

RELATIONSHIPS FROM THE PAST IN THE PRESENT: SIGNIFICANT- OTHER REPRESENTATIONS AND TRANSFERENCE IN INTERPERSONAL LIFE

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Close relationships have long captured the interest of both the social psychologist and layperson. Among social psychologists, this interest has flourished in the last few decades, with considerable emphasis being given to processes and phenomena in present-day close relationships (for reviews, see Berscheid, 1994; Clark & Reis, 1988). Also common to much recent empirical work on close relationships is a focus on social-cognitive structures and processes, as reflected in recent volumes devoted entirely to the growing cross-fertilization between social cognition and close relationships research (Fletcher & Fincham, 1991; Fletcher & Fitness, 1996).

In this chapter, we present our approach to the study of close relationships, an approach grounded in social-cognitive theory and research, but departing somewhat from the domain of present-day close relationships by focusing specifically on past relationships with significant others and their role in shaping current social relations. We aim not only to demonstrate the powerful and multifaceted effects that prior experiences with significant others exert on present-day interpersonal life, but also to precisely articulate the social-cognitive principles that govern the manner in which this influence of the past on the present occurs.

I. The Transference Phenomenon

In the course of everyday social life, it is not uncommon for a newly encountered person to remind a perceiver of someone highly significant whom he or she knows or has known in the past. Intuition suggests that

such reminders influence perceptions of the new person. Indeed, as a result of such reminders, feelings, expectations, and behavioral responses experienced in relation to the new person may come to reflect, at least in part, past experiences with the particular significant other. Consider, for example, a man whose new neighbor reminds him of his estranged father and who thus bristles with anger upon passing this neighbor on the street. Or consider the child who anticipates harsh discipline from a new authority figure because she has been disciplined harshly by a parent.

The general notion that patterns of interpersonal relating, learned in prior relationships, may resurface in later social relations is shared by a wide range of psychological theories (e.g., Baldwin, 1992; Bartholomew & Horowitz, 1991; Bowlby, 1969, 1973, 1980; Bugental, 1992; Feeney & Noller, 1990; Freud, 1912/1958; Greenberg & Mitchell, 1983; Guidano & Liotti, 1983; Hazan & Shaver, 1987; Horney, 1939; Horowitz, 1991; Kelly, 1955; Luborsky & Crits-Christoph, 1990; Rogers, 1951; Safran & Segal, 1990; Shaver & Rubenstein, 1980; Sullivan, 1953; Wachtel, 1981). In our work, we focus on the clinical concept of *transference* (e.g., Freud, 1912/1958), conceptualized in social-cognitive terms. Transference refers to the very phenomenon whereby aspects of past relationships with significant individuals reemerge in present interpersonal life (see also Sullivan, 1940, 1953). Indeed, basic to any definition of transference is the experience of assumptions and feelings about a significant other in relation to some other person, generally toward an analyst in psychoanalysis (Luborsky & Crits-Christoph, 1990; see also Ehrenreich, 1989), but also potentially to any individual encountered in daily social interactions.

Although the transference concept has existed for nearly a century, little experimental work has been done to examine whether or not transference actually occurs, leaving scant knowledge concerning its underlying mechanisms. Our central argument is that the activation and application of a stored, mental representation of a significant other to a new person constitute the fundamental processes by which transference occurs. Thus, when something about a new person reminds a perceiver of a significant other, the stored representation of the significant individual is likely to come to mind, consciously or nonconsciously, and in turn, to be applied to the new person, coloring the perceiver's interpretations of, and responses toward, the person.

We now turn to our social-cognitive model of transference, and the program of research emerging from it (Andersen & Baum, 1994; Andersen & Cole, 1990; Andersen, Glassman, Chen, & Cole, 1995; Andersen, Reznik, & Manzella, 1996; Baum & Andersen, in press; Chen, 1997; Hinkley & Andersen, 1996). We begin by articulating the basic assumptions of the model. We then describe the experimental paradigm used in our re-

search and initial evidence supporting the model. Next, we present a series of empirical efforts designed not only to demonstrate the many forms in which past experiences with significant others may reappear in present social relations, but also to provide evidence for the social-cognitive mechanisms that guide the transference process. Finally, we locate our work in the broader literature on close relationships by highlighting common theoretical and empirical ground.

II. The Social-Cognitive Model of Transference

Fundamental to the social-cognitive model of transference is the assumption that mental representations of significant others, developed in numerous encounters with these individuals, are stored in memory, are highly affectively laden, and are connected with the self in memory via self/significant-other or relational linkages. As indicated, the model proposes that transference can be understood in terms of the activation and application of these stored representations to new others in social perception. In this section, we elaborate on these basic contentions of the model, describing both its social-cognitive and clinical underpinnings.

A. SOCIAL-COGNITIVE ORIGINS

To understand how transference occurs by means of the activation and application of a stored, mental representation of a significant other to a new person, one needs to begin by considering the different types of social knowledge that are thought to be represented in memory. Social constructs have most often been studied as types of persons, such as a "nerd" or "adventurous" type (e.g., Higgins & King, 1981). As with roles and stereotypes, these constructs represent classes of people, typically designated by trait-adjective terms, which can then operate as points of comparison in assessing new others (e.g., Andersen & Klatzky, 1987; Schneider & Blankmeyer, 1983).

A "proper" construct, as in a "proper" name for a specific person (e.g., Higgins & King, 1981), can also operate as do other social constructs (e.g., Andersen & Glassman, 1996; S.T. Fiske, 1982; Smith & Zarate, 1990, 1992). Such constructs, representing individual persons, have been referred to as *exemplars*, and considerable research has shown that they are often also used as points of comparison for judging new individuals (e.g., Judd &

Park, 1988; Smith & Zarate, 1990, 1992; see also Linville & Fischer, 1993; Mullen, 1991; Park & Hastie, 1987).

Building on this basic notion, we define transference in terms of the activation of a perceiver's representation of a significant other—or exemplar of this important other—and its subsequent application to a new person. As a result, encounters with this new person may be experienced nearly as if he or she *were* the significant other—that is, in ways that are *analogous* to past experiences with the significant other. Responding by analogy has been shown to occur in a variety of domains, including ones not involving significant-other representations (e.g., Gentner & Markman, 1997; Gilovich, 1981; Holyoak & Thagard, 1995; Read & Cesa, 1991; Seifert, McKoon, Abelson, & Ratcliff, 1986; see also Lewicki, 1985, 1986; Logan, 1988; Ross & Bradshaw, 1994; Ross, Perkins, & Tenpenny, 1990; Schank, 1982).

B. SOURCES OF TRIGGERING TRANSFERENCE

Beyond simply identifying the activation and application of significant-other representations to new others as the fundamental processes underlying transference, our model maintains that the same basic principles thought to govern other social constructs (e.g., traits, roles, and stereotypes) similarly guide the activation and use of significant-other representations in social perception. In particular, in accord with prevailing social-cognitive models of construct activation and use (e.g., Higgins, 1989a, 1996; see also Bargh, 1997; Sedikides & Skowronski, 1990, 1991; Wyer & Srull, 1986), the model delineates both chronic and transient sources of triggering significant-other representations.

Chronic sources of construct activation, or the *chronic accessibility* of a construct, are thought to arise from a construct's sheer frequency of use (e.g., Higgins, 1989a, 1990, 1996; Higgins & Brendl, 1995; Higgins & King, 1981; Higgins, King, & Mavin, 1982). The chronic accessibility of a construct is of considerable significance in social perception in that it refers to the chronic readiness for the construct to be brought to bear on perceiving and interpreting others—even with minimal or no other sources of activation present.

By definition, the degree to which any given construct is chronically accessible depends on factors contributing to the frequency with which the construct comes to mind. Significant-other representations are highly familiar, frequently thought about, and of relevance to the self (Andersen & Glassman, 1996; Andersen, Glassman, & Gold, 1998; see also Prentice, 1990)—factors that imply that they are likely to be chronically accessible.

Indeed, the chronic accessibility of significant-other representations has been documented in research to be described below (Andersen et al., 1995), suggesting the ubiquity of the transference phenomenon in everyday social relations.

Of course, beyond chronic sources of accessibility, transient cues in the environment can also contribute to the activation and application of stored constructs (e.g., Higgins, 1989a, 1996). In particular, a large literature on *priming* has examined the impact of a construct's recent activation on the extent to which it is subsequently used in social perception (e.g., Bargh, Bond, Lombardi, & Tota, 1986; Higgins, Rholes, & Jones, 1977; Srull & Wyer, 1979). This research has typically shown that the activation of a construct just before a stimulus person is encountered, or the priming of the construct, is likely to result in the assimilation of the person into the construct—that is, the person is likely to be interpreted in construct-derived ways in a subsequent impression-formation task (e.g., Higgins et al., 1977). Although contrast effects, whereby the impression of the target is contrasted away from the activated construct, are observed under certain conditions (e.g., Higgins & Stangor, 1988; Lombardi, Higgins, & Bargh, 1987; Manis, Paskewitz, & Cotler, 1986; Martin, 1986; Martin, Seta, Crelia, 1990; Petty & Wegener, 1993; Schwarz & Bless, 1991), assimilation effects are quite common.

In accord with social-cognitive work on priming, our model assumes that such transient sources of construct activation may contribute to the triggering of transference. That is, the recent activation, or priming, of a significant-other representation ought to increase the subsequent likelihood that the representation will be activated and applied to a newly encountered person. Indeed, research on transference supports this, as will be detailed later (Andersen et al., 1995, Study 1).

Most work on transient priming sources of construct activation has tended to ignore the potential for a to-be-interpreted stimulus itself to contribute to the likelihood of construct activation (for exceptions, see Banaji, Hardin, & Rothman, 1993; Bruner, 1957; Hardin & Rothman, 1997; Higgins & Brendl, 1995; Higgins et al., 1977; Srull & Wyer, 1979, 1980). Central to our model of transference is the notion that a target person's resemblance to a significant other increases the likelihood that the presentation of this individual will be activated and applied to the new person. That is, the "match" between cues in the target person and stored knowledge about a significant other—termed *applicability* (Higgins, 1989a, 1996)—is another potential transient source of triggering transference. Considerable research converges on the notion that the activation and application of a stored construct to a stimulus are particularly likely to occur when there is some perceived "match" between the stimulus and the construct (e.g., Tversky, 1977;

Tversky & Gati, 1978; see also Cantor & Mischel, 1979; Hardin & Rothman, 1997; Higgins, 1989a, 1996; Nosofsky, 1986; Rosch, 1978; Schneider & Blankmeyer, 1983; Sedikides & Skowronski, 1990, 1991; Smith & Zarate, 1990).

In our view, applicability-based triggering in the form of a newly encountered person's "match" or resemblance to a significant other is especially relevant to transference in that the phenomenon may be particularly likely to occur in the context of actual face-to-face encounters with new others. Thus, we suggest that both chronic and applicability sources of activation are typical contributors to the activation and use of significant-other representations, and much research on transference supports this claim, as will be seen below (Andersen et al., 1995, Study 2; see also Andersen & Glassman, 1996; Andersen, Reznik, & Chen, 1997; Chen, Andersen, & Hinkley, in press).¹

Overall, our model of transference maintains that chronic sources, either alone or in combination with transient priming and applicability sources of activation contribute to the triggering of transference (see also Bargh et al., 1986; Higgins, 1996). That is, although significant-other representations should have a chronic readiness to be used in social perception, they should also be particularly likely to be activated and applied to new others when transient sources of construct activation are also present. We discuss issues pertaining to the triggering of transference in greater depth in later sections.

C. MANIFESTATIONS OF TRANSFERENCE

In our model, transference is seen as a multifaceted phenomenon, bringing a wide range of past experiences in relationships with significant others into the present. Namely, we contend that its occurrence manifests itself

¹ In defining transference as reflecting the activation and application of a significant-other representation to a new person, one question that might arise is whether or not perceivers are consciously aware of these processes. In particular, are perceivers aware that the new person reminds them of a significant other? We would argue that transference may occur whether perceivers are or are not consciously aware of the resemblance of a new person to a significant other. Indeed, recent research examining the subliminal activation of significant-other representations is consistent with this (Glassman & Andersen, in press). On the other hand, social-cognitive work on assimilation and contrast effects would suggest that awareness is a factor that might lead a perceiver to try to avoid interpreting a new person in terms of a significant-other representation (for review, see Higgins, 1996). Such inhibition of transference is likely to occur to the extent that the perceiver's awareness of its possible occurrence is coupled with the assessment that using the significant-other representation to interpret the new person would be inappropriate or irrelevant (for a discussion of related issues, see Andersen et al., 1995; Chen, Andersen, & Hinkley, in press).

not only in terms of perceptions and interpretations of, and responses toward, a new person to whom an activated significant-other representation has been applied, but also in terms of the experience of the self in relations with the new other. In more specific terms, we assume that the activation and application of a significant-other representation to a new person lead perceivers to "go beyond the information given" (Bruner, 1957) about the person by inferentially filling in the blanks about the person on the basis of the representation. That is, upon such activation and application, perceivers' stored inferences about the significant other are used to make inferences about the new person at encoding (i.e., while learning about the person). Subsequently, perceivers should be more likely to remember the new person in terms of the significant other, believing that they *learned* things about a new person that they had actually *inferred* at encoding (for related work, see Johnson, Hastroudi, & Lindsay, 1993; Johnson & Raye, 1981).

Stated somewhat differently, we argue that significant-other representations have the inferential power to simplify what is known about a new person by enabling inferences about him or her, just as a schema or prototype does (see also Andersen & Klatzky, 1987; Andersen, Klatzky, & Murray, 1990; Bargh et al., 1986; Cantor & Mischel, 1977, 1979; Hamilton, 1979; Higgins, Rholes, & Jones, 1977; Taylor, 1981). In short, the emergence of *representation-derived inferences* based on an activated significant-other representation serves as a basic index of transference in our research on the phenomenon (see also Andersen & Glassman, 1996).

Our model of transference also argues that the activation and application of a significant-other representation to a new person should lead to evaluations of the person that are derived from the representation. More specifically, drawing on S.T. Fiske's model of schema-triggered affect (e.g., S. T. Fiske, 1982), we contend that "affective" or "evaluative" information linked to the representation in memory is activated upon the activation of the representation, leading the new person to be evaluated in these terms (e.g., Andersen & Baum, 1994)—analogous to what has been shown to occur upon activation of a social category or stereotype (S. T. Fiske & Pavelchak, 1986; Pavelchak, 1989). Thus, we interpret the emergence of *representation-derived evaluation* of a new person based on an activated significant-other representation as another basic index of transference, along with representation-derived inference and memory (Andersen et al., 1997; Andersen & Glassman, 1996).

Finally, our model assumes that representations of the self and significant others are linked in memory (see also Baldwin, 1992; Bugental, 1992; Ogilvie & Ashmore, 1991). We maintain that these self/significant-other linkages represent the relationship between self and other, and thus embody motiva-

tions, affect, and roles experienced in relation to the other, as well as interpersonal expectancies involving the other (Andersen et al., 1996; Baum & Andersen, in press; see also Andersen et al., 1997). As such, the activation and application of significant-other representations to new others in transference should lead not only to interpretive and evaluative effects, but also to motivational and affective consequences that reflect aspects of past relationships with significant others. Beyond this, stored self/significant-other linkages imply that when a significant-other representation is activated and applied to a new person, aspects of the self that are or have been experienced in the relationship with the relevant significant other are also activated, leading to changes in the experience of the self in relations with the new other (e.g., Andersen et al., 1997; Hinkley & Andersen, 1996; see also Baldwin & Holmes, 1987; Baldwin, Carrell, & Lopez, 1990).

D. CLINICAL ORIGINS

The clinical origins of our model lie in the work of both Freud (1912/1958) and Sullivan (1940, 1953). Freud developed the transference concept and assumed it to have unconscious psychosexual content and motivation that emerge in therapy as a defense mechanism. The notion that a "patient" superimposes childhood fantasies, conflicts, and wishes about a parent onto an "analyst," weaving "the figure of the physician into one of the 'series' already constructed in his mind" (Freud, 1912/1963, p. 107; cited in Andersen & Glassman, 1996) is the essence of the concept. Although we do not endorse Freud's psychosexual-conflict model (which has implications for the content of transference), his assumption about its defensive roots, nor his nearly exclusive focus on parental figures, we clearly concur that responses to a significant other may be experienced with new people.

Particularly relevant to our model is the interpersonal view of transference proposed by Sullivan (1940, 1953) in which he termed the process *parataxic distortion*. His view assumes that children form "personifications" of themselves and of significant others, as well as "dynamisms," or the dynamics that characterize the typical interplay between oneself and the other (see also Greenberg & Mitchell, 1983; Mullahy, 1970). He saw both being learned in the context of "real" interpersonal relations experienced in one's family of origin in relation to particular significant individuals, and would agree. However, Sullivan did not, as we do, postulate the existence of "representations," instead using personifications and dynamisms

in terms of energy and energy transformations.² Nonetheless, we see personifications and dynamisms as readily interpretable in terms of mental representations designating the self and others, and the relational patterns linking the self with these others (see also Andersen & Glassman, 1996).

Sullivan also made assumptions about motivation, arguing that certain basic human needs guide the development of the self's relations with others (see also Andersen et al., 1997). In his model, he discusses the need for satisfaction, defining it in terms of the need for warm or "integrative" encounters with others in which mutual tenderness is expressed. His "tenderness theorem" posits that encounters with significant others that are tender and caring are essential for satisfaction—even when one is pursuing seemingly unrelated tasks, such as developing one's own skills and talents. In doing the latter, one is fulfilling another aspect of the need for satisfaction involving the need to express one's own emotions and talents, and to develop one's own competencies. In his model, the aim is to do the latter without disrupting or damaging the emotional connection with the other.

Beyond the need for satisfaction, a need for security is also assumed—that is, the need to feel and be safe (Greenberg & Mitchell, 1983). In Sullivan's view, the experience of tenderness with significant others or its alternatives—experiencing the other as cold, distant, or distressed—impacts on one's sense of security and safety. Hence, the individual is motivated to keep insecure feelings about significant others at bay in the context of needing to feel tender, connected responses from them. In short, these motivations for satisfaction and security define a person's individualized pattern of pursuing satisfaction and security with particular significant others, and are thus represented in personifications and dynamisms. In Sullivan's version of transference, then, the process invokes not only personifications and dynamisms, but also these motivations.

Our model of transference also has motivational underpinnings, alongside its social-cognitive bases. Thus, we concur with Sullivan that basic motivations pertaining to satisfaction and security—among others such as a basic need for human connection—are fundamental to the development of, from our perspective, representations of the self, significant others, and the self

² In terms of distinctions, Sullivan proposed that actual interpersonal relations experienced with a significant other in a family is what leads to patterns of responding learned with significant others, whereas Freud assumed "reality" was less relevant than unconscious fantasy about interactions with others (Greenberg & Mitchell, 1983), driven by psychosexual urges and *not* by affiliative or mastery needs. The latter needs are of course fundamental to Sullivan's ideas about the need for satisfaction, as described in this section. For Sullivan, then, the content of self and other knowledge is not necessarily psychosexual, as it is in Freud's theory, and the id, ego, superego structures of Freud have no place. Instead, Freud's tripartite structure of the mind is replaced with self-representations and object representations.

in relation to these others (for a more detailed discussion, see Andersen et al., 1997).

As a final note, despite the clinical relevance of our model, we contend that transference can occur not only in therapy, but also in daily life (see also Singer, 1988; Wachtel, 1981; Westen, 1988)—a claim also made by Freud and Sullivan, although they both focused on the therapy situation (see Luborsky & Crits-Christoph, 1990). Indeed, although some psychodynamic theorists focus on transference exclusively in the client-therapist relationship, and also emphasize the particular importance of parental representations (see Ehrenreich, 1989; Luborsky & Crits-Christoph, 1990), we consider transference ubiquitous in daily life, and regard its therapeutic implications in broad-based terms as well (see Andersen & Berk, 1998). Thus, we assume that it may occur on the basis of representations of various significant others—such as a sibling, best friend, spouse, or other romantic partner—as well as on the basis of parental representations. In sum, we assume that transference can be understood in basic social-cognitive terms, that it can be measured empirically, and that it has multifaceted effects that result in the reemergence of relationships from the past in the present.

We turn now to the program of research that has examined the basic assumptions of the social-cognitive model of transference. We begin by describing the experimental paradigm used in this work and initial evidence for the model, and continue on through several bodies of empirical evidence on the transference phenomenon pertaining to its affective and motivational consequences, as well as to the underlying social-cognitive principles that govern the process. We then consider what is known from research on transference in terms of the broader literature on close relationships, highlighting ways in which our work and this broader body of research can be mutually informed.

III. The Basic Transference Paradigm

Given the complexity of our research methods, we discuss them in some depth before presenting the evidence for the social-cognitive model of transference. The experimental paradigm that we describe in this section serves as the backbone of all the research presented in later sections.

A. COMBINING IDIOGRAPHIC AND NOMOTHETIC RESEARCH METHODS

Essential to our view of the role of significant-other representations in transference is that these representations are personally meaningful, thus

requiring *idiographic* research methods (Allport, 1937; Kelly, 1955) to assess the idiosyncratic content of people's representations of their significant others. To understand the basic processes underlying transference, however, it is also necessary to use a *nomothetic* experimental design in which idiographic content is used. Thus, we use a combined idiographic-nomothetic methodology that allows us to track normative processes generalizing across people, while nonetheless making use of idiographic information. (For pertinent reviews of idiographic methods, see Higgins, 1987, 1990; Pelham, 1993; Pervin, 1976.)

An outline of our basic experimental paradigm appears in Table 1. In the pretest session, participants are asked to idiographically generate descriptive sentences about a significant other, and in some cases, about various control representations as well. In a subsequent, experimental session, usually held at least 2 weeks later, the learning and test phases of the

TABLE I
THE BASIC TRANSFERENCE PARADIGM^a

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- A. Pretest Session
1. Participants name a significant other and possibly other people or social categories to serve as control representations.
 2. Participants generate a series of sentences (usually 14) to characterize each person/category named, and then rank order these sentences in terms of how descriptive they are of each person/category.
 3. For each person/category, participants select from a list of adjectives those they view as neither descriptive nor counter-descriptive of the person/category—that is, those that are essentially irrelevant to the person/category.
- B. Experimental Session
1. Typically, at least 2 weeks after the pretest session, participants engage in the *learning phase* in which they are presented with descriptive sentences about one or more new target persons.
 2. In the learning phase, one target person is always characterized by some of the descriptive sentences participants themselves had generated earlier to describe their significant other (as well as by some irrelevant filler sentences). The other targets, when present, correspond to the control representations.
 3. For each target, participants complete a recognition-memory test in which they rate their confidence that they saw each of a series of descriptive sentences in the learning phase. Some of these sentences were actually presented about the target, and some were *not* presented but were derived from the corresponding representation. For the target corresponding to participants' significant other, the confidence ratings given for the representation-derived sentences that were *not* actually presented in the learning phase serve as a basic index of transference in the form of representation-derived inference and memory about the target based on an activated significant-other representation. Representation-derived evaluation of the target also serves as a basic index of transference.
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^a Adapted from Andersen and Glassman (1996).

paradigm occur. In the learning phase, participants encounter descriptive sentences about one or more new target persons. Some of these target descriptors were derived from ones they had idiographically generated in the earlier session, and others are irrelevant filler descriptors. We construe descriptors in a target person as an analog for cues perceivers would encounter on-line in an actual social encounter.

One target always resembles the significant other participants had described earlier. That is, descriptive cues in this target "match" or overlap with some of the knowledge participants have stored about a significant other. Thus, applicability-based triggering of significant-other representations is operationalized in the form of *significant-other resemblance* in the new target person. Said differently, significant-other resemblance in the target constitutes applicability sources of activation for the relevant significant-other representation in the learning phase of our paradigm.

The standard significant-other-resemblance condition is compared to one or several control conditions in which *no-significant-other resemblance* exists in the target person(s). For example, in a standard control condition, the target is characterized in the learning phase by descriptors generated by a "yoked" participant to describe his or her significant other. Typically, each participant in the significant-other-resemblance condition is yoked with one participant in the no-resemblance condition on a one-to-one basis. This ensures that the participant in the latter condition, the yoked-participant control condition, sees exactly the same descriptors as the participant in the significant-other-resemblance condition, thereby controlling for the exact content of the descriptors about the new target. The extent to which participants' own significant-other representations are activated and applied should be greater in the standard significant-other-resemblance condition relative to the no-significant-other-resemblance condition(s).

After learning about the target person(s), participants take part in the test phase of the experimental session. Specifically, they complete a variety of dependent measures, including a standard recognition-memory test composed of representation-derived descriptive sentences (as well as some filler sentences) that either were or were not presented about each target in the learning phase. Table II depicts the stimuli used in a typical learning phase to describe the target(s), along with stimuli used as test items in the recognition-memory test to assess representation-derived inference and memory for both the standard significant-other-resemblance condition and the yoked-participant control condition in which no significant-other resemblance exists in the target person.

For each target, participants' recognition-memory confidence ratings for representation-derived descriptors that were *not* actually presented in the learning phase serve as a measure of the nomothetic process of

TABLE II
TARGET STIMULI AND RECOGNITION-MEMORY TEST ITEMS USED IN THE EXPERIMENTAL SESSION

| | Target condition | |
|---|--|--|
| | Resembles the participant's own significant other | Resembles a yoked-participant's significant other |
| Target descriptors used in the learning phase | Some of the <i>participant's own</i> idiographically generated significant-other descriptors, along with some irrelevant filler descriptors | Some of a <i>yoked participant's</i> idiographically generated significant-other descriptors, along with some irrelevant filler descriptors |
| Items used in the recognition-memory test | Some of the <i>participant's own</i> idiographically generated significant-other descriptors that were and were not presented in the learning phase, and some irrelevant filler descriptors that were and were not presented in the learning phase | Some of a <i>yoked participant's</i> idiographically generated significant-other descriptors that were and were not presented in the learning phase, and some irrelevant filler descriptors that were and were not presented in the learning phase |

"going beyond the information given" inferentially about the target in representation-derived ways at encoding (see Cantor & Mischel, 1977). That is, higher confidence ratings in the significant-other-resemblance condition relative to the control condition(s) serve as a basic index of transference in the form of representation-derived inference and memory.

The emergence of evaluative responses toward the target in the significant-other-resemblance condition that reflect the overall evaluation or affect linked with the relevant representation is also taken as basic evidence for the transference phenomenon. Such representation-derived evaluation should not occur in the no-significant-other-resemblance condition(s). Hence, as indicated earlier, evaluation ratings serve as another basic index of transference.

B. INITIAL EVIDENCE: REPRESENTATION-DERIVED INFERENCE/MEMORY AND EVALUATION

The first demonstration of transference examined representation-derived inference and memory based on an activated significant-other representation (Andersen & Cole, 1990, Study 3). In the pretest session of the study, participants identified a significant other, a nonsignificant other, a stereo-

type label (e.g., "redneck"), and a trait label (e.g., "liberal"). They then generated 14 sentences to describe each person or social category, and rank-ordered these sentences in terms of their descriptive importance. Next, they selected from a list of adjectives those they considered "irrelevant" to each representation. These adjectives were used as filler target descriptors in the learning phase, and as filler test items in the test phase of the experimental session.

In the learning phase, each participant was presented with descriptive sentences about four target persons via microcomputer—one of whom resembled his/her own significant other. The other targets served as no-significant-other-resemblance control conditions and resembled, respectively, the participant's previously identified nonsignificant other, stereotype, and trait. The sentences describing each target were derived from ones participants had generated in the pretest session. More specifically, each of four fictional-character names (e.g., "Terry") was paired with a fixed proportion of participants' identically ranked sentence-predicates for each representation (e.g., "... has strong views" or "... makes others feel inadequate"), along with some irrelevant filler adjectives (each preceded by the verb "is") in an individual random order. Each target resembled one of the participant's own representations with an identical degree of applicability—that is, overlap between the descriptors previously generated to characterize each representation and those learned about the corresponding target.

After the learning phase, participants completed a standard recognition-memory test about each target used to assess representation-derived inference and memory. Resemblance in each target to the corresponding representation should increase the extent to which the representation is activated and applied to the target, as would be evidenced in higher recognition-memory confidence ratings for representation-derived descriptors that were *not* actually presented about the target. As predicted, participants gave higher confidence ratings when the target resembled their own significant other relative to the no-significant-other-resemblance control targets.

This evidence for transference in the form of representation-derived inference and memory based on an activated significant-other representation has been found in numerous studies, using designs varying in the number of target persons about whom participants learn, the control conditions used, and the manner in which participants "encounter" the descriptors about the target persons (e.g., Andersen & Baum, 1994; Andersen et al., 1995, 1996; Baum & Andersen, in press; Chen et al., in press; Hinkley & Andersen, 1996). Indeed, recent studies have also demonstrated how robust this basic inference and memory effect is in that it persists and may even be exacerbated over time (Glassman & Andersen, in press).

As indicated, beyond such representation-derived inference and memory, evaluative responses of a new person based on an activated significant-other representation also serve as a basic index of transference. In research examining such representation-derived evaluation in transference, the overall evaluative tone of participants' significant-other representations is determined at pretest—specifically, participants are asked to name and describe positively and negatively evaluated significant others (e.g., Andersen & Baum, 1994; Andersen et al., 1996). Representation-derived evaluation in transference is then examined by manipulating significant-other resemblance and the overall evaluative tone of the significant-other representation in the experimental session.

The initial research examining representation-derived evaluation in transference used a between-subjects design in which participants learned about a new target person in a "real" social context in which the person was allegedly seated next door and a future interaction was imminent (Andersen & Baum, 1994). The new person resembled either participants' own positively or negatively toned significant other or a yoked participant's positively or negatively toned significant other. Perfect one-to-one yoking across conditions ensured that the stimuli encountered by participants learning about a target resembling their own significant other were identical to those encountered by participants learning about a yoked participant's significant other. The use of identical descriptors across conditions rules out differences based on the content of the stimuli, as well as the notion that something distinctive about the descriptors of any significant other, even a yoked participant's, could somehow account for the results.

Because the target resembled either the participant's own or a yoked participant's positively or negatively toned significant other, the extent to which evaluation of this target was derived from the overall evaluative tone of the relevant significant-other representation could be assessed. As stated in an earlier section, in line with the theory of schema-triggered affect (e.g., S. T. Fiske, 1982), we argue that when a significant-other representation is activated and applied to a new person, the evaluation linked to this representation should be attached to the new other. We refer to this evaluation prediction as "representation-derived" instead of "schema-triggered" simply because it takes no stand on the internal architecture or schematicity of significant-other representations, and thus is a language we prefer—even though predictions based on the theory of schema-triggered affect are the predictions we make.

As in the prior study (Andersen & Cole, 1990, Study 3), the results showed greater representation-derived inference and memory for the target resembling the participant's own rather than a yoked participant's signifi-

cant other, as portrayed in Figure 1. These data verify evidence for transference using this index. Importantly, this effect occurred whether the target resembled a positively or negatively toned significant other, thereby indicating that transference occurs on the basis of both positively and negatively toned significant-other representations.

Of still greater importance was evidence indicating that representation-derived evaluation does in fact occur as part of the transference process. That is, participants evaluated the target person more favorably when he/she resembled their own positively versus negatively toned significant other. This effect did not occur when the target resembled a yoked participant's positively versus negatively toned significant other. These findings are depicted in Figure 2.

In presenting these results, it is worth noting that participants had been asked to generate both positive and negative descriptors about their positively and negatively toned significant others in the pretest session so that the targets in both significant-other-resemblance conditions could be described with an equal number of positive and negative descriptors. As such, participants' evaluative responses toward the target resembling their own significant other were apparently derived from the overall evaluative tone of the relevant significant-other representation, rather than from the evaluative tone of the individual target descriptors.

In sum, initial research demonstrating transference has suggested that representation-derived inference and memory, as well as representation-

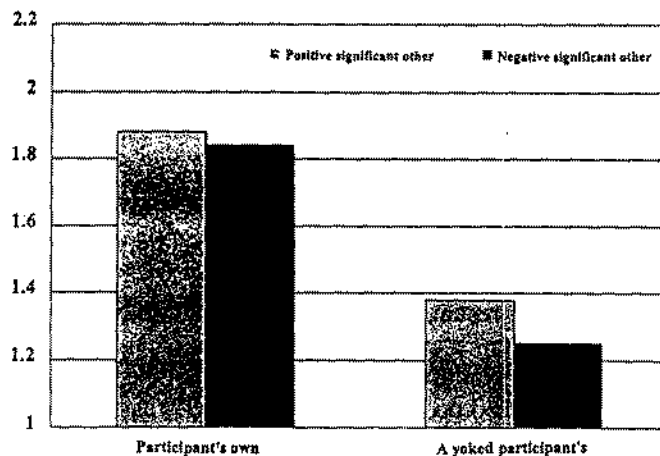


Fig. 1. Average representation-derived inference and memory rating as a function of significant-other resemblance and overall evaluative tone. (Adapted from Andersen & Baum, 1994.)

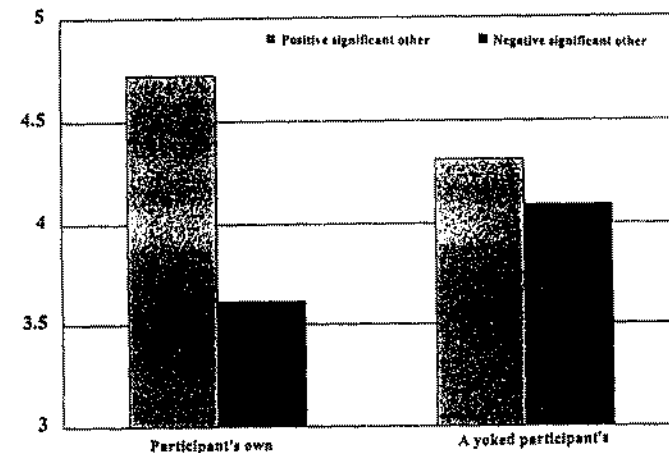


Fig. 2. Average representation-derived evaluation rating as a function of significant-other resemblance and overall evaluative tone. (Adapted from Andersen & Baum, 1994.)

derived evaluation, constitute basic indices of transference. That is, inferences and evaluations stored in memory about past or present significant others can be transferred to newly encountered others.

IV. Motivation, Expectancies, and Affect in Transference

Beyond stored inferences and evaluations about a significant other, we argue that significant-other representations include knowledge reflecting motivations, expectancies, and affect experienced previously in relationships with significant others. This implies that such forms of knowledge are also likely to be activated and applied to newly encountered others in transference. In this section, we describe a study designed to test these assumptions (Andersen et al., 1996).

Participants in this study learned about a new target person who resembled either their own or a yoked participant's positively or negatively toned significant other—with perfect yoking in a design nearly identical to the study described just above (Andersen & Baum, 1994). As in all prior studies, in the significant-other-resemblance conditions, the target descriptors were derived from those the participant had previously generated to describe either a positively or negatively toned significant other. The new target person about whom participants learned was described with an equal num-

ber of positive and negative descriptors, whether derived from a positively or negatively toned significant other. After learning about the target, participants completed several dependent measures including ones assessing the basic inference/memory and basic evaluation effects, as well as a variety of other representation-derived effects involving motivation, expectancies, and affect.

A. REPRESENTATION-DERIVED INFERENCE/MEMORY AND EVALUATION

As predicted, our basic inference and memory effect emerged in this study in the form of higher memory confidence ratings about representation-derived descriptors that were not presented about the new target person in the significant-other-resemblance condition relative to the no-resemblance control condition. As in earlier work (Andersen & Baum, 1994), the effect held both for positively and negatively toned significant others.

The basic evaluation effect was also found in this study. Specifically, participants evaluated the target more favorably when the target resembled their own positively toned significant other rather than own negatively toned significant other. This effect was not found when the target resembled a yoked participant's significant other—that is, in the no-significant-other-resemblance conditions.

B. REPRESENTATION-DERIVED MOTIVATION

Although the theory of schema-triggered affect does not specify the triggering of motivation reflecting the evaluative tone of a category (S. T. Fiske & Pavelchak, 1986), in our view, the basic notion that evaluative and affective aspects associated with a significant-other representation can be activated and applied to new others is readily extended into the motivational domain. Specifically, we contend that motivation concerning a significant other is likely to be stored in the linkages between the self and other—reflecting what the self seeks to accomplish with the other. Thus, upon the activation of a significant-other representation, representation-derived motivation should occur. That is, motivational material stored in self/significant-other linkages should be activated and applied to a new person when a significant-other representation is activated, leading motivations pursued in the relationship with the significant other to become operative in relations with the new other. These motivational assumptions are

grounded in part in a growing body of work indicating that motivational constructs, like any other construct, are represented in memory, and thus can be similarly activated and used (e.g., Bargh, 1990, 1997; Bargh & Gollwitzer, 1994).

To examine representation-derived motivation in transference, in the pretest session of this same study (Andersen et al., 1996), participants had been asked to name a positively toned significant other whom they felt close to and *wanted to be still closer to*, and a negatively toned significant other whom they did not feel close to and from whom they *wanted to be even more distant*. In the experimental session, participants' self-reported motivation for interpersonal closeness with the new target person was assessed after they learned about the target. Thus, representation-derived motivation in transference was measured in terms of the desire for interpersonal closeness in this study.

As predicted, the results showed that motivations pursued in relationships with significant others are activated and applied along with significant-other representations. As seen in Figure 3, participants were more motivated to emotionally approach (and not distance themselves from) the target who resembled their own positively toned significant other relative to the target resembling their negatively toned significant other. This pattern did not hold when the target resembled a yoked participant's significant other—that is, in the no-significant-other-resemblance conditions.

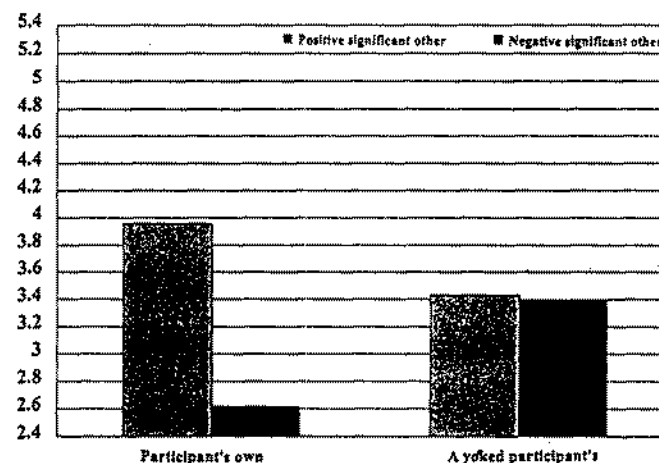


Fig. 3. Average representation-derived motivation rating as a function of significant-other resemblance and overall evaluative tone. (From Andersen, Reznik, & Manzella, 1996, Copyright 1996 by the American Psychological Association. Adapted by permission of the publisher.)

These data document representation-derived motivation in transference, and thus extend research on the theory of schema-triggered affect (S. T. Fiske, 1982) into the motivational domain. Further, the particular motivation examined—of emotionally approaching or avoiding another person—is arguably one of the most fundamental in that the need to bond or attach to others appears to be basic to survival (Andersen et al., 1997; see also Adler, 1927/1957; Bakan, 1966; Baumeister & Leary, 1995; Blatt, 1990; Bowlby, 1969; Deci & Ryan, 1985; Fairbairn, 1954; Gilligan, 1982; Greenberg & Mitchell, 1983; Guisinger & Blatt, 1994; Helgeson, 1994; Horney, 1939, 1945; McAdams, 1985, 1989; Mullahy, 1970; Rogers, 1951; Safran, 1990a, 1990b; Sullivan, 1940, 1953). In this sense, demonstrating the emergence of this motivation in transference may be of considerable significance.

C. REPRESENTATION-DERIVED EXPECTANCIES

Representation-derived expectancies based on an activated significant-other representation were also examined in the study just described (Andersen et al., 1996). In our view, expectancies about a significant other's responses toward the self should be stored in memory in the linkages between self and the significant other, and thus are likely to be activated and applied to a new person in transference. To examine this prediction, participants' expectancies about how positively or negatively the new target person would evaluate them were assessed in the experimental session of this study. If a significant other is or has been harsh and rejecting, this should be manifested as an expectancy held by perceivers for how a new person onto whom the corresponding significant-other representation has been activated and applied will respond to them—namely, with rejection. Conversely, if people perceive themselves as being loved or having been loved by a significant other, experiencing transference based on the representation of this individual should lead them to expect more love (or liking) from the new person.

As predicted, when the target person resembled participants' own positively toned significant other, participants expected the target to like and accept them more than when the target resembled their own negatively toned significant other. No such pattern of positive expectancies was found in the no-significant-other-resemblance conditions. These data appear in Figure 4.

Thus, stored expectancies about acceptance and rejection are activated when a significant-other representation is activated and applied to a

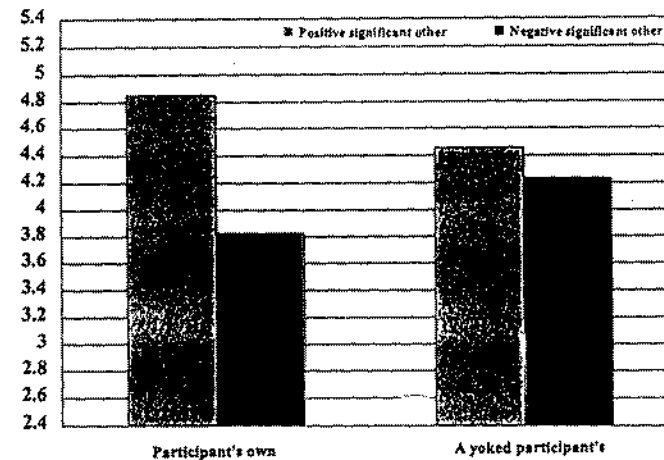


Fig. 4. Average representation-derived expectancy rating as a function of significant-other resemblance and overall evaluative tone. (From Andersen, Reznik, & Manzella, 1996. Copyright 1996 by the American Psychological Association. Adapted by permission of the publisher.)

new person.³ Such representation-derived expectancies implicate self/significant-other linkages stored in memory in that they reflect perceivers' perceptions of a relevant significant other's feelings toward them. On a broader level, these data are of significance in light of a growing body of work on the consequences of chronic expectancies about acceptance versus rejection in interpersonal relations (see also Downey & Feldman, 1996; Feldman & Downey, 1994), as well as theory and research on the role of outcome contingencies in interpersonal relations (e.g., Bandura, 1986; Higgins, 1989b).

D. REPRESENTATION-DERIVED FACIAL AFFECT

Finally, affective responses were also examined in the above study (Andersen et al., 1996). Given that emotional responses may last only a few seconds (Ekman, 1992), the focus was on affect shown in momentary facial expressions. Specifically, participants' facial expressions were covertly vid-

³ A reader might wonder about the distinctiveness of the measures of representation-derived evaluation, motivation, and expectancies used in this study. A factor analysis was conducted on the entire pool of self-report items meant to comprise these three measures. The results of this analysis generally verified the distinct psychological meaning of these measures (for a further discussion, see Andersen et al., 1996, pp. 1112–1113).

eotaped as they learned each descriptor about the new target person. Monitoring the face in this way provided a nonverbal measure of the affect experienced immediately upon encoding each target descriptor. Participants' facial affect was expected to reflect the overall evaluative tone of the significant-other representation.

Two trained judges, blind to condition, rated participants' facial expressions for pleasantness (i.e., positive versus negative feeling) as they read the descriptors, one at a time. As anticipated, participants responded with more positive facial affect when learning about the target resembling their own positively toned rather than their own negatively toned significant other—a pattern not seen when the target resembled a yoked participant's significant other. These findings are shown in Figure 5.

Beyond examining participants' facial affect as a function of the overall evaluative tone of the relevant significant-other representation, analyses were also conducted to assess whether participants' facial affect was responsive to the valence of the individual target descriptors, which was manipulated independently of the overall evaluative tone of the representation, as noted earlier. The results suggested differences in the extent to which the predicted effect of the overall evaluative tone of the representation emerged as a function of descriptor valence. Specifically, a though the predicted effect was found across target-descriptor valence, it emerged more unambiguously for negative target descriptors than for positive ones.

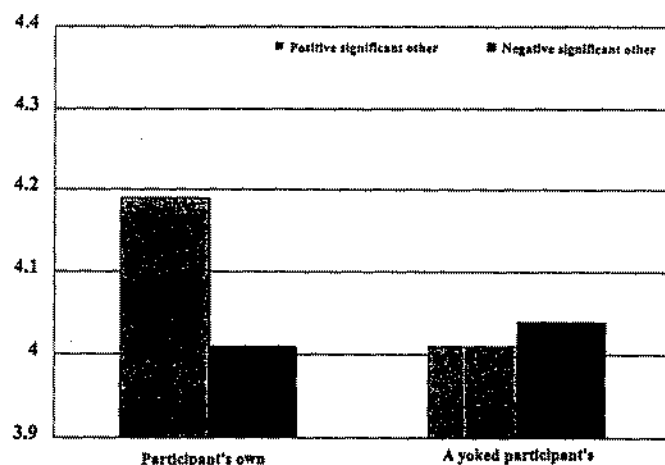


Fig. 5. Judges' average rating of positivity in facial affect at encoding as a function of significant-other resemblance and overall evaluative tone. (From Andersen, Reznik, & Manzella, 1996. Copyright 1996 by the American Psychological Association. Adapted by permission of the publisher.)

As shown in Figure 6, for negative descriptors, participants showed the most positive affect when the target resembled their own positively toned significant other relative to negatively toned significant other.

Stated differently, participants responded to negative target descriptors associated with a positively evaluated significant other with especially positive facial affect. One interpretation of this finding is that the inconsistency of the negative target descriptors in relation to the overall positive tone of the significant-other representation led perceivers to transform the negative information into a positive response. This possibility is intriguing and fits recent evidence in the close relationships literature suggesting that when faced with a romantic partner's fault, perceivers tend to formulate "theories" that dampen or dispel the negativity implied by the fault (Murray & Holmes, 1993, 1994, 1996). In both cases, perceivers appear to be motivated to maintain positive conceptions of their significant others. Interestingly, because self-relevance is thought to be essential to the experience of emotion (Lazarus & Averill, 1972; Greenwald, 1982; Greenwald & Pratkanis, 1984), this type of finding may suggest the special self-relevance of positively toned significant others. We discuss these provocative notions in more detail in a later section.

Overall, using a virtually instantaneous measure of affect, the results constitute evidence for representation-derived facial affect in transference. Learning about a new person who resembles a significant other influences facial expressions so as to reflect the overall tone of the relevant significant-

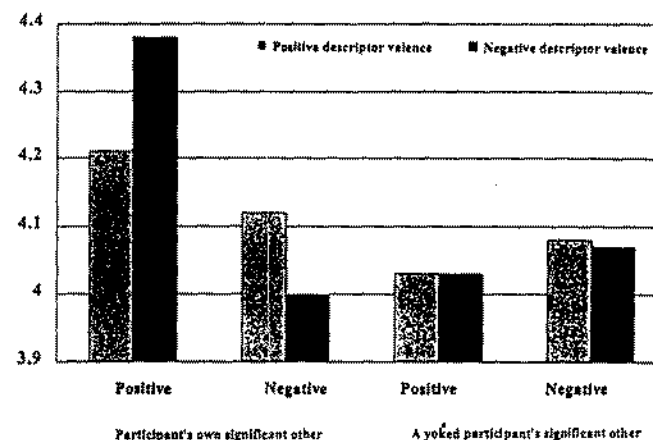


Fig. 6. Judges' average rating of positivity in facial affect at encoding as a function of significant-other resemblance, overall evaluative tone, and target-descriptor valence. (From Andersen, Reznik, & Manzella, 1996. Copyright 1996 by the American Psychological Association. Adapted by permission of the publisher.)

other representation. At the same time, these data also suggest the special role of negative descriptors in the affect experienced in transference involving positively toned significant others. On the other hand, we note that analogous evidence in the form of self-reported transient mood, also assessed in this study, was *not* found, suggesting that the observed facial expressions reflected fleeting affective experiences and not phenomenal mood states (see section V for a further discussion). Nonetheless, as indicated, the data clearly show that representation-derived facial affect emerges in transference, extending prior work on transference into the domain of emotion.

Taken as a whole, this study extended initial evidence for the social-cognitive model of transference by replicating the basic inference/memory and evaluation effects in transference, and by demonstrating that motivation, expectancies, and facial affect derived from an activated significant-other representation emerge as part of transference (Andersen et al., 1996). These data clearly suggest the breadth of the phenomenon, revealing the multifaceted ways in which past experiences in relationships with significant others come to play a role in present interpersonal relations.

V. Transient Mood States and Interpersonal Roles in Transference

Given that significant-other representations are likely to be highly affectively laden, their activation and application to a new person might, at least under some circumstances, influence self-reported transient mood states. Specifically, if perceivers feel unhappy around a significant other, they might be more likely to experience depressive mood states when the representation of this significant other is activated as compared to when a representation of a significant other around whom they feel happy is activated. Essentially, transference may involve representation-derived transient mood states. In one study, self-reported transient mood states did in fact tend to support this possibility (Andersen & Baum, 1994). However, the effect size in this study was small, and the effect failed to replicate, as noted in the study above (Andersen et al., 1996).

In this section, we take another look at representation-derived transient mood by considering the impact of a contextual factor on the emergence of this mood effect in transference. Specifically, we describe a study focused on the interpersonal role that perceivers typically experience in relation to their significant others (Baum & Andersen, in press). From our view, the role one experiences in a relationship with a significant other should be embodied in the linkages between the self and this other in memory. Thus,

when a new person resembles a perceiver's significant other, role information linking the significant other with the self should be activated, leading the perceiver to respond to the new person in part as a function of this role (cf. A. P. Fiske, 1992; A. P. Fiske & Haslam, 1996).

One implication of this prediction is that the role congruence or "fit" of the new person's role with that typically experienced in the relationship with the significant other may have consequences for transient mood states. More specifically, considerable research suggests that role relationships entail goals and expectancies pertaining to how the self and others typically relate, as well as to typical successes and disappointments experienced in these relationships (Andersen et al., 1996; Baum & Andersen, in press; see also Baldwin & Sinclair, 1996; Bugental, Lyon, Krantz, & Cortez, 1997; Downey & Feldman, 1996; Downey, Khouri, & Feldman, 1997; Luborsky & Crits-Christoph, 1990; Oatley & Bolton, 1985). Moreover, the ways in which goals are or are not achieved have shown to predict affect (e.g., Martin, Tesser, & McIntosh, 1993), and role violations in relationships are often experienced negatively (e.g., Williamson & Clark, 1992; Williamson, Clark, Pegalis, & Behan, 1996). Together, these lines of research suggest that the mood states experienced with a significant other are likely to be associated with one's role relationship with the other—namely, with the satisfaction of goals in this relationship.

Thus, when a new person resembles a significant other, the goals one pursues in relation to the significant other should become operative in relations with the new other. If these goals are then contradicted or frustrated with the new person, negative affect is likely to result. Stated somewhat differently, a congruent role in transference is likely to signal that typical interaction patterns can be played out, whereas an incongruent role is likely to signal their disruption. Hence, when a significant-other relationship is positive, experiencing a congruent role in transference should be associated with relatively positive mood, whereas experiencing an incongruent role should frustrate goals and violate expectations, leading to negative mood.

In the study designed to examine these assumptions, participants learned about a new target person resembling their own or a yoked participant's positively toned significant other (Baum & Andersen, in press). Although this study only examined positively toned significant others, the target was described, as usual, with an equal number of positive and negative descriptors generated earlier by the participant or yoked participant. All participants anticipated an interaction with the target in which the target was in the role of either an "expert" or a "beginner"—and they were in the complementary role. In the pretest session, participants had been asked to identify a significant other who was an authority figure to them—that

is, whose relational role was that of a more knowledgeable, powerful other. As such, the target's interpersonal role was manipulated in the experiment to be either similar to or opposite from that of participants' significant other.

A. REPRESENTATION-DERIVED INFERENCE/MEMORY AND EVALUATION

As usual, transference was assessed in terms of representation-derived inference and memory, as well as representation-derived evaluation, as a function of significant-other resemblance in the new target person. Both the basic inference and memory and basic evaluation effects emerged in the form of greater representation-derived memory confidence ratings and more positive evaluation in the significant-other-resemblance condition than in the yoked-participant control condition. Given that all significant-other representations were positively toned, these simple findings verify the occurrence of transference in the significant-other-resemblance condition.

B. REPRESENTATION-DERIVED TRANSIENT MOOD STATES

As predicted, participants' reports of their current mood states after learning about the target reflected the overall tone of the relevant representation (i.e., they felt better) when the target resembled their own positively toned significant other *and* was in a congruent rather than incongruent role relative to the significant other's role. Indeed, when this target was in an incongruent role, participants felt particularly badly, reporting increased depressive mood. Such affective differences did not emerge in the no-significant-other-resemblance conditions, suggesting that the effect is unique to the transference context. These data appear in Figure 7. Overall, role fit appears to facilitate representation-derived transient mood states in transference, and lack of role fit appears to interfere with it.

This study suggests that role incongruence in transference involving positively toned significant others may signal that outcomes usually achieved with a significant other will not be obtained. Thus, when a significant other is viewed positively, role incongruence in transference may lead to dysphoric mood (see also Higgins, 1989b; Kruglanski & Jaffe, 1988). Whether or not goal disruption is the precise mechanism underlying this effect, the data clearly extend work on transference into the realm of role relationships, both chronic and situational, as well as into the immediate social context of the transference encounter.

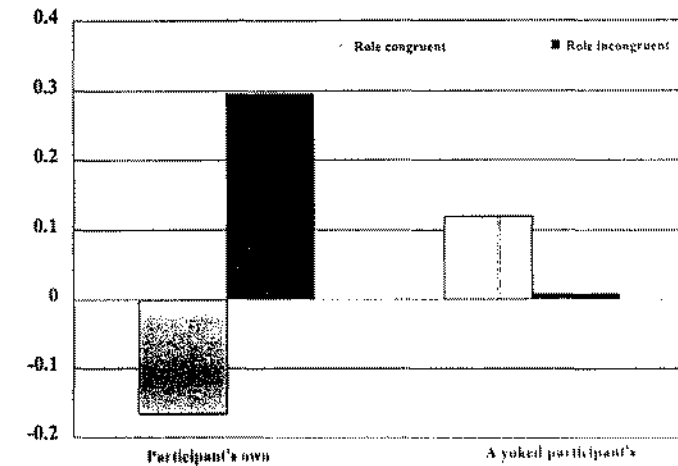


Fig. 7. Average transient depressive mood rating, corrected for pretest mood, as a function of significant-other resemblance and role congruence. (Adapted from Baum & Andersen, in press. © 1999 Guilford Press. Reprinted with permission.)

Although research examining negatively toned significant-other representations and role congruence or incongruence is also needed, the results of this study clearly indicate that information about normative role relationships with significant others is stored in memory as part of self/significant-other linkages, and thus can be activated in the context of transference. Hence, in addition to idiographic content in such linkages, there is normative role content as well (cf. A. P. Fiske, 1992; A. P. Fiske & Haslam, 1996). Overall, this evidence deepens the complexity of the transference phenomenon by suggesting that interpersonal roles experienced previously in relationships with significant others provide structure for and constrain affect in relations with new others in transference.

VI. The Self in the Transference Context

Central to our view of transference is the notion that self and significant-other representations are linked in memory. Much of the evidence described above supports the existence of stored, self/significant-other linkages in that these linkages are thought to be implicated in representation-derived motivation, expectancies, and affect in transference (Andersen et al., 1996).

as well as in the impact of role information in transference (Baum & Andersen, in press).

Beyond these transference effects, the existence of self/significant-other linkages suggests that the activation of a significant-other representation should activate aspects of the self that are linked to the relevant significant other. That is, these linkages should allow the activation of knowledge stored about a significant other to spread to the particular subset of self-knowledge that is strongly linked to this important other. As a result, the "working self-concept" (e.g., Markus & Wurf, 1987; Linville & Carlston, 1994), or the subset of self-knowledge that is active at any given moment, should come to reflect the self experienced when thinking about or being around the significant other—in other words, the *self-with-significant-other* (see also Ogilvie & Ashmore, 1991).

In terms of our basic research paradigm, then, significant-other resemblance in a new target person should lead to shifts in the working self-concept toward the self when *with* the relevant significant other. Furthermore, given evidence for representation-derived affective responses in transference (e.g., Andersen et al., 1996), described in earlier sections, self-evaluative responses reflecting the overall tone of the representation of the relevant significant other and the associated relationship with this other may also occur (see also Baldwin, 1992; Baldwin & Holmes, 1987; Baldwin et al., 1990).

In this section, we describe a study designed to test these assumptions (Hinkley & Andersen, 1996). As implied above, this study tested the hypothesis that when a significant-other representation is activated and applied to a new person, stored self/significant-other linkages are also activated, bringing to mind aspects of the self experienced in the relationship with the relevant significant other, and thus resulting in predictable shifts in the content and evaluation of the working self-concept in the context of transference.

In the pretest session of this study, each participant provided a general self-description as a measure of his or her general working self-concept by completing a list of sentences beginning with the prompt "Generally, I . . ." with self-descriptive predicates (e.g., "worry about my weight" or "am very direct"). Participants then named and listed both positive and negative descriptors for one positively and one negatively toned significant other. Next, participants were asked to generate self-descriptors reflecting the way they are when *with* each significant other by completing a list of sentences beginning with the prompt "When I'm with NAME, I . . ." with descriptive predicates (e.g., "feel extremely feminine" or "am totally relaxed"). Finally, participants classified each of their working-self-concept descriptors as positive or negative—as a measure of self-evaluation at

the level of self-reported descriptor valence. All of this was prior to the experimental session, and allowed the overlap between each participant's general working self-concept and self-with-significant-other to be calculated at pretest for later use as a covariate (see below).

In the experimental session, participants learned descriptors about a new target person allegedly seated next door (as in Andersen & Baum, 1994). The target resembled either their own or a yoked participant's positively or negatively toned significant other (with perfect yoking), and was described with an equal number of positive and negative descriptors. Afterward, participants' general working self-concepts were once again measured. That is, participants were asked to describe themselves as they "are now" by generating self-descriptors. As with the self-descriptors generated in the pretest session, participants classified each of these self-descriptors as positive or negative. Once again, the overlap between the general working self-concept and the self-with-significant-other was assessed. Finally, participants completed a standard recognition-memory test which measured, as usual, representation-derived inference and memory based on an activated significant-other representation.

A. REPRESENTATION-DERIVED INFERENCE/MEMORY

As predicted, the basic inference and memory effect emerged such that participants showed greater representation-derived inference and memory about the target resembling one of their own significant others versus a yoked participant's significant other. This effect held regardless of the overall evaluative tone of the significant-other representation from which the target descriptors were derived. Thus, the data indicate that significant-other resemblance in the new target person invoked the activation and application of the significant-other representation to the target in this study, and thus implies that any effects emerging in this condition did so in the context of transference.

B. SHIFTS IN THE CONTENT OF THE WORKING SELF-CONCEPT IN TRANSFERENCE

To examine the hypothesis that the activation of a significant-other representation leads to a shift in the working self-concept toward the self experienced in the relationship with the relevant significant other, a measure of *overlap* was used (see Prentice, 1990). That is, as indicated, the degree of overlap between participants' general working self-concept and their self-

with-significant-other was calculated on an item-by-item basis both at the pretest session and after exposure to the experimental manipulation. More specifically, at each measurement time, independent judges calculated the number of idiographic descriptors in participants' working self-concept lists that overlapped with their self-descriptors reflecting what they are like when *with* the significant other. When a new target person activates a significant-other representation by virtue of his or her resemblance to a significant other, the degree of this overlap should increase, controlling for pretest overlap. Such a shift in the working self-concept should not occur in the absence of significant-other resemblance.

As predicted, participants' working self-concept did in fact come to overlap more with the self-with-significant-other when the target resembled the participant's own significant other rather than a yoked participant's significant other. These results, depicted in Figure 8, suggest that in the context of transference, perceivers appear to become the self they are when with the relevant significant other. Despite appearances in this figure, no interaction emerged, indicating that this overlap effect held whether the target resembled a positively or a negatively toned significant other. Importantly, no such pattern of findings was found when overlap was calculated in relation to an *irrelevant* self-with-significant-other (i.e., for the self-with-significant-other with an overall tone opposite to that of the relevant significant other). Thus, the observed shifts in the content of the working self-

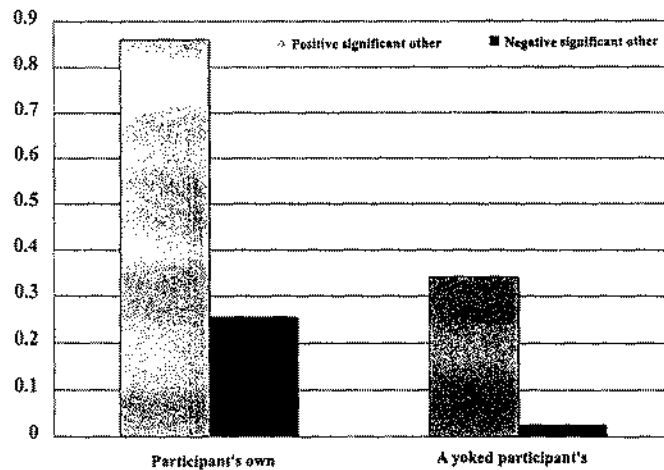


Fig. 8. Overlap between the working self-concept and the relevant self-with-significant-other, corrected for pretest overlap, as a function of significant-other resemblance and overall evaluative tone. (From Hinkle & Andersen, 1996. Copyright 1996 by the American Psychological Association. Adapted with permission of the publisher.)

concept were specific to the relevant self-with-the-significant other and not just any significant other.

C. SHIFTS IN SELF-EVALUATION OF THE WORKING SELF-CONCEPT IN TRANSFERENCE

To measure shifts in the evaluative tone of the working self-concept in transference, we examined participants' positive and negative classifications of their self-descriptors in the experimental session, controlling for the valence of these self-descriptors as assessed in the pretest session. Our main analyses of self-evaluative changes were conducted using the *overlapping* items—the working-self-concept descriptors that came to reflect the relevant self-with-significant-other. When the target person resembled the participant's own significant other—that is, in the transference context—we expected these newly overlapping self-descriptors to reflect the evaluative tone of the relevant significant-other representation and associated self-with-significant-other.

Support was in fact found for this prediction, as depicted in Figure 9. Participants perceived their newly overlapping working self-concept descriptors as more positive when the target resembled their own positively toned significant other rather than their own negatively toned significant

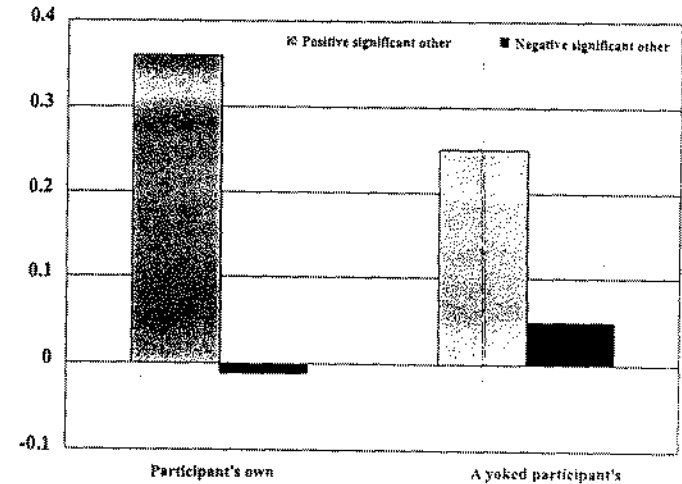


Fig. 9. Valence of working self-descriptors *overlapping* with the relevant self-with-significant-other, corrected for pretest valence, as a function of significant-other resemblance and overall evaluative tone. (From Hinkle & Andersen, 1996. Copyright 1996 by the American Psychological Association. Adapted with permission of the publisher.)

other, a difference not found when the target resembled a yoked participant's significant other. Thus, shifts in the working self-concept that occur in transference involve changes in self-evaluation that are derived from the overall tone of the significant-other representation and associated self-with-significant-other. Importantly, the effect occurred for both positively and negatively toned significant others.

An analysis was also conducted on the *nonoverlapping* items (i.e., the working self-concept items that did not overlap with the self-with-significant-other in the experiment), and this analysis revealed a very different pattern. As seen in Figure 10, the valence of the items *not* overlapping with the self-with-significant-other in the experiment became most *positive* when the target resembled the participant's own *negatively* toned significant other rather than positively toned significant other. A similar effect was not found in the no-significant-other-resemblance condition when the target resembled a yoked participant's significant other. These findings suggest that when a new person resembles a *negatively* toned significant other, *positively* toned aspects of a perceiver's overall pool of self-knowledge that do *not* overlap with the self-with-significant-other come to predominate in his or her working self-concept in transference involving negatively evaluated significant others. Presumably, this occurs in response to the small influx of negative working-self-concept descriptors (i.e., the overlapping descriptors).

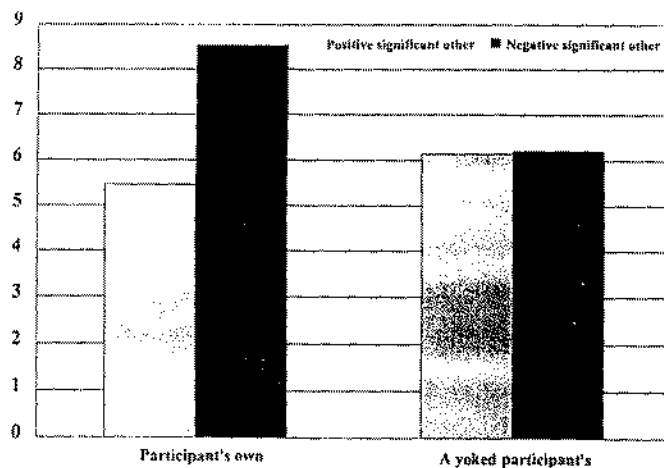


Fig. 10. Valence of working self-descriptors *nonoverlapping* with the relevant self-with-significant-other, corrected for pretest valence, as a function of significant-other resemblance and overall evaluative tone. (From Hinkley & Andersen, 1996. Copyright 1996 by the American Psychological Association. Adapted by permission of the publisher.)

Interestingly, the *nonoverlapping* items comprised the majority of the working-self-concept descriptors listed, which implies that the compensatory self-evaluative response seen in the context of negative transference was the dominant self-evaluative response. Indeed, overall analyses of the working-self-concept descriptors verify this interpretation in the present data. Such compensatory responses are common in various domains of self research, particularly those focused on perceivers' responses to threats to the self (e.g., Greenberg & Pyszczynski, 1985; Steele, 1988; Taylor & Brown, 1988; Taylor & Lobel, 1989; Tesser, 1988).

In sum, in the context of transference, shifts in the working self-concept occurred in the direction of the relevant self-with-significant-other, or the self experienced in the relationship with the relevant significant other. Coupled with these content shifts were changes in self-evaluation in the newly overlapping aspects of the working self-concept reflecting the tone of the significant-other representation and the associated self-with-significant-other. Intriguingly, the negative (or relatively less positive) self-evaluative changes in the working self-concept that occurred in the context of transference based on the negatively toned significant-other representation apparently led to self-evaluative bolstering in the overall working self-concept, rendering overall self-evaluation especially positive based on a negative significant other. Whether this bolstering occurs primarily on-line in transference, or also occurs in the relationship with the significant other, is unknown, but the result is clearly provocative in terms of the nature of transference responses based on significant others toward whom perceivers do not feel positively.

Having presented an array of findings concerning the inferential, evaluative, motivational, affective, role-related, and self-relevant outcomes that emerge in transference, we now turn our attention to the basic social-cognitive principles governing the transference phenomenon. Specifically, in the next several sections, we discuss issues pertaining to how and when significant-other representations are likely to be activated and applied to new others and describe the growing body of research addressing these issues.

VII. Basic Social-Cognitive Principles Underlying Transference

A central assumption of our model of transference is that the activation and application of significant-other representations can be understood in terms of the same basic social-cognitive principles thought to guide the activation and use of any other social construct—an assumption we stated

earlier in laying the groundwork of the model. In particular, we delineated both chronic and transient sources of activation for significant-other representations. Chronic sources, or the *chronic accessibility* of a construct, arises from its frequent past activation and implies a high likelihood of activation even in the absence of transient sources (e.g., Higgins & King, 1981). Transient sources may also play a role in construct activation in the form of *priming*, which refers to recent activation, or *applicability*, which refers to activation arising from the "match" or overlap between cues in a new person and knowledge stored about a construct (e.g., Higgins, 1996). Overall, then, construct activation and application can occur based on chronic sources, transient sources, or some combination (e.g., Bargh et al., 1986). Increases in the contribution from any of these sources are thought to produce corresponding increases in construct activation (e.g., Chen et al., in press; Higgins & Brendl, 1995).

Applied to the activation and application of significant-other representations, these basic principles suggest that chronic sources of triggering significant-other representations should combine with transient sources of activation to trigger transference. We conducted two studies to examine the chronic and transient activation of significant-other representations (Andersen et al., 1995). In the first, we examined whether or not chronic and transient priming sources combine to trigger transference, and in the second, whether or not chronic and transient applicability sources combine to do so.

A. CHRONIC AND PRIMING SOURCES OF TRIGGERING TRANSFERENCE

To examine whether or not chronic and priming sources combine to elicit transference, the presence versus absence of priming was manipulated in the first study (Andersen et al., 1995, Study 1). Specifically, participants took part in a pretest session in which they named and described a significant-other representation and as a control condition, a nonsignificant-other representation. They did this either *immediately* before learning about a series of new target persons in the experimental session of our research paradigm (priming condition), or did it *several weeks* beforehand (no-priming condition).

In the experimental session, participants in both priming conditions learned descriptors about four new target persons in an individualized random order. These targets resembled, respectively, their own significant other, their own nonsignificant other, a yoked participant's significant other, and a yoked participant's nonsignificant other. Afterward, participants com-

pleted a standard recognition-memory test about each target, which was used, as usual, to assess transference in the form of representation-derived inference and memory.

As depicted in Figure 11, participants showed greater representation-derived inference and memory about the target resembling their own significant other than about the target resembling their own nonsignificant other. Greater representation-derived inference and memory were also found for the target resembling participants' own significant other relative to each of the yoked-participant targets. No difference was found between the yoked-participant's significant-other and nonsignificant-other targets, indicating that the reliable difference between participants' own significant-other and nonsignificant-other targets cannot be attributed to objective differences in the descriptors listed for significant others versus nonsignificant others in general. Importantly, these findings held across priming conditions, suggesting the chronic accessibility of participants' own significant-other representation relative to their own nonsignificant-other representation—that is, their chronic readiness to be activated and applied to new others, even in the absence of any activation arising from priming.

Beyond this, the results also showed that in the priming condition, thinking about and listing descriptors to characterize a significant other and

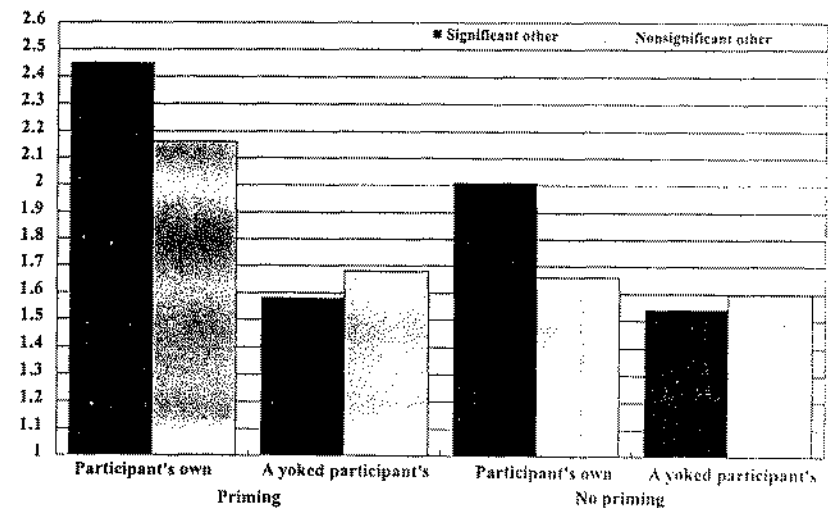


Fig. 11. Average representation-derived inference and memory rating as a function of resemblance to participants' own or a yoked participant's representation, the significance or nonsignificance of the representation, and priming condition. (From Andersen, Glassman, Chen, & Cole, 1995. Copyright 1995 by the American Psychological Association. Adapted with permission of the publisher.)

nonsignificant other in the pretest session just prior to the experimental session primed the representations of these individuals. That is, representation-derived inference and memory were greater in the priming condition than in the no-priming condition for the targets resembling the participant's own significant other and nonsignificant other. This priming effect can be seen in Figure 11 in the increase from the no-priming to priming conditions for both of these representations. Also apparent is the fact that this effect occurred independently of the chronic-accessibility finding—the latter evidenced in the form of greater representation-derived inference and memory for the target resembling participant's own significant other relative to nonsignificant other across priming conditions. Overall, then, the data indicate that both chronic sources and transient priming sources of activation contribute to the triggering of transference.

B. CHRONIC AND APPLICABILITY SOURCES OF TRIGGERING TRANSFERENCE

If significant-other representations are chronically accessible, they should have a high likelihood of activation in the absence of not only priming, but also applicability. And yet applicability, embodied in cues in a new person that “match” or overlap with knowledge stored about a significant other, should increase the likelihood that the relevant significant-other representation will be activated and applied to the person (e.g., Higgins, 1996; see also Tversky, 1977). That is, as with priming sources, applicability sources should combine with chronic sources to trigger transference (e.g., Bargh et al., 1986).

We examined this prediction in a second study by manipulating the presence versus absence of applicability (Andersen et al., 1995, Study 2). As in all of the research described thus far, applicability-based triggering was operationalized in the form of “match” between descriptors associated with a perceiver's significant-other representation and the cues presented about a new target person—that is, significant-other resemblance in the target. What distinguishes this study from all other research described above—in which significant-other resemblance has always been manipulated—is the manner in which the inference and memory measure was constructed, as is described below.

In the pretest session of this study, participants were asked to name and generate descriptors for *two* different significant others. To provide stimuli for a new “no-representation” control condition in which the descriptors were self-generated, we asked participants to generate one sentence for each of a diverse list of well-known individuals. As a set, these descriptive

sentences would *not* constitute a single representation, thereby allowing an assessment of self-generation effects (Greenwald & Banaji, 1989) in the experimental session in the absence of representational coherence.

Participants learned about four target persons in the learning phase of the experimental session, held two weeks after the pretest session for all participants. In the applicability condition—which is our standard significant-other-resemblance condition—participants learned about a target who resembled one of their own significant others, and later completed a standard recognition-memory test using representation-derived descriptors for this same significant other as test items. In the no-applicability (i.e., no-significant-other-resemblance) condition, the target resembled one of a yoked participant's significant others, but the test items for this target were descriptors derived from another of the participant's own significant others (the one not used in the applicability condition). Thus, the extent of representation-derived inference and memory about a new target person based on one of participants' own significant-other representations could be assessed in the presence of applicability-based triggering (i.e., significant-other resemblance) versus the absence of such triggering (i.e., no-significant-other resemblance).

Two control conditions were also included in this study. In one, another no-significant-other-resemblance condition, descriptors about another significant other of a yoked participant were used as target descriptors, and in this condition, the recognition-memory test used descriptors that were also provided by this yoked participant. In other words, this condition was our standard yoked-participant control condition. In the other condition, the descriptors participants listed as their no-representation sentences were used as both target descriptors and as items in the recognition-memory test.

As predicted, greater representation-derived inference and memory based on a significant-other representation emerged in the applicability condition relative to no-applicability condition. These data are depicted in Figure 12. Hence, applicability-based triggering appears to play a role in the activation and application of significant-other representations to new others. Importantly, however, evidence for the chronic accessibility of significant-other representations was once again found. That is, in the no-applicability condition, greater representation-derived inference and memory based on a significant-other representation were observed relative to the representation-derived inference and memory seen in each of the control conditions. This finding speaks to the chronic accessibility of significant-other representations in that, even in the absence of applicability, significant-other representations appear to be activated and applied to some degree to new others. At the same time, the greater representation-derived inference and memory seen in the applicability versus no-applicability con-

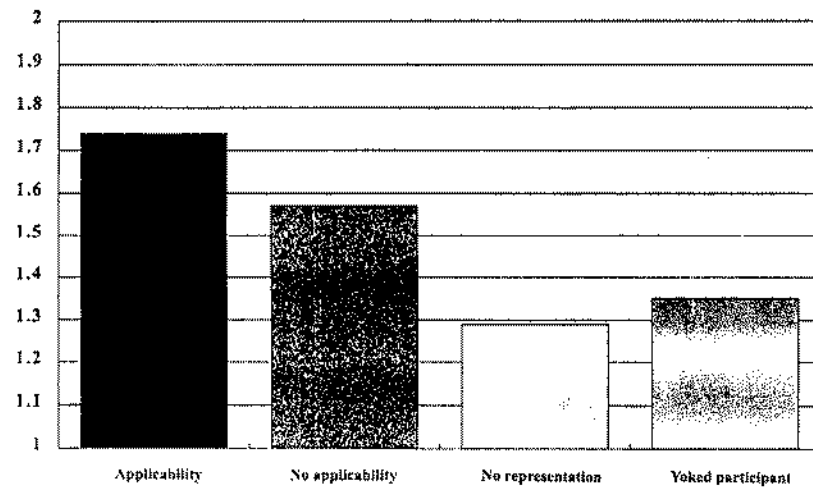


Fig. 12. Average representation-derived inference/memory rating as function of target condition. (From Andersen, Glassman, Chen, & Cole, 1995. Copyright 1995 by the American Psychological Association. Adapted by permission of the publisher.)

dition speaks to the importance of applicability-based triggering in transference.

Taken together, these two studies suggest that significant-other representations are chronically accessible. They have a chronic readiness to be activated and applied to new others even in the absence of activation arising from either transient priming or applicability sources. And yet both of these transient sources of activation may contribute to the activation and application of significant-other representations to new others. This is evidenced in the fact that, when present, they combined with the chronic accessibility of significant-other representations to enhance the triggering of transference. Overall, this research demonstrates that basic social-cognitive principles of construct activation and use can be readily applied to the domain of significant-other representations, providing considerable precision regarding the processes underlying transference. Beyond this, the evidence found in this research for the chronic accessibility of significant-other representations suggests the ubiquity of the transference phenomenon.

VIII. Applicability-Based Triggering of Transference

The research described just above clearly indicates that applicability, defined in terms of a new target person's "match" or resemblance to a

significant other, increases the likelihood that the relevant significant-other representation will be activated and brought to bear on interpreting him or her (Andersen et al., 1995, Study 2). Evidence for applicability-based triggering of transference also lies in the broader body of research demonstrating the emergence of inferential, affective, motivational, role-related, and self-relevant effects in the presence but not absence of significant-other resemblance in a new target person. Our theorizing and research on applicability is part of a growing social-cognitive literature on this source of construct activation and use (for reviews, see Chen et al., in press; Hardin & Rothman, 1997; Higgins, 1996).

In the next few sections, we consider applicability-based triggering in transference more closely. In the first section, we scrutinize existing assumptions about the underlying basis of applicability—that is, the units of knowledge that constitute "match" between a stored construct and a to-be-interpreted stimulus. Specifically, we begin by discussing longstanding *feature-based* approaches, which tend to view mental representations as composed of lists of features or attributes, and thus generally assume that applicability is feature-based—that is, that the activation and use of a representation to interpret a stimulus occur in part as a function of the degree of "match" between feature-based cues in the stimulus and feature-based knowledge stored about the representation.

We conclude this section by discussing recent *theory-based* approaches that offer an alternative to feature-based views by suggesting that the content, structure, and use of mental representations may involve theory-based forms of knowledge. We examine such approaches in considerable depth so as to lay the groundwork for the following section in which we present a theory-based approach to significant-other representations and transference, and describe a line of research designed to examine it. Ultimately, this work raises the possibility that applicability-based triggering in transference may be in part theory-based (Chen, 1997).⁴

A. FEATURE-BASED APPROACHES TO APPLICABILITY

In all of the research described thus far, applicability has been conceptualized as a source of activation for significant-other representations arising from the overlap between *feature-based* cues in a new target person and

⁴ Although the present focus is on feature-based and theory-based applicability, it is worth noting that there are undoubtedly various other possible bases of the role of applicability in triggering transference. For example, physical characteristics in a new person that resemble those associated with a significant other may often add to the contribution of applicability-based triggering to transference. This possibility warrants future attention.

feature-based knowledge stored about a significant other (e.g., "Terry is sincere" or "Pat likes to go dancing"). As stated in an earlier section, we construe cues in a new target person as an analog for cues perceivers would encounter on-line in an actual social encounter.

In more concrete terms, participants' conceptions of their significant others have been assessed simply in terms of lists of descriptive features they have generated about these individuals. In turn, transference has been shown to occur in part as a result of the feature-based resemblance of a new target person to one of participants' significant others. Indeed, as indicated, research has shown a variety of representation-derived effects reflecting the activation and application of a significant-other representation to a new person when such feature-based applicability is present versus when it is absent (e.g., Andersen et al., 1995, Study 2). Overall, then, feature-based applicability appears to play some role in triggering transference.

Our feature-based approach to applicability is rather common. Feature-based assumptions are made, either implicitly or explicitly, by various social-cognitive models on construct activation and use (e.g., Higgins, 1996; Sedikides & Skowronski, 1990, 1991; Wyer & Srull, 1986), as well as by various cognitive models of categorization (e.g., Rosch, 1978). The latter are of relevance because categorization processes are thought to be similar to construct activation and use in terms of basic predictions. Though their emphases vary considerably, these feature-based models converge in the basic notion that a new person (or object) is likely to be compared with stored knowledge in part as a function of matching and mismatching features between the person and the stored knowledge (e.g., Tversky, 1977; Tversky & Gati, 1978; see also Cantor & Mischel, 1979; Nosofsky, 1986; Rosch, 1978; Smith & Medin, 1981).

An alternative basis for applicability, however, lies in theory-based approaches to categories and categorization. Such approaches have appeared across a wide range of research (for reviews, see Komatsu, 1992; Murphy & Medin, 1985). We turn now to a discussion of such approaches (see also Chen, 1997), emphasizing relevant theory and research in the social-cognitive domain so as to set the stage for a consideration of the potential implications that these approaches carry for significant-other representations and transference.

B. THEORY-BASED APPROACHES TO APPLICABILITY

Theory-based approaches argue that "theories" are basic to the nature and role of stored knowledge in perception and cognition (e.g., Murphy & Medin, 1985). Theories generally refer to knowledge that serves expressly

as explanation. Unlike unrelated, feature-based units of knowledge, theories are thought to be embodied in explanatory relations linking together bits of knowledge about a given entity. Indeed, some have argued that viewing categories simply in terms of lists of unrelated features falls short of providing a full account of what makes a category coherent (Medin, 1989; Murphy & Medin, 1985; see also Armstrong, Gleitman, & Gleitman, 1983; Ortony, 1979; Rips, 1991; Rips & Collins, 1993; cf. Goldstone, 1994; Medin, Goldstone, & Gentner, 1993).

One implication of theory-based approaches is that categorization, the process whereby a stimulus is interpreted in terms of a stored category, may occur on the basis of more than feature-based matches and mismatches between a stimulus and category. In applicability terms, applicability's role in construct activation and use may not only be based on feature-based "matches" between a stimulus and a stored construct, but also on theory-based "matches."

Theorizing and research consistent with a theory-based approach are increasingly seen in various psychological subdisciplines. Outside of the social domain, they can be seen in cognitive work on not only categorization (e.g., Wisniewski & Medin, 1994) but also analogical thinking (e.g., Gentner & Markman, 1997; Holyoak & Thagard, 1995), as well as in work on conceptual development in children (e.g., Carey, 1985; Gelman & Markman, 1986; Keil, 1989). In the social-cognitive realm, theory-based views have emerged in, for example, research on stereotype representations and stereotyping (e.g., Kunda & Thagard, 1996; Wittenbrink, Gist, & Hilton, 1997) as well as social perception more broadly (e.g., Park, DeKay, & Kraus, 1994; Read, Vanman, & Miller, 1997).

Interestingly, one of the earliest contributions to social cognition documented the inadequacy of additive models of person perception treating features as unrelated entities (Asch, 1946). Reflecting its Gestalt roots, this work showed that features conceived within the context of persons are part of unified wholes rather than sets of unrelated features (see also Heider, 1958). Theoretical relations among features play a more explicit role in recent work in the same tradition. Specifically, this research has demonstrated that one way people make sense of incongruent information about others is to impose a theory—that is, to call upon knowledge to explain the incongruence (Asch & Zukier, 1984; see also Hastie, Schroeder, & Weber, 1990; Kunda, Miller, & Claire, 1990; Read et al., 1997). In a similar vein, research has shown that people tend to integrate inconsistencies in their experiences into internally coherent stories or narratives (e.g., Baumeister & Newman, 1994; see also Murray & Holmes, 1993, 1994, 1996; Pennington & Hastie, 1992, 1993; Read & Miller, 1993; Thagard, 1989; Zukier, 1986). Finally, the notion that relations among features exist is in

fact fundamental to "implicit personality theories" (e.g., Schneider, 1973; see also Leyens & S. T. Fiske, 1994), which are thought to link traits together, allowing perceivers to infer some traits from the presence of others.

Stereotyping research provides more suggestive evidence for a theory-based approach to the activation and use of stored knowledge. For example, research on the impact of "fit" on social categorization suggests that theory-based knowledge influences the likelihood that a target person will be categorized as a member of a social group. More specifically, this work showed that to the extent that the features (e.g., attitudes) of a target person "fit" a perceiver's "theoretical" expectations about a social group (e.g., females), the target was more likely to be categorized as a member of the group (Oakes, Turner, & Haslam, 1991). Work on implicit stereotyping has yielded analogous data, showing that the effects of priming gender-stereotypic traits (e.g., dependence) on ratings of male and female targets on these trait dimensions were greater when there was stereotype-consistent fit between the primed trait and gender of the target (Banaji et al., 1993). Both cases suggest that categorization may not simply be based on the degree of feature-based "match" between cues in a target person and stored knowledge.

Still more direct evidence for the notion that applicability may operate on the basis of theory-based "match" can be found in cognitive research on analogical reasoning, which suggests that structural "parallels" between stored knowledge and a stimulus may help trigger the retrieval and use of the knowledge in interpreting the stimulus (e.g., Gentner & Markman, 1997; Gick & Holyoak, 1980, 1983; Holyoak & Thagard, 1995; see also Markman & Gentner, 1993). Similar findings have been obtained in social-cognitive research on analogy, in which retrieval of a stored explanation was facilitated when participants were asked to explain an unexpected event similar in causal structure to the one for which the explanation was originally generated (Read & Cesa, 1991). Thus, stimulus cues reflecting causal relations help to trigger and render applicable the stored explanatory knowledge.

Building on this analogy work, recent research on stereotypes has explicitly adopted a theory-based approach. This research argues that stereotype representations contain knowledge about "cause-effect" relations that influences the processing of stereotype-relevant information (Wittenbrink et al., 1997; Wittenbrink, Hilton, & Gist, 1998; see also Hirschfeld, 1996). One series of studies found that "matches" between cause-effect relations stored about a stereotype and those embodied in stimulus cues in the social environment contributed to the activation and use of the stereotype (Wittenbrink et al., 1997). Such evidence clearly fits the notion that applicability may at times be theory-based.

The critical question for the present purposes, of course, is whether or not perceivers are likely to possess "theories" about their significant others. A wide range of evidence suggests that this is likely (for a review, see Chen, 1997). For instance, research on close relationships, described in an earlier section, has shown that when faced with negative information about a significant other, perceivers tend to formulate explanations or "theories" to dampen the negativity of the information (Murray & Holmes, 1993, 1994, 1996; see also Andersen et al., 1996; Collins, 1996).

By and large, however, theories about significant others have not been precisely defined, nor has their potential role in transference been examined. One line of research has begun to address these issues, adopting a theory-based approach to significant-other representations and transference (Chen, 1997). The basic argument of this work is that perceivers are especially likely to make sense of the significant others in their lives in terms of "theories" about them, and that this should be manifested in content and structural characteristics of significant-other representations. In turn, this should have implications for the nature of applicability-based triggering in transference. We turn now to describing this research, and present initial findings emerging from three studies.

IX. A Theory-Based Approach to Significant-Other Representations and Transference

The theory-based approach taken in this research was based in part on the "cognitive-social" model of personality and social perception (Mischel & Shoda, 1995; see also Mischel, 1968, 1973, 1990). Countering widely held assumptions about the stable and trait-like nature of personality, this approach posits IF-THEN relations as the basic units of personality—with IFs referring to situations and THENs referring to the responses elicited by them. Such an IF-THEN view of personality has implications for social perception insofar as it suggests that perceivers may at times conceive of others in terms of IF-THEN relations, recognizing that what others think, feel, and do may be contingent on the situation (Shoda & Mischel, 1993). In this regard, like other theory-based approaches, an IF-THEN approach to social perception suggests that perceivers' conceptions of others may at times include knowledge about causal or explanatory relations—namely, ones between the IFs and THENs of others.

In the research described below, theories were conceptualized in such IF-THEN terms (Chen, 1997). Specifically, they were defined as IF-THENs in which the IFs reflect perceivers' inferences about the psychological situa-

tions or states (e.g., thoughts, feelings, goals) of another person that elicit the person's responses or THENs (e.g., "IF feeling insecure about himself, THEN Steve is hostile toward others"). In other words, such inferences reflect a perceiver's consideration of the psychological experiences that come into play for the person in particular situations. Indeed, inferences about another person's psychological IFs reflect perceivers' beliefs about, arguably, the most proximal causes of the THENs to which they are linked, and as such, hold distinct explanatory power. Overall, then, this work proposes that perceivers' conceptions of others may include not only unrelated bits of featural knowledge, but also explanatory knowledge about relations between psychological IFs and THENs. In short, they may include "psychological-state theories"—defined as IF-THEN mini-narratives composed of the psychological states (IFs) thought to elicit others' responses (THENs).

The overriding argument of this theory-based approach to significant-other representations and transference is that perceivers are especially likely to possess psychological-state theories about their significant others. This argument was based in part on evidence suggesting that perceivers tend to have more psychological-state knowledge about their significant others relative to nonsignificant others (e.g., Prentice, 1990), providing a larger pool of knowledge from which to draw to construct psychological-state theories about significant others. Moreover, it reflects evidence suggesting that perceivers are especially motivated to make sense of significant others in terms of the private experiences of these individuals (Andersen et al., 1998).

Significant others are bound up with the self. Hence, understanding the responses of these important individuals directly in terms of the inner workings of their hearts and minds is critical in terms of enabling perceivers to know what to expect and hope for in their relationships with these others, how best to negotiate these relationships, and so forth. Indeed, the construction of psychological-state theories may at times reflect motivated attempts to bolster a perceiver's sense that a significant other loves him or her (see Murray & Holmes, 1993, 1994, 1996). In short, perceivers are likely to be especially motivated to make efforts to know and understand certain persons or groups (or believe that they do). Although it might be sufficient to know that "nerds" are smart and skinny, it is unlikely that such simple conceptions would suffice in knowing a significant other.

Three studies were conducted to test several hypotheses derived from the present theory-based approach (Chen, 1997). The first two examined the implications of this approach for the content and structure of significant-other representations, and the third examined its implications for applicability-based triggering in transference. In all three studies, participants were

asked to identify a significant other, a stereotype, and a nonsignificant other—the latter two serving as control representations.

A. THEORY-BASED CONTENT IN SIGNIFICANT-OTHER REPRESENTATIONS

The first hypothesis was that psychological-state theories about significant others are especially available in memory, stored as part of significant-other representations. Evidence was found for this hypothesis in a first study (Chen, 1997). In this study, participants were first asked to describe each of the three representations by generating IF-THEN statements in which the IFs simply referred to *observable* situations, and the THENs referred to responses in these situations (e.g., "IF Amy is at work, THEN she is very serious"). Thus, these statements essentially reflected empirical observations previously made about each person or stereotype. Subsequently, participants were asked to *explain* those IF-THEN observations they had just listed for which they felt they had an explanation. They provided each explanation by completing a "because . . ." prompt. Two trained judges coded each of these explanations in terms of whether it reflected a psychological-state explanation (e.g., "because she wants to be the best" or "because she feels anxious") or one that did not refer to a psychological state of the person or stereotype (e.g., "because her boss is strict" or "because it's a tough job").

The major finding of this study was that participants spontaneously generated a greater number and proportion of psychological-state explanations for the IF-THEN observations they had listed about their significant other relative to the control representations. These explanations essentially reflect psychological-state theories. Thus, these data provide support for the argument that significant-other representations are particularly likely to include such theory-based content.

B. THEORY-BASED STRUCTURE IN SIGNIFICANT-OTHER REPRESENTATIONS

If perceivers tend to conceive of significant others in terms of psychological-state theories, the stored linkages between the psychological IFs and THENs about these individuals should be especially strong, implying that activation should spread quickly across them. In other words, the component parts of psychological-state theories (i.e., the IFs and THENs) about significant others should be retrieved in tandem very readily. Said differ-

ently, such theories ought to be especially accessible. To test this hypothesis, participants in a second study generated psychological-state theories on a computer which recorded their generation-latencies (Chen, 1997). They did so by first typing in a response (i.e., THEN) true of the person or stereotype being described, followed by the psychological state (i.e., psychological IF) believed to elicit the response.

The results showed that participants not only generated more psychological-state theories about their significant other relative to the control representations, conceptually replicating the major finding of the first study in this line of research, but also exhibited significantly greater ease in coming up with psychological IFs to explain THENs (i.e., shorter mean latency *within* IF-THEN units) about their significant other. The latter finding supports the accessibility hypothesis, and suggests that there is structure to the psychological-state theories that perceivers have stored about significant others in the form of tightly-linked IF-THEN units composed of psychological states and the THENs they explain. Indeed, this effect held even when controlling for the mean latency *between* IF-THEN units—verifying the distinctiveness of the latency *within* IF-THEN units, and bolstering the interpretation that this latency reflects IF-THEN units stored in memory that, for significant-other representations, involve especially strong IF-THEN linkages.

This evidence suggesting theory-based structure in significant-other representations speaks to prior research examining the structural complexity of significant-other representations (Andersen & Cole, 1990, Studies 1 & 2). In this earlier work, significant-other representations were shown to be more featurally distinct and rich than various control representations—characteristics associated with structural complexity. What the current evidence suggests is that the structural complexity of significant-other representations may be attributable in part to the existence of IF-THEN units of knowledge reflecting psychological-state theories about significant others.

Overall, these content and structure findings support the notion that perceivers are especially likely to make sense of their significant other in terms of psychological-state theories about them. That is, theory-based knowledge is especially likely to be stored in memory as part of representations of significant others. Theory-based content and structure in significant-other representations should have implications for the nature of applicability-based triggering in transference.

C. A THEORY-BASED APPROACH TO APPLICABILITY-BASED TRIGGERING IN TRANSFERENCE

If perceivers tend to represent their significant others in terms of psychological-state theories, then cues in a new person that “match” or overlap

with a perceiver's theories about a significant other should be especially likely to trigger the activation and application of the relevant significant-other representation to the new person. In other words, psychological-state theories about significant others should constitute a primary basis of applicability's role in triggering transference. In broader terms, the cues in a stimulus person that are most likely to render a representation applicable should be those that correspond to the level at which perceivers tend to conceive of the person or group designated by the representation (Hardin & Rothman, 1997).

The final study in this line of research examined the hypothesis that applicability-based triggering cues reflecting psychological-state theories about significant others play a distinctly powerful role in eliciting transference (Chen, 1997). To do so, this study used a variant of the basic transference paradigm, and compared the role of theory-based applicability to that of feature-based applicability in triggering transference. More specifically, participants learned about several target persons during the learning phase of this study, one of whom was described by either feature-based or theory-based descriptors that participants had generated in a pretest session to describe a significant other. The other targets resembled various control representations.

Thus, as in all of the research described thus far, applicability-based triggering of participants' representation of a significant other took the form of a target person's resemblance to this important other. The one exception in this study was that applicability was based on either features or theories associated with the significant other. Thus, in the feature-based applicability condition, participants encountered feature-based stimuli in the learning phase (e.g., “Terry is an intelligent person” or “Pat plays basketball”). In contrast, participants in the theory-based applicability condition were presented with theory-based stimuli reflecting psychological-state theories. These theories took the form of responses (i.e., THENs) linked to the psychological states (i.e., psychological IFs) thought to elicit them (e.g., “Pat is shy if she feels insecure” or “Terry is nice to others when he wants to get ahead”).

In both the feature-based and theory-based applicability conditions, participants were later asked to complete a standard recognition-memory test that was used, as usual, to assess the emergence of transference in the form of representation-derived inference and memory based on a significant-other representation. The feature-based or theory-based nature of the representation-consistent descriptors used in this memory test corresponded to the nature of the representation-consistent descriptors used as applicability-based triggering cues in the learning phase.

Regardless of applicability condition—that is, regardless of whether the target descriptors were theory-based or feature-based—greater representa-

tion-derived inference and memory were found for the target resembling participants' own significant other compared to the control targets, providing evidence for transference in both applicability conditions. In the feature-based condition, this effect replicates prior research using feature-based triggering cues in a target person to elicit transference (e.g., Andersen & Cole, 1990, Study 3; Andersen et al., 1995; Glassman & Andersen, *in press*).

The main hypothesis of this study, however, was that applicability-based triggering involving theory-based significant-other resemblance in the new target person would result in a stronger transference effect than applicability-based triggering involving feature-based significant-other-resemblance. Although some deviations from this strict prediction emerged, the finding of greater representation-derived inference and memory for the target resembling the participant's own significant other relative to control targets was in fact reliably stronger in the theory-based applicability condition relative to the feature-based condition. Thus, the data suggest that when cues in a new person "match" a perceiver's psychological-state theories about a significant other, the transference effect is more pronounced, as indexed by representation-derived inference and memory.

Taken as a whole, this set of findings extends the social-cognitive model of transference by suggesting that theory-based forms of knowledge play a role in the content, structure, and triggering of significant-other representations. On a broader level, this research parallels the increasing attention being given to applicability in the social-cognitive literature on construct activation and use (for a review, see Higgins, 1996; see also Chen, 1997; Chen et al., *in press*; Hardin & Rothman, 1997). In our view, applicability-based triggering may be especially critical to examine in transference because cues that we pick up in face-to-face encounters with new others are, arguably, those that are most likely to trigger stored, significant-other knowledge. In turn, a growing body of research on transference suggests that the activation and application of this knowledge to new others is then likely to color interpretations of and relations with them, laying the groundwork for the reemergence of relationships from the past in the present. Stated somewhat differently, transference may emerge in its fullest form, and with its greatest consequences, in the context of actual face-to-face encounters with another person, who embodies cues that provide grist for the activation and use of particular significant-other representations to interpret and respond to him or her.

X. Finding Common Ground: Transference and Close Relationships

We began by locating our theorizing and research on significant-other representations and transference in the close relationships literature, yet

at the same time distinguishing our work as focusing on how past relationships with significant others influence current interpersonal life rather than on the dynamics of present-day close relationships. Nonetheless, a substantial degree of common ground can be found between our work and the broader literature on close relationships. In this section, we highlight some ways in which our research parallels this literature, can contribute to it, and be enriched by it.

A. ATTACHMENT THEORY IN CLOSE RELATIONSHIPS

A central contention of our work on significant-other representations and transference is that present interpersonal experience can be informed by looking to relationships from the past. In this basic regard, our work is closely allied with the burgeoning body of research on attachment theory, particularly in the realm of social psychology (for reviews, see Feeney & Noller, 1996; Hazan & Shaver, 1994; Simpson & Rholes, 1998).

Fundamental to attachment theory is the notion that adult relationships can be understood in terms of early experiences with major attachment figures (Bowlby, 1969, 1973, 1980), an idea that is obviously consistent with our model of transference. Also central to attachment theorizing, and in accord with our thinking, is the assumption that working models of the self and important others are stored in memory, shaped in part by prior attachment experiences (Bowlby, 1969, 1973, 1980, see also Bartholomew & Horowitz, 1991; Collins & Read, 1994; Griffin & Bartholomew, 1994; Mikulincer, 1995). Although research grounded in attachment theory has often conceptualized adult attachment orientations or styles essentially as individual differences that can be captured in participants' responses to self-report items (e.g., Bartholomew & Horowitz, 1991; Hazan & Shaver, 1987), increasing theoretical and empirical precision regarding the content, structure, and processes underlying working models of attachment can be found in the attachment literature (e.g., Baldwin, Fehr, Keedian, Seidel, & Thomsom, 1993; Shaver, Collins, & Clark, 1996).

For example, in terms of content, greater specification has emerged regarding attachment-relevant goals and needs (e.g., Collins & Read, 1994), emotions and styles of emotion regulation (e.g., Brennan & Shaver, 1995; Kobak & Sceery, 1988; Mikulincer & Orbach, 1995), as well as interpersonal expectancies (e.g., Baldwin et al., 1993; Downey & Feldman, 1996). Behavioral aspects of working models of attachment have also been more clearly specified in the form of, for example, responses in daily social interactions (e.g., Pietromonaco & Barrett, 1997; see also Downey, Freitas, Michaelis, & Khouri, 1998), as well as support seeking and giving among relationship

partners in anxiety-provoking situations (e.g., Simpson, Rholes, & Nelligan, 1992). Research examining structural components of working models of attachment, as well as the processes that govern when these models are likely to exert an influence on interpretation and responding, is also rapidly expanding, drawing heavily on social-cognitive theory and research (e.g., Baldwin et al., 1993; Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996).

Our work on significant-other representations and transference dovetails nicely with much of this growing body of research on attachment (for a further discussion, see Andersen et al., 1997). As described in this chapter, research on transference has in fact demonstrated that motivations, expectancies, and affect experienced previously in relationships with particular significant others (e.g., Andersen et al., 1996), as well as normative role information (Baum & Andersen, in press), are stored in memory as part of "working models" or representations of these important others, as well as the linkages that bind self and significant-other knowledge. When a significant-other representation is activated, these various forms of stored information have been shown to become operative, coloring current social relations with aspects of past relationships with significant others.

Inferences and evaluative responses derived from significant-other representations have similarly been shown to be activated and applied to new others in transference (e.g., Andersen & Baum, 1994; Andersen & Cole, 1990, Study 3; Andersen et al., 1995). Moreover, research has demonstrated the chronic readiness with which significant-other representations are activated and used in social perception (Andersen et al., 1995). In the process, this work has provided considerable precision regarding the basic principles that determine how and when transference is triggered (Andersen et al., 1995; see also Chen, 1997; Chen et al., in press). Finally, the activation and application of a significant-other representation to a new person have been shown to accordingly activate relevant self/significant-other linkages stored in memory. This is strongly suggested by research on motivation, expectancies, affect, and interpersonal roles (Andersen et al., 1996; Baum & Andersen, in press), and is demonstrated directly in evidence indicating that the activation of a significant-other representation leads to predictable changes in how the self is experienced (Hinkley & Andersen, 1996).

At the same time, unlike attachment research in which participants' general relationship orientations are typically assessed, our research examines the particular constellation of inferences, motivation, affect, and expectations, as well as roles and selves, associated with *specific* significant others in people's lives, and does so using idiographic research methods. As such, our work captures the idiosyncrasies in specific significant relationships in a person's life rather than focusing on generic relational styles.

This significant-other-specific approach assumes that individuals may have relatively unique definitions of their various significant others, as well as unique patterns of relating with them. And yet, on another level, there is no reason that such idiosyncrasy cannot coexist with more generic differences in relational learning and patterning (Baldwin et al., 1996; cf. A. P. Fiske, 1992; A. P. Fiske & Haslam, 1996). Indeed, recent research on interpersonal roles and transient mood states in transference, described earlier, has demonstrated that idiosyncrasy in self/significant-other relations and relational patterns reflecting normative roles may coexist (Baum & Andersen, in press).

Attachment research focused on the self (e.g., Baldwin, 1992; Brennan & Morris, 1995; Griffin & Bartholomew, 1994; Mikulincer, 1995) is also compatible with our theorizing and research (Hinkley & Andersen, 1996; see also Andersen et al., 1997). Common to this attachment work and our view of the self in transference is the fundamental notion that the self is defined and evaluated in part in relation to other persons. However, once more, we diverge from much work in this broader literature on attachment by conceptualizing the self in relation to *specific* significant others, and by examining the self idiographically.

In this regard, our approach fits especially well with the increasingly widely accepted notion of the "working self-concept" (for a review, see Linville & Carlston, 1994), or the idea that the self is essentially constructed anew as a function of contextual cues, even though nomothetic propensities may also exist. That is, from our perspective, the self is determined in part by contextual cues that trigger transference—for example, the "context" of a new person who bears some resemblance to a significant other. This is exemplified in the research demonstrating that the activation and application of a significant-other representation to a new person in such a "context" make operative those aspects of the self most relevant to this "context"—that is, the relevant self-with-significant-other (Hinkley & Andersen, 1996; see also Andersen et al., 1997).

In this same vein, we have recently proposed that the notion that the self is related to or "entangled" with significant others, which results in affective, motivational, and self-definitional consequences when a significant-other representation is activated, provides a model for defining personality in interpersonal terms while highlighting basic processes (Andersen & Chen, 1999). That is, we suggest that personality is defined in part in relationships with significant others (see also Andersen et al., 1997). Thus, the social-cognitive process of transference can be viewed as tracking variability in the self and personality across different interpersonal situations.

This notion that the self is in part transference-based meshes well with the recently proposed IF-THEN model of personality, also defined in social-cognitive terms (Mischel & Shoda, 1995). In an earlier section, we discussed the implications of this model for social perception—namely, we described research based on the assumption that perceivers may at times conceptualize others in IF-THEN terms. The current focus is on this model's conceptualization of personality. According to this IF-THEN model, an individual's personality can be defined in terms of a set of idiosyncratic IF-THEN patterns, or the individual's personality "signature" across situations. Our model is compatible with this framework. The IFs in our model refer to the situations—especially the particular persons encountered—that trigger particular significant-other representations and associated self-with-significant-other knowledge. The THENs in our model refer to the perceptual, affective, and behavioral responses elicited in transference (Andersen & Chen, 1999). Thus, as with the more global IF-THEN model of personality (Mischel & Shoda, 1995), our IF-THEN view suggests that transference embodies basic personality processes that capture both variability and continuity. Variability in personality arises as a function of contextual cues (i.e., new people who are encountered), and continuity in personality lies in the chronic accessibility of significant-other representations and the aspects of the self that are strongly associated with these representations that are thus likely to be chronically operative.

B. SELF AND OTHER REPRESENTATIONS IN CLOSE RELATIONSHIPS

Common ground can also be found in our work on the self in transference and the broader literature on close relationships extending beyond the attachment domain. Indeed, several theoretical frameworks contend, as we do, that self-with-significant-other information is represented in memory (Andersen et al., 1997; Baldwin, 1992; Bugental, 1992; Ogilvie & Ashmore, 1991).

Theorizing on "relational schemas" is of particular relevance (for a review, see Baldwin, 1992). Relational schemas are thought to be composed of three elements—the self schema, associated significant-other schemas, and interpersonal scripts reflecting knowledge about expected patterns of interaction between the self and others that have been learned through past interactions with these others. These three elements are thought to be structurally associated in memory such that schematicity in each element and in the entire structure ("conjoint schematicity") therefore exists. If conjoint schematicity accurately characterizes relational schemas, conjoint

priming should occur such that activation in one element spreads to the others (e.g., Baldwin et al., 1990, 1993; Baldwin & Holmes, 1987). Notions of conjoint schematicity and conjoint priming depend on the existence of, and spread of activation across, stored self/significant-other linkages. In this regard, a relational-schema approach is obviously consistent with our view that self/significant-other linkages are stored in memory, and are activated in transference when relevant significant-other representations are activated. Indeed, as indicated, research on transference has demonstrated this both directly (Hinkley & Andersen, 1996) and indirectly (Andersen et al., 1996; Baum & Andersen, *in press*).

Empirically speaking, parallels between relational-schema work and research on transference are perhaps most readily seen in investigations concerned with the impact of self/significant-other linkages on self-evaluation. As described earlier, research on transference has demonstrated not only content shifts in the working self-concept in the direction of the relevant self-with-significant-other in transference, but also self-evaluative changes in line with the relevant self-with-significant-other (Hinkley & Andersen, 1996). Research conducted within a relational-schema approach has shown similar self-evaluative effects (for a review, see Baldwin, 1992). For instance, participants for whom a representation of a parental figure was primed reported less enjoyment of sexually charged written passages than did participants for whom a friend representation was primed, a finding suggesting that the activation of the representation of the familial significant other versus of a friend differentially influenced participants' personal self-evaluative standards (Baldwin & Holmes, 1987). In another study, psychology graduate students who were subliminally exposed to the approving face of their program director rated their research ideas more favorably than did those who were exposed to the disapproving face of their director (Baldwin et al., 1990). In this same line of work, it was also found that religious, Roman Catholic female participants who were subliminally exposed to the disapproving face of the Pope evaluated themselves less positively than did their counterparts who were exposed to the disapproving face of a nonsignificant other.

Also relevant to conceptualizations of the self in transference is recent theory and research in which closeness in relationships is defined in terms of the overlap between representations of self and others (Aron, Aron, Tudor, & Nelson, 1991; Aron, Aron, Smollan, 1992; for a review, see Aron & Aron, 1996). That is, the degree of closeness one experiences with another person is thought to be reflected in the extent to which the other is "included in the self," as assessed by self-other overlap (e.g., Aron et al., 1991). This "inclusion-of-other-in-the-self" approach suggests that the self representation can be conceived of as overlapping with multiple representations of

others to varying degrees as a function of closeness, a conceptualization with which we would concur (Andersen et al., 1997; Hinkley & Andersen, 1996).

Finally, any consideration of the self in relation to others is likely to call to mind the rapidly expanding body of research concerned with cross-cultural variations in construals of the self (e.g., Cousins, 1989; A. P. Fiske, Kitayama, Markus, & Nisbett, 1998; Markus & Kitayama, 1991; Rhee, Uleman, Lee, & Roman, 1995; see also Brewer, 1991; Smith & Henry, 1996). Much of this work has distinguished cultures in which the self is construed largely in relation to others from those in which the self is often construed as independent from these others (e.g., Markus & Kitayama, 1991).

From our perspective, variations across cultures in the extent to which the self is defined in relation to others may well have implications for the breadth of the transference experience. That is, although we would argue that significant others, by definition, are closely linked to the self, and thus that changes in self-definition and self-evaluation are very likely to occur in the context of transference irrespective of culture, we speculate that these changes may hold to a greater degree among particular individuals or within particular cultures. Thus, for example, to the extent that the self is tightly bound to others, transference effects implicating the self may be especially pronounced. In broad terms, cross-cultural research clearly suggests the need to recognize that the content, structure, and use of representations of both the self and significant others may vary importantly across cultures, reflecting systematic differences in the ways people of different cultures construe and experience the self in relation to the social world. Accordingly, such variations may correspond to differences in the ways in which relationships from the past are experienced in present relations.

C. THEORIES ABOUT SIGNIFICANT OTHERS

As described earlier, the "theories" or explanations perceivers have stored about their significant others have been the focus of a recent line of inquiry (Chen, 1997). This work parallels the increasing recognition that perceivers' conceptions of objects, people, and events are likely to extend beyond simple lists of features or attributes so as to include explanatory or theory-based forms of knowledge (e.g., Medin, 1989; Murphy & Medin, 1985). Research adopting a theory-based approach to significant-other representations and transference has in fact yielded some evidence suggesting that perceivers are especially likely to formulate psychological-state theories to make sense of significant others, and that these theories play a role in the applicability-based triggering of transference (Chen, 1997). More

specifically, this work suggests that the content and structure of significant-other representations may be in part theory-based, which in turn carries implications for how and when significant-other representations are likely to be activated and applied to newly encountered others.

Although this research on theories about significant others initially grew out of a body of work outside the domain of close relationships, its focus on the explanations perceivers construct about their significant others is shared by an expanding body of evidence on attributions and attributional processes in close relationships (e.g., Bradbury & Fincham, 1990; Collins, 1996; Fletcher & Fincham, 1991; Murray & Holmes, 1993, 1994, 1996). For instance, a highly provocative line of research proposes that theories about significant others may serve to construct or maintain perceivers' "positive illusions" about their significant others, helping to bolster confidence in their relationships with these important others (e.g., Murray & Holmes, 1993, 1994, 1996; Murray, Holmes, & Griffin, 1996; see also Holmes & Rempel, 1989). As described in earlier sections, this research has shown that when faced with negative information about a romantic partner about whom one feels positively, perceivers tend to construct narratives or theories that diminish, if not eliminate, the threat carried by the negative information. For example, perceivers may transform a romantic partner's fault into a virtue.

Analogous data have emerged in research on transference (Andersen et al., 1996), also described previously. Specifically, research has shown that upon encountering a new target person characterized by some negative descriptors associated with a positively evaluated significant other, participants responded to these descriptors with especially positive facial affect at encoding. The inconsistency of the negative features in relation to the overall positive tone of the significant-other representation apparently led perceivers to transform the negative into a positive response—arguably a reflection of the influence of their positively valenced "theories" about their significant others.

Research examining attributions in the context of marital relationships is also relevant to the idea that perceivers are likely to possess theories about the significant others in their lives. A major finding in this work is that attributional patterns play a predictive role in marital satisfaction (for a review, see Bradbury & Fincham, 1990). In general terms, the tendency to attribute positive behaviors of a spouse to dispositional factors and negative behaviors to situational ones tends to be associated with greater marital satisfaction, whereas the opposite pattern of attributions for the positive and negative behaviors of a spouse tends to be associated with lower marital satisfaction.

Dovetailing with this work is research suggesting that one possible origin of differences in attributional patterns lies in attachment orientation (Collins, 1996). More specifically, this work argues that individuals with different attachment styles are inclined to perceive, interpret, and explain relationship events in ways consistent with the distinct nature of their working models of self and other. Stated somewhat differently, it proposes that working models of the self and others contain particular explanatory tendencies, among other forms of knowledge pertaining to emotional and behavioral responding, that have been developed in part on the basis of past experiences with significant others (see also Downey & Feldman, 1996). Thus, for example, this research has shown that individuals with a preoccupied attachment orientation tend to formulate explanations for hypothetical relationship events reflecting a more negative interpretation of these events, as well as more negative views of the relevant relationship partner, than do individuals with a secure attachment orientation. In turn, such variations in explanatory tendencies have been shown to exert an impact on emotional responding (i.e., distress), as well as self-reported behavioral intentions—for instance, likelihood to engage in conflict-eliciting behavior (Collins, 1996).

The notion that working models of self and others include patterns of explanation implies that transference, which occurs upon the activation and application of a significant-other representation to a new other, may involve the reemergence of explanatory tendencies exhibited in prior relationships with significant others in relations with new others. This is certainly consistent with a theory-based approach to significant-other representations and transference. In turn, the transfer of patterns of explanation may in part predict emotional and behavioral responding in relations with these new others (Collins, 1996; see also Downey & Feldman, 1996). This implies that the emergence of representation-derived affect and behavior in transference may result in part from stored patterns of explanation that have been brought to bear on making sense of events in current relations with a new other. Indeed, the occurrence of representation-derived patterns of explanation may be common to the transference phenomenon—influencing perceptions and interpretations of events in encounters with new others, and representing a fundamental way in which significant relationships from the past are re-created in current social life.

XI. Closing Remarks

In this chapter, we described our approach to the study of close relationships by presenting a social-cognitive model of transference and the research

emerging from it (Andersen et al., 1995, 1996; Andersen & Baum, 1994; Andersen & Cole, 1990; Baum & Andersen, in press; Chen, 1997; Glassman & Andersen, in press; Hinkley & Andersen, 1996). At the core of this model is the notion that transference, the phenomenon whereby significant relationships from the past resurface in the present, can be understood in social-cognitive terms. Namely, the model contends that the activation and application of stored, mental representations of significant others to newly encountered others lie at the root of transference. Throughout, we discussed the basic and multifaceted effects that define the transference phenomenon and emerge in it, as well as the social-cognitive principles that govern it.

In more specific terms, we reviewed well-controlled experimental research demonstrating that representation-derived inference and memory about a new person occur on the basis of an activated significant-other representation, as well as representation-derived evaluation, motivation, expectancies, facial affect, working-self-concept changes, and, under some circumstances, transient mood changes. As well, research has begun to address complexities in the content and structure of significant-other representations that carry implications for the triggering of transference. We conclude that transference occurs in everyday social cognition, and may do so rather ubiquitously, rendering examination of significant relationships from the past fundamental to understanding present interpersonal experience.

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References

- Adler, A. (1957). *Understanding human nature*. New York: Fawcett Premier. (Original work published 1927).
- Allport, G. (1937). *Personality: A psychology interpretation*. New York: Holt, Rinehart, & Winston.
- Andersen, S. M., & Baum, A. B. (1994). Transference in interpersonal relations: Inferences and affect based on significant-other representations. *Journal of Personality*, 62, 4, 460–497.
- Andersen, S. M., & Berk, M. S. (1999). Transference in everyday experience: Implications of experimental research for relevant clinical phenomena. *Review of General Psychology*, 2, 81–120.

- Andersen, S. M., & Chen, S. (1999). *The entangled self: A social-cognitive interpersonal theory of self and personality embodied in transference*. Unpublished manuscript, New York University.
- Andersen, S. M., & Cole, S. W. (1990). "Do I know you?": The role of significant others in general social perception. *Journal of Personality and Social Psychology*, 59, 384-399.
- 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.
- Andersen, S. M., Glassman, N. S., Chen, S., & Cole, S. W. (1995). Transference in social perception: The role of chronic accessibility in significant-other representations. *Journal of Personality and Social Psychology*, 69, 41-57.
- Andersen, S. M., Glassman, N. S., & Gold, D. (1998). Mental representations of the self, significant others, and nonsignificant others: Structure and processing of private and public aspects. *Journal of Personality and Social Psychology*, 75, 845-861.
- Andersen, S. M., & Klatzky, R. L. (1987). Traits and social stereotypes: Levels of categorization in person perception. *Journal of Personality and Social Psychology*, 53, 235-246.
- Andersen, S. M., Klatzky, R. L., & Murray, J. (1990). Traits and social stereotypes: Efficiency differences in social information processing. *Journal of Personality and Social Psychology*, 59, 192-201.
- Andersen, S. M., Reznik, I., & Chen, S. (1997). The self in relation to others: Cognitive and motivational underpinnings. In J. G. Snodgrass & R. L. Thompson (Eds.), *The self across psychology: Self-recognition, self-awareness, and the self-concept* (pp. 233-275). New York: New York Academy of Science.
- Andersen, S. M., Reznik, I., & Manzella, L. M. (1996). Eliciting facial affect, motivation, and expectancies in transference: Significant-other representations in social relations. *Journal of Personality and Social Psychology*, 71, 1108-1129.
- Armstrong, S. L., Gleitman, L. R., & Gleitman, H. (1983). What some concepts might not be. *Cognition*, 13, 263-308.
- Aron, E. N., & Aron, A. (1996). Love and expansion of the self: The state of the model. *Personal Relationships*, 3, 45-58.
- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships and including other in the self. *Journal of Personality and Social Psychology*, 60, 241-253.
- 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*, 62, 596-612.
- Asch, S. E. (1946). Forming impressions of persons. *Journal of Abnormal and Social Psychology*, 41, 258-290.
- Asch, S. E., & Zukier, H. (1984). Thinking about persons. *Journal of Personality and Social Psychology*, 46, 1230-1240.
- Bakan, D. (1966). *The duality of human existence*. Chicago: Rand-McNally.
- Baldwin, M. W. (1992). Relational schemas and the processing of information. *Psychological Bulletin*, 112, 461-484.
- Baldwin, M. W., Carrell, S. E., & 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., 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.
- Baldwin, M. W., & Holmes, J. G. (1987). Salient private audiences and awareness of the self. *Journal of Personality and Social Psychology*, 52, 1087-1098.
- Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., & Koh-Rangarajoo, E. (1996). Social-cognitive conceptualization of attachment working models: Availability and accessibility effects. *Journal of Personality and Social Psychology*, 71, 94-109.
- Baldwin, M. W., & Sinclair, L. (1996). Self-esteem and "if... then" contingencies of interpersonal acceptance. *Journal of Personality and Social Psychology*, 71, 1130-1141.
- Banaji, M. R., Hardin, C., & Rothman, A. J. (1993). Implicit stereotyping in person judgment. *Journal of Personality and Social Psychology*, 65, 272-281.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bargh, J. A. (1990). Auto-Motives: Preconscious determinants of social interaction. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition* (Vol. 2, 93-130). New York: Guilford.
- Bargh, J. A. (1997). The automaticity of everyday life. In R. S. Wyer, Jr. (Ed.), *Advances in social cognition* (Vol. 10, pp. 1-61). Mahwah, NJ: Erlbaum.
- Bargh, J. A., Bond, R. N., Lombardi, W. L., & Tota, M. E. (1986). The additive nature of chronic and temporary sources of construct accessibility. *Journal of Personality and Social Psychology*, 50, 869-878.
- Bargh, J. A., & Gollwitzer, P. M. (1994). Environmental control of goal-directed action: Automatic and strategic contingencies between situations and behavior. *Nebraska Symposium on Motivation*, 41, 71-124.
- 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.
- Baum, A., & Andersen, S. M. (in press). Interpersonal roles in transference: Transient mood effects under the condition of significant-other resemblance. *Social Cognition*.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Baumeister, R. F., & Newman, L. S. (1994). How stories make sense of personal experiences: Motives that shape autobiographical narratives. *Personality and Social Psychology Bulletin*, 20, 676-690.
- Berscheid, E. (1994). Interpersonal relationships. *Annual Review of Psychology*, 45, 79-129.
- Blatt, S. J. (1990). Interpersonal relatedness and self-definition: Two personality configurations and their implications for psychopathology and psychotherapy. In J. L. Singer (Ed.), *Repression and dissociation: Implications for personality theory, psychopathology and health* (pp. 299-335). Chicago: University of Chicago Press.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- 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: Sadness and depression*. New York: Basic Books.
- Bradbury, T. N., & Fincham, F. D. (1990). Attributions in marriage: Review and critique. *Psychological Bulletin*, 107, 3-33.
- Brennan, K. A., & Morris, K. A. (1997). Attachment styles, self-esteem, and patterns of seeking feedback from romantic partners. *Personality and Social Psychology Bulletin*, 23, 23-31.
- Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic attachment. *Personality and Social Psychology Bulletin*, 21, 267-283.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475-482.

- Bruner, J. S. (1957). Going beyond the information given. In H. E. Gruber, K. R. Hammond, & R. Jessor (Eds.), *Contemporary approaches to cognition* (pp. 41–60). Cambridge, MA: Harvard University Press.
- Bugental, D. (1992). Affective and cognitive processes within threat-oriented family systems. In I. E. Sigel, A. McGillicuddy-de Lissi, & J. Goodnow (Eds.), *Parental belief systems: The psychological consequences for children* (pp. 219–248). Hillsdale, NJ: Erlbaum.
- Bugental, D. B., Lyon, J. E., Krantz, J., & Cortez, V. (1997). Who's the boss?: Differential accessibility of dominance ideation in parent-child relationships. *Journal of Personality and Social Psychology*, 72, 1297–1309.
- Cantor, N., & Mischel, W. (1977). Traits as prototypes: Effects on recognition memory. *Journal of Personality and Social Psychology*, 35, 38–48.
- Cantor, N., & Mischel, W. (1979). Prototypes in person perception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 12, pp. 3–52). New York: Academic Press.
- Carey, S. (1985). *Conceptual change in childhood*. Cambridge, MA: MIT Press.
- Chen, S. (1997). *Making sense of significant others: "Theories" about significant others and their role in transference*. Unpublished doctoral dissertation, New York University, New York.
- Chen, S., Andersen, S. M., & Hinkley, K. (in press). Triggering transference: Examining the role of applicability in the activation and use of significant-other representations in social perception. *Social Cognition*.
- Clark, M. S., & Reis, H. T. (1988). Interpersonal processes in close relationships. *Annual Review of Psychology*, 39, 609–672.
- Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, 71, 810–832.
- Collins, N., & Read, S. J. (1994). Cognitive representations of attachment: The structure and function of working models. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 5, pp. 53–90). London: Jessica Kingsley.
- Cousins, S. D. (1989). Culture and self-perception in Japan and the United States. *Journal of Personality and Social Psychology*, 56, 124–131.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Downey, G., & Feldman, S. I. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Personality and Social Psychology*, 70, 1327–1343.
- Downey, G., Freitas, A. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology*, 75, 545–560.
- Downey, G., & Khouri, H., & Feldman, S. (1997). Early interpersonal trauma and adult adjustment: The mediational role of rejection sensitivity. In D. Cicchetti & S. Toth (Eds.), *Rochester Symposium on Development Psychopathology, Vol. VIII: The effects of trauma on the development process* (pp. 85–114). Rochester, NY: University of Rochester Press.
- Ehrenreich, J. H. (1989). Transference: One concept or many? *The Psychoanalytic Review*, 76, 1989.
- Ekman, P. (1992). Are there basic emotions? *Psychological Review*, 99, 550–553.
- Fairbairn, W. R. D. (1954). *Psychoanalytic studies of personality*. London: Tavistock.
- Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology*, 58, 281–291.
- Feeney, J. A., & Noller, P. (1996). *Adult attachment*. Thousand Oaks, CA: Sage Publications, Inc.
- Feldman, S., & Downey, G. (1994). Rejection sensitivity as a mediator of the impact of childhood exposure to family violence on adult attachment behavior. *Development and Psychopathology*, 6, 231–247.

- Fiske, A. P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review*, 99, 689–723.
- Fiske, A. P., & Haslam, N. (1996). Social cognition is thinking about relationships. *Current Directions*, 5, 143–148.
- Fiske, A. P., Kitayama, S., Markus, H. R., & Nisbett, R. E. (1998). The cultural matrix of social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 2, pp. 915–981). Boston, MA: McGraw-Hill.
- Fiske, S. T. (1982). Schema-triggered affect: Applications to social perception. In M. S. Clark & S. T. Fiske (Eds.), *Affect and cognition: The 17th annual Carnegie symposium on cognition* (pp. 55–78). Hillsdale, NJ: Erlbaum.
- Fiske, S. T., & Pavelchak, M. (1986). Category-based versus piecemeal-based affective responses: Developments in schema-triggered affect. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (pp. 167–203). New York: Guilford.
- Fletcher, G. J. O., & Fincham, F. D. (1991). Attribution processes in close relationships. In G. J. O. Fletcher & F. D. Fincham (Eds.), *Cognition in close relationships* (pp. 7–35). Hillsdale, NJ: Erlbaum.
- Fletcher, G. J. O., & Fincham, F. D. (Eds.). (1991). *Cognition in close relationships*. Hillsdale, NJ: Erlbaum.
- Fletcher, G. J. O., & Fitness, J. (Eds.). (1996). *Knowledge structures in close relationships: A social psychological approach*. Mahwah, NJ: Erlbaum.
- Freud, S. (1958). The dynamics of transference. *Standard edition* (Vol. 12, pp. 99–108). London: Hogarth. (Original work published 1912)
- Freud, S. (1963). The dynamics of transference. *Therapy and technique* (pp. 105–115). New York: Macmillan. (Original work published 1912)
- Gelman, S. A., & Markman, E. M. (1986). Categories and induction in young children. *Cognition*, 23, 183–208.
- Gentner, D., & Markman, A. B. (1997). Structure mapping analogy and similarity. *American Psychologist*, 52, 45–56.
- Gick, M. L., & Holyoak, K. J. (1980). Analogical problem solving. *Cognitive Psychology*, 12, 306–355.
- Gick, M. L., & Holyoak, K. J. (1983). Schema induction and analogical transfer. *Cognitive Psychology*, 15, 1–38.
- Gilligan, C. (1982). *In a different voice*. Cambridge, MA: Harvard University Press.
- Gilovich, T. (1981). Seeing the past in the present: The effect of associations to familiar events on judgments and decisions. *Journal of Personality and Social Psychology*, 40, 797–808.
- Glassman, N. S., & Andersen, S. M. (in press). Activating transference without consciousness: Using significant-other representations to go beyond the subliminally given information. *Journal of Personality and Social Psychology*.
- Glassman, N. S., & Andersen, S. M. (in press). Transference in social cognition: Persistence and exacerbation of significant-other-based inferences over time. *Cognitive Therapy and Research*.
- Goldstone, R. L. (1994). The role of similarity in categorization: Providing a groundwork. *Cognition*, 52, 125–157.
- Greenberg, J. R., & Mitchell, S. A. (1983). *Object relations in psychoanalytic theory*. Cambridge, MA: Harvard University Press.
- Greenberg, J., & Pyszczynski, T. (1985). Compensatory self-inflation: A response to the threat to self-regard of public failure. *Journal of Personality and Social Psychology*, 49, 273–280.
- Greenwald, A. G. (1982). Ego task analysis: An integration of research on ego-development and self awareness. In A. Hastorf & A. Isen (Eds.), *Cognitive social psychology*. New York: Elsevier.

- Greenwald, A. G., & Banaji, M. R. (1989). The self as a memory system: Powerful, but ordinary. *Journal of Personality and Social Psychology*, 67, 430-445.
- Greenwald, A. G., & Pratkanis, A. R. (1984). The self. In R. S. Wyer, Jr., & T. K. Srull (Eds.), *The self and social life* (pp. 126-145). New York: McGraw-Hill.
- Griffin, D., & Bartholomew, K. (1994). Models of self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, 67, 430-445.
- Guidano, V. F., & Liotti, G. (1983). *Cognitive process and emotional disorders*. New York: Guilford.
- Guisinger, S., & Blatt, S. J. (1994). Individuality and relatedness: Evolution of a fundamental dialectic. *American Psychologist*, 49, 104-111.
- Hamilton, D. L. (1979). A cognitive-attributional analysis of stereotyping. In L. Berkowitz (Eds.), *Advances in experimental social psychology* (Vol. 12, pp. 53-84). New York: Academic Press.
- Hardin, C. D., & Rothman, A. J. (1997). Rendering accessible information relevant: The applicability of everyday life. In R. S. Wyer, Jr. (Ed.), *Advances in social cognition* (Vol. 10, pp. 143-156). Mahwah, NJ: Erlbaum.
- Hastie, R., Schroeder, C., & Weber, R. (1990). Creating complex social conjunction categories from simple categories. *Bulletin of the psychonomic society*, 28, 242-247.
- 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), 1-22.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Helgeson, V. S. (1994). Relation of agency and communion to well-being: Evidence and potential explanations. *Psychological Bulletin*, 116, 412-428.
- Higgins, E. T. (1987). Self-discrepancy theory: A theory relating self and affect. *Psychological Review*, 94, 319-340.
- Higgins, E. T. (1989a). Knowledge accessibility and activation: Subjectivity and suffering from unconscious sources. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thoughts* (pp. 75-123). New York: Guilford.
- Higgins, E. T. (1989b). Continuities and discontinuities in self-regulatory and self-evaluative processes: A developmental theory relating self and affect. *Journal of Personality*, 57, 407-444.
- Higgins, E. T. (1990). Personality, social psychology, and person-situation relations: Standards and knowledge activation as a common language. In L. A. Pervin (Ed.), *Handbook of personality* (pp. 301-338). New York: Guilford.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133-183). New York: Guilford.
- Higgins, E. T., & Brendl, C. M. (1995). Accessibility and applicability: Some "activation rules" influencing judgment. *Journal of Experimental Social Psychology*, 31, 218-243.
- Higgins, E. T., & King, G. A. (1981). Accessibility of social constructs: Information processing consequences of individual and contextual variability. In N. Cantor & J. F. Kihlstrom (Eds.), *Personality, cognition and social interaction* (pp. 69-121). Hillsdale, NJ: Erlbaum.
- Higgins, E. T., King, G. A., & Mavin, G. H. (1982). Individual construct accessibility and subjective impressions and recall. *Journal of Personality and Social Psychology*, 43, 35-47.
- Higgins, E. T., Rholes, W. S., & Jones, C. R. (1977). Category accessibility and impression formation. *Journal of Experimental Social Psychology*, 13, 141-154.
- Higgins, E. T., & Stangor, C. (1988). The change of standard effect in person memory. *Journal of Personality and Social Psychology*, 54, 181-192.
- Hinkley, K., & Andersen, S. M. (1996). The working self-concept in transference: Significant-other activation and self-change. *Journal of Personality and Social Psychology*, 71, 1279-1295.
- Hirschfeld, L. A. (1996). *Race in the making*. Cambridge, MA: The MIT Press.
- Holmes, J. C., & Rempel, J. K. (1989). Trust in close relationships. *Review of Personality and Social Psychology*, 10, 187-219.
- Holyoak, K. J., & Thagard, P. (1995). *Mental leaps: Analogy in creative thought*. Cambridge, MA: The MIT Press.
- Horney, K. (1939). *New ways in psychoanalysis*. New York: Norton.
- Horney, K. (1945). *Our inner conflicts*. New York: Norton.
- Horowitz, M. J. (Ed.). (1991). *Person schemas and maladaptive interpersonal patterns*. Chicago: The University of Chicago Press.
- Johnson, M. K., & Raye, C. L. (1981). Reality monitoring. *Psychological Review*, 88, 67-85.
- Johnson, M. K., Hastroudi, S., & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin*, 88, 67-85.
- Judd, C. M., & Park, B. (1988). Outgroup homogeneity: Judgments of variability at the individual and group levels. *Journal of Personality and Social Psychology*, 54, 778-788.
- Keil, F. C. (1989). *Concepts, kinds, and cognitive development*. Cambridge, MA: MIT Press.
- Kelly, G. A. (1955). *The psychology of personal constructs*. New York: Norton.
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of the self and others. *Child Development*, 59, 135-146.
- Komatsu, L. K. (1992). Recent views of conceptual structure. *Psychological Bulletin*, 112, 500-526.
- Kruglanski, A. W., & Jaffe, Y. (1988). Curing by knowing: The epistemic approach to cognitive therapy. In L. Y. Abramson (Ed.), *Social cognition and clinical psychology: A synthesis* (pp. 254-291). New York: Guilford Press.
- Kunda, Z., Miller, D. T., & Claire, T. (1990). Combining social concepts: The role of causal reasoning. *Cognitive Science*, 14, 551-577.
- Kunda, Z., & Thagard, P. (1996). Forming impressions from stereotypes, trait, and behaviors: A parallel constraint satisfaction theory. *Psychological Review*, 103, 284-308.
- Lazarus, R. S., & Averill, J. R. (1972). Emotion and cognition with special reference to anxiety. In C. D. Spielberger (Ed.), *Anxiety: Current trends in theory and research* (Vol. 2, pp. 242-283). New York: Academic Press.
- Lewicki, P. (1985). Nonconscious biasing effects of single instances on subsequent judgments. *Journal of Personality and Social Psychology*, 48, 563-574.
- Lewicki, P. (1986). *Nonconscious social information processing*. San Diego, CA: Academic Press.
- Leyens, J., & Fiske, S. T. (1994). Impression formation: From recitals to symphonic fantastique. In P. G. Devine, D. L. Hamilton, & T. M. Ostrom (Eds.), *Social cognition: Impact on social psychology* (pp. 39-75). San Diego, CA: Academic Press.
- Linville, P. W., & Carlston, D. E. (1994). Social cognition of the self. In P. G. Devine, D. C. Hamilton, T. M. Ostrom (Eds.), *Social cognition: Impact on social psychology* (pp. 143-193). New York: Academic Press.
- Linville, P. W., & Fischer, G. W. (1993). Exemplar and abstraction models of perceived group variability and stereotypicality. *Social Cognition*, 11, 95-125.
- Logan, G. D. (1988). Toward an instance theory of automatization. *Psychological Review*, 95, 492-527.

- Lombardi, W. J., Higgins, E. T., & Bargh, J. A. (1987). The role of consciousness in priming effects on categorization: Assimilation versus contrast as a function of awareness of the priming task. *Personality and Social Psychology Bulletin*, 13, 411-429.
- Luborsky, L., & Crits-Christoph, P. (1990). *Understanding transference: The CCRT method*. New York: Basic Books.
- Manis, M., Paskewitz, J., & Cotler, S. (1986). Stereotypes and social judgment. *Journal of Personality and Social Psychology*, 50, 461-473.
- Markman, A. B., & Gentner, D. (1993). Structural alignment during similarity comparisons. *Cognitive Psychology*, 25, 431-467.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology*, 38, 299-337.
- Martin, L. L. (1986). Set-reset: Use and disuse of concepts in impression formation. *Journal of Personality and Social Psychology*, 51, 493-504.
- Martin, L. L., Seta, J. J., & Crelia, R. A. (1990). Assimilation and contrast as a function of people's willingness and ability to expend effort in forming an impression. *Journal of Personality and Social Psychology*, 59, 27-37.
- Martin, L. L., Tesser, A., & McIntosh, W. D. (1993). Wanting but not having: The effects of unattained goals on thoughts and feelings. In D. M. Wegner & J. W. Pennebaker (Eds.), *The handbook of mental control* (pp. 552-572). New York: Prentice Hall.
- McAdams, D. P. (1985). *Power, intimacy, and the life story: Personological inquiries into identity*. New York: Guilford.
- McAdams, D. P. (1989). *Intimacy: The need to be close*. New York: Doubleday.
- Medin, D. L. (1989). Concepts and conceptual structure. *American Psychologist*, 44, 1469-1481.
- Medin, D. L., Goldstone, R. L., & Gentner, D. (1993). Respects for similarity. *Psychological Review*, 100, 254-278.
- Mikulincer, M. (1995). Attachment style and the mental representation of the self. *Journal of Personality and Social Psychology*, 69, 1203-1215.
- Mikulincer, M., & Orbach, I. (1995). Attachment styles and repressive defensiveness: The accessibility and architecture of affective memories. *Journal of Personality and Social Psychology*, 68, 917-925.
- Mischel, W. (1968). *Personality and assessment*. New York: Wiley.
- Mischel, W. (1973). Toward a cognitive-social reconceptualization of personality. *Psychological Review*, 80, 252-283.
- Mischel, W. (1990). Personality dispositions revisited and revised: A view after three decades. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 111-134). New York: Guilford.
- 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.
- Mullahy, P. (1970). *Psychoanalysis and Interpersonal Psychiatry. The Contributions of Harry Stack Sullivan*. New York: Science House.
- Mullen, B. (1991). Group composition, salience, and cognitive representations: The phenomenology of being in a group. *Journal of Experimental Social Psychology*, 27, 297-323.
- Murphy, G. L., & Medin, D. L. (1985). The role of theories in conceptual coherence. *Psychological Review*, 92, 289-316.
- Murray, S. L., & Holmes, J. G. (1993). Seeing virtues in faults: Negativity and the transformation of interpersonal narratives in close relationships. *Journal of Personality and Social Psychology*, 65, 707-722.

- Murray, S. L., & Holmes, J. G. (1994). Storytelling 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.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996). The self-fulfilling nature of positive illusions in romantic relationships: Love is blind, but prescient. *Journal of Personality and Social Psychology*, 71, 1155-1180.
- Nosofsky, R. M. (1986). Attention, similarity, and the identification-categorization relationship. *Journal of Experimental Psychology: General*, 115, 39-57.
- Oakes, P. J., Turner, J. C., & Haslam, S. A. (1991). Perceiving people as group members: The role of fit in the salience of social categorizations. *British Journal of Social Psychology*, 30, 125-144.
- Oatley, K., & Bolton, W. (1985). A social-cognitive theory of depression in reaction to life events. *Psychological Review*, 92, 372-388.
- Ogilvie, D. M., & Ashmore, R. D. (1991). Self-with-other representation as a unit of analysis in self-concept research. In R. C. Curtis (Ed.), *The relational self: Theoretical convergences in psychoanalysis and social psychology* (pp. 282-314). New York: Guilford Press.
- Ortony, A. (1979). Beyond literal similarity. *Psychological Review*, 86, 161-180.
- Park, B., & Hastie, R. (1987). Perception of variability in category development: Instance-versus abstraction-based stereotypes. *Journal of Personality and Social Psychology*, 53, 621-635.
- Park, B., DeKay, M. L., & Kraus, S. (1994). Aggregating social behavior into person models: Perceiver-induced consistency. *Journal of Personality and Social Psychology*, 66, 437-459.
- Pavelchak, M. (1989). Piecemeal and category-based evaluation: An idiographic analysis. *Journal of Personality and Social Psychology*, 56, 354-363.
- Pietromonaco, P. R., & Barrett, L. F. (1997). Working models of attachment and daily social interactions. *Journal of Personality and Social Psychology*, 73, 1409-1423.
- Pelham, B. W. (1993). The idiographic nature of human personality: Examples of the idiographic self-concept. *Journal of Personality and Social Psychology*, 64, 665-677.
- Pennington, N., & Hastie, R. (1992). Explaining the evidence: Tests of the story model for juror decision making. *Journal of Personality and Social Psychology*, 62, 189-206.
- Pennington, N., & Hastie, R. (1993). Reasoning in explanation-based decision making. *Cognition*, 49, 123-163.
- Pervin, L. A. (1976). A free-response description approach to the analysis of person-situation interaction. *Journal of Personality and Social Psychology*, 64, 665-677.
- Petty, R. E., & Wegener, D. T. (1993). Flexible correction processes in social judgment: Correcting for context-induced contrast. *Journal of Experimental Social Psychology*, 29, 137-165.
- Prentice, D. (1990). Familiarity and differences in self- and other-representations. *Journal of Personality and Social Psychology*, 59, 369-383.
- Read, S. J., & Cesa, I. L. (1991). This reminds me of the time when . . . : Expectation failures in reminding and explaining. *Journal of Experimental Social Psychology*, 27, 1-25.
- Read, S. J., & Miller, L. C. (1993). Rapist or "regular guy": Explanatory coherence in the construction of mental models of others. *Personality and Social Psychology Bulletin*, 19, 526-541.
- Read, S. J., Vanman, E. J., & Miller, L. C. (1997). Connectionism, parallel constraint satisfaction processes, and gestalt principles: (Re)introducing cognitive dynamics to social psychology. *Personality and Social Psychology Review*, 1, 26-53.

- Rhee, E., Uleman, J. S., Lee, H., & Roman, R. (1995). Spontaneous self-descriptions and ethnic identities in individualistic and collectivistic cultures. *Journal of Personality and Social Psychology*, 69, 142-152.
- Rips, L. J. (1991). Similarity and the structure of categories. In D. J. Napoli & J. A. Kegl (Eds.), *Bridges between psychology and linguistics: A Swarthmore festschrift for Lila Gleitman* (pp. 35-53). Hillsdale, NJ: Erlbaum.
- Rips, L. J., & Collins, A. (1993). Categories and resemblance. *Journal of Experimental Psychology: General*, 122, 468-486.
- Rogers, C. (1951). *Client-centered therapy*. Boston: Houghton-Mifflin.
- Rosch, E. (1978). Principles of categorization. In E. Rosch & B. B. Lloyd (Eds.), *Cognition and categorization* (pp. 27-48). Hillsdale, NJ: Erlbaum.
- Ross, B. H., & Bradshaw, G. L. (1994). Encoding effects of reminding. *Memory and Cognition*, 22, 591-605.
- Ross, B. H., Perkins, S. J., & Tenpenny, P. L. (1990). Reminding-based category learning. *Cognitive Psychology*, 22, 460-492.
- Safran, J. D. (1990a). Toward a refinement of cognitive therapy in light of interpersonal theory: I. Theory. *Clinical Psychology Review*, 10, 87-105.
- Safran, J. D. (1990b). Toward a refinement of cognitive therapy in light of interpersonal theory: II. Practice. *Clinical Psychology Review*, 10, 107-121.
- Safran, J. D., & Segal, Z. V. (1990). *Interpersonal processes in cognitive therapy*. New York: Basic Books.
- Schank, R. C. (1982). *Dynamic memory: A theory of reminding and learning in computers and people*. New York: Cambridge University Press.
- Schneider, D. J. (1973). Implicit personality theory: A review. *Psychological Review*, 79, 294-309.
- Schneider, D. J., & Blankmeyer, B. L. (1983). Prototype salience and implicit personality theories. *Journal of Personality and Social Psychology*, 44, 712-722.
- Schwarz, N., & Bless, H. (1991). Constructing reality and its alternatives: An inclusion/exclusion model of assimilation and contrast effects in social judgment.
- Sedikides, C., & Skowronski, J. J. (1990). Toward reconciling personality and social psychology: A construct accessibility approach. *Journal of Social Behavior and Personality*, 5, 531-546.
- Sedikides, C., & Skowronski, J. J. (1991). The law of cognitive structure activation. *Psychology Inquiry*, 2, 169-184.
- Seifert, C. M., McKoon, G., Abelson, R. P., & Ratcliff, R. (1986). Memory connections between thematically similar episodes. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 12, 220-231.
- Shaver, P. R., Collins, N., & Clark, C. L. (1996). Attachment styles and internal working models of self and relationship partners. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 25-61). Mahwah, NJ: Erlbaum.
- Shaver, P., & Rubenstein, C. (1980). Childhood attachment experience and adult loneliness. In L. Wheeler (Ed.), *Review of personality and social psychology* (Vol. 1, pp. 42-73). Beverly Hills, CA: Sage.
- Shoda, Y., & Mischel, W. (1993). Cognitive social approach to dispositional inferences: What if the perceiver is a cognitive social theorist? *Personality and Social Psychology Bulletin*, 19, 574-585.
- Simpson, J. A., & Rholes, W. S. (Eds.). (1998). *Attachment theory and close relationships*. New York: Guilford.
- Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology*, 70, 893-912.
- Singer, J. L. (1988). Reinterpreting the transference. In D. C. Turk & P. Salovey (Eds.), *Reasoning, interference, and judgment in clinical psychology* (pp. 182-205). New York: The Free Press.
- Smith, E. E., & Medin, D. L. (1981). *Categories and concepts*. Cambridge, MA: Harvard University Press.
- Smith, E. R., & Henry, S. (1996). An in-group becomes part of the self: Response-time evidence. *Personality and Social Psychology Bulletin*, 22, 635-642.
- Smith, E. R., & Zarate, M. A. (1990). Exemplar and prototype use in social categorization. *Social Cognition*, 8, 243-262.
- Smith, E. R., & Zarate, M. A. (1992). Exemplar-based model of social judgment. *Psychological Review*, 99, 3-21.
- Srull, T. K., & Wyer, R. S., Jr. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology*, 37, 1660-1672.
- Srull, T. K., & Wyer, R. S., Jr. (1980). Category accessibility and social perception: Some implications for the study of person memory and interpersonal judgment. *Journal of Personality and Social Psychology*, 38, 841-856.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261-302). New York: Academic Press.
- Sullivan, H. S. (1940). *Conceptions of modern psychiatry*. New York: Norton.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.
- Taylor, S. E. (1981). Categorization approach to stereotyping. In D. L. Hamilton (Ed.), *Cognitive processes in stereotyping and intergroup behavior* (pp. 83-114). Hillsdale, NJ: Erlbaum.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193-210.
- Taylor, S. E., & Lobel, M. (1989). Social comparison activity under threat: Downward evaluation and upward contacts. *Psychological Review*, 96, 569-575.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 181-227). New York: Academic Press.
- Thagard, P. (1989). Explanatory coherence. *Behavioral and Brain Sciences*, 12, 435-502.
- Tversky, A. (1977). Features of similarity. *Psychological Review*, 84, 327-352.
- Tversky, A., & Gati, I. (1978). Studies of similarity. In E. Rosch & B. B. Lloyd (Eds.), *Cognition and categorization* (pp. 79-98). Hillsdale, NJ: Erlbaum.
- Wachtel, P. L. (1981). Transference, schema, and assimilation: The relevance of Piaget to the psychoanalytic theory of transference. *The Annual of Psychoanalysis*, 8, 59-76.
- Westen, D. (1988). Transference an information processing. *Clinical Psychology Review*, 8, 161-179.
- Williamson, G. M., & Clark, M. S. (1992). Impact of desired relationship type on affective reactions to choosing and being required to help. *Personality and Social Psychology Bulletin*, 18, 10-18.
- Williamson, G. M., Clark, M. S., Pegalis, L. J., & Behan, A. (1996). Affective consequences of refusing to help in communal and exchange relationships. *Personality and Social Psychology Bulletin*, 22, 34-47.
- Wisniewski, E. J., & Medin, D. L. (1994). On the interaction of theory and data in concept learning. *Cognitive Science*, 18, 221-281.
- Wittenbrink, B., Gist, P. L., & Hilton, J. L. (1997). Structural properties of stereotypic knowledge and their influences on the construal of social situations. *Journal of Personality and Social Psychology*, 72, 526-543.

- Wittenbrink, B., Hilton, J. L., & Gist, P. L. (1998). In search of similarity: Stereotypes as naive theories in social categorization. *Social Cognition, 16*, 31-55.
- Wyer, R. S., & Jr., Srull, T. K. (1986). Human cognition and its social context. *Psychological Review, 93*, 322-359.
- Zukier, H. (1986). The paradigmatic and narrative modes in goal-guided inference. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 465-502). New York: Guilford.