close relationships* (pp. 20-67). New York: Freeman.
- Kelley, H. H., Berscheid, E., Christensen, A., Harvey, J. H., Huston, T. L., Levinger, G., McClintock, E., Peplau, L. A., & Peterson, D. (1983b). *Close relationships*. New York: Freeman.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.
- Kelly, C., Huston, T. L., & Cate, R. M. (1985). Premarital relationship correlates of the erosion of satisfaction in marriage. *Journal of Social and Personal Relationships, 2*, 167-178.
- Kelly, E. L., & Conley, J. J. (1987). Personality and compatibility: A prospective analysis of marital stability and marital satisfaction. *Journal of Personality and Social Psychology, 52*, 27-40.
- Kenny, D. A. (1988). The analysis of data from two person relationships. In S. W. Duck (Ed.), *Handbook of personal relationships* (pp. 57-77). New York: Wiley.
- Kenny, D. A. (1994a). *Interpersonal perception*. New York: Guilford.
- Kenny, D. A. (1994b). Using the social relations model to understand relationships. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 111-127). Hillsdale, NJ: Erlbaum.
- Kenny, D. A., Horner, C., Kashy, D. A., & Chu, L. (1992). Consensus at zero acquaintance: Replication, behavioral cues, and stability. *Journal of Personality and Social Psychology, 62*, 88-97.
- Kenny, D. A., & Judd, C. M. (1986). Consequences of violating the independence assumption in analysis of variance. *Psychological Bulletin, 99*, 422-431.
- Kenny, D. A., & La Voie, L. (1982). Reciprocity of attraction: A confirmed hypothesis. *Social Psychology Quarterly, 45*, 54-58.
- Kenny, D. A., & La Voie, L. (1984). The social relations model. *Advances in Experimental Social Psychology, 18*, 142-182.
- Kenny, D. A., & Nasby, W. (1980). Splitting the reciprocity correlation. *Journal of Personality and Social Psychology, 38*, 249-256.
- Kenrick, D. T., & Keefe, R. C. (1992). Age preferences in mates reflect sex differences in reproductive strategies. *Behavioral and Brain Sciences, 15*, 75-133.
- Kenrick, D. T., Sadalla, E. K., Groth, G., & Trost, M. R. (1990). Evolution, traits, and the stages of human courtship: Qualifying the parental investment model. *Journal of Personality, 58*, 97-116.
- Kenrick, D. T., & Trost, M. R. (1989). A reproductive exchange model of heterosexual relationships: Putting proximate economics in ultimate perspective. In C. Hendrick (Ed.), *Close relationships: Review of personality and social psychology* (Vol. 10, pp. 92-118). Newbury Park, CA: Sage.
- Kephart, W. M. (1967). Some correlates of romantic love. *Journal of Marriage and the Family, 29*, 470-474.
- Kerckhoff, A. C. (1974). The social context of interpersonal attraction. In T. L. Huston (Ed.), *Foundations of interpersonal attraction* (pp. 61-95). New York: Academic Press.

- Kessler, R. C., Kendler, K. S., Heath, A., Neale, M., & Eaves, L. J. (1992). Social support, depressed mood, and adjustment to stress: A genetic epidemiologic investigation. *Journal of Personality and Social Psychology*, *62*, 257-272.
- Kiecolt-Glaser, J. K., Fisher, L. D., Ogrocki, P., Stout, J., Speicher, C. E., & Glaser, R. (1987). Marital quality, marital disruption, and immune function. *Psychosomatic Medicine*, *49*, 13-34.
- Kiecolt-Glaser, J. K., Malarkey, W. B., Cacioppo, J. T., & Glaser, R. (1994). Stressful personal relationships: Immune and endocrine function. In R. Glaser & J. K. Kiecolt-Glaser (Eds.), *Handbook of human stress and immunity* (pp. 321-339). San Diego: Academic Press.
- Kimmel, D., & Van der Veen, F. (1974). Factors of marital adjustment in Locke's marital adjustment test. *Journal of Marriage and the Family*, *36*, 57-63.
- King, C. E., & Christensen, A. (1983). The Relationship Events Scale: A Guttman scaling of progress in courtship. *Journal of Marriage and the Family*, *45*, 671-678.
- King, L. A. (1993). Emotional expression, ambivalence over expression, and marital satisfaction. *Journal of Social and Personal Relationships*, *10*, 601-607.
- Kirkpatrick, L. A., & Hazan, C. (1994). Attachment styles and close relationships: A four-year prospective study. *Personal Relationships*, *1*, 123-142.
- Kitson, G. C., Babri, K. B., & Roach, M. J. (1985). Who divorces and why: A review. *Journal of Family Issues*, *6*, 255-293.
- Knappp, M. L., & Hall, J. A. (1992). *Nonverbal communication and human interaction* (3rd ed.). New York: Holt, Rinehart & Winston.
- Knee, C. R. (1996). *Implicit theories of relationships: Assessment and prediction of romantic relationship initiation and longevity*. Unpublished doctoral dissertation, University of Rochester, Rochester, NY.
- Kobak, R. (1994). Adult attachment: A personality or relationship construct? *Psychological Inquiry*, *5*, 42-44.
- Kobak, R. R., & Duemmler, S. (1994). Attachment and conversation: Toward a discourse analysis of adolescent and adult security. In D. Perlman and K. Bartholomew (Eds.), *Advances in personal relationships: Vol. 5. Attachment processes in adulthood* (pp. 121-150). London: Jessica Kingsley.
- Kobak, R. R., & Hazan, C. (1991). Attachment in marriage: Effects of security and accuracy of working models. *Journal of Personality and Social Psychology*, *60*, 861-869.
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and perception of self and others. *Child Development*, *59*, 135-146.
- Kojan, B. A. (1993). *Adult attachment styles with romantic partners, friends and parents*. Unpublished doctoral dissertation, University of Minnesota, Minneapolis.
- Klaus, L. A., Davis, M. H., Bazzini, D., Church, M. B., & Kirchman, C. M. (1993). Personal and social influences on loneliness: The mediating effect of social provisions. *Social Psychology Quarterly*, *56*, 37-53.
- Krokoff, L. J. (1987). The correlates of negative affect in marriage. *Journal of Family Issues*, *8*, 111-135.
- Kunda, Z., & Thagard, P. (1996). Forming impressions from stereotypes, traits, and behaviors: A parallel-constraint-satisfaction theory. *Psychological Review*, *103*, 284-308.
- Kurdek, L. A. (1991). The relations between reported well-being and divorce history, availability of a proximate adult, and gender. *Journal of Marriage and the Family*, *53*, 71-78.
- Kurdek, L. A. (in press). Developmental changes in marital satisfaction: A 6-year prospective longitudinal study of newlywed couples. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Kurdek, L. A., & Schmitt, J. P. (1986). Relationship quality of partners in heterosexual married, heterosexual cohabiting, and gay and lesbian relationships. *Journal of Personality and Social Psychology*, *51*, 711-720.
- Lafferty, P., Beutler, L. E., & Crago, M. (1989). Differences between more and less effective psychotherapists: A study of select therapist variables. *Journal of Consulting and Clinical Psychology*, *57*, 76-80.
- Lakey, B., & Cassady, P. B. (1990). Cognitive processes in perceived social support. *Journal of Personality and Social Psychology*, *59*, 337-343.
- Lakey, B., & Drew, J. B. (in press). A social-cognitive perspective on social support. In G. R. Pierce, B. Lakey, I. G. Sarason, & B. R. Sarason (Eds.), *Sourcebook of theory and research on social support and personality*. New York: Plenum.
- Lamke, L. K., Sollie, D. L., Durbin, R. G., & Fitzpatrick, J. A. (1994). Masculinity, femininity, and relationship satisfaction: The mediating role of interpersonal competence. *Journal of Social and Personal Relationships*, *11*, 535-554.
- Langlois, J. H., Ritter, J. M., Roggman, L. A., & Vaughn, L. S. (1991). Facial diversity and infant preferences for attractive faces. *Developmental Psychology*, *27*, 79-84.
- Langlois, J. H., & Roggman, L. A. (1990). Attractive faces are only average. *Psychological Science*, *1*, 115-121.
- Langlois, J. H., Roggman, L. A., & Musselman, L. (1994). What is average and what is not average about attractive faces. *Psychological Science*, *5*, 214-220.
- Larson, R., & Csikszentmihalyi, M. (1983). The experience sampling method. In H. T. Reis (Ed.), *Naturalistic approaches to studying social interaction* (pp. 41-56). San Francisco: Jossey-Bass.
- Lasswell, T. E., & Lasswell, M. E. (1976). I love you but I'm not in love with you. *Journal of Marriage and Family Counseling*, *38*, 211-224.
- Lazarus, R. (1994a). Appraisal: The long and the short of it. In P. Ekman & R. J. Davidson (Eds.), *The nature of emotion:*

- Fundamental questions* (pp. 208–215). New York: Oxford University Press.
- Lazarus, R. (1994b). Universal antecedents of the emotions. In P. Ekman & R. J. Davidson (Eds.), *The nature of emotion: Fundamental questions* (pp. 163–171). New York: Oxford University Press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lee, G. R., Seccombe, K., & Sheban, C. L. (1991). Marital status and personal happiness: An analysis of trend data. *Journal of Marriage and the Family*, 26, 19–29.
- Lee, J. A. (1976). *The colors of love*. New York: Bantam.
- Lee, J. A. (1988). Love-styles. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 38–67). New Haven, CT: Yale University Press.
- Lehman, D. R., Wortman, C. B., & Williams, A. F. (1987). Long-term effects of losing a spouse or child in a motor vehicle crash. *Journal of Personality and Social Psychology*, 52, 218–231.
- Leonard, K. E., & Roberts, L. J. (in press). Marital aggression, quality, and stability in the first year of marriage: Findings from the Buffalo Newlywed Study. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Lerner, M. J., & Mikula, G. (Eds.). (1994). *Entitlement and the affectional bond: Justice in close relationships*. New York: Plenum.
- Levenson, R. W., Carstensen, L. L., & Gottman, J. M. (1994). The influence of age and gender on affect, physiology, and their interrelations: A study of long term marriages. *Journal of Personality and Social Psychology*, 67, 56–68.
- Levenson, R. W., & Gottman, J. M. (1983). Marital interaction: Physiological linkage and affective exchange. *Journal of Personality and Social Psychology*, 45, 587–597.
- Levenson, R. W., & Gottman, J. M. (1985). Physiological and affective predictors of change in relationship satisfaction. *Journal of Personality and Social Psychology*, 49, 85–94.
- Levenson, R. W., & Ruef, A. M. (1992). Empathy: A physiological substrate. *Journal of Personality and Social Psychology*, 63, 234–246.
- Levenson, R. W., & Ruef, A. M. (1997). Physiological aspects of emotional knowledge and rapport. In W. Ickes (Ed.), *Empathic accuracy* (pp. 44–72). New York: Guilford.
- Levine, J. M., & Moreland, R. L. (1998). Small groups. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 415–469). New York: McGraw-Hill.
- Levinger, G. (1965). A social psychological perspective on marital dissolution: An integrative review. *Journal of Marriage and the Family*, 27, 19–29.
- Levinger, G. (1974). A three level approach to attraction: Toward an understanding of pair relatedness. In T. L. Huston (Ed.), *Foundations of interpersonal attraction* (pp. 99–120). New York: Academic Press.
- Levinger, G. (1976). A social psychological perspective on marital dissolution. *Journal of Social Issues*, 32, 21–47.
- Levinger, G. (1980). Toward the analysis of close relationships. *Journal of Experimental Social Psychology*, 16, 510–544.
- Levinger, G. (1983). Development and change. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson, *Close relationships* (pp. 315–359). New York: Freeman.
- Levinger, G. (1991). Commitment vs. cohesiveness: Two complementary perspectives. In W. H. Jones & D. Perin (Eds.), *Advances in personal relationships* (Vol. 3, pp. 145–150). London: Jessica Kingsley.
- Levinger, G. (1994). Figure versus ground: Micro and macroperspectives on the social psychology of personal relationships. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 1–28). Hillsdale, NJ: Erlbaum.
- Levinger, G. (in press). Duty toward whom? Reconsidering attractions, barriers, and commitment in a relationship. In W. H. Jones & J. M. Adams (Eds.), *Handbook of interpersonal commitment and relationship stability*. New York: Plenum.
- Levinger, G., & Breedlove, J. (1966). Interpersonal attraction and agreement. *Journal of Personality and Social Psychology*, 3, 367–372.
- Levinger, G., & Rands, M. (1985). Compatibility in marriage and other close relationships. In W. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 309–331). New York: Springer.
- Levinger, G., & Raush, H. L. (Eds.). (1977). *Close relationships: Perspectives on the meaning of intimacy*. Amherst: University of Massachusetts Press.
- Levinger, G., & Snoek, J. D. (1972). *Attraction in relationship: A new look at interpersonal attraction*. New York: General Learning Press.
- Lewin, K. (1936). *Principles of topological psychology*. New York: McGraw-Hill.
- Lewin, K. (1948). The background of conflict in marriage. In G. Lewin (Ed.), *Resolving social conflicts* (pp. 84–102). New York: Harper. (Original work published 1940)
- Lewin, K. (1951). *Field theory in social science*. New York: Harper.
- Lewis, R. A. (1973). Social reaction and the formation of dyads: An interactionist approach to mate selection. *Sociometry*, 36, 409–418.
- Lin, Y. C. (1992). *The construction of the sense of intimacy from everyday social interaction*. Unpublished doctoral dissertation, University of Rochester, Rochester, NY.
- Lindahl, K., Clements, M., & Markman, H. (in press). The development of marriage: A nine year perspective. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Liu, J. H., Campbell, S. M., & Condie, H. (1995). Ethnocen-

- erum in dating preferences for an American sample: The group bias in social context. *European Journal of Social Psychology*, 25, 95-115.
- Locke, H. J., & Wallace, K. M. (1959). Short marital adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living*, 21, 251-255.
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7, 186-189.
- Masochy, E. E. (1990). Gender and relationships: A developmental account. *American Psychologist*, 45, 513-520.
- Masochy, E. E., & Jacklin, C. N. (1974). *The psychology of sex differences*. Stanford, CA: Stanford University Press.
- Mason, M. (1991). Metacognitive knowledge, metacognitive monitoring, and singular (coherent) vs. multiple (incoherent) model of attachment. In C. M. Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), *Attachment across the life cycle* (pp. 127-159). London: Tavistock/Routledge.
- Mason, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. *Monographs of the Society for Research in Child Development*, 50, 66-104.
- Maslow, G. (1975). *Mind and emotion*. New York: Wiley.
- Marangoni, C., & Ickes, W. (1989). Loneliness: A theoretical review with implications for measurement. *Journal of Social and Personal Relationships*, 6, 93-128.
- Markman, H. J. (1979). The application of a behavioral model of marriage in predicting relationship satisfaction of couples planning marriage. *Journal of Consulting and Clinical Psychology*, 45, 554-567.
- Markman, H. J. (1981). Prediction of marital distress: A five year follow up. *Journal of Consulting and Clinical Psychology*, 49, 760-762.
- Markman, H. J., Floyd, F. J., Stanley, S. M., & Storaasli, R. D. (1988). Prevention of marital distress: A longitudinal investigation. *Journal of Consulting and Clinical Psychology*, 56, 210-217.
- Markman, H. J., Renick, M. J., Floyd, F. J., Stanley, S. M., & Clements, M. (1993). Preventing marital distress through communication and conflict management training: A 4- and 5-year follow-up. *Journal of Consulting and Clinical Psychology*, 61, 70-77.
- Markman, H., Stanley, S., & Blumberg, S. (1994). *Fighting for your marriage: Positive steps for preventing divorce and preserving a lasting love*. San Francisco: Jossey-Bass.
- Markus, H. M., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Marrow, A. J. (1969). *The practical theorist: The life and work of Kurt Lewin*. New York: Basic Books.
- Martin, T., & Bumpass, L. (1989). Recent trends in marital disruption. *Demography*, 26, 37-52.
- Maxwell, G., & Hage, J. (1970). The organization of role relationships: A systematic description. *American Sociological Review*, 35, 884-900.
- Masheker, C. (1991). Postdivorce relationships between ex-spouses: The roles of attachment and interpersonal conflict. *Journal of Marriage and the Family*, 53, 103-110.
- Mathes, E. W., Adams, H. E., & Davies, R. M. (1985). Jealousy: Loss of relationship rewards, loss of self-esteem, depression, anxiety, and anger. *Journal of Personality and Social Psychology*, 48, 1552-1561.
- McAdams, D. P. (1980). A thematic coding system for the intimacy motive. *Journal of Research in Personality*, 14, 412-432.
- McAdams, D. P. (1989). *Intimacy: The need to be close*. New York: Doubleday.
- McAdams, D. P. (1992). The intimacy motive. In C. P. Smith (Ed.), *Motivation and personality: Handbook of thematic content analysis*. Cambridge: Cambridge University Press.
- McAdams, D. P., Healy, S., & Krause, S. (1984). Social motives and patterns of friendship. *Journal of Personality and Social Psychology*, 47, 828-838.
- McArthur, L. Z., & Berry, D. S. (1987). Cross cultural agreement in perceptions of babyfaced adults. *Journal of Cross-cultural Psychology*, 18, 165-192.
- McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin*, 114, 376-389.
- McCrae, R. R., & Costa, P. T., Jr. (1993). Psychological resilience among widowed men and women: A 10-year follow-up of a national sample. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 196-207). Cambridge: Cambridge University Press.
- McFarland, C., & Ross, M. (1987). The relation between current impressions and memories of self and dating partners. *Personality and Social Psychology Bulletin*, 13, 228-238.
- Mendolia, M., & Kleck, R. E. (1993). Effects of talking about a stressful event on arousal: Does what we talk about make a difference? *Journal of Personality and Social Psychology*, 64, 283-292.
- Mental Health: Does therapy help? (1995). *Consumer Reports*, 60, 734-739.
- Metts, S., Sprecher, S., & Cupach, W. R. (1991). Retrospective self-reports. In B. M. Montgomery & S. Duck (Eds.), *Studying interpersonal interaction* (pp. 162-178). New York: Guilford.
- Meyer, T. J., & Mark, M. M. (1995). Effects of psychosocial interventions with adult cancer patients: A meta-analysis of randomized experiments. *Health Psychology*, 14, 101-108.
- Meyers, S. A., & Berscheid, E. (in press). The language of love: The difference a preposition makes. *Personality and Social Psychology Bulletin*.
- Miell, D. E., & Duck, S. W. (1986). Strategies in developing friendships. In V. J. Derlega & B. A. Winstead (Eds.), *Friendship and social interaction* (pp. 129-143). New York: Springer.
- Mikulincer, M. (1995). Attachment style and the mental repre-

- sentation of the self. *Journal of Personality and Social Psychology*, 69, 1203-1215.
- Mikulincer, M., & Erev, I. (1991). Attachment style and the structure of romantic love. *British Journal of Social Psychology*, 30, 273-291.
- Mikulincer, M., Florian, V., & Tolmacz, R. (1990). Attachment styles and fear of personal death: A case study of affect regulation. *Journal of Personality and Social Psychology*, 58, 273-280.
- Mikulincer, M., Florian, V., & Weller, A. (1993). Attachment styles, coping strategies, and posttraumatic psychological distress: The impact of the Gulf War in Israel. *Journal of Personality and Social Psychology*, 64, 817-826.
- Mikulincer, M., & Nachshon, O. (1991). Attachment styles and patterns of self-disclosure. *Journal of Personality and Social Psychology*, 61, 321-331.
- Milardo, R. M. (1982). Friendship networks in developing relationships: Converging and diverging social environments. *Social Psychology Quarterly*, 45, 162-172.
- Milardo, R. M. (1988). Families and social networks: An overview of theory and methodology. In R. M. Milardo (Ed.), *Families and Social networks* (pp. 13-47). Newbury Park, CA: Sage.
- Milardo, R. M., & Allan, G. (in press). Social networks and marital relationships. In S. Duck, K. Dindia, W. Ickes, R. Milardo, R. Mills, and B. Sarason (Eds.), *Handbook of personal relationships*. London: Wiley.
- Milardo, R. M., Johnson, M. P., & Huston, T. L. (1983). Developing close relationships: Changing patterns of interaction between pair members and social networks. *Journal of Personality and Social Psychology*, 44, 964-976.
- Miller, L. C., & Kenny, D. A. (1986). Reciprocity of self disclosure at the individual and dyadic levels: A social relations analysis. *Journal of Personality and Social Psychology*, 50, 713-719.
- Miller, L. C., & Read, S. J. (1987). Why am I telling you this?: Self-disclosure in a goal-based model of personality. In V. J. Derlega & J. H. Berg (Eds.), *Self-Disclosure: Theory, research, and therapy (Perspectives in social psychology)* (pp. 35-58). New York: Plenum.
- Miller, N., & Marks, G. (1982). Assumed similarity between self and other: Effect of expectation of future interaction with that other. *Social Psychology Quarterly*, 45, 100-105.
- Miller, N. E., & Dollard, J. (1941). *Social learning and imitation*. New Haven, CT: Yale University Press.
- Miller, P. H. (1989). *Theories of developmental psychology* (2nd ed.) New York: Freeman.
- Miller, R. S. (1996). *Embarrassment: Poise and peril in everyday life*. New York: Guilford.
- Mills, J., & Clark, M. S. (1994). Communal and exchange relationships: Controversies and research. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 29-42). Hillsdale, NJ: Erlbaum.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102, 246-268.
- Mitchell, R. E., & Trickett, E. J. (1980). Task Force Report: Social networks as mediators of social support: An analysis of the effects and determinants of social networks. *Community Mental Health Journal*, 16, 27-44.
- Mitchell, S. A. (1988). *Relational concepts in psychoanalysis*. Cambridge, MA: Harvard University Press.
- Monson, M., Betty S., & Kurzweil, N. (1993). Levels of perspectives and the perception of intimacy in cross-gender friendships: A balance theory explanation of shared personal reality. *Journal of Social and Personal Relationships*, 10, 529-550.
- Montgomery, B. M. (1988). Quality communication in personal relationships. In S. Duck (Ed.), *Handbook of personal relationships* (pp. 343-359). Chichester, England: Wiley.
- Montgomery, B. M., & Duck, S. (Eds.). (1991). *Studying interpersonal interaction*. New York: Guilford.
- Morton, T. L. (1978). Intimacy and reciprocity of exchange: A comparison of spouses and strangers. *Journal of Personality and Social Psychology*, 36, 72-81.
- Morton, T. L., & Douglas, M. A. (1981). Growth of relationships. In S. Duck & R. Gilmour (Eds.), *Personal relationships 2: Developing personal relationships* (pp. 3-25). London: Academic Press.
- Murray, S. L. (1995). *Is love blind? Positive illusions, idealization and the construction of satisfaction in close relationships*. Unpublished doctoral dissertation, University of Waterloo, Waterloo, Ontario.
- Murray, S. L., & Holmes, J. G. (1993). Seeing virtues and faults: Negativity and the transformation of interpersonal narratives in close relationships. *Journal of Personality and Social Psychology*, 65, 707-723.
- Murray, S. L., & Holmes, J. G. (1994). Story-telling in close relationships: The construction of confidence. *Personality and Social Psychology Bulletin*, 20, 650-663.
- Murray, S. L., & Holmes, J. G. (1996). The construction of relationship realities. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 91-120). Mahwah, NJ: Erlbaum.
- Murstein, B. I. (1970). Stimulus-value-role: A theory of marital choice. *Journal of Marriage and the Family*, 32, 465-481.
- Murstein, B. I., Cerreto, M., & MacDonald, M. G. (1977). A theory and investigation of the effect of exchange-orientation on marriage and friendships. *Journal of Marriage and the Family*, 39, 543-548.
- Myers, D. G. (1992). *The pursuit of happiness: Who is happy—And why*. New York: Morrow.
- Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science*, 6, 10-19.
- Newcomb, T. M. (1961). *The acquaintance process*. New York: Holt, Rinehart, and Winston.



- Neszek, J. B., & Pilkington, C. J. (1994). Perceptions of risk in intimacy and social participation. *Personal Relationships, 1*, 45-62.
- Neszek, P. (1981). Gender and marital adjustment differences in decoding messages from spouses and strangers. *Journal of Personality and Social Psychology, 41*, 272-278.
- Neszek, P. (in press). Divorce from three different perspectives. *Contemporary Psychology*.
- Neszek, P., & Feeney, J. A. (in press). Communication in early marriage: Responses to conflict, nonverbal accuracy and conversation patterns. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Neszek, P., & Fitzpatrick, M. A. (1990). Marital communication in the eighties. *Journal of Marriage and the Family, 52*, 832-843.
- Neszek, P., & Guthrie, D. (1991). Studying communication in marriage: An integration and critical evaluation. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 3, pp. 37-73). London: Jessica Kingsley.
- Neszek, P., & Ruzzene, M. (1991). Communication in marriage: The influence of affect and cognition. In G. J. O. Fletcher & F. D. Fincham (Eds.), *Cognition and close relationships* (pp. 203-234). Hillsdale, NJ: Erlbaum.
- Nesius, C., & Markman, H. (1993). *We can work it out: Making sense of marital conflict*. New York: G. P. Putnam's Sons.
- Nesius, C. (1988). Fifty years of family research, 1937-1987. *Journal of Marriage and the Family, 50*, 305-316.
- O'Connor, S. C., & Rosenblood, L. K. (1996). Affiliation motivation in everyday experience: A theoretical comparison. *Journal of Personality and Social Psychology, 70*, 513-522.
- O'Leary, K. D., & Cascardi, M. (in press). Physical aggression in marriage: A developmental analysis. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- O'Leary, D. H. (1977). Insiders' and outsiders' view of relationships: Research studies. In G. Levinger & H. Rausch (Eds.), *Close relationships* (pp. 115-135). Amherst: University of Massachusetts Press.
- O'Leary, J. M., Roese, N. J., & Zanna, M. P. (1996). Expectancies. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 211-238). New York: Guilford.
- O'Leary, A., & Gunn, D. O. (1994). *The effect of relationship closeness on encoding and recall for relationship-irrelevant information*. Paper presented at the International Network for Personal Relationships, May, Iowa City, IA.
- O'Leary, S. R., & Bradburn, N. M. (1968). Dimensions of marriage happiness. *American Journal of Sociology, 73*, 715-731.
- O'Leary, C. E., Suci, G. J., & Tannenbaum, P. H. (1957). *The measurement of meaning*. Urbana: University of Illinois Press.
- Palisi, B. J., & Ransford, H. E. (1987). Friendship as a voluntary relationship: Evidence from national surveys. *Journal of Social and Personal Relationships, 4*, 243-259.
- Parkes, C. M. (1972). *Studies of grief in adult life*. New York: International Universities Press.
- Parkes, C. M., & Weiss, R. S. (1983). *Recovery from bereavement*. New York: Basic Books.
- Parks, M. R., & Eggert, L. L. (1991). The role of social context in the dynamics of personal relationships. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 2, pp. 1-34). London: Jessica Kingsley.
- Parks, M. R., Stan, C. M., & Eggert, L. L. (1983). Romantic involvement and social network involvement. *Social Psychology Quarterly, 46*, 116-131.
- Parrott, W. G., & Smith, R. H. (1993). Distinguishing the experiences of envy and jealousy. *Journal of Personality and Social Psychology, 64*, 906-920.
- Patterson, M. L. (1994). Strategic functions of nonverbal exchange. In J. A. Daly & J. M. Wiemann (Eds.), *Strategic interpersonal communication* (pp. 273-293). Hillsdale, NJ: Erlbaum.
- Patzner, G. L. (1985). *The physical attractiveness phenomenon*. New York: Plenum.
- Pennebaker, J. W. (1989). Confession, inhibition, and disease. *Advances in Experimental Social Psychology, 22*, 211-244.
- Pennebaker, J. W. (1990). *Opening up: The healing power of confiding in others*. New York: Morrow.
- Pennebaker, J. W., Hughes, C., & O'Heeron, R. C. (1987). The psychophysiology of confession: Linking inhibitory and psychosomatic processes. *Journal of Personality and Social Psychology, 52*, 781-793.
- Pennebaker, J. W., Kiecolt-Glaser, J. K., & Glaser, R. (1988). Disclosure of traumas and immune function: Health implications for psychotherapy. *Journal of Consulting and Clinical Psychology, 56*, 239-245.
- Pennebaker, J. W., Mayne, T. J., & Francis, M. E. (1996). *Linguistic predictors of adaptive bereavement*. Unpublished manuscript, Southern Methodist University, Dallas, TX.
- Peplau, L. A. (1983). Roles and gender. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson, *Close relationships* (pp. 220-264). New York: Freeman.
- Peplau, L. A., & Gordon, S. L. (1985). Women and men in love: Gender differences in close heterosexual relationships. In V. E. O'Leary, R. K. Unger, & B. S. Wallston (Eds.), *Women, gender, and social psychology* (pp. 257-291). Hillsdale, NJ: Erlbaum.
- Peplau, L. A., & Perlman, D. (Eds.). (1982). *Loneliness: A sourcebook of current theory, research and therapy*. New York: Wiley.
- Perlman, D., & Bartholomew, K. (Eds.). (1994). *Advances in personal relationships: Vol. 5. Attachment processes in adulthood*. London: Jessica Kingsley.
- Perlman, D., & Fehr, B. (1986). Theories of friendship: The

- analysis of interpersonal attraction. In V. J. Derlega & B. A. Winstead (Eds.), *Friendship and social interaction* (pp. 9-40). New York: Springer.
- Perrett, D. I., May, K. A., & Yoshikawa, S. (1994). Facial shape and judgments of female attractiveness. *Nature*, *368*, 239-242.
- Petrie, K. J., Booth, R. J., & Davison, K. P. (1995). Repression, disclosure, and immune function: Recent findings and methodological issues. In J. W. Pennebaker (Ed.), *Emotion, disclosure, and health*. Washington, DC: American Psychological Association.
- Pierce, G. R., Lakey, B., Sarason, I. G., & Sarason, B. R. (Eds.). (in press). *Sourcebook of theory and research on social support and personality*. New York: Plenum.
- Pierce, G. R., Sarason, B. R., & Sarason, I. G. (1992). General and specific support expectations and stress as predictors of perceived supportiveness: An experimental study. *Journal of Personality and Social Psychology*, *63*, 297-307.
- Pierce, G. R., Sarason, B. R., & Sarason, I. G. (Eds.). (in press). *Handbook of social support and the family*. New York: Plenum.
- Pietromonaco, P. R., & Barrett, L. F. (1996). *Working models of attachment and daily social interactions*. Unpublished manuscript, University of Massachusetts at Amherst.
- Pilkington, C. J., Tesser, A., & Stephens, D. (1991). Complementarity in romantic relationships: A self-evaluation maintenance perspective. *Journal of Social and Personal Relationships*, *8*, 481-504.
- Pinsker, H., Nepps, P., Redfield, J., & Winston, A. (1985). Applicants for short-term dynamic psychotherapy. In A. Winston (Ed.), *Clinical and research issues in short-term dynamic psychotherapy* (pp. 104-116). Washington, DC: American Psychiatric Association.
- Pittman, T. S. (1998). Motivation. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 549-590). New York: McGraw-Hill.
- Planalp, S. (1987). Interplay between relational knowledge and events. In R. Burnett, P. McGhee, & D. D. Clarke (Eds.), *Accounting for relationships: Explanation, representation and knowledge* (pp. 175-191). New York: Methuen.
- Planalp, S., & Rivers, M. (1996). Changes in knowledge of personal relationships. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 299-324). Mahwah, NJ: Erlbaum.
- Prager, K. J. (1995). *The psychology of intimacy*. New York: Guilford.
- Prentice, D. (1990). Familiarity and differences in self- and other-representations. *Journal of Personality and Social Psychology*, *59*, 369-383.
- Price, R. A., & Vandenberg, S. G. (1979). Matching for physical attractiveness in married couples. *Personality and Social Psychology Bulletin*, *5*, 398-400.
- Radecki-Bush, C., Farrell, A. D., & Bush, J. P. (1993). Predicting jealous responses: The influence of adult attachment and depression on threat appraisal. *Journal of Social and Personal Relationships*, *10*, 569-588.
- Rands, M., & Levinger, G. (1979). Implicit theories of relationship: An intergenerational study. *Journal of Personality and Social Psychology*, *37*, 649-661.
- Raush, H. L., Barry, W. A., Hertel, R. K., & Swain, M. (1974). *Communication, conflict, and marriage*. San Francisco: Jossey-Bass.
- Regan, P. C., & Berscheid, E. (1995). Gender differences in beliefs about the causes of male and female sexual desire. *Personal Relationships*, *2*, 345-358.
- Regan, P. C., & Berscheid, E. (1996). Beliefs about the status goals, and objects of sexual desire. *Journal of Sex & Marital Therapy*, *22*, 110-120.
- Regan, P. C., & Berscheid, E. (in press). Gender differences in characteristics desired in a potential sexual and marriage partner. *Journal of Psychology and Human Sexuality*.
- Reik, T. (1949). *Of love and lust: On the psychoanalysis of romantic and sexual emotions*. New York: Farrar, Straus, & Giroux.
- Reis, H. T. (1990). The role of intimacy in interpersonal relations. *Journal of Social and Clinical Psychology*, *9*, 15-30.
- Reis, H. T. (in press). Gender differences in intimacy and related behaviors: Context and process. In D. Canary & K. Dindia (Eds.), *Sex, gender, and communication: Similarities and differences*. Mahwah, NJ: Erlbaum.
- Reis, H. T., & Franks, P. (1994). The role of intimacy and social support in health outcomes: Two processes or one? *Personal Relationships*, *1*, 185-197.
- Reis, H. T., & Knee, C. R. (1996). What we know, what we don't know, and what we need to know about relationship knowledge structures. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 169-191). Mahwah, NJ: Erlbaum.
- Reis, H. T., Nezelek, J., & Wheeler, L. (1980). Physical attractiveness in social interaction. *Journal of Personality and Social Psychology*, *38*, 604-617.
- Reis, H. T., & Patrick, B. C. (1996). Attachment and intimacy: Component processes. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 523-563). New York: Guilford.
- Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process. In S. W. Duck (Ed.), *Handbook of personal relationships* (pp. 367-389). Chichester, England: Wiley.
- Reis, H. T., Sheldon, K. M., Ryan, R. M., & Roscoe, J. (1996). *Autonomy, competence, and relatedness as predictors of well-being in everyday life*. Unpublished manuscript, University of Rochester, Rochester, NY.
- Reis, H. T., & Wheeler, L. (1991). Studying social interaction with the Rochester Interaction Record. *Advances in Experimental Social Psychology*, *24*, 269-318.

- Reis, H. T., Wheeler, L., Spiegel, N., Kernis, M., Nezelek, J., & Perri, M. (1982). Physical attractiveness in social interaction: II. Why does appearance affect social experience? *Journal of Personality and Social Psychology*, 43, 979-996.
- Reissman, C., Aron, A., & Bergen, M. R. (1993). Shared activities and marital satisfaction: Causal direction and self-expansion versus boredom. *Journal of Social and Personal Relationships*, 1, 243-254.
- Kempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology*, 49, 95-112.
- Ridley, C. A., & Avery, A. W. (1979). Social network influence on the dyadic relationship. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 223-246). New York: Academic Press.
- Rindfuss, R. R., & Stephen, E. H. (1990). Marital noncohabitation: Separation does not make the heart grow fonder. *Journal of Marriage and the Family*, 52, 259-270.
- Roberts, L. J., & Krokoff, L. J. (1990). A time series analysis of withdrawal, hostility, and displeasure in satisfied and dissatisfied marriages. *Journal of Marriage and the Family*, 52, 95-105.
- Robins, E. (1990). The study of interdependence in marriage. In F. D. Fincham & T. N. Bradbury (Eds.), *The psychology of marriage: Basic issues & applications* (pp. 59-86). New York: Guilford.
- Robinson, E. A., & Price, M. G. (1980). Pleasurable behavior in marital interaction: An observational study. *Journal of Consulting and Clinical Psychology*, 48, 117-118.
- Rocher, L., & Borkovec, T. D. (1994). Effects of suppressing thoughts about emotional material. *Journal of Abnormal Psychology*, 103, 467-474.
- Rogers, C. R. (1961). *On becoming a person*. Boston: Houghton Mifflin.
- Rook, K. S. (1988). Towards a more differentiated view of loneliness. In S. Duck (Ed.), *Handbook of personal relationships: Theory, research and interventions* (pp. 571-590). Chichester, England: Wiley.
- Rook, K. S. (1994). *How does social support affect well-being?* Paper presented at the International Conference on Personal Relationships, Groningen, The Netherlands.
- Rook, K. S., & Pietromonaco, P. (1987). Close relationships: Ties that heal or ties that bind? *Advances in Personal Relationships*, 1, 1-35.
- Rosenbaum, M. E. (1986). The repulsion hypothesis: On the nondevelopment of relationships. *Journal of Personality and Social Psychology*, 51, 1156-1166.
- Ross, M. (1989). Relation of implicit theories to the construction of personal histories. *Psychological Review*, 96, 341-357.
- Ross, M., & Buehler, R. (1994). Creative remembering. In U. Neisser & P. Fivush (Eds.), *The remembering self: Construction and accuracy in the self-narrative* (pp. 205-235). Cambridge: Cambridge University Press.
- Rubenstein, C. M., & Shaver, P. (1982). The experience of loneliness. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (pp. 206-223). New York: Wiley.
- Rubin, S. S. (1993). The death of a child is forever: The life course impact of child loss. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 285-299). Cambridge: Cambridge University Press.
- Rubin, Z. (1970). Measurement of romantic love. *Journal of Personality and Social Psychology*, 16, 265-273.
- Rubin, Z. (1988). Preface. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. vii-xii). New Haven, CT: Yale University Press.
- Rubin, Z., & Mitchell, C. (1976). Couples research as couples counseling: Some unintended effects of studying close relationships. *American Psychologist*, 31, 17-25.
- Rubin, Z., Hill, C. T., Peplau, L. A., & Dunkel-Schetter, C. (1980). Self-disclosure in dating couples: Sex roles and the ethic of openness. *Journal of Marriage and the Family*, 42, 305-317.
- Ruble, D. N., & Goodnow, J. J. (1998). Social development in childhood and adulthood. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 741-787). New York: McGraw-Hill.
- Ruble, D. N., Fleming, A. S., Hackel, L. S., & Stangor, C. (1988). Changes in the marital relationship during the transition to first time motherhood: Effects of violated expectations concerning division of household labor. *Journal of Personality and Social Psychology*, 55, 78-87.
- Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology*, 45, 101-117.
- Rusbult, C. E. (1991). Commentary on Johnson's "Commitment to personal relationships": What's interesting and what's new? In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 3, pp. 151-169). London: Jessica Kingsley.
- Rusbult, C. E., Bissonnette, V. L., Arriaga, X. B., and Cox, C. L. (in press). Accommodation processes during the early years of marriage. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Rusbult, C. E., Johnson, D. J., & Morrow, G. D. (1986). Impact of couple patterns of problem solving on distress and nondistress in dating relationships. *Journal of Personality and Social Psychology*, 50, 744-753.
- Rusbult, C. E., & Martz, J. M. (1995). Remaining in an abusive relationship: An investment model analysis of nonvoluntary dependence. *Personality and Social Psychology Bulletin*, 21, 558-571.
- Rusbult, C. E., Onizuka, R. K., & Lipkus, I. (1993). What do we really want? Mental models of ideal romantic involve-

- ment explored through multidimensional scaling. *Journal of Experimental Social Psychology*, 29, 493-527.
- Rusbult, C. E., & Van Lange, P. A. M. (1996). Interdependence processes. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 564-596). New York: Guilford.
- Rusbult, C. E., Van Lange, P. A. M., Verette, J., & Yovetich, N. A. (1996). *Perceived superiority as a relationship maintenance mechanism*. Unpublished manuscript, University of North Carolina, Chapel Hill.
- Rusbult, C. E., Verette, J., Whitney, G. A., Slovik, L. F., & Lipkus, I. (1991). Accommodation processes in close relationships: Theory and preliminary empirical evidence. *Journal of Personality and Social Psychology*, 60, 53-78.
- Rusbult, C. E., Yovetich, N. A., & Verette, J. (1996). An interdependence analysis of accommodation processes. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 63-90). Mahwah, NJ: Erlbaum.
- Rusbult, C. E., Zembrodt, I. M., & Gunn, L. K. (1982). Exit, voice, loyalty, and neglect: Responses to dissatisfaction in romantic involvements. *Journal of Personality and Social Psychology*, 43, 1230-1242.
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39, 472-480.
- Ryan, R. M., & Solky, J. A. (in press). What is supportive about social-support? On the psychological needs for autonomy and relatedness. In G. R. Pierce, B. R. Sarason, & I. G. Sarason (Eds.), *Handbook of social support and the family*. New York: Plenum.
- Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, 4, 99-104.
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719-727.
- Sabatelli, R. M. (1988). Measurement issues in marital research: A review and critique of contemporary survey instruments. *Journal of Marriage and the Family*, 50, 891-915.
- Sadalla, E. K., Kenrick, D. T., & Vershure, B. (1987). Dominance and heterosexual attraction. *Journal of Personality and Social Psychology*, 52, 730-738.
- Safran, J. D., & Segal, Z. V. (1990). *Interpersonal processes in cognitive therapy*. New York: Basic Books.
- Salovey, P., & Rodin, J. (1989). Envy and jealousy in close relationships. In C. Hendrick (Ed.), *Close relationships: Review of personality and social psychology*. (Vol. 10, pp. 221-246). Newbury Park, CA: Sage.
- Salovey, P., Rothman, A. J., & Rodin, J. (1998). Social psychology and health behavior. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 633-683). New York: McGraw-Hill.
- Sanders, C. M. (1993). Risk factors in bereavement outcomes. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 255-270). Cambridge: Cambridge University Press.
- Sarason, B. R., Sarason, I. G., Hacker, T. A., & Basham, R. B. (1985). Concomitants of social support: Social skills, physical attractiveness, and gender. *Journal of Personality and Social Psychology*, 49, 469-480.
- Sarason, I. G., Sarason, B. R., & Pierce, G. R. (1990). Social support: The search for theory. *Journal of Social and Clinical Psychology*, 9, 133-147.
- Sarason, I. G., Sarason, B. R., & Pierce, G. R. (1995). Social and personal relationships: Current issues, future directions. *Journal of Social and Personal Relationships*, 12, 613-619.
- Scanzoni, J., Polonko, K., Teachman, J., & Thompson, J. (1989). *The sexual bond: Rethinking families and close relationships*. Newbury Park, CA: Sage.
- Schachter, S. (1951). Deviation, rejection, and communication. *Journal of Abnormal and Social Psychology*, 46, 190-207.
- Schachter, S., & Singer, J. E. (1962). Cognitive, social and physiological determinants of emotional state. *Psychological Review*, 69, 379-399.
- Scharfe, E., & Bartholomew, K. (1995). Accommodation and attachment representations in young couples. *Journal of Social and Personal Relationships*, 12, 389-401.
- Scheier, M. F., & Bridges, M. W. (1995). Person variables and health: Personality predispositions and acute psychological states as shared determinants for disease. *Psychosomatic Medicine*, 57, 255-268.
- Schell, T. L., Klein, S., & Babey, S. H. (1996). Testing a hierarchical model of self-knowledge. *Psychological Science*, 7, 170-173.
- Schmitt, B. H. (1988). Social comparison in romantic jealousy. *Personality and Social Psychology Bulletin*, 14, 374-387.
- Schuchter, S. R., & Zisook, S. (1993). The course of normal grief. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 23-43). Cambridge: Cambridge University Press.
- Scott, C. K., Fuhrman, R. W., & Wyer, R. S., Jr. (1991). Information processing in close relationships. In G. J. O. Fletcher & F. D. Fincham (Eds.), *Cognition and close relationships* (pp. 37-68). Hillsdale, NJ: Erlbaum.
- Sears, R. R. (1951). A theoretical framework for personality and social behavior. *American Psychologist*, 6, 476-482.
- Sears, R. R. (1977). Sources of life satisfactions of the Terman gifted men. *American Psychologist*, 32, 119-128.
- Secord, P. F., & Backman, C. W. (1961). Personality theory and the problem of stability and change in individual behavior: An interpersonal approach. *Psychological Review*, 68, 21-32.
- Sedikides, C., Olsen, N., & Reis, H. T. (1993). Relationships

- as natural categories. *Journal of Personality and Social Psychology*, 64, 71–82.
- Segal, M. W. (1974). Alphabet and attraction: An unobtrusive measure of the effect of propinquity in a field setting. *Journal of Personality and Social Psychology*, 30, 654–657.
- Segraves, R. T. (1990). Theoretical orientations in the treatment of marital discord. In F. D. Fincham & T. N. Bradbury (Eds.), *The psychology of marriage: Basic issues and applications* (pp. 281–298). New York: Guilford.
- Seligman, C., Fazio, R. H., & Zanna, M. P. (1980). Effects of salience of extrinsic rewards on liking and loving. *Journal of Personality and Social Psychology*, 38, 453–460.
- Sharpsteen, D. J. (1993). Romantic jealousy as an emotion concept: A prototype analysis. *Journal of Social and Personal Relationships*, 10, 69–82.
- Sharpsteen, D. J. (1995). The effects of relationship and self-esteem threats on the likelihood of romantic jealousy. *Journal of Social and Personal Relationships*, 12, 89–101.
- Sharpsteen, D. J., & Kirkpatrick, L. A. (in press). Romantic jealousy and adult romantic attachment. *Journal of Personality and Social Psychology*.
- Shaver, P. R., & Brennan, K. A. (1991). Measures of depression and loneliness. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (Vol. 1, pp. 195–290). San Diego: Academic Press.
- Shaver, P. R., Collins, N., & Clark, C. L. (1996). Attachment styles and internal working models of self and relationship partners. In G. Fletcher & J. Fitness (Eds.), *Knowledge structures and interaction in close relationships: A social psychological approach* (pp. 25–61). Hillsdale, NJ: Erlbaum.
- Shaver, P., Furman, W., & Buhrmester, D. (1985). Aspects of a life transition: Network changes, social skills and loneliness. In S. W. Duck & D. Perlman (Eds.), *Understanding personal relationships* (pp. 193–219). London: Sage.
- Shaver, P. R., & Hazan, C. (1993). Adult romantic attachment: Theory and evidence. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 4, pp. 29–70). London: Jessica Kingsley.
- Shaver, P. R., Morgan, H. J., & Wu, S. (1996). Is love a "basic" emotion? *Personal Relationships*, 3, 81–96.
- Shaver, P., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology*, 52, 1061–1086.
- Shumaker, S. A., & Czajkowski (Eds.). (1994). *Social support and cardiovascular disease*. New York: Plenum.
- Shye, D., Mullooly, J. P., Freeborn, D. K., & Pope, C. R. (1995). Gender differences in the relationship between social network support and mortality: A longitudinal study of an elderly cohort. *Social Science and Medicine*, 41, 915–947.
- Sillars, A. L. (1985). Interpersonal perception in relationships. In W. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 277–305). New York: Springer.
- Silver, R. L., Boon, C., & Stones, M. H. (1983). Searching for meaning in misfortune: Making sense of incest. *Journal of Social Issues*, 39, 81–102.
- Simpson, J. A. (1987). The dissolution of romantic relationships: Factors involved in relationship stability and emotional distress. *Journal of Personality and Social Psychology*, 53, 683–692.
- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, 59, 971–980.
- Simpson, J. A., Campbell, B., & Berscheid, E. (1986). The association between romantic love and marriage: Kephart (1967) twice revisited. *Personality and Social Psychology Bulletin*, 12, 363–372.
- Simpson, J. A., & Gangestad, S. W. (1991). Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology*, 60, 870–883.
- Simpson, J. A., & Gangestad, S. W. (1992). Sociosexuality and romantic partner choice. *Journal of Personality*, 60, 31–51.
- Simpson, J. A., Gangestad, S. W., & Lerma, M. (1990). Perception of physical attractiveness: Mechanisms involved in the maintenance of romantic relationships. *Journal of Personality and Social Psychology*, 59, 1192–1201.
- Simpson, J. A., Ickes, W., & Blackstone, T. (1995). When the head protects the heart: Empathic accuracy in dating relationships. *Journal of Personality and Social Psychology*, 69, 629–641.
- Simpson, J. A., Rholes, W. S., & Nelligan, J. (1992). Support-seeking and support-giving within couples in an anxiety provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology*, 62, 434–446.
- Simpson, J. A., Rholes, W. S., & Phillips, D. (in press). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*.
- Sinclair, R. C., Hoffman, C., Mark, M. M., Martin, L. L., & Pickering, T. L. (1994). Construct accessibility and the misattribution of arousal: Schachter and Singer revisited. *Psychological Science*, 5, 15–19.
- Singh, D. (1993). Adaptive significance of female physical attractiveness: Role of waist to hip ratio. *Journal of Personality and Social Psychology*, 65, 293–307.
- Smith, D. A., Vivian, D., & O'Leary, K. D. (1990). Longitudinal prediction of marital discord from premarital expressions of affect. *Journal of Consulting and Clinical Psychology*, 58, 790–798.
- Smith, E. R. (1998). Mental representation and memory. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 391–445). New York: McGraw-Hill.
- Smith, E. R., & Zarate, M. A. (1992). Exemplar-based model of social judgment. *Psychological Review*, 99, 3–21.

- Snyder, M. (1979). Self monitoring processes. *Advances in Experimental Social Psychology*, 12, 85-128.
- Snyder, M., Berscheid, E., & Glick, P. (1985). Focusing on the exterior and the interior: Two investigations of the initiation of personal relationships. *Journal of Personality and Social Psychology*, 48, 1427-1439.
- Snyder, M., & Cantor, N. (1998). Understanding personality and social behavior: A functionalist strategy. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 635-679). New York: McGraw-Hill.
- Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 35, 656-666.
- South, S. J., & Lloyd, K. M. (1995). Spousal alternatives and marital dissolution. *American Sociological Review*, 60, 21-35.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38, 15-28.
- Spanier, G. B., & Thompson, L. (1984). *Parting: The aftermath of separation and divorce*. Beverly Hills, CA: Sage.
- Sperling, M. B., & Berman, W. H. (Eds.). (1994). *Attachment in adults: Theory, assessment, and treatment*. New York: Guilford.
- Spiegel, D., Bloom, J. R., Kraemer, H. C., & Gottheil, E. (1989, October 14). Effect of psychosocial treatment on survival of patients with metastatic breast cancer. *Lancet*, 888-891.
- Sprecher, S. (1989). The importance to males and females of physical attractiveness, earning potential and expressiveness in initial attraction. *Sex Roles*, 21, 591-607.
- Sprecher, S. (1996). "I love you more today than yesterday": Romantic partners' perceptions of changes over time in their relationship. Unpublished manuscript, Illinois State University, Normal.
- Sprecher, S., Aron, A., Hatfield, E., Cortese, A., Potapova, E., & Levitskaya, A. (1994). Love: American style, Russian style, and Japanese style. *Personal Relationships*, 1, 349-369.
- Sprecher, S., & Feilmee, D. (1992). The influence of parents and friends on the quality and stability of romantic relationships: A three wave longitudinal investigation. *Journal of Marriage and the Family*, 54, 888-900.
- Sprecher, S., & Metts, S. (1989). Development of the "Romantic Beliefs Scale" and examination of the effects of gender and gender role orientation. *Journal of Social and Personal Relationships*, 6, 387-411.
- Sprecher, S., & Regan, P. C. (in press). Passionate love vs. companionate love: Are there any differences? *Personal Relationships*.
- Sprecher, S., & Schwartz, P. (1994). Equity and balance in the exchange of contributions in close relationships. In M. J. Lerner & G. Mikula (Eds.), *Entitlement and the affectional bond: Justice in close relationships* (pp. 11-42). New York: Plenum.
- Sprecher, S., Sullivan, Q., & Hatfield, E. (1994). Mate selection preferences: Gender differences examined in a national sample. *Journal of Personality and Social Psychology*, 66, 1074-1080.
- Sroufe, L. A. (1996). *Emotional development*. New York: Cambridge.
- Srull, T. K., & Wyer, R. S. (1989). Person memory and judgment. *Psychological Review*, 96, 58-83.
- Steck, R., Levitan, D., McLane, D., & Kelley, H. H. (1982). Care, need, and conceptions of love. *Journal of Personality and Social Psychology*, 43, 481-491.
- Stein, C. H., Bush, E. G., Ross, R. R., & Ward, M. (1992). Mine, yours and ours: A configural analysis of the networks of married couples in relation to marital satisfaction and individual well-being. *Journal of Social and Personal Relationships*, 9, 365-384.
- Steiner, I. D. (1974). Whatever happened to the group in social psychology? *Journal of Experimental Social Psychology*, 10, 93-108.
- Stephan, W., Berscheid, E., & Walster, E. (1971). Sexual arousal and heterosexual perception. *Journal of Personality and Social Psychology*, 20, 93-101.
- Stephen, T. (1987). Attribution and adjustment to relationship termination. *Journal of Social and Personal Relationships*, 4, 47-61.
- Sternberg, R. J. (1986). A triangular theory of love. *Psychological Review*, 93, 119-135.
- Sternberg, R. J. (1987). Liking versus loving: A comparative evaluation of theories. *Psychological Bulletin*, 102, 331-345.
- Sternberg, R. J. (1995). Love as a story. *Journal of Social and Personal Relationships*, 12, 541-546.
- Sternberg, R. J., & Barnes, M. L. (Eds.). (1988). *The psychology of love*. New Haven, CT: Yale University Press.
- Sternberg, R. J., & Beall, A. E. (1991). How can we know what love is? An epistemological analysis. In G. J. O. Fletcher & F. D. Fincham (Eds.), *Cognition and close relationships* (pp. 257-278). Hillsdale, NJ: Erlbaum.
- Sternberg, R. J., & Grajek, S. (1984). The nature of love. *Journal of Personality and Social Psychology*, 49, 1589-1596.
- Stroebe, M. S., & Stroebe, W. (1983). Who suffers more? Sex differences in health risks of the widowed. *Psychological Bulletin*, 93, 297-301.
- Stroebe, M. S., & Stroebe, W. (1993). The mortality of bereavement: A review. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 175-195). Cambridge: Cambridge University Press.
- Stroebe, M. S., Stroebe, W., & Hansson, R. O. (1993). Bereavement research and theory: An introduction to the

- Handbook*. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 3–22). Cambridge: Cambridge University Press.
- Stroebe, W., & Stroebe, M. S. (1987). *Bereavement and health*. New York: Cambridge University Press.
- Stroebe, W., & Stroebe, M. (1996). The social psychology of social support. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 597–621). New York: Guilford.
- Stryker, S., & Stratham, A. (1985). Symbolic interaction and role theory. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., Vol. 1., pp. 311–378). New York: Random House.
- Sutra, C. A. (1987). Reasons for changes in commitment: Variations by courtship type. *Journal of Social and Personal Relationships*, 4, 17–33.
- Sutra, C. A. (1990). Research and theory on mate selection and premarital relationships in the 1980s. *Journal of Marriage and the Family*, 52, 844–865.
- Sutra, C. A. (1996). Knowledge structures in developing relationships: Progress and pitfalls. In G. J. O. Fletcher and J. Fitness (Eds.), *Knowledge structures in close relationships* (pp. 397–413). Mahwah, NJ: Erlbaum.
- Sutra, C. A., & Bohman, T. (1991). The development of close relationships: A cognitive perspective. In G. J. O. Fletcher & F. D. Fincham (Eds.), *Cognition and close relationships* (pp. 281–305). Hillsdale, NJ: Erlbaum.
- Sutra, C. A., & Longstreth, M. (1990). Similarity of outcomes, interdependence, and conflict in dating relationships. *Journal of Personality and Social Psychology*, 59, 501–516.
- Sutra, C., & Milardo, R. (1991). The social psychological context of developing relationships: Interactive and psychological networks. In D. Perlman & W. Jones (Eds.), *Advances in personal relationships* (Vol. 3, pp. 1–36). London: Jessica Kingsley.
- Swann, W. B., Jr. (1990). To be adored or to be known: The interplay of self enhancement and self verification. In R. M. Sorrentino & E. T. Higgins (Eds.), *Motivation and cognition* (Vol. 2, pp. 408–488). New York: Guilford.
- Swann, W. B., Jr., De La Ronde, C., & Hixon, J. G. (1994). Authenticity and positivity strivings in marriage and courtship. *Journal of Personality and Social Psychology*, 66, 857–869.
- Swann, W. B., Jr., Hixon, J. G., & De La Ronde, C. (1992). Embracing the bitter "truth": Negative self concepts and marital commitment. *Psychological Science*, 3, 118–121.
- Tau, R., & Silver, R. L. (1989). Coming to terms with major negative life events. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 351–382). New York: Guilford.
- Talman, I., Burke, P. J., & Gecas, V. (in press). Socialization into marital roles: Testing a contextual developmental model of marital functioning. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction*. New York: Cambridge University Press.
- Teachman, J. D., & Polonko, K. A. (1990). Cohabitation and marital stability in the United States. *Social Forces*, 69, 207–220.
- Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 681–706). Hillsdale, NJ: Erlbaum.
- Tennov, D. (1979). *Love and limerence: The experience of being in love*. New York: Stein & Day.
- Terman, L. M. (1938). *Psychological factors in marital happiness*. New York: McGraw-Hill.
- Tesser, A. (1980). Self-esteem maintenance in family dynamics. *Journal of Personality and Social Psychology*, 39, 77–91.
- Tesser, A. (1988). Toward a self evaluation maintenance model of social behavior. *Advances in Experimental Social Psychology*, 21, 181–227.
- Tesser, A., Millar, M., & Moore, J. (1988). Some affective consequences of social comparison and reflection processes: The pain and pleasure of being close. *Journal of Personality and Social Psychology*, 54, 49–61.
- Tesser, A., & Paulhus, D. L. (1976). Toward a causal model of love. *Journal of Personality and Social Psychology*, 34, 1095–1105.
- Thagard, P. (1989). Explanatory coherence. *Behavioral and Brain Sciences*, 12, 435–467.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.
- Thompson, L., & Walker, A. (1982). The dyad as the unit of analysis: Conceptual and methodological issues. *Journal of Marriage and the Family*, 44, 889–900.
- Tidwell, M. O., Reis, H. T., & Shaver, P. R. (in press). Attachment, attractiveness, and social interaction: A diary study. *Journal of Personality and Social Psychology*.
- Tolstedt, B. E., & Stokes, J. P. (1984). Self-disclosure, intimacy, and the depenetration process. *Journal of Personality and Social Psychology*, 46, 84–90.
- Trafimow, D., & Wyer, R. S. (1993). Cognitive representation of mundane events. *Journal of Personality and Social Psychology*, 64, 365–376.
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man 1871–1971* (pp. 136–172). Chicago: Aldine.
- Tucker, P., & Aron, A. (1993). Passionate love and marital satisfaction at key transition point in the family life cycle. *Journal of Social and Clinical Psychology*, 12, 135–147.
- Tyler, T. R., & Smith, H. J. (1998). Social justice and social movements. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 595–629). New York: McGraw-Hill.
- Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mecha-

- nisms and implications for health. *Psychological Bulletin*, 119, 488-531.
- Udry, J. R. (1981). Marital alternatives and marital disruption. *Journal of Marriage and the Family*, 43, 889-897.
- Uleman, J. S., Hon, A., Roman, R. J., & Moskowitz, G. B. (1996). On-line evidence for spontaneous trait inferences at encoding. *Personality and Social Psychology Bulletin*, 22, 377-394.
- Umberson, D., Wortman, C. B., & Kessler, R. C. (1992). Widowhood and depression: Explaining long-term gender differences in vulnerability. *Journal of Health and Social Behavior*, 33, 10-24.
- Vaillant, C. O., & Vaillant, G. E. (1993). Is the U curve of marital satisfaction an illusion? A 40 year study of marriage. *Journal of Marriage and the Family*, 55, 230-239.
- Vandenberg, S. (1972). Assortative mating, or who married whom? *Behavior Genetics*, 2, 127-158.
- van Ijzendoorn, M. H. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the Adult Attachment Interview. *Psychological Bulletin*, 117, 387-403.
- Van Yperen, N. W., & Buunk, B. P. (1994). Social comparison and social exchange in marital relationships. In M. J. Lerner & G. Mikula (Eds.), *Entitlement and the affectional bond: Justice in close relationships* (pp. 89-116). New York: Plenum.
- Vaughan, D. (1990). *Uncoupling: Turning points in intimate relationships*. New York: Vintage (Random House).
- Vaux, A. (1988). *Social support: Theory, research, and intervention*. New York: Praeger.
- Veroff, J., Douvan, E., & Kulka, R. A. (1981). *Mental health in America: Patterns of help-seeking from 1957 to 1976*. New York: Basic Books.
- Vormbrock, J. K. (1993). Attachment theory as applied to wartime and job-related marital separation. *Psychological Bulletin*, 114, 122-144.
- Waller, W. (1967). *The old love and the new: Divorce and readjustment*. Carbondale: Southern Illinois University Press. (Original work published 1930)
- Waller, W. W., & Hill, R. (1951). *The family: A dynamic interpretation*. New York: Dryden.
- Walster, E., Aronson, V., Abrahams, D., & Rottman, L. (1966). Importance of physical attractiveness in dating behavior. *Journal of Personality and Social Psychology*, 4, 508-516.
- Walster, E., & Walster, G. W. (1963). Effect of expecting to be liked on choice of associates. *Journal of Abnormal and Social Psychology*, 67, 402-404.
- Walster, E., Walster, G. W., & Berscheid, E. (1978). *Equity: Theory and research*. Boston: Allyn and Bacon.
- Walters-Champman, S. F., Price, S. J., & Serovich, J. M. (1995). The effects of guilt on divorce adjustment. *Journal of Divorce & Remarriage*, 22(3-4), 163-177.
- Waring, E. M., Tillman, M. P., Frelick, L., Russell, L., & Weisz, G. (1980). Concepts of intimacy in the general population. *Journal of Nervous and Mental Disease*, 168, 471-474.
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge: Cambridge University Press.
- Watson, D., & Pennebaker, J. W. (1989). Health complaints, stress, and distress: Exploring the central role of negative affectivity. *Psychological Review*, 96, 234-254.
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, 98, 219-235.
- Weber, A. L., Harvey, J. H., & Stanley, M. A. (1987). The nature and motivations of accounts for failed relationships. In R. Burnett, P. McGhee, & D. C. Clarke (Eds.), *Accounts for relationships* (pp. 114-133). London: Methuen.
- Wegner, D. M., & Bargh, J. A. (1998). Control and automaticity in social life. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 446-496). New York: McGraw-Hill.
- Wegner, D. M., Erber, R., & Raymond, P. (1991). Transactional memory in close relationships. *Journal of Personality and Social Psychology*, 61, 923-929.
- Wegner, D. M., Guiliano, T., & Hertel, P. T. (1985). Cognitive interdependence in close relationships. In W. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 253-276). New York: Springer.
- Weiner, B. (1985). "Spontaneous" causal thinking. *Psychological Bulletin*, 97, 74-84.
- Weinfeld, N. S. (1996). *Attachment and the representation of relationships from infancy to adulthood: Continuity, discontinuity, and their correlates*. Unpublished doctoral dissertation, University of Minnesota, Minneapolis.
- Weiss, R. L., & Heyman, R. E. (1990). Observation of marital interaction. In F. D. Fincham & T. N. Bradbury (Eds.), *The psychology of marriage: Basic issues and applications* (pp. 87-117). New York: Guilford.
- Weiss, R. S. (1973). *Loneliness: The experience of emotional and social isolation*. Cambridge, MA: MIT Press.
- Weiss, R. S. (1975). *Marital separation*. New York: Basic Books.
- Wellman, B. (1992). Men in networks: Private communities, domestic friendships. In P. M. Nardi (Ed.), *Men's friendships: Research on men and masculinities* (Vol. 2, pp. 74-114). Newbury Park, CA: Sage.
- Wellman, B., & Berkowitz, S. D. (1988). Introduction: Studying social structures. In B. Wellman & S. D. Berkowitz (Eds.), *Social structures: A network approach* (pp. 1-14). Cambridge: Cambridge University Press.
- Wheeler, L. (1974). Selective affiliation for purposes of social comparison. In T. Huston (Ed.), *Perspectives on interpersonal attraction* (pp. 309-328). New York: Academic Press.
- Wheeler, L., & Kim, Y. (in press). What is beautiful is culturally good: The physical attractiveness stereotype has different content in collectivistic cultures. *Personality and Social Psychology Bulletin*.



- Wheeler, L., Reis, H. T., & Nezlek, J. (1983). Loneliness, social interaction, and sex roles. *Journal of Personality and Social Psychology*, *45*, 943-953.
- White, G. L. (1980). Physical attractiveness and courtship progress. *Journal of Personality and Social Psychology*, *39*, 660-668.
- White, G. L., Fishbein, S., & Rutstein, J. (1981). Passionate love and the misattribution of arousal. *Journal of Personality and Social Psychology*, *41*, 56-62.
- White, G. L., & Mullen, P. E. (1989). *Jealousy: Theory, research, and clinical strategies*. New York: Guilford.
- White, L. K. (1983). Determinants of spousal interaction: Marital structure or marital happiness. *Journal of Marriage and the Family*, *45*, 511-519.
- White, L. K. (1990). Determinants of divorce: A review of research in the eighties. *Journal of Marriage and the Family*, *52*, 904-912.
- White, L. K., & Booth, A. (1991). Divorce over the life course: The role of marital happiness. *Journal of Family Issues*, *12*, 5-21.
- Wills, T. A. (1991). Social support and interpersonal relationships. *Review of Personality and Social Psychology*, *12*, 265-289.
- Wills, T. A., Weiss, R. L., & Patterson, G. R. (1974). A behavioral analysis of the determinants of marital satisfaction. *Journal of Consulting and Clinical Psychology*, *42*, 802-811.
- Wilson, T. D., & Kraft, D. (1993). Why do I love thee? Effects of repeated introspections about a dating relationship on attitudes toward the relationship. *Personality and Social Psychology Bulletin*, *19*, 409-418.
- Winch, R. F. (1958). *Mate selection: A study of complementary needs*. New York: Harper.
- Wish, M., Deutsch, M., & Kaplan, S. J. (1976). Perceived dimensions of interpersonal relations. *Journal of Personality and Social Psychology*, *33*, 409-420.
- Wispel, L. (1986). The distinction between sympathy and empathy: To call forth a concept, a word is needed. *Journal of Personality and Social Psychology*, *50*, 314-321.
- Wittenberg, M. T., & Reis, H. T. (1986). Loneliness, social skills, and social perception. *Personality and Social Psychology Bulletin*, *12*, 121-130.
- Wong, M. M., & Csikszentmihalyi, M. (1991). Affiliation motivation and daily experience: Some issues on gender differences. *Journal of Personality and Social Psychology*, *60*, 154-164.
- Wood, J. T., & Inman, C. C. (1993). In a different mode: Masculine styles of communicating closeness. *Journal of Applied Communication Research*, *21*, 279-295.
- Wood, W., Rhodes, N., & Whelan, M. (1989). Sex differences in positive well-being: A consideration of emotional style and marital status. *Psychological Bulletin*, *106*, 249-264.
- Woody, E. Z., & Costanzo, P. R. (1990). Does marital agony precede marital ecstasy? A comment on Gottman and Krokoff's "Marital interaction and satisfaction: A longitudinal view." *Journal of Consulting and Clinical Psychology*, *58*, 499-501.
- Wortman, C. B., Adelman, P., Herman, E., & Greenberg, R. (1976). Self-disclosure: An attributional perspective. *Journal of Personality and Social Psychology*, *33*, 184-191.
- Wortman, C. B., & Silver, R. C. (1987). Coping with irrevocable loss. In G. R. VandenBos & B. K. Bryant (Eds.), *Cataclysms, crises, and catastrophes: Psychology in action* (pp. 189-235). Washington, DC: American Psychological Association.
- Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. *Journal of Consulting and Clinical Psychology*, *57*, 349-357.
- Wortman, C. B., Silver, R. C., & Kessler, R. C. (1993). The meaning of loss and adjustment in bereavement. In M. S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.), *Handbook of bereavement: Theory, research, and intervention* (pp. 349-366). Cambridge: Cambridge University Press.
- Xiaohe, X., & Whyte, M. K. (1990). Love matches and arranged marriages: A Chinese replication. *Journal of Marriage and the Family*, *52*, 709-722.
- Yalom, I., & Lieberman, M. A. (1991). Spousal bereavement and heightened existential awareness. *Psychiatry*, *54*, 334-345.
- Zadny, J., & Gerard, H. B. (1974). Attributed intentions and informational selectivity. *Journal of Experimental Social Psychology*, *10*, 43-52.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monograph Supplement*, *9*, 1-27.
- Zajonc, R. B. (1998). Emotions. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 591-632). New York: McGraw-Hill.
- Zammichieli, M. E., Gilroy, F. D., & Sherman, M. F. (1988). Relation between sex-role orientation and marital satisfaction. *Personality and Social Psychology Bulletin*, *14*, 747-754.
- Zebrowitz, L. A., Olson, K., & Hoffman, K. (1993). The stability of babyfacedness and attractiveness across the lifespan. *Journal of Personality and Social Psychology*, *64*, 453-466.
- Zevon, M. A., & Tellegen, A. (1982). The structure of mood change: An idiographic/nomothetic analysis. *Journal of Personality and Social Psychology*, *43*, 111-120.
- Zuo, J. (1992). The reciprocal relationship between marital interaction and marital happiness: A three wave study. *Journal of Marriage and the Family*, *54*, 870-878.
- Zuroff, D. C. (1989). Judgments of frequency of social stimuli: How schematic is person memory? *Journal of Personality and Social Psychology*, *56*, 890-898.