

# Social Cognition Is Thinking About Relationships

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Social scientists may concern themselves with two distinct kinds of variables when making sense of social relations. On the one hand, they may refer to the attributes of individuals, such as their genders, races, ages, and personalities. All of these attributes inhere in persons, or are socially construed as inhering in them: Whether innately given or bestowed by a culture, whether enduring or changeable, these attributes are features of individuals. Some characteristics, on the other hand, cannot be ascribed to individuals, but only to the relations between them. Whereas individual attributes define kinds of people, these other characteristics define kinds of relationship.

Characteristics that define, differentiate, and constitute relationships can be called *relational qualities*. Various writers have proposed that relationships can be distinguished according to abstract, formal qualities with social significance, such as symmetry, transitivity, or complementarity. If liking is symmetrical, then [I like you] implies [you like me]. If liking is transitive, then [I like you, and

you like Zoe] implies [I like Zoe]. Complementarity—some form of which is basic to all social relationships—means that the actions, thoughts, or affects of two or more participants are each oriented to the other person's actions, thoughts, or affects in such a way that they make sense only in conjunction with each other. For example, suppose we arrange that I bring the vinegar and you bring the oil so we can make salad dressing. Each of our actions would be pointless without the other's complementary action; the two actions fit together to make a meaningful unit and presuppose one another.

Relationships also involve culturally informed cognitive models that coordinate interaction, such as shared understandings of the rules and norms governing social transactions. These models are schemas that mediate interaction, making possible meaningful coordination of action, affect, and thought. For example, relationships within a military hierarchy are asymmetrical and transitive; they are also based on shared understandings of rank, precedence, responsibility, and the meanings of salutes, flags, and bars on the shoulder of a uniform. Because such qualities and models refer to patterns of meaningful interaction and communication among persons, they belong to a different level of description than do individual attributes. Individuals cannot be transitive or asymmetrical, and can be subordinates only in relation to others who share their

understanding of relative rank. I may be subordinate in relation to you, superior in relation to someone else, and in love with my wife—but neither superior nor subordinate in relation to her. Hierarchy and the pragmatic meaning of bars on the shoulder are not attributes of any individual: They are characteristics of the way certain social relationships are collectively organized and symbolized in a particular culture.

Although certain kinds of relationships may be embodied most often by certain kinds of people, the relationships cannot be reduced to the attributes of those people. Hierarchical relationships can be enacted by individuals regardless of their personal attributes. Similarly, although certain kinds of relationship may be described in terms of the roles that people can enact with each other (e.g., teacher and student), these terms do not reduce relational mediators to individual attributes. An individual may "be" a teacher, but only with respect to certain other persons, in certain contexts. The role does not inhere in the individual, but characterizes an interaction pattern performed with reference to a shared cultural model.

The assumption that attributes of individuals are central to social cognition has not always held sway, and it is increasingly being challenged by a variety of psychological researchers and theorists. Heider's (1958) cognitive theory of interpersonal relations focused on relational qualities, developing formal rules for how people understand and seek balanced configurations of their positive and negative relationships. He argued that people attempt to create balanced or consistent combinations of social relationships and predicted that psychological tension and social instability would result if, for example, you are a close friend of Ann, but her worst en-

## Recommended Reading

Duck, S. (1992). *Human relationships* (2nd ed.). Newbury Park, CA: Sage.

Fiske, A.P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review*, 99, 689-723.

emy is your best friend. DeSoto and his colleagues (e.g., DeSoto & Kuethe, 1959) extended this pioneering work with innovative studies of relational schemas involving formal properties such as transitivity and symmetry, and addressing questions of how social structures are learned and mentally represented. Somewhat later, a few researchers became interested in the dimensions or categories that people use in making sense of their relationships. This work included exploratory empirical analyses (e.g., Wish, Deutsch, & Kaplan, 1976) and the development of theoretical taxonomies (e.g., Foa & Foa, 1974). However, these promising beginnings were eclipsed by the rapid development in the 1970s of research programs that imported into the social realm conceptual models drawn from object cognition. These models carried with them a view of people as social objects tagged with a variety of individual attributes. This methodological individualism, though it would appear odd in many cultures, seems so natural to Western—especially American—researchers that they often find it difficult to perceive the objective reality of relationships.

Recent years have seen a reawakening of psychological research and theory proceeding on relational assumptions. The study of relationships has emerged as a vibrant multidisciplinary field, rediscovering the cognitive importance of relational schemas (Baldwin, 1992). At the same time, relational approaches to clinical phenomena have become increasingly popular, often building on relational elements within psychoanalytic theory (e.g., Curtis, 1991). However, despite the rise of relational approaches, until recently researchers had not systematically investigated the breadth of psychological domains in which relational schemas may operate. Nei-

ther had they directly compared the role of relational schemas with that of schemas concerning personal attributes, which remain the dominant concern of social-cognitive research.

### COMPARATIVE STUDIES OF RELATIONAL AND PERSONAL SCHEMAS

In a series of studies across a wide variety of psychological domains, we have attempted to learn whether, how, and when people use organized knowledge about relational qualities in their social cognition. All of these studies have employed reasonably naturalistic methodologies and focused on subjects' actual personal acquaintances. In addition, all have been partially driven by the *relational-models taxonomy* (A.P. Fiske, 1991), which proposes four motivated cognitive models in terms of which people generate, represent, coordinate, and evaluate social relations. The four models are Communal Sharing (CS), Authority Ranking (AR), Equality Matching (EM), and Market Pricing (MP). We have obtained strong evidence that the models represent coherent and discrete cognitive structures that underlie a wide variety of specific social roles (e.g., Haslam, 1994a, 1994b). The evidence shows that people think about their acquaintances in terms of these distinct relational schemas—not in terms of continuous dimensions (such as closeness or power distance) or game-theoretic motives (such as competition or aggression; Haslam, 1994a, 1994b; Haslam & Fiske, 1992).

CS relationships are based on the perception that people within some bounded group are, in some socially relevant respects, equivalent and undifferentiated. In this kind of relationship, the members

of a dyad or group treat each other as "all the same," focusing on commonalities and disregarding distinct individual identities. Close kinship ties usually involve a major CS component, as does intense love; ethnic and national identities and even artificially defined *minimal groups* (i.e., groups defined on the basis of patently trivial, ad hoc distinctions among people) are more attenuated forms of CS. In contrast, AR relationships involve asymmetry among people who are linearly ordered along some hierarchical social dimension. The salient social fact in an AR relationship is whether a person is above or below each other person. Relationships between people of different ranks in the military are predominantly governed by this model, as are relations across generations in many traditional societies. (Note that AR relations perceived to be legitimate are not reducible to mere force or coercion.)

EM relationships are based on a model of even balance and meaningful differences. EM entails one-for-one correspondence, as in turn taking, egalitarian distribution, in-kind reciprocity, tit-for-tat retaliation, or compensation based on equal replacement of what was lost. People are concerned primarily about whether an EM relationship is balanced; they keep track of how far out of balance it is, and what would be required to balance it. Common examples are people in a car pool or a baby-sitting cooperative, decision by vote, or the rules for competitive sports. Acquaintances, peers, and colleagues who are not especially intimate often interact on this basis.

MP relationships are based on a model of proportionality rather than equality. People in an MP relationship organize their interactions with reference to ratios and rates—such as wages, interest rates, cost/benefit calculations,

and judgments of efficiency. For example, in relationships between buyers and sellers, both parties attend to a ratio, the amount of money paid divided by the amount of commodity received: the unit price. Money is the typical medium of MP relationships, but many MP relationships do not involve money, and many monetary transactions are not based on MP.

### Social Errors

In our first series of seven studies (A.P. Fiske, Haslam, & Fiske, 1991), we investigated naturally occurring social errors, occasions when people inadvertently substitute one person for an intended other. Inadvertent errors were used as an unobtrusive way to study the kinds of schemas that people use in everyday social cognition, on the assumption that confusions indicate who is implicitly considered equivalent to whom. If relational schemas play a significant role, then people should tend to confuse acquaintances with whom they have the same kind of relationship, whereas if people are using attribute schemas, they should confuse acquaintances having the same personal attributes. For example, people thinking in terms of relationships should confuse two subordinates with each other, or confuse a customer with a sales prospect. In contrast, people oriented to the attributes of individuals should substitute one Asian for another, or mistakenly confuse young extroverts.

In the first five studies, we examined errors of naming, memory, and interaction. In these mix-ups, our subjects called someone by the wrong name, misremembered with whom they had done something ("Did you get that article for me? Oh, sorry! I guess it was Dave whom I asked to get

it!"), or acted toward a person in a way that was appropriate to someone else (e.g., drove to the wrong house or called the wrong person on the telephone). Using diary methods, we collected many retrospective and prospective examples of these errors from student and nonstudent subjects, who recorded the personal attributes of the people they had confused. Subjects also classified the kind of relationship that they had with each of these people using the relational-models taxonomy. In each of the studies, subjects confused people with whom they had the same kind of relationship. Initial analysis of the data aggregated across subjects seemed to show a further tendency to make mistakes confusing people who were the same gender, same race, similar age, and same relative age. However, the relational models generally predicted errors better than most attributes of individuals (except for gender), and independently of all of them. Four subsequent studies of social errors among Bengali, Korean, Chinese, and Vai (from Liberia and Sierra Leone) subjects confirmed the effects of the relational models on error substitutions, and demonstrated their generality across cultures (A.P. Fiske, 1993).

Most of the samples of errors were large enough to permit separate analyses of the errors of each individual subject. These analyses showed that most of the apparent effects of individual attributes on the pattern of errors were actually artifacts. These artifacts resulted from our initial analysis of data aggregated across subjects, ignoring the tendency of subjects to associate with different kinds of individuals. Analyzing the data subject by subject revealed that a subject's error substitutions tended to be random with respect to the attributes of the individuals in his or her own personal pool of associates. How-

ever, this artifact was not operating with respect to the relational models: Each subject tended to make substitutions according to the manner in which he or she related to the people.

In two further studies (A.P. Fiske et al., 1991), the relational-models taxonomy continued to predict the patterning of social errors better than personal attributes did. Three alternative relational taxonomies, based on the kinds of resources exchanged in relationships (love, respect, information, goods, services, and money; Foa & Foa, 1974), based on whether giving is contingent on getting (exchange) or is unconditional (communal; Mills & Clark, 1982), and based on the sociological rules governing role performance (Parsons et al., 1951), also generated strong and partially independent predictions of social errors. These findings suggest that schemas involving relational qualities are more prominent in social cognition in natural social contexts than are the commonly studied schemas involving personal attributes.

### Intentional Social Substitutions

Although the social errors studies demonstrated that relational schemas play an important role in several social-cognitive domains, we sought further evidence for the operation of these schemas. As all of the studies investigated implicit social cognition, revealed only by inadvertent mistakes, we decided to study explicit thinking, in which people make deliberate social choices (A.P. Fiske & Haslam, 1996). Social errors have a direct analogue in social substitutions, when people choose a partner for a planned social activity and then, after changing their mind or learning that the first choice is unavailable, select an alternative partner. Social substitutions, like social er-

rors, afford a view of who is construed as socially equivalent to whom. By studying intentional substitutions, we hoped to learn about the "grammatical slots" that potential partners can fill in planning social action. Inferences can be made about the nature of these cognitive slots by examining which characteristics, personal and relational, are held in common by substitutable persons.

In a diary study, subjects collected a sample of naturally occurring intentional substitutions, both prospective and retrospective (A.P. Fiske & Haslam, 1996). Under the guise of a separate study, on a second occasion subjects recorded the personal attributes of their substitutes as well as the nature of their relationships with them, using three of the previously employed relational taxonomies. In addition to noting gender, race, and age (the personal attributes studied in our research on errors), subjects judged the personalities of their substitutes using rating scales corresponding to the Big Five personality dimensions (extroversion, neuroticism, agreeableness, conscientiousness, and openness to experience). Once again, we examined whether people made substitutions on the basis of the personal attributes and relational qualities.

The findings of the study were highly consistent with those of the errors studies. All three relational taxonomies predicted the patterning of substitutions as well as, or better than, the assorted personal attributes. Three of the five personality dimensions failed to predict substitutions significantly. Moreover, as in the errors studies, most of the effects for the personal attributes disappeared or were attenuated when individuals' profiles of acquaintances were taken into account. That is, most of the apparent effects of personal attributes reflected each subject's ten-

dency to interact with people who share certain attributes, rather than subjects' tendencies to make substitutions based on those attributes.

### Social Recall

Because the social errors and intentional substitutions studies used very similar methodologies, we sought further evidence for the role of relational qualities and schemas in social cognition using very different methods. In two studies of the organization of memory for people (A.P. Fiske, 1995), subjects were simply instructed to recall the names of everyone with whom they remembered interacting in the previous month. Two weeks later, subjects recorded the personal attributes (gender, age, and race) and relational qualities (according to the relational-models taxonomy, the exchanged-resources taxonomy, and the communal-vs.-exchange distinction) of the acquaintances they named. Subjects also recorded additional information about these acquaintances, such as their first and last names and the situation in which they most commonly interacted with the subjects.

In both studies, we analyzed the subjects' lists to determine the extent to which the order of recall revealed runs of consecutive acquaintances with the same personal or relational qualities. Our assumption was that the clustering of people recalled together in a run would reveal basic strategies of categorization, storage, or retrieval. Several measures of sequential clustering indicated that all of the personal attributes and relational qualities had significant effects. However, all three of the relational taxonomies yielded stronger effects than the three personal attributes. This finding,

which is highly consistent with those of the substitution-based studies, suggests that memory for people is organized in terms of relational schemas to a large and hitherto unsuspected extent. The finding is all the more notable because the lexically tagged and hence explicitly available personal attributes (such as age) could have served as deliberate retrieval strategies, boosting their effects on clustering. In contrast, the theoretically defined relational qualities (such as EM) could not have been used as explicit strategies because they are not reflectively accessible. Evidently subjects make extensive use of implicit relational schemas that are not directly represented in the vocabulary of ordinary language. In this respect, social relationships resemble language; communication is mediated by structural rules that people use without being able to articulate.

### DISCUSSION

The studies discussed in this review demonstrate that relational schemas play an important but neglected role in everyday social cognition. As a class, relational qualities consistently outperformed personal attributes in predicting the structure of errors, substitutions, and free recall.<sup>2</sup> These results were consistent across a wide variety of social-cognitive domains: verbal identification, two kinds of memory for people, the monitoring of current interpersonal behavior, and the planning of future social activities. This breadth suggests that people think about their social worlds in relational terms. It is likely that humans are not alone in this regard, and that many primates and other animals think relationally (Haslam, *in press*).

This conclusion represents a

challenge to the individualist assumptions of most contemporary social cognition research. Individualism is characteristic of the highly urbanized and atomistic North American culture (Markus & Kitayama, 1991; Triandis, Bondtempo, Villareal, Asai, & Lucca, 1988). But our findings indicate that relational thinking is prominent even here. Are the personal attributes of individuals, then, of only secondary importance in everyday social cognition, or is there some way to reconcile our findings with the individualism of contemporary research?

One plausible reconciliation is to note that all of our studies concern people's personal acquaintances; the people whom you confuse in interaction and memory and substitute in your social plans are all likely to have some kind of relationship with you. In contrast, most studies of impression formation or person perception concern individuals with whom subjects have as yet no relationship, and studies of stereotyping concern categories of unfamiliar people. In short, most social-cognitive research is the study of judgments, beliefs, and ways of thinking about strangers (often hypothetical ones). Moreover, such research has typically involved subjects' responses to written descriptions (or tape recordings or slides) that specify only personal attributes—not real human partners in any ongoing interaction. We would argue that relational qualities and schemas orient everyday social cognition to the extent that people are engaged in personally meaningful transactions with their acquaintances. It makes sense that people think in relational terms in this context, in which it is generally more important to know that a person is your friend's husband than that he is tall, black, and so-cialable.

Furthermore, it seems likely

that when people encounter a stranger or new acquaintance, they cognize the attributes of that person that have implications for the relationships that they might form with him or her. You are likely to create very different kinds of relationship with 3-year-olds and 60-year-olds; you care whether someone is male or female if—and precisely because—it will affect how you interact with them. You may be sensitive to race, caste, religion, dress and adornment, speech, gesture, personal appearance, personality, attitudes, and personal history, depending on their cultural significance for the formation and conduct of relationships. In short, people probably orient to the attributes that are culturally informative about potential relationships, particularly potential relationships that are important or problematic (cf. S.T. Fiske, 1993).

Recognizing the salience of relationships in social cognition may have important practical implications. Clinical psychologists, for instance, commonly deal with interpersonal problems occurring in the context of personal relationships (Horowitz & Vitkus, 1986), but often assume that the core difficulty is best understood in individualistic terms. The patient may be considered to have difficulties interacting with a certain kind of person, to be seeking certain idealized attributes in his or her intimates, or to be transferring representations of significant others from childhood into the present. Instead, the patient may in fact have difficulty implementing or understanding certain kinds of relationships, may be desperately seeking certain kinds of relationships, or may be transferring distorted representations of how relationships operate (A.P. Fiske & Haslam, in press).

The study of relational schemas promises to open up opportunities

for conceptual integration with other social science traditions. Social psychology may be distinct from them in its focus on the individual, but this does not entail individualism in its account of social cognition. The relational and the individual are not just distinct levels at which social cognition can be described, but correspond to kinds of schemas that combine and possibly compete in organizing the processing of social information. For 25 years, social cognition research has focused on one level, studying how people respond to objects and individuals. Our research has begun to explore the next level: how people use relational models to construct, coordinate, interpret, contest, and evaluate social relationships.

Beyond this is a third level of complexity: the models that people use to combine relationships. A considerable body of ethnographic, ethnological, and clinical evidence shows that people are often very concerned about the implications of their relationships for other relationships. Certain combinations of relationships entail other specific relationships: my parents' daughter is my sister; a friend of my friend should be my friend; if B outranks me and A outranks B, then A outranks me. Other combinations are taboo: In a monogamous society, being married to one person precludes marriage to another; membership in a monastery precludes sexual relations with women and vice versa; it is taboo to have a sexual relationship with the child of a spouse.

Combinatorial schemas always involve monitoring and cognizance of how others are relating: If I bring home a present for only one of my children, the others are envious of their favored sibling and angry at me—they compare my relationships with each of them, holding me to a standard of equal, balanced treatment. Many

meta-relational schemas involve nonpersonal beings such as corporations or states: If I am a citizen and you steal from me or deprive me of my civil rights, the government punishes you.

Other primates also think about the implications of relationships for other relationships, and this cognition may involve linking as many as four relationships: Studies of free-ranging monkeys show that if you and I were vervet monkeys in the same troop and you attacked one of my matrilineal kin, I would be likely to respond by attacking one of your matrilineal kin (Cheney & Seyfarth, 1990). Evidently people and other animals have powerfully motivated affective syntaxes for combining relationships. This meta-relational level of social cognition represents a new frontier for research.

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## Notes

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lege, Dalton Hall, 101 North Merion Ave., Bryn Mawr, PA 19010-2899.

2. In addition, the relational-models taxonomy consistently performed at least as well as the alternative relational taxonomies. Moreover, when we examined the role terms that subjects used to refer to their acquaintances (e.g., friend, boss, sister), the effects of the relational models tended to be stronger than, and largely independent of, the effects of the role terms. Indeed, sometimes the relational models mediated the predictive effects of the role terms. Although the social situations in which acquaintances were encountered also predicted errors and memory organization, the effects of the relational models were again largely independent of the effects of situation.

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