TRIGGERING TRANSFERENCE: EXAMINING THE ROLE OF APPLICABILITY IN THE ACTIVATION AND USE OF SIGNIFICANT-OTHER REPRESENTATIONS IN SOCIAL PERCEPTION

SERENA CHEN
University of Michigan

SUSAN M. ANDERSEN AND KATRINA HINKLEY
New York University

Prior research has shown that different sources of knowledge activation may combine to trigger transference, the phenomenon whereby a significant-other representation is activated and used to interpret a new person, as assessed in terms of representation-consistent memory about the person (Andersen, Glassman, Chen, & Cole, 1995). The central prediction of the present study was that increasing levels of applicability sources of activation would produce corresponding increases in the extent to which significant-other representations are activated and used in social perception, combining with the previously documented chronic accessibility of these representations (Andersen et al., 1995). Applicability levels were manipulated in terms of the degree of featural overlap between a target person and a perceiver’s significant-other representation. Across all six applicability levels examined, greater representation-consistent memory was seen on the basis of a significant-other representation relative to several control representations, including a stereotype representation. This finding converges with prior evidence for the chronic readiness of significant-other representations to be activated and used (Andersen et al., 1995). No reliable effects for increasing levels of applicability were found. Methodological and theoretical accounts for the lack of applicability effects are discussed, raising important issues that we hope will be resolved, and provoke much needed future research, on the role of applicability in knowledge activation and use.

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Address correspondence to Serena Chen (321 East Hall, Ann Arbor, MI 48109-1109, serena@umich.edu) or Susan M. Andersen (6 Washington Place, 4th Floor, New York, NY 10003, andersen@psych.nyu.edu).

THE SOCIAL-COGNITIVE MODEL OF TRANSFERENCE

The social-cognitive model of transference assumes that knowledge about significant others is stored in memory, embedded within the network of constructs representing all other social knowledge (Andersen & Glassman, 1996; Chen & Andersen, 1999). Research not only supports this assumption, but also suggests that representations of significant others tend to be greater in featural richness and featural distinctiveness relative to various other social constructs (Andersen & Cole, 1990, Studies 1 & 2).

Although significant-other representations designate single individuals, and are thus exemplars, they may be activated and used in social perception just as are constructs representing, for example, traits and stereotypes (Andersen & Glassman, 1996; Smith & Zárate, 1990, 1992; see also Gilovich, 1981; Lewicki, 1985, 1986). Building on this basic notion, we define transference in terms of the activation of a significant-other representation, and its subsequent use in interpreting a new person. That is, the activation of the representation may lead the perceiver to use the representation, consciously or nonconsciously, to “go beyond the information given” (Bruner, 1957) about the person by inferring that he/she has qualities that characterize the significant other, but that he/she may not in fact possess (see also Singer, 1988; Wachtel, 1981; Westen, 1988). In essence, the perceiver may confuse what was learned at encoding with what was inferred on the basis of the activated representation (see also Johnson, Hastroudi, & Lindsay, 1993; Johnson &
Raye, 1981). In these social-cognitive terms, transference may occur in both clinical and everyday social contexts, and on the basis of virtually any stored representation of a significant person—for example, a parent, sibling, teacher, best friend, lover, or spouse.

Substantial evidence exists for transference (for reviews, see Andersen & Glassman, 1996; Chen & Andersen, 1999). Namely, research has shown perceivers' stronger tendency to "go beyond the information given" (Bruner, 1957) about a new person based on a significant-other representation relative to various control representations, as assessed in terms of representation-consistent memory about the person (e.g., Andersen & Cole, 1990; Andersen, Glassman, Chen, & Cole, 1995). Research has also shown the emergence of the evaluation, affect, expectancies, and motivation experienced in relation to a significant other in relations with a new person when the relevant significant-other representation has been activated and used to interpret the person (Andersen & Baum, 1994; Andersen, Reznik, & Manzella, 1996). The activation and use of a significant-other representation have also been shown to elicit shifts in perceivers' self-definition and self-evaluation toward the self that is operative in relation to the relevant significant other—that is, the "self-with-significant-other" (Hinkley & Andersen, 1996). We view such representation-derived effects as evidence for the multifaceted nature of the transference phenomenon.

**SOCIAL-COGNITIVE PRINCIPLES UNDERLYING THE ACTIVATION AND USE OF SIGNIFICANT-OFFER REPRESENTATIONS**

Our model of transference maintains that the same basic social-cognitive principles that govern other social constructs guide the activation and use of significant-other representations. Specifically, in line with various social-cognitive views on knowledge activation and use (Higgins, 1989, 1996; see also Bargh, 1997; Sedikides & Skowronski, 1990, 1991; Wyer & Srull, 1986), we distinguish knowledge activation from knowledge use. Whereas knowledge activation involves the accessibility of stored knowledge, as well as its applicability to a to-be-interpreted stimulus, knowledge use refers to the likelihood that activated knowledge will actually be used in social perception (e.g., Higgins, 1996).

**SOURCES OF KNOWLEDGE ACTIVATION**

The activation of stored knowledge depends in part on its level of accessibility, which refers to its activation readiness or "potential" (e.g., Higgins, 1996). Accessibility is seen as a continuous variable, with higher accessibility corresponding to a higher likelihood of activation (e.g., Higgins, 1996). Accessibility can arise from transient as well as chronic sources, and either alone or in combination, these sources are viewed as additive (see Bargh, Bond, Lombardi, & Tota, 1986; Higgins, 1989, 1996). Priming is a transient source that refers to a temporary and recent increase in the accessibility of a stored construct. In contrast, chronic sources arise from the frequency of a construct's past activation (e.g., Bargh & Thein, 1985; Higgins & King, 1981; Higgins, King, & Mavin, 1982). Such frequent past activation results in a chronically high level of activation readiness, or the construct's chronic accessibility. Like any source of accessibility, chronic accessibility is continuous, implying that varying degrees of a chronically high level of activation readiness may exist (e.g., Higgins & Breidt, 1995).

Beyond accessibility, knowledge activation depends on applicability, which is defined as activation arising from the featural overlap or "match" perceived between the attended features of a stimulus and featural knowledge stored about a construct (Higgins, 1989, 1996; see also Bargh, 1997; Hardin & Rothman, 1997). Thus, unlike accessibility, applicability is a source of activation that emanates directly from a to-be-interpreted stimulus, namely, from the relation between cues in the stimulus and a stored construct. The extent of applicability's contribution to the activation of a stored construct is thought to vary, like any other activation source. Thus, its contribution should increase with increases in the "match" between cues in a stimulus and a stored construct—that is, increases in the number of overlapping features between the stimulus and construct (e.g., Higgins, 1996). The present study focused on the role of chronic accessibility and applicability to the activation and use of significant-other representations in everyday social perception.

**THE USE OF ACTIVATED KNOWLEDGE**

The distinction between knowledge activation and knowledge use implies that the activation of a stored construct does not guarantee its use. Indeed, research suggests that, once activated, a construct may be judged, via automatic or controlled processes, to be irrelevant or inappropriate to use in interpreting a target person (for a review, see Higgins, 1996). This idea is central to work on assimilation and contrast effects (e.g., Martin & Achee, 1992; Martin, Selig, & Crelia, 1990), which generally suggests that inhibiting the use of an activated construct occurs when some internal factor (e.g., processing goal) or external factor (e.g., experimental instructions) suggests the irrelevance or inappropriateness of using the construct (e.g., Higgins, 1996; Lombardi, Higgins, &
APPLICATION'S ROLE IN TRIGGERING TRANSFERENCE

In the present study, as in prior research on transference, there was no obvious factor to inhibit knowledge use, implying that representations available in memory, once activated, were likely to be used. In fact, generally speaking, we suggest that when applicability is involved and in the absence of inhibitory factors, the distinction between knowledge activation and use may be blurred (see also Hardin & Rothman, 1997; Higgins & Stangor, 1988). Why? Applicability is embodied, in part, in the very person onto whom an activated construct may be applied and used to interpret. As such, the construct is clearly relevant, to some degree, to the person, and in this regard, appropriate to use. Put differently, because applicability’s role in activating a construct lies in cues emanating from a to-be-interpreted person, there is no ambiguity that the activated construct is, to some degree, about the person. Hence, cues in a person that overlap with stored knowledge serve as a source of activation for the knowledge as well as a clear indicator of the appropriateness of its use. In terms of transference, then, we suggest that applicability cues not only help activate significant-other representations, but also “pull” for their use in social perception, thus rendering it difficult to tease apart knowledge activation and use (see also Chen & Andersen, 1999).

THE PRESENT STUDY

Extending this prior work, in which the effects of the presence versus absence of applicability were assessed (Andersen et al., 1995, Study 2), the current study examined the contribution of multiple levels of applicability to the activation of significant-other representations. Such work is important because multiple levels of applicability have received little empirical attention (although see Higgins & Brendl, 1995; Srull & Wyer, 1979, 1980), and because, overall, explicit tests of the role of applicability in knowledge activation are few in number and limited to particular types of constructs (for a review, see Higgins, 1996). Indeed, most typically, knowledge-activation effects have been examined simply in the presence of some applicability—for example, in the form of “ambiguous” stimuli, which contain features equal in similarity to an activated and an alternative construct (e.g., Higgins, Rhodis, & Jones, 1977), or “vague” stimuli, which contain enough features to render a construct’s activation and use appropriate but not inevitable (e.g., Srull & Wyer, 1979).

On the basis of social-cognitive theory (e.g., Higgins, 1996; Higgins & Brendl, 1995; Srull & Wyer, 1979, 1980), our central prediction was that increasing levels of applicability would correspondingly increase the activation level of participants’ own significant-other representations, combining with the chronic accessibility of these representations, shown in prior work (Andersen et al., 1995). Although our central prediction pertained to the activation of significant-other representations, our primary dependent measure was representation-consistent memory about a target person—a measure that reflects both the activation and subsequent use of a significant-other representation to interpret the target. We view using this measure as appropriate to test our activation prediction because there was little or nothing to inhibit the use of activated knowledge in our study, and because knowledge activation and knowledge
exactly difficult to distinguish when applicability sources of knowledge activation are involved, as discussed above.\footnote{1}

When considering multiple applicability levels, the question of how to conceptualize such levels arises. Although applicability has been defined, on a theoretical level, in terms of overlap or “match” between the attended features of a stimulus and those associated with a stored construct (Higgins, 1989, 1996), research has yet to examine the effects of multiple levels of applicability defined literally in terms of such featural overlap. In one study, for example, level of applicability of the trait construct “conceited” to a target person was varied on the basis of pretest ratings of the overall extent to which a vignette about a target person implied conceitedness, rather than on the basis of the number of overlapping features (Higgins & Breidl, 1995; see also Snell & Wyer, 1979, 1980).\footnote{2}

In general terms, this study showed that increases in “implication” ratings for the target-person vignette—that is, increases in the degree of “match” or applicability perceived between the target information and the trait construct “conceited”—were associated with increases in ratings of the target’s conceitedness (Higgins & Breidl, 1995).

On the other hand, research on transference has examined applicability in terms of featural overlap—namely, the featural similarity or resemblance between a target person and a perceiver’s representation of a significant other (e.g., Andersen et al., 1995). For instance, in the study

1. It might also be argued that our use of representations consistent memory to test our activation predictions is entirely consistent with the rather large body of work on trait-construct activation in which the activation of a trait construct, arising from either or both chronic and temporary sources of accessibility, has often been assessed in terms of the degree to which trait-construct inferences are made. We view our representation-consistent memory measures as quite analogous to such inference measures, and point out that such inference measures similarly assess both the activation of a trait construct and its subsequent use.

2. It is worth noting variations in the few studies that have examined the contribution of multiple levels of applicability to knowledge activation and use. As noted, Higgins and Breidl (1993) varied applicability level on the basis of pretest ratings of the overall conceitedness implied by vignettes about a target person. On the other hand, in the Snell and Wyer studies (1979, 1980), all participants were presented with the same “ambiguously hostile (kind) target”-person vignette (i.e., applicability level was held constant). After judging the target on various dimensions, participants were asked to rate a series of individual behaviors that pretest ratings had determined to be hostile (kind), ambiguously hostile (kind), or nonhostile (nonkind) on hostility-related (kindness-related) dimensions. These three different sets of behaviors, then, could be construed as representing three different applicability levels, allowing for examination of increases in applicability’s contribution based on pretest hostility (kindness) ratings for each set. Notwithstanding the potential implications of these differences, neither the Higgins and Breidl study nor the Snell and Wyer studies examined applicability strictly in terms of featural overlap between a stored construct and stimulus—as was the case in the present study.

examining the presence versus absence of applicability, applicability was manipulated by varying whether or not there was some featural overlap between a target person and participants’ significant-other representations (Andersen et al., 1995, Study 2). Analogously, in studies in which applicability has been held constant, applicability has taken the form of a constant number of overlapping target-representation features across conditions. In the current study, features again served as the basis for applicability. Thus, to manipulate level of applicability, we varied the degree of featural overlap existing between target persons and representations.

Our feature-based approach to applicability is rather common, seen in both theoretical definitions of applicability in the social-cognitive domain (e.g., Higgins, 1996), and in cognitive work on categorization (see reviews, see Komatsu, 1992; Medin, 1989; Murphy & Medin, 1985). Though variations exist, various cognitive models of categorization suggest that a stimulus is likely to be compared with existing knowledge in terms of matching and mismatching features between the stimulus and knowledge (e.g., Tversky, 1977; see also Cantor & Mischel, 1979; Nosofsky, 1986; Rosch, 1978; Smith & Medin, 1981). Indeed, whether these models focus on stimulus, contextual, or task factors that influence similarity judgments (e.g., Medin, Goldstone, & Gentner, 1993; Medin & Shoben, 1988; Tversky & Gati, 1978), or on the nature of categories and categorization (e.g., Rosch, 1978), similarity or “match” has often been discussed in featural terms.\footnote{3} Such feature-based views generally imply that the greater the featural similarity between a stimulus and category, the greater is the likelihood that the stimulus will be interpreted in terms of the category.

Overall, then, social-cognitive work on applicability (e.g., Higgins, 1996), coupled with feature-based views in the cognitive domain, suggested that manipulating applicability in terms of increasing degrees of featural overlap would effectively constitute increasing levels of applicability. We predicted that such increases would produce corresponding increases in the activation and use of significant-other representations, combining with the chronic accessibility of these representations (Andersen et al., 1995).

3. Feature-based approaches in the cognitive literature vary in the degree to which they speak to the categorization processes. For example, research contrasting similarity judgments with categorization decisions (e.g., Rips & Collins, 1993) clearly speaks more directly to categorization than does research focused primarily on factors which influence assessments of similarity between two stimulus objects (e.g., Tversky, 1977). Thus, evidence for or against the adequacy of categorization models grounded in featural assumptions may at times be indirect (see Medin et al., 1993).
METHOD

OVERVIEW

Idiographic and nomothetic procedures were used in a two-session study. In the first session, participants generated one featural descriptor to describe each of 14 well-known individuals to constitute a “no-representation” control representation. They then named and generated featural descriptors for a significant other and a stereotype. The ostensibly unrelated experimental session, held a few weeks later, consisted of learning trials about four target persons, each corresponding to a different representation (the participant’s own significant other, his/her own stereotype, his/her own “no-representation,” and a yoked participant’s significant other). In these trials, participants were presented with featural descriptors about each target. Applicability level was manipulated by varying the number of features about each target that overlapped with features associated with the corresponding representation. Participants were randomly assigned to one of six applicability conditions, each reflecting a different degree of featural overlap, which was held constant across the four targets about whom each participant learned. Thus, a 6 x 4 (Featural Overlap x Type of Representation) mixed factorial design was used.

After the learning trials, participants completed a recognition-memory test which asked them to rate their confidence that they had learned representation-consistent featural descriptors about each target that had not actually been presented. For each target, higher ratings indicated greater representation-consistent memory confidence based on the relevant representation. As in prior work (e.g., Andersen et al., 1995), greater representation-consistent memory about the target corresponding to participants’ own significant-other representation relative to the three other representations, which were control conditions, served as evidence for transference—that is, for the relatively greater activation and use of a significant-other representation to interpret a new other. Given prior evidence for the chronic accessibility of significant-other representations (Andersen et al., 1995), we expected such basic evidence for transference to emerge independently of applicability level.

Beyond our chronic accessibility prediction, we expected that representation-consistent memory about the target resembling participants’ own significant other would increase as a function of increasing degrees of featural overlap—if increasing levels of applicability, defined in these terms, do in fact produce corresponding increases in the activation and use of participants’ own significant-other representation. Moreover, to the extent that applicability, defined in featural-overlap terms, operates similarly in the activation of stereotype representations, similar increases should emerge in participants’ own stereotype condition—the only other condition involving a representation available in participants’ memory.

PARTICIPANTS

One hundred twenty-four New York University undergraduates (47 women and 77 men) participated in this two-session study as part of an introductory psychology course requirement. They participated in the first session in groups of no greater than five, and individually in the second session. Approximately 20 participants were assigned to each of the six applicability conditions.

MATERIALS AND PROCEDURE

Feature Listing. In the first session, participants were first presented with a randomized list of the names of 14 well-known individuals (see Appendix). They were asked to complete one sentence to describe each person in response to a standard prompt (e.g., “A person like Albert Einstein...”). They were told to generate descriptors that reflect each person’s most central characteristic, thought, emotion, or action, and that also distinguish the person from the others on the list. The list was diverse so as to elicit the generation of a set of idiographic sentences that together would not cohere into a single representation. Such a set of descriptors could thus be used for a control condition capable of indexing self-generation effects (see Greenwald, 1982; Greenwald & Banaji, 1989) in the absence of representational coherence. If unfamiliar with a name, participants were given an alternate name that preserved the diversity of the list.

Next, participants identified a significant other, defined as someone “who is very important to you and has been for many years (perhaps a parent, relative, or friend).” They provided the individual’s name and their relationship with him or her (e.g., my brother). Participants were then asked to identify a stereotype they use to characterize others by providing a noun label (e.g., “doctor” or “politician” type; see Andersen & Cole, 1990, Study 3). The order of these two tasks was counterbalanced. As in past work, about half of the significant others listed were family members (40%), with 15% being mothers and 5% fathers; the remaining 60% were close friends (54%) or romantic partners (6%). Some examples of the stereotype labels provided were “yuppie,” “Asian,” and “hick.”

Participants were then asked to complete 14 sentence-prompts (“A person like NAME”) to describe their significant other, and 14 sentence-prompts (“A person like LABEL”) to describe their stereotype in
counterbalanced order. That is, they were asked to generate predicates, each reflecting a descriptive feature, defined as a characteristic, activity, thought, or emotion of the person/stereotype. As well, they were told to generate features that distinguish the person/stereotype from others. Each featural descriptor was limited to six words. The standard sentence-prompt was seen as suitable for either a person-name or stereotype-labellub, and as easy to complete with predicates such as “loves to sing in the shower” or “is very socially skilled.”

After describing their significant other and stereotype, participants rank-ordered each listed sentence according to its importance in describing the person/stereotype, giving a “1” to the most descriptive and a “14” to the least. These rank-orders served as an index of the relative descriptive importance of the listed features so that those selected to appear in the learning trials could be controlled in this respect (see below). Next, participants were shown a randomly-ordered list of 30 moderately positive trait adjectives for each person/stereotype. They were asked to classify 9 as good descriptors, 9 as poor ones, and 12 as “irrelevant” (i.e., neither descriptive nor counter-descriptive) with respect to the person/stereotype (as in Andersen et al., 1995). A forced-choice format was used in this task to guarantee a sufficient pool of adjectives for use as irrelevant filler sentences in the learning trials (see below).

At this point, participants were thanked and partially debriefed. As they were about to leave, the experimenter mentioned the difficulty that graduate-student researchers were having in recruiting participants for their research, and encouraged volunteerism. Most agreed to sign up for the second session, ostensibly an unrelated study on learning and memory.

The Learning Trials. A few weeks later, participants reported individually for the second session, run by a new experimenter in a new room. For the learning trials, participants were told that they would see a series of descriptive sentences about each of four target persons: Terry, Kelly, Sandy, and Pat (names selected on the basis of their relative gender neutrality; see Andersen & Cole, 1990, Study 3). They were asked to read each sentence carefully so as to “remember the characteristics or qualities of each of the four people.”

The learning trials, presented on an IBM-compatible computer, consisted of four randomized blocks of 10 descriptive sentences—a block for each of the target. The four targets resembled the participant’s own significant other, own stereotype, own no-representation features, or a yoked participant’s significant other. A target resembling a yoked participant’s significant other was included to rule out the possibility that the observed effects could occur on the basis of just anyone’s significant other features (see Andersen et al., 1995).

The 40 learning-trial sentences appeared one at a time, each beginning with the name of a target and followed by a sentence predicate. Each predicate was either a sentence-completion generated earlier by the participant (to describe a significant other, stereotype, or a person in the no-representation list) or yoked participant (to describe a significant other). The remaining sentences were filler phrases, each comprised of a randomly chosen adjective that the participant or yoked participant had deemed irrelevant with respect to the particular representation (e.g., “Terry is conservative”). Sentence presentation order was randomized within blocks. Each sentence was shown for 4 sec and then pattern-masked. Participants were told to press a key on the keyboard after reading each sentence once. The computer recorded the time (in sec) lapsing between stimulus onset and the key press (i.e., reading time), and the number of characters in each sentence.

To manipulate applicability level, we randomly assigned participants to one of six featural-overlap conditions, each corresponding to the number and proportion of sentence predicates in the four learning-trial blocks generated earlier by the participant or yoked participant (i.e., the number of overlapping features). In the first featural-overlap condition, each target was described by only one previously generated descriptor (rank-order 6), with the remaining nine sentences comprised of irrelevant filler-adjective phrases. In the second condition, two overlapping descriptors (rank-orders 6 and 7) and eight filler phrases were used. In the remaining conditions, each target was described by three, four, five, or six overlapping features, and seven, six, five, or four filler phrases, respectively. Thus, the proportion of overlapping features within each featural-overlap condition was held constant across type-of-representation conditions, and both the descriptiveness of the most descriptive target feature used, as well as the total number of sentences presented about each target was held constant across both featural-overlap and type-of-representation conditions. The sixth featural-overlap condition, using six overlapping features (rank-orders 6 through 11) and four filler phrases, is the one used in much previous work (e.g., Andersen & Cole, 1990, Study 3; Andersen et al., 1995).

Given that applicability is defined by the attended features of a stimulus (e.g., Higgins, 1996; see also Smith & Zarate, 1992), we made efforts to control factors that could influence attention in the learning trials during which applicability was manipulated. Specifically, to mitigate distraction and fatigue, an auditory cue signaled the presentation of each target feature in the learning trials. To minimize featural salience, feature-length...
restrictions were used, and feature descriptiveness was held constant, as indicated. Lastly, we gave participants memory rather than impression-formation instructions to ensure adequate attention and to minimize impression-formation tendencies to attend to and integrate features along a specific dimension (Wyer & Gordon, 1984; Wyer & Stull, 1986).

Finally, to select learning-trial sentences for the no-representation target in a manner analogous to the manner in which sentences were selected for the other target conditions, "pseudo-rank-orders" were randomly assigned to each of the 14 sentences that participants had generated to describe the list of well-known individuals. In addition, 10 adjectives were chosen on the basis of two independent judges' ratings regarding whether or not each of the 30 trait adjectives described each of the 14 people to serve as nonmotistically "irrelevant" filler phrases for this condition (see Andersen et al., 1995 for further detail). These adjectives were: calm, candid, casual, curious, idealistic, lucky, objective, orderly, positive, and romantic. We assumed that the adjectives used to construct filler phrases in the learning trials would not add any particular representational coherence to each participant's set of no-representation features. 5

The Recognition-Memory Test. After reading the 40 sentences about the targets, participants were asked to try to recognize the sentences they had just learned about each target. They were told that they would see a series of sentences, which may or may not have been presented earlier, and asked to indicate their confidence that each sentence had been presented on a scale ranging from 1 ("I am certain this statement was not presented") to 4 ("I am certain this statement was presented") (as in, e.g., Andersen & Cole, 1990; Andersen et al., 1995; see also Cantor & Mischel, 1977).

The recognition-memory test consisted of 56 randomly ordered and individually presented sentences, 14 for each target. The composition of this test was held constant across feature-overlap conditions. Of the 14 test items for each target, three had been presented in the learning trials—a overlapping descriptor (rank-order 6) and two irrelevant descriptors. The other 11 test items had not been presented—eight descriptors previously generated by the participant or yoked participant (rank-orders 1–5 and 12–14) and 3 irrelevant ones. For each target, the average recognition-memory confidence rating given for the 8 previously generated (i.e., representation-consistent) descriptors served as an index of the extent to which the corresponding representation had been activated and used to interpret the target.

Manipulation Check. After the memory test, participants were informed that the current session was related to the feature-listing one, so that they could then be asked to rate how similar they perceived each target to be to the significant other and stereotype they had named earlier—using a "0" (not at all similar) to "9" (highly similar) scale. These ratings were meant to serve as some measure of the effectiveness of our applicability manipulation. Of course, they could not provide a pure measure of perceived "match" between each target and participants' own significant other and stereotype, because they had to be made after the experimenter disclosed that the two sessions were related. Nonetheless, because participants were not told to which two targets their significant other and stereotype corresponded, we expected that, minimally, higher ratings of perceived similarity would be given for the target-representation pairs that actually "matched" (i.e., the pairs in which the target was described by at least one feature that participants had generated earlier for their own significant other or their own stereotype) than for the "nonmatched" target-representation pairs.

RESULTS

MANIPULATION CHECK

To examine the degree to which participants perceived the targets described by at least one feature associated with their own significant other and stereotype to resemble each, respectively, we compared the similarity ratings made for matching versus nonmatching target-representation pairs in a 2 x 6 x 2 x 2 (Participant Sex x Feature Overlap x Type of Representation x Match) ANOVA. As anticipated, the analysis yielded a highly significant match effect, F(1, 112) = 324.73, p < .0001, indicating that, overall, higher ratings of perceived similarity were made for matching target-representation pairs (M = 5.39) than for nonmatching ones (M = 1.21). No interactions emerged among feature overlap, type of representation, and match—implying that our applicability manipulation held across feature-overlap conditions, and held comparably for participants' own significant-other and stereotype representations. The match/nonmatch difference was, in fact, reliable in participants' own significant-other con-
CONDITION, \( t(123) = 16.22, p < .0001 \) (\( M = 5.47 \) vs. \( M = 1.10 \)), and stereotype condition, \( t(123) = 12.36, p < .0001 \) (\( M = 5.30 \) vs. \( M = 1.33 \)).

The omnibus analysis did, however, yield an unexpected Participant Sex \times Featural Overlap \times Match interaction, \( F(5, 112) = 2.45, p < .04 \), suggesting that males and females differed in terms of the featural-overlap condition in which they perceived the greatest disparity in similarity between matching and nonmatching pairs. Given the absence of any interactions involving participant sex for our primary dependent variable (discussed later), and the lack of theoretical relevance of this finding, we do not discuss it further. No other effects emerged from this analysis, suggesting that our applicability manipulation was comparably effective across featural-overlap conditions and across gender.

Of course, it might be argued that a proper test of the prediction that increasing applicability levels would correspondingly increase the activation and use of participants' own significant other and stereotype representations requires evidence that applicability was adequately manipulated. Such evidence might have taken the form of increases in perceived similarity as a function of increasing applicability levels. In the Discussion, we consider various methodological issues that may account for why such evidence did not emerge.

**REPRESENTATION-CONSISTENT MEMORY**

Given prior evidence for the chronic accessibility of significant-other representations (Andersen et al., 1995), we expected to find higher representation-consistent memory confidence ratings about the target resembling the participant's own significant other relative to the control targets—regardless of applicability level. Independent of this chronic accessibility prediction, to the extent that increasing levels of applicability, defined in featural-overlap terms, combine to enhance knowledge activation and use, we expected increases in target-representation featural overlap to correspondingly increase representation-consistent memory about the targets resembling participants' own significant other and own stereotype. Such increases should not be seen for the targets corresponding to participants' no-representation features and the yoked participant's significant other—neither of which corresponded to a representation available in participants' memory.

To examine these hypotheses, for each target, we calculated each participant's average recognition-memory confidence rating for the eight representation-consistent test items that were not presented in the learning trials about the target, and then analyzed these ratings in a \( 2 \times 6 \times 4 \) (Participant Sex \times Featural Overlap \times Type of Representation) ANOVA. Support for the increasing contribution of increasing applicability levels to the activation and use of participants' own significant other and own stereotype representations would be seen in a Featural Overlap \times Type of Representation interaction.\(^6\)

**Chronic Accessibility Effect.** First, we found a highly significant type-of-representation effect, \( F(3, 330) = 13.70, p < .0001 \), reflecting higher representation-consistent memory confidence ratings for the target resembling participants' own significant other relative to the other targets. These data, depicted in Figure 1, suggest the chronic readiness of signific-

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\(^6\) We did not make specific predictions regarding the slope of the increases we expected in representation-consistent memory in participants' own significant other or own stereotype conditions as a function of increasing degrees of featural overlap, although several possibilities were entertained. Most notably, we considered the possibility that increases in the role of applicability in knowledge activation and use might follow a linear function corresponding to the linear increases in featural overlap used to manipulate applicability level. However, given that existing social-cognitive work on applicability does not directly address this issue (e.g., Higgins, 1996), we opted to treat the exact nature of the function as an open empirical question. Indeed, evidence supporting increases in applicability's contribution as a function of increasing featural overlap would be in the form of an interaction between featural overlap and type of representation—regardless of the precise function of these increases.
features used to manipulate applicability in participants’ own significant-other and stereotype conditions were, according to participants themselves, descriptive of the significant other and stereotype. 

It might be argued that the increments of increasing featural overlap were not large enough to capture increases in applicability’s contribution. To address this possibility, we reexamined average confidence ratings using a tripartite split of our six-level applicability variable. Further verifying the lack of any effect for feature-based applicability, this $2 \times 3 \times 4$ (Participant Sex × Featural Overlap × Type of Representation) ANOVA yielded only a type-of-representation effect, $F(3,354)=14.51, p<.0001$. The means for this effect mirror the original pattern with higher ratings for the target resembling participant’s own significant other ($M=1.60$) than for the targets resembling his/her own stereotype ($M=1.45$), no-representation features ($M=1.39$), and a yoked participant’s significant other ($M=1.33$). Thus, regardless of applicability level and participant sex, greater representation-consistent memory was seen for the target resembling the participant’s own significant other relative to the other three targets. 

As a further test for an applicability effect, we also examined the Featural Overlap × Type of Representation interaction excluding the no-representation and yoked participant’s significant other conditions on the grounds that neither condition involved a representation existing in memory. This $6 \times 2$ (Featural Overlap × Type of Representation) ANOVA yielded only a type-of-representation effect, $F(3,118)=14.92, p<.0001$. Once again, neither an applicability main effect or interaction was found ($F=1$). We also tested for an applicability effect simply within participants’ own significant-other condition, and similarly found no effect ($F=1$).

We conducted an additional analysis to rule out the possibility that variations in the rank-ordered descriptiveness of the test items underlying our memory measure may have obscured an applicability effect. Specifically, we re-computed confidence ratings for the eight representation-consistent test items so as to construct two separate measures—one of ratings for the items of highest rank-ordered descriptiveness (ranks #1 through #5) and the other of ratings for the items of lowest rank-ordered descriptiveness (ranks #12 through #14). We analyzed these new measures in a $6 \times 2$ (Featural Overlap × Type of Representation × Measure) ANOVA. Three findings emerged: (1) a type-of-representation effect, $F(3,354)=16.99, p<.0001$; (2) a measure effect, $F(1,118)=5.17, p<.0001$; and (3) an interaction between type of representation and measure, $F(3,354)=6.59, p<.0001$. No other effects emerged ($F<1$). An examination of the means indicates that the first effect reflects higher ratings in participants’ own significant-other condition relative to the other conditions—regardless of the descriptiveness of the test items used in the memory measure. The latter two effects reflect the fact that ratings tended to be higher for the measure based on the highest-ranked items compared to the measure based on lowest-ranked items—and this was especially true for the targets resembling participants’ own significant other and stereotype. These effects of item descriptiveness are highly reminiscent of a finding reported in Andersen and Cole (1990, Study 3), which was interpreted as an effect of feature prototypicality. We do not discuss these effects further because they are not relevant to the critical point here which is that the lack of applicability effects in the current study cannot simply be attributed to differences in the descriptiveness of the test items.

(Footnote continued)
Additional Analyses. Pairwise comparisons among the control conditions yielded several noteworthy findings. First, the no-representation and yoked participant's significant-other conditions did not differ, t(123), 1.24, ns, arguing further against a self-generation account for the results. Next, greater representation-consistent memory was found for the stereotype target versus no-representation target, t(123) = 2.33, p = .01, suggesting that “going beyond the information given” may occur based on various representations which cohere in memory, although the extent to which this occurred was still greater based on participants’ own significant-other representation relative to their own stereotype representation, as predicted. Indeed, the contrast comparing the stereotype versus yoked participant’s significant-other conditions yielded only a marginally reliable difference, t(123) = 1.45, p < .08, suggesting that the enhanced tendency to “go beyond the information given” based on an activated stereotype representation is not entirely robust.

Finally, we conducted our omnibus 2 × 6 × 4 analysis again, this time covarying each participant’s average recognition-memory confidence rating for the test items reflecting “irrelevant” descriptors so as to verify that representation-consistent memory emerged with respect to representation-consistent, and not just any, features. The type-of-representation effect remained intact, F(3, 335) = 13.72, p < .0001. In a similar analysis, we covaried out average reading time in the learning trials because the time spent reading each descriptor might have influenced memory. Once more, the type-of-representation effect remained intact, F(3, 335) = 14.89, p < .0001. Finally, we covaried out the average number of characters per descriptor in the learning trials, in case lengthier descriptors were more salient, and thus, had a greater impact on memory. Again, the above effect remained, F(3, 335) = 13.11, p < .0001. These alternative explanations for our findings can thus be ruled out (see also Andersen et al., 1995; Andersen & Cole, 1990, Study 3).

DISCUSSION

Across all six applicability levels examined, higher representation-consistent memory was seen based on participants’ own significant-other representation relative to the control representations. No support was found for the prediction that increasing applicability, defined in terms of increasing degrees of featural overlap, would correspondingly enhance the activation and use of either participants’ own significant-other or stereotype representation. We consider the implications of these results, as well as both methodological and theoretical interpretations of them.

THE CHRONIC ACCESSIBILITY OF SIGNIFICANT-OTHER REPRESENTATIONS

Prior research has documented the chronic accessibility of significant-other representations in the form of greater representation-consistent memory based on a significant-other representation relative to various control representations—without and without priming (Andersen et al., 1995, Study 1) and with and without applicability (Andersen et al., 1995, Study 2). Extending this earlier work, the present study examined the central hypothesis that increasing degrees of applicability would combine with the chronic accessibility of significant-other representations to produce corresponding increases in the activation and use of these representations.

Although no applicability effect was found, the greater representation-consistent memory found for the target resembling participants’ own significant other relative to own stereotype, regardless of level of applicability, further substantiates the chronic accessibility argument for significant-other representations (Andersen et al., 1995). In fact, it extends it to stereotypes, which have not yet been examined in work focused on the chronic accessibility of significant-other representations. We acknowledge, of course, that because there was some degree of applicability in all conditions of our study, the pure contribution of chronic accessibility could not be assessed. Nonetheless, we argue that participants’ stronger tendency to use a significant-other representation relative to another representation existing in memory, while holding applicability constant, is fairly strong evidence for the chronic accessibility argument. It may be useful here to recall that chronic accessibility is a continuous variable, implying that it is relative rather than absolute (e.g., Higgins & Breland, 1995). Thus, we suggest that the generality of our finding, across six applicability levels indicates the chronic readiness of significant-other representations to be activated and used in social perception relative to stereotype representations, which were also available in participants’ memory.

EXPLORING METHODOLOGICAL ISSUES PERTAINING TO THE ABSENCE OF APPLICABILITY EFFECTS

Independent of our chronic accessibility argument, we speculate that the null effect for applicability may have some theoretical meaning. But
before exploring this possibility, we discuss methodological issues that may aid interpretation of participants’ ratings of the similarity of each target to their own significant other and stereotype. We then discuss related issues that might account for the null applicability effect seen for representation-consistent memory, and finally offer our preferred theoretical account for this null effect.

**Similarity Ratings.** Analyses of similarity ratings showed that participants distinguished matching from nonmatching target-representation pairs, but did not distinguish a target who shared one or two features with their own significant other or stereotype from one sharing up to six features. That is, similarity ratings for the targets resembling participants’ own significant other and stereotype did not increase with increasing degrees of featural overlap, as might have been expected. Why not? Recall that we had to tell participants that the two sessions of the study were related just prior to asking them to rate the similarity of each of the targets to the person/stereotype previously named. Essentially, then, participants across applicability conditions were told that two of the targets corresponded to their own significant other and stereotype. Given this, one possible reason why perceived similarity did not vary as a function of applicability level is that participants simply gave high ratings to the two matching target-representation pairs, and low ratings to the two nonmatching pairs—regardless of the degree of featural overlap. That is, they may have treated the similarity ratings as simple match versus nonmatch judgments. In a related vein, participants were obviously not aware of variations in degree of applicability, which were manipulated between-subjects, rendering it impossible for them to report on such variations in their similarity ratings.

Our use of features of decreasing rank-ordered descriptiveness to increase applicability levels, notch by notch, may also help account for why similarity ratings were not higher with greater applicability. Specifically, perhaps the lower-ranked features added to increase applicability were not descriptive enough to increase target-representation “match” in participants’ view. Although various models argue that the descriptive weight of features may vary (e.g., Tversky, 1977; for a review, Smith & Medin, 1981), we suggest that issues pertaining to feature weighting were not likely to be especially critical in our study. This is because, unlike most other work, all of the features used were idiomatically generated by participants, and spontaneously came to mind, which both imply that they were quite readily associated with the person or stereotype being described. Thus, all target features presented in participants’ own significant-other and stereotype conditions were, according to participants themselves, clearly descriptive of the significant other and stereotype, respectively. Hence, we judged it as reasonable to manipulate applicability in the manner we did, despite variations in descriptiveness among target features. Overall, we recognize of course that we cannot entirely rule out either the possibility that our procedures made it difficult to obtain evidence for the adequacy of our applicability manipulation, or the possibility that they diluted the increases in perceived similarity that we intended by adding overlapping features.

**Representation-Consistent Memory.** It might be argued that the possibility that the features used to manipulate applicability were not sufficiently descriptive may also account for the null applicability effect seen for representation-consistent memory, our main dependent measure. Although we cannot rule this out, we again point out that all of the features used in participants’ own significant-other and stereotype conditions, regardless of rank orders, were deemed descriptive of the person/stereotype on an idiosyncratic basis. As well, it is critical to note that applicability has been constructed using similarly rank-ordered features in much other research in which the role of applicability in the activation and use of significant-other representations has been shown, assessed in terms of not only representation-consistent memory, but also representation-derived affect, evaluation, motivation, and expectancies (e.g., Andersen et al., 1996).

Another possibility to consider is that, although our manipulation of applicability may have resulted in the intended activation differences, these differences may have decayed by the time memory was assessed. Given substantial evidence for decay-of-activation effects (e.g., Bargh, Lombardi, & Higgins, 1988), we cannot rule this out. However, directly counteracting this account is prior research documenting the effects of priming as well as applicability manipulations delivered prior to the memory test phase (Andersen et al., 1995), as in the present study, and using a virtually identical time delay between manipulation and test.

12 We suggest that the analysis reported in Footnote 9 also undermines the argument that the null effect for applicability seen for representation-consistent memory is attributable to the notion that the features used to manipulate applicability were not sufficiently descriptive. That analysis showed that the lowest-ranked test items were able to capture a pattern of results similar to the one captured by the highest-ranked items. No effect for applicability was found for the memory measure based on either set of test items. In short, the test items behaved similarly despite differences in rank-ordered descriptiveness. In our view, these results make it more difficult to argue that the descriptors used to increase feature-based applicability, which were of moderate rank-ordered descriptiveness, were deficient in descriptiveness to a degree serious enough to render our applicability manipulation entirely impotent.
In any case, we suggest that a decay-of-activation account may not generally hold very well when applicability is involved. Why not? A decay-of-activation account argues that activation differences across applicability conditions may have dissipated by the memory test phase, when one might argue the use of activated knowledge was assessed. But, as we suggested at the outset, knowledge activation and knowledge use are very hard to tease apart when knowledge is activated at least partly on the basis of applicability cues in a person. We argued that this is because such cues not only contribute to the activation of the knowledge, but are also likely to serve as a strong indicator of the appropriateness of using the knowledge. Put somewhat differently, because applicability cues emanate from the very person onto whom activated knowledge may be brought to bear, and thus renders the knowledge clearly relevant to the person, they "pull" strongly for the use of the knowledge to interpret him/her.

Still another possibility is that the representation-consistent items in the memory test may have served as a source of activation, which in turn may have obscured the effects of our applicability manipulation. This explanation is related to a decay-of-activation account insofar as it also suggests that the intended activation differences might have been "equalized" at the memory test phase. We acknowledge that activation can occur in the memory test and thus we cannot rule out this account. Yet, we point out once more that prior research has yielded clear evidence for the effects of activation manipulations delivered prior to the memory test using procedures virtually identical to the ones used in the current study (Andersen et al., 1995). Importantly, we also argue that even if the test items did serve as an activation source, any additional activation would have been constant across representations and applicability conditions. That is, the number and rank-orders of the representation-consistent test items were identical across all conditions in our study.

A final methodological issue has to do with the notion that the individually presented features in the learning trials may not have been perceived in terms of single target persons. This may have undermined our applicability manipulation, which was intended to vary perceived "match" between individual targets and representations. Further, our manipulation, which was delivered via the sequential presentation of features, differs from other operationalizations of applicability. In other work, applicability has been operationalized in a somewhat more Gestalt-like form, whereby target cues are presented all at once in a vignette (e.g., Higgins & Breidl, 1995; Higgins et al., 1977). On these various grounds, we cannot be sure that the features in the learning trials were perceived as four units corresponding to four individual targets. However, it is worth noting that the target features, while presented sequentially, were in fact presented in blocks, each corresponding to a single target. In this light, our operationalization seems quite comparable to the vignettes used in other research in that the latter also involve, if not sequential presentation of, certainly sequential exposure to, the target-person cues constituting applicability.

EXPLORING A THEORETICAL ACCOUNT FOR THE ABSENCE OF APPLICABILITY EFFECTS

Although we cannot be certain whether any of the above methodological issues accounts for the null effect for applicability in the present study, below we explore a theoretical explanation that we view as plausible in light of recent cognitive and social-cognitive work. The crux of it is that stored knowledge may not only exist in the form of "features", but may also exist in the form of "theories" about an entity (e.g., Murphy & Medin, 1985). This implies, in turn, that feature-based cues in a person may not be the sole basis for applicability's role in knowledge activation and use. At times, theory-based cues may play an important role. Although our study was obviously not designed to test this possibility, we nonetheless explore theory-based explanations and consider how they might account for the present null effect for applicability.

Why A Feature-Based Approach? We took a feature-based approach to applicability in our study based on social-cognitive work (e.g., Higgins, 1996), as well as on various cognitive views on categorization (e.g., Rosch, 1978). We were guided, especially, by social-cognitive theorizing that has explicitly defined applicability in terms of featural overlap between a stimulus and construct (Higgins, 1989, 1996; see also Sedikides & Skowronski, 1990, 1991; Wyer & Srull, 1986), and has argued that "the greater the number of shared features, the more the stimulus would contribute to a construct's activation level" (Higgins, 1996, p. 156). A small body of evidence in fact suggests that increasing applicability heightens knowledge activation and use (Higgins & Breidl, 1995; see also Srull & Wyer, 1979, 1980). Thus, we predicted that, for participants' own significant-other and stereotype targets, increasing target-representation featural overlap would enhance the degree to which the representations would be activated and used to interpret the targets.

This prediction was not confirmed, compelling us to scrutinize existing work on applicability more closely. Interestingly, closer scrutiny reveals that although applicability has been theoretically defined in terms of featural overlap, it has not actually been operationalized
strictly in these terms (e.g., Higgins et al., 1977). Rather than relying on the “number of shared features,” degree of applicability has often been gauged on the basis of pretest participants’ ratings of the extent to which cues about a target (i.e., a vignette about the target) imply a given construct (e.g., Higgins & Brendl, 1995). Presumably, though, it was assumed that higher “implication” ratings corresponded to more shared target-construct features. In any case, applicability has not been examined in featural-overlap terms in prior work. As in our study. In light of this, to the extent that methodological issues do not explain the present null effect for applicability, our data may suggest that the role of applicability in knowledge activation and use is not always based on featural overlap. What, then, might be an alternative basis of applicability?

An Alternative to Features? Theory-based views exist as an alternative to feature-based ones (e.g., Medin, 1989; Murphy & Medin, 1985). The main thrust of these alternative views is that theory-based forms of knowledge are basic to the nature and use of stored knowledge. Broadly speaking, “theories” have been defined as knowledge that serves expressly as explanation. Unlike unrelated featural units of knowledge, theories are thought to be embodied in explanatory linkages that connect bits of knowledge about an entity.

Theory-based ideas have arisen in a wide range of research. For instance, they can be seen in cognitive work on categorization (e.g., Wisniewski & Medin, 1994) and analogical thinking (e.g., Gentner & Markman, 1979; Holyoak & Thagard, 1995), as well as in work on conceptual development in children (e.g., Gelman & Markman, 1986; Keil, 1989). In the social-cognitive realm, they appear in research on stereotyping (e.g., Kunda & Thagard, 1996; Wittenbrink, Gist, & Hilton, 1997) and social perception more broadly (e.g., Park, DeKay, & Kraus, 1994; Read, Yannan, & Miller, 1997). We speculate that such theory-based views may help provide some account for the null effect for applicability in our study. How so?

Subjective Construals of Applicability. Implicitly or explicitly, we and others (e.g., Higgins, 1996) view the role of applicability in knowledge activation and use as contingent on perceivers’ subjective construals of the extent to which cues in a target “match” stored knowledge (see also Wittenbrink, Hilton, & Gist, 1998). That is, applicability is not an activation source that lies “out there,” and thus cannot be objectively defined. Although we recognize this, we chose to examine applicability “objectively” in terms of the number of shared target-representation features, making the assumption that increasing featural overlap would result in increasing perceptions of “match.” The data do not support this, and we realize that it may appear to have made little sense for us to have assumed this given a subjective-construal view of applicability. On the other hand, given widespread featural-overlap definitions of applicability, it made sense to examine the effects of increasing applicability levels literally in featural-overlap terms.

A theory-based view would argue, though, that subjective construals of “match” between a target and a stored construct may involve knowledge extending beyond features—namely, theories, embodied in explanatory linkages between pieces of knowledge (see also Wittenbrink et al., 1997, 1998). Applied to our study, this suggests that our participants may have imposed some theory-based meaning or structure on the feature-based target cues, and may have done so comparably for the targets resembling their own significant other and stereotype—independently of degree of featural overlap. For example, perhaps at times even a single target cue brought to mind a stored “theory.” Or perhaps explanatory linkages between one or more target cues were perceived. These possibilities are clearly highly speculative. Nonetheless, the point is that our assumption that participants would perceive increasing “match” with increasing featural overlap did not hold up, and theory-based views are likely to view this as unsurprising. From the standpoint of these views, the present null effect may reflect comparable perceptions of “match” based on one, two, and up to six overlapping features due to subjective construals of theory-based “match.” In short, a theory-based account for the null effect is that applicability may have been in part a function of perceived theory-based “match,” which we did not anticipate or assess.

Interestingly, theory-based views may also pertain, then, to the “implication” ratings used to gauge applicability in other work (e.g., Higgins & Brendl, 1995). Specifically, such views suggest that these ratings may have been made partly based on subjective construals of theory-based meaning or structure in the target cues being rated. This implies that existing evidence for applicability’s role in knowledge activation and use may be linked to theory-based forms of knowledge. Thus, if subjective construals of applicability are in part theory-driven, prior operationalizations of applicability based on pretest participants’ “implication” ratings may have been more on target than the theoretical definitions surrounding them.

Theories as A Basis for Applicability? We cannot be sure, of course, if participants in prior research made their “implication” ratings partly based on theory-based “match” (see also Hardin & Rothman, 1997), nor can we know if theory-based construals played a role in our study. Nonetheless, it is worth noting that some evidence supports the notion that theories
may serve as a basis for applicability. For instance, research has shown that the likelihood that a target is categorized as a group member may depend on the "fit" of the target's features with "theoretical" expectations about the group (Oakes, Turner, & Haslam, 1991). Specifically, to the extent that the features of the target "matched" perceivers' theories about the group, group membership became a salient basis for categorization. Implicit stereotyping work has yielded analogous data, showing that the assimilative 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, Hardin, & Rothman, 1993). Both cases suggest that knowledge activation and use may at times depend on the degree of theory-based "match" rather than simply feature-based "match."

More direct evidence for theory-based applicability exists in cognitive work on analogical thinking, suggesting that structural "parallels"—that is, matches in relational structure between stored knowledge and a stimulus—may help trigger the retrieval and use of the knowledge to interpret the stimulus (e.g., Gentner & Markman, 1997; Gick & Holyoak, 1980, 1983; Holyoak & Thagard, 1995; see also Markman & Gentner, 1993). Social-cognitive work on analogy has yielded conceptually similar findings (Read & Cesa, 1991).

Finally, building on this analogy work, it has recently been argued that stereotype representations contain knowledge about "cause-effect" relations that influence the processing of stereotype-relevant information (Wittenbrink et al., 1997, 1998; see also Hirschfeld, 1996). For example, 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.

Reconciling the Role of Feature-Based and Theory-Based Applicability in Triggering Transference. We have stated that clear evidence exists for the role of feature-based applicability in triggering transference, as assessed in terms of representation-consistent memory (e.g., Andersen et al., 1995, Study 2), as well as various other indexes of transference (e.g., Andersen et al., 1996). In this regard, the notion that applicability may be theory-based may appear contradictory. We suggest, though, that one potential reconciliation is that at times applicability may have multiple bases (see Gentner & Markman, 1997; Medin & Ortony, 1989, Murphy & Medin, 1985; cf. Goldstone, 1994). If multiple bases of applicability are possible, it becomes important to ask when applicability's role in knowl-

edge activation and use is likely to be primarily feature-based or theory-based, and when it is likely to be both? Put differently, one might ask which representations are likely to be activated primarily on the basis of feature-based or theory-based applicability?

Although various representations may include theory-based forms of knowledge (e.g., Wittenbrink et al., 1997, 1998), we speculate that perceivers are especially likely to possess theories about their significant others. In fact, some research exists suggesting that perceivers possess theories about their significant others—theories that function to "encapsulate or defuse the negativity" implied by unflattering information about these significant others (Murray & Holmes, 1993, 1994). Analogous data can be seen in research on transference (Andersen et al., 1996). Specifically, in one study, learning about a target who has some negative features associated with a positively evaluated significant other led participants to respond to these features with positive facial affect. The inconsistency of the negative features in relation to the positive evaluative tone of the significant-other representation apparently led them to transform the negative into a positive affective response, arguably a reflection of the influence of their positively valenced "theories" about their significant others. Finally, recent work has begun to examine the notion that perceivers may be especially likely to explain the behaviors of their significant others in terms of "psychological-state theories," or explanations that refer to the internal states thought to cause these behaviors (Chen, 1997).

If perceivers are especially likely to possess theories about the significant others in their lives, this implies that theory-based cues in a to-be-interpreted person, relative to feature-based ones, may serve as an especially potent basis for applicability's role in triggering transference. That is, such theory-based cues may be particularly likely to be construed as "matching" knowledge stored about a significant other, thus serving as especially strong "triggers" for the activation and use of the relevant significant-other representation to make sense of newly encountered others (see Chen, 1997).

CONCLUDING REMARKS

Evidence for transference emerged across six levels of applicability, defined in terms of increasing featural overlap between targets and representations. That is, regardless of applicability level, participants showed greater representation-consistent memory about a target resembling their own significant other relative to the control targets, one of whom resembled their own stereotype. The significant difference found be-
tween participants' own significant-other and stereotype conditions, holding applicability constant, bolsters the chronic accessibility argument for significant-other representations (Andersen et al., 1995), and extends it to stereotype representations, which have not been examined in earlier work.

No effects were observed for applicability level. We discussed several methodological accounts for why perceived similarity did not increase with increasing applicability, as well as related accounts for the null applicability effect seen for our main dependent measure, representation-consistent memory. Although we cannot rule any of these accounts out entirely, we view the lack of applicability effects to be provocative. We speculate that the "theories" people have about the social world, rather than solely features, may at times serve as a basis for the role of applicability in knowledge activation and use. The hope is that, despite ambiguities in how the current data are best interpreted, the conceptual issues we have raised will spur much needed future work on applicability (for reviews, see Hardin & Rothman, 1997; Higgins, 1996). Given that the activation and use of stored knowledge in social perception may often occur on the basis of cues that perceivers "pick up" in others, research on applicability is critical not only in the domain of transference, but also in the broader social-cognitive literature on knowledge activation and use.

Appendix. Well-Known Person Names Used to Elicit Diverse Idiographic Descriptors for the No-Representation Target Condition

<table>
<thead>
<tr>
<th>David Dinkins</th>
<th>Steve Martin</th>
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<tbody>
<tr>
<td>Albert Einstein</td>
<td>William Shakespeare</td>
</tr>
<tr>
<td>Michael Jackson</td>
<td>Barbra Streisand</td>
</tr>
<tr>
<td>Peter Jennings</td>
<td>Mother Theresa</td>
</tr>
<tr>
<td>Spike Lee</td>
<td>Mike Tyson</td>
</tr>
<tr>
<td>Madonna</td>
<td>George Washington</td>
</tr>
<tr>
<td>Charles Manson</td>
<td>Oprah Winfrey</td>
</tr>
</tbody>
</table>


Read, S. J., & Miller, L. C. (1993). Raster or "regularity": Exploratory coherence in the con-


