INTERPERSONAL
COGNITION

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Contents

11

The Four Basic Social Bonds

Structures for Coordinating Interaction

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HOW MANY WAYS TO COORDINATE?

People observe objects and persons, categorize and remember them, make inferences and plans about them. A large body of research has explored how people cognize others (S. Fiske 2004). But people do more than cognize each other, they coordinate. They create relationships that are intrinsically motivating, that evoke emotions, and that they constantly evaluate with respect to shared models of how people *should* coordinate with each other. The structures and mechanisms of social relationships are distinct from the psychological structures and mechanisms of individual persons—and the characteristics of relationships are not simply combinations of the characteristics of the individuals that engage in them. Social relationships are distinct entities that must be analyzed at their own level, as forms of motivated coordination.

How many ways are there for people to coordinate activity? Any anthropologist can list innumerable systems. But how do humans generate these bewilderingly diverse and complex systems of sociality? Relational models theory (RMT) posits that human relationships and social systems are culture-specific implementations of just four elementary relational models in various combinations (Fiske 1991, 1992, 2004a). The relational models (RMs) are communal sharing (CS), authority ranking (AR), equality matching EM), and market pricing (MP). These four models are the

structures out of which people construct, understand, evaluate, sanction, and motivate most joint activities.

These models are manifest, for example, when a group or dyad makes a joint decision: there are four basic ways to proceed. They can seek a consensus of the group as a whole, the chief can decide (and delegate minor aspects of the decision), people can vote, or they can use a market mechanism based on utilities or prices. Likewise, when a group or dyad organizes to accomplish some task, they have four alternatives: they can all simply pitch in without assigning individual responsibilities, an authority can give orders down a chain of command, everyone can do an equal share (or take turns), or participants can be compensated in proportion to the amount they each complete. The same models are the fundamental frameworks for moral judgment: treat each person's needs and suffering as your own, do what the gods or your elders command, treat each person equally, or give every person their due in proportion to what they deserve. Humans use these same four modes of coordination to organize nearly every aspect of every social domain. Consider the social meanings of land. Land can be a shared commons, the domain or fief of a lord, a marker of equal status (such as eligibility to vote), or a commercial investment. When people transfer goods or services, they can give a gift without expecting any specific return; they can pay tribute in fealty to a superior (or, inversely, bestow a benefit to a subordinate as a gesture of largesse); they can make a balanced, quid-pro-quo exchange; or they can sell and purchase at market rates.

The RMs comprise an implicit repertoire or menu of components for the construction of relationships. Most enduring, multifaceted dyads, groups, and institutions are composites—as are all communities and societies. So when I invite you to dinner, we share the food and drink; it's ours to consume together, without keeping track of who gets how much (CS). If I am making a soufflé, as expert and host I may direct you in assisting me (AR). At the same time, this meal creates an obligation for you to invite me over (EM). Of course, I bought the food I prepare (MP). Or suppose we are soldiers in a platoon. We care about each other's welfare and may be ready to sacrifice our lives for each other, we work to achieve the mission assigned to our unit, we uphold the platoon's reputation (CS). Yet one of us is the sergeant, commanding the platoon in accord with the orders he receives; if he dies, then our relative ranks determine succession to command (AR). We serve equal tours of duty, take turns standing guard, draw straws to see who goes out alone to reconnoiter, expect equal treatment from our sergeant, and trade favors (EM). If one of us gets cigarettes, he can barter or sell them to others; we bribe the supply officer for beer; we expect commendation and respect in proportion to our performance; we take a very utilitarian attitude toward achieving our combat objective, calculating how we can have the best chance of achieving it with the least risk; and we try to use our scarce ammunition most efficiently (MP).

Of course, people do not always coordinate: There are *null* interactions in which people do not orient their action to a joint (or putatively joint) model of the meaning of their actions. People may make individual decisions or act independently; they may think and act without reference to any moral standard; they may use land without evaluating the social implications of their use. People ordinarily act without taking into account any relationship with most other humans on earth, and sometimes they act without coordinating even with those in close proximity. A person running down the sidewalk avoids lampposts, trees, dogs, trashcans, and other humans, but this collision avoidance is not social—unless they keep to the right, or think they should, or think others should. A soldier under fire who ducks behind a corpse is not acting socially, even if the body turns out to be alive.

Sometimes people take into account others' social expectations purely for the purpose of conning or exploiting them, without any intrinsically social motivation, and without any concern about evaluating the action in moral terms. Psychopaths do this all the time. They may make use of others' moral sentiments without feeling in any way bound by them. People steal, rape, and coerce others, using fear, force, or control over material resources. These are *asocial* interactions, in which other people are merely a means to some other end. There is no relationship in the sense we mean here when people manipulate other humans as if they were tools or draft animals in asocial interactions. Nor is there a relationship in the *null* case when people simply ignore others' sociality entirely.

Each culture implements the four RMs in many distinct ways and in different combinations. In a particular culture, a given aspect of a given domain of sociality may be organized by any of the RMs, and the way each aspect is organized may change historically. In many cultures, elders used to decide who married whom (AR) and many other aspects of marriage used to be based on AR as well. But now in many cultures marriages are formed through love (CS), and are often sustained in an EM framework.

Even when two cultures use the same RM, they are likely to implement it differently. When Americans encounter a severe misfortune such as death or a debilitating injury, they typically interpret their suffering in RM terms. They may make sense of it by concluding, "That's the price I paid for having so much fun riding my motorcycle at high speed all these years." Americans also often say, "God has his reasons—it is not for us to try to make sense of them" (AR). Or they may say, "I've had a wonderful life; compared to other folks, I've had more than my share of good things, but things even out in the long run" (EM). Misfortune may also lead to the eventual discovery of unity, perhaps in a survivor's support group with others who have shared the same misfortune (CS).

The Moose (pronounced *MOH*-say) of Burkina Faso also use these four RMs to make sense of their suffering, but they have very different cultural implementations of the RMs. Like Americans, in a vague way they

attribute many deaths and misfortunes to a high god, a distant and inscru-table one. More specifically, however, in some misfortunes they perceive the wrath of their ancestors, using various methods of divination to deter-mine why their ancestors are angry and what sacrifices or offerings to make to propitiate them (AR). Divination shows Moose that other suffer-ing and deaths are due to the malevolence of sorcerers who are envious of people who have more good fortune and consequently attempt to even the score (EM). Moose occasionally discover that people have died because they, or someone else in their kin group, violated a communal norm, caus-ing them to suffer the immanent collective consequences (CS). To my knowledge, Moose rarely, if ever, make sense of misfortune in terms of any kind of cost or payment (MP).

As these examples illustrate, the four RMs govern relationships with humans, gods, and spirits—even animals. And culture provides the neces-sary guidance in implementing them. Even when the same RM operates in two cultures, their implementations of it may be quite distinct. Compared to Americans, Moose much more freely share food and work with their kin, but almost never share personal history, plans, or feelings. Moose vil-lagers are perfectly comfortable paying for or selling sex under appropriate circumstances, but would not consider selling land or laboring for pay in the village—although most Moose men work as wage laborers in the Ivory Coast for years at a time. A Moose man shares work and harvests with all of his wives, but never eats or drinks with any of them. As this illustrates, cultural precepts, prototypes, or precedents are essential for completing the RMs, each of which only partially determines a coordination structure that is open-ended and indeterminate. The coordination of any specific aspect of any activity depends on socially transmitted cultural complements that specify which RMs to use, and how, when, where, and with whom they operate.

A BRIEF REVIEW OF RELATIONAL MODELS THEORY

The four RMs are easy to define. Communal sharing (CS) is an equivalence relation, in which people attend to something important they have in com-mon. People in each group are the same in respect to the matter at hand; outsiders are different. Authority ranking (AR) is a linear hierarchy in which people are asymmetrically differentiated in the current context. Equality matching (EM) is a relationship in which people keep track of ad-ditive differences, with even balance as the reference point. Market pricing (MP) is based on a socially meaningful proportionality, where the ratio may concern monetary value, utility, efficiency, effort, merit, or anything else. CS is the core framework for parks or roads, love and close friend-ship, ethnicity and ethnic cleansing. AR is manifest in military hierarchies,

corporate chains of command, government offices, seniority systems, and wars of conquest to extend the dominion of a head of state. EM organizes turn taking, lotteries, the framework of games and sports, co-ops, and eye-for-an-eye vengeance. MP operates whenever people are concerned with cost–benefit analysis, utility calculations, efficient utilization of manpower, prices, wages, rents, interest, tithes, and taxes.

These are the four fundamental forms. There are other idiosyncratic patterns of coordination that appear here and there in human life, but there are only four fundamental RMs that generate coordination systems in every domain of sociality in every culture. The four RMs are "fundamental" in the sense that people use them to plan and construct action; to anticipate and interpret others' actions; to encode, process, and remember social experience; to evaluate and sanction their own and others' action. They also are "fundamental" because they are intrinsically motivated— they are inherently meaningful. And they are "fundamental" because they are the building blocks that, operationalized in innumerable combinations, organize most of social life. Moreover, they operate at all levels of social coordination; hence we use the term "relationships" to encompass coordination in dyads, groups, networks, communities, and societies. Just as four basic forces generate the complex and varied structures of the physical universe, four basic social bonds generate the complex and varied structures of the social universe.

Each of the four RMs is a distinct structure, but analytically, from a theoretical perspective, they are related in a sort of Guttman scale (Fiske, 1991, pp. 207–223). The simplest social distinction is to consider whether a person is the same or different with respect to the relevant aspect of whatever people are coordinating; this is the only meaningful distinction in CS. In AR, people recognize equivalent ranks, but if there is a difference, people consider also the direction of the difference: Who is higher? In EM, people are aware of whether they are equivalent (balanced), as well as the direction of any imbalance (e.g., whose turn it is); they are also aware of the additive obligation outstanding: how many turns you owe me, or how many points you are ahead and I have to score to beat you. In MP, people are concerned about equality, who owes or is ahead of whom, and the amount of the difference, but also the ratio: this latté costs $3.05, while the pay for this hour of labor is $6.50. Indeed, money is precisely the abstract representation of the ratio value of every commodity in proportion to all others. It is noteworthy that these are the same four relational structures that we see in the four classic scales of measurement: nominal, ordinal, interval, and ratio.

RMT arose as a synthesis of several theories of the basic forms of sociality. The original inspirations were Weber's (1922/1978) analysis of three forms of legitimation of political authority, Piaget's (1932/1973) characterization of three stages of moral development, and Ricoeur's

(1967) history of three forms of Christian theodicy. The theory was also influenced by several binary theoretical contrasts, including Tönnies (1887/1988) *Gemeinschaft* and *Gesellschaft*, Durkheim's comparison of mechanical and organic solidarity, and Douglas's (1978) grid-group matrix. RMT grew to incorporate classic economic typologies, especially Polanyi's (1968) characterization of householding, redistribution, and markets; Sahlins's (1965) cross-cultural comparison of forms of exchange; Udy's (1970) studies of systems of labor recruitment; and (after the original publication of the theory) Williamson's (1975) comparison of markets and hierarchies, with Ouchi's (1980) addition of clans. While RMT thus encompasses the distinctions proposed by many major theories, what sets RMT apart is that earlier theories did not recognize that people use the same structures to coordinate action in virtually all aspects of sociality. Moreover, many earlier theories identified only two or occasionally three of the elementary forms. And none of them explained how elementary coordination structures generate complex and culturally distinctive social systems. Furthermore, no earlier theories attempted to integrate relational and societal structures; semiotics and ontogeny; natural selection and culture; cognition, motivation, and emotion; and psychobiology.

RESEARCH SUPPORT FOR RELATIONAL MODELS THEORY

RMT began life as an attempt to synthesize social theories characterizing the elementary forms of relationships, and specifically to make sense of patterns of social life among the Moose. However, it was never intended to serve only as a theoretical integration or as an interpretive tool for ethnographers. Rather, Fiske (1991) developed RMT as an account of how people cognize (and motivate, enact, and coordinate) their relationships. To test the basic propositions of this account, we brought RMT into the social psychological laboratory, conducting an extensive series of studies during the 1990s. These studies employed a wide and innovative variety of methods, which we believe is a notable strength of our work. This work addressed two broad questions. First, we asked whether the proposed *structure* of people's understandings of social relationships matched the four RMs (i.e., do people implicitly or explicitly think about relationships in these four ways, and are they really distinct?). Second, we asked whether the RMs *influence* social cognition and help to explain psychological processes and practices. Studies on these two questions are reviewed below.

RMT makes three basic structural claims: (1) that there are four basic models governing social relationships, (2) that these RMs are best understood as discrete categories, and (3) that their core features match Fiske's formulation. None of these claims is self-evident. Theorists have proposed classifications containing from two categories and upward, and many have

eschewed categories altogether, describing differences among relationships in terms of continuous dimensions. The three structural claims of RMT therefore require thorough empirical validation. Such validation would involve demonstrating that the features of the RMs covary into four distinct and irreducible latent variables in multivariate analyses of relationships, and that these latent variables are better modeled as discontinuous categories than as continuous dimensions.

In the first attempt to assess whether the RMs represent four distinct structures, Haslam (1995) conducted an exploratory factor analysis of undergraduates' ratings of their personal relationships on features of the RMs and of four resource classes (Foa & Foa, 1974). Two bipolar factors emerged (CS vs. MP and EM vs. AR), with EM items falling closer to CS items than to MP items, suggesting that the factors were not independent. Items for each RM loaded in a consistent pattern on the factors, whereas resource-class items did not. The failure of this analysis to yield four distinct factors may have been due to its inclusion of resource-class items and its use of exploratory methods. Consequently, Haslam and Fiske (1999) conducted a confirmatory factor-analytic study. Nonstudent adults rated their personal relationships on items assessing the RMs across multiple social domains. Findings strongly supported RMT's proposed structure. A model representing the RMs as two bipolar factors (CS vs. MP and AR vs. EM) yielded a markedly inferior fit to a model that represented them as four distinct factors. A model in which these factors were free to intercorrelate, consistent with the expected covariation of some RMs as a function of cultural norms, fitted better still, and all items loaded highly on their correct factor.

Although this confirmatory factor-analytic work is encouraging, it fails to do justice to the claim that the RMs are discrete categories that reflect incommensurable relational grammars. Factor analysis assumes that variation is continuous, consistent with dimensional models of relationships (e.g., Wish, Deutsch & Kaplan, 1976). To test between dimensional and categorical models of relationships, we conducted two studies using taxometric methods (Meehl, 1992). In the first study (Haslam, 1994a), participants rated a sample of their personal relationships on items assessing the RMs. Taxometric analyses of these items yielded strong support for the discreteness of all four RMs. Very few relationships did not clearly belong to one of these categories—supporting the RMs' exhaustiveness—and many relationships belonged to more than one category, consistent with Fiske's (1991) claims. In a second study (Haslam, 1999), another sample of relationships was gathered, rated on a different set of items assessing the RMs, and subjected to more comprehensive taxometric analyses. These analyses replicated the earlier findings that the RMs are discontinuous.

The studies reviewed above show that cognitive structures resembling the RMs exist, but not that the RMs map people's intuitive relational un-

derstandings. RMT would be boosted if the RMs also capture the intuitive organization of relationships. We therefore conducted a study assessing this intuitive organization by having participants do free sorting or similarity ratings of their own relationships (Haslam & Fiske, 1992). Participants also classified these relationships using five relationship taxonomies: the RMs, resource classes (Foa & Foa, 1974), the communal versus exchange dichotomy (Mills & Clark, 1984), role expectations (Parsons & Shils, 1951), and social orientations (MacCrimmon & Messick, 1976). The extent to which participants' relationship groupings mapped onto these taxonomies was then examined. The RMs were associated with the groupings as strongly as the role expectations and resource classes and more strongly than the other two classifications. The RMs covered a multidimensional relational attribute space derived from the five classifications particularly well, uniquely capturing the crucial authority- and equality-related aspects of relationships. Intuitive relationship groupings were best modeled by about four categories, consistent with RMT. Thus, RMT offers a particularly strong account of people's intuitive understandings of their relationships.

A second study (Haslam, 1994b) assessed intuitive relational understandings in a different manner. Participants rated the prototypicality of a sample of hypothetical relationships, or chose which of several forms of behavior of one interactant—described in terms of interpersonal circle octants (Kiesler, 1983)—would be most appropriately paired with a specific form of behavior of a second interactant. The fit to these data of three alternative structures—based on dimensions (warmth and dominance), laws (complementarity and symmetry; Wiggins, 1980), or the AR and CS categories—was then compared. The categories modeled the prototypicality rating and choice data more powerfully and economically than the alternatives. Again, RMT appears to make good sense of people's intuitive understandings of relationships.

Our research makes a strong case for the structural claims of RMT. The confirmatory factor-analytic and taxometric studies support the existence of four RMs irreducible to more basic structures, and Haslam and Fiske (1992) indicate that four RMs may be sufficient to account for intuitive understandings of relationship types. Additional models might exist, but the finding that the RMs govern all but a small minority of relationships—most of which are probably asocial or null relationships—suggests that no indispensable fifth model is waiting to be discovered. The taxometric studies and Haslam (1994b) rebut any reduction of the RMs to simpler dimensions. The factor-analytic and taxometric studies confirm the coherence of the RMs, demonstrating systematic covariance among items intended to tap diverse aspects of each RM. Finally, when we have compared the RM taxonomy to its alternatives, RMT has tended to fare well (Haslam, 1994a, 1994b, 1995; Haslam & Fiske, 1992).

Validating RMT's structural claims was a necessary but preliminary step in our research program, as the theory's true test is whether it can account for interpersonal cognition and behavior. The first paper to demonstrate this capacity (Fiske, Haslam, & Fiske, 1991) reported seven studies of inadvertent social errors in which one person is mistakenly substituted for another (i.e., misnamed, misrecalled, or incorrectly targeted for an interpersonal act). In each study, participants recorded personal examples of these errors using diary methods, describing each error, who figured in it, and what RM they employed with each person involved. In all studies participants tended to substitute people with whom they related in the same manner (i.e., using the same RM). These relational effects were more robust than those of such variables as the age, social role, race, and name similarity of the substituted individuals, and were statistically independent of them. The RM effects were also stronger than those of alternative relational taxonomies (i.e., resource classes [Foa & Foa, 1974] and the communal vs. exchange distinction [Mills & Clark, 1984]). Only gender rivaled RM as a determinant of slips. Further analyses showed that participants substituted acquaintances designated by the same culturally available role term largely because they shared with these acquaintances the same kind of relationship. Thus the "deeper" relational structures were more important and basic for social cognition than the colloquial role categories. In a second paper, Fiske (1993) replicated the earlier studies with participants from four diverse cultures (Bengali, Chinese, Korean, and Vai from West Africa). RM effects were substantial in every sample, demonstrating an impressive level of cross-cultural validity for the RMs and their influence on social cognition.

In a follow-up to the error studies, Fiske and Haslam (1997) examined intentional substitutions, in which an initially intended interactant was replaced with another when the former was unavailable or the participant changed plans. Using the same diary methods for collecting naturally occurring substitutions, Fiske and Haslam again found that participants substituted interactants with whom they had the same kind of relationship. Although substitutability was also predicted by interactants' personal attributes—gender, ethnicity, and age, but generally not personality—their effects again appeared to reflect the participants' demographically differentiated patterns of affiliation rather than cognitive equivalence. The findings of the study therefore offer further support for the role of the RMs in determining social equivalence.

Further evidence for the wide-ranging role of the RMs in interpersonal cognition comes from a study of social memory. Fiske (1995) had two samples of participants freely list their acquaintances by name and subsequently classify them according to relational properties (RMs, resources, communal vs. exchange, role term, situations in which they interacted), and according to personal attributes (gender, age, race). The extent to

which the order of recall of the acquaintances was clustered into "runs" by each of these characteristics was then compared. Recall order was most powerfully determined by the relational characteristics, all of which yielded stronger clustering values than all of the personal attributes, with social situation preeminent. The RMs yielded the strongest effect of the relational taxonomies, once again demonstrating their influence on social cognition in a new methodology and cognitive task.

These studies of social errors, social substitutions, and recall of acquaintances all demonstrate that the RMs organize many aspects of interpersonal cognition and behavior across a variety of domains and methodologies. More abstractly, the studies indicate that interpersonal cognition—whether it involves the naming or representation of persons, recall of social episodes or individuals, or formulation of interpersonal intentions—is powerfully influenced and guided by the nature of people's relationships with their interactants, rather than simply by the personal attributes that inhere in them, such as gender, age, race, or personality. Much social cognition truly is "thinking about relationships" (Fiske & Haslam, 1996).

ADDITIONAL RESEARCH ON RELATIONAL MODELS THEORY

Our program of research demonstrates that RMT has solid credentials as an account of interpersonal cognition. However, RMT has been employed in many other lines of research, conducted by scholars from a wide variety of disciplines. A comprehensive review of this work is beyond the scope of this chapter (see Haslam, 2004), but a small sample can convey an impression of the range of phenomena that RMT illuminates. This selection ranges from neuroscience to organizational behavior, and from the psychology of groups to family studies.

A study by Iacoboni et al. (2004) illustrates the discoveries that can be made using neuroscientific methods to illuminate RMT. Using functional magnetic resonance imaging (fMRI), they investigated the brain regions activated by observation of CS and AR relationships depicted in 36 professionally produced movie clips. They compared the brain regions activated by observing these interactions with the regions active in a baseline condition when subjects saw only a blank screen, and also with regions active when subjects observed segments of the movies showing only one person alone. In both comparisons, surprisingly, CS and AR clips activated brain regions that were essentially the same at the level of spatial resolution of whole-brain fMRI. The regions activated included the temporal poles, inferior frontal cortices, superior temporal cortices, and extrastriate areas. Moreover, watching the CS and AR interactions activated the dorsomedial prefrontal cortex and the medial parietal cortex (precuneus). These latter

two regions are among the brain regions that have been identified as constituting the "default state" network that is tonically active when subjects have no particular task to perform, and that becomes *less* active when performing most nonsocial cognitive tasks. Indeed, the dorsomedial prefrontal and medial parietal cortex have never been activated together in comparison to a resting baseline in any of the thousands of cognitive neuroscience experiments conducted in scanners. Even social cognition experiments that involve processing attributes of individuals or making inferences about persons have not reported activating these regions beyond their resting levels. This suggests that the dorsomedial prefrontal and medial parietal cortex are components of a system that may be dedicated to processing social *relationships*, a system that ruminates (consciously or unconsciously) about social relations whenever there are no nonsocial tasks to perform. This supports the core axiom of RMT, that humans are fundamentally and pervasively social animals, oriented toward relationships, not just persons.

Iacoboni et al.'s (2004) work is about as "micro" in focus as research on interpersonal cognition can be. Work by Connelley (Connelley & Folger, 2004) goes to the opposite end of the spectrum, examining processes at the level of organizational culture and collective action. Connelley conducted focus groups within a Fortune 100 manufacturing firm that had recently attempted to expand the hiring of women and minority group members. This initiative produced an angry backlash from the existing workforce, along with misunderstanding and distrust from the targeted employees, who complained about hiring, performance evaluation, and promotion decisions, and whose retention rates were poor. Connelley showed that three groups of employees—the white male "establishment," and the white female and African American targeted minorities—thought about workplace relationships and human resource systems in ways that corresponded to different RMs. The white males conducted their work lives according to a CS model in which ingroup solidarity and consensus-driven decision making tended to define other employees as outsiders and deprive them of consultation and informal networking. The white females preferred an MP definition of the work environment, with competence and efficiency governing the allocation of rewards along meritocratic lines. African Americans favored the strict parity of an EM model, supporting definite hiring and promotion targets. Connelley's study shows how the RMs clarify the fault lines of a deep organizational conflict, and how the "choice" of a relational stance may be at least partially strategic and positional, motivated in response to a prevailing ethos that does not serve one's relational goals.

Connelley's research investigates collective phenomena in a particular situated context, but other researchers have used RMT to examine laypeople's generalized understandings of groups. Lickel, Hamilton and Sherman (2001) used the RMs to investigate people's intuitive "theories"

of groups, starting from an empirically derived classification of four group types: "intimacy groups" (e.g., families), "task groups" (e.g., work teams), "social categories" (e.g., women), and "loose associations" (e.g., classical music lovers). They showed that people expect different RMs to predominate among members of different types of group, so people draw strong inferences from group types to likely relational norms and vice versa. Intimacy groups are associated with CS and to a lesser extent with EM relations, task groups with AR and to a lesser extent MP and EM relations, and loose associations with MP relations. Social categories (such as men) were not perceived to have a consistent relational model. Lickel et al. (2001) also found that intragroup relationships plainly figure prominently in lay theories of groups. For example, participants judged that groups organized in a CS fashion were the most unified, coherent, and entity-like, and they made the strongest judgments of collective responsibility for CS groups when one member committed a wrongdoing.

Lickel and colleagues' (2001) work shows how people hold organized expectations about the relational processes operating within groups, categories, and networks. Research by Goodnow (2004) showed in a more contextualized way how implementations of RMs influence justice perceptions within actual households. Goodnow found that RMT helped to clarify the distribution of work responsibilities among family members, and the strains that divisions of labor produce. Decisions regarding work distributions depended crucially on the RMs that members believed should apply to their family relationships, and these RMs were implemented in varied ways as a function of age and family role. The RMs also clarified the tensions that family members experienced when their work contributions were not treated in a manner that they judged to be appropriate. Goodnow (2004) found that parents and children often made distinctions between different kinds of relationships, and reacted negatively when they felt "relationship errors" had been made: Mothers sometimes felt that children treated them like maids, and children sometimes used expressions such as "I'm not your slave" and "You're not paying me," all of which imply the inappropriateness of a perceived definition of the parent–child relationship. Goodnow's analysis shows in vivid detail how relational definitions are negotiated and implemented within families, and how interpersonal cognition within this context is both complex and emotionally saturated.

RMT also provides a deeper understanding of two major violations of economic rationality known as the "endowment effect" and "mental accounting." People typically demand a much higher price to sell an item in their possession than they are willing to pay to acquire it, and people compartmentalize their assets into discrete, nonfungible categories. Kahneman and Tversky (1984) explained the endowment effect in terms of loss aversion: the negative utility of parting with an object is greater than the positive utility of gaining it. They theorized that mental accounting results

from cognitive heuristics people employ because of their limited mental capacities. However, McGraw, Tetlock, and Kristel (2003) hypothesized that RMT offers an alternative or complementary explanation: people are offended by the idea of selling an object acquired in a non-MP relationship, valuing objects in the framework of the social relationships they symbolize and mediate. A woman would not want to sell her engagement ring and could not easily put a meaningful price on it; finding his favorite teacher's watch at an auction, a person would value it beyond its market value; money received from a business is more readily spent while money received as a gift from a parent, friend, or academic supervisor is likely to be set aside for special uses. McGraw et al. (2003) conducted four studies of selling and spending decisions and reactions to the possibility of selling relationally meaningful objects. All four studies generally supported their hypotheses. People were uncomfortable with MP transactions of EM and AR objects, and even more offended by the prospect of commoditizing objects representing CS relationships. People were distressed and confused when asked to set MP values on objects embedded in CS, AR, or EM relationships; the dollar values they set varied erratically, with a long tail.

The five lines of research sketched here barely scratch the surface of RMT-inspired work, but they show how the theory has an unusually broad sweep as an account of interpersonal cognition and behavior, with applications in neuroscience, management studies, and social and consumer psychology. This short list is not exhaustive—later sections of the chapter present research in the domains of personality and clinical psychology, for example—but shows that this relational approach to interpersonal processes can yield insights across the social and behavioral sciences.

DISTINCTIVE ASPECTS OF THE RELATIONAL MODELS THEORY APPROACH TO INTERPERSONAL COGNITION

RMT is obviously not alone as an account of interpersonal cognition and behavior. Indeed, the chapters of this volume attest to the rich variety of theoretical and methodological approaches that are available. It is therefore worth stepping back and asking how RMT is distinctive. How does the approach that we are presenting here differ in its focus, scope, and basic assumptions from alternative approaches, and how does it complement them? We argue that RMT is distinctive in four main ways, which we briefly discuss in turn below. First, we propose that it encompasses cordial and conflictual interactions within a single conceptual framework. Second, we propose that RMT takes culture seriously, and is therefore particularly apt as a framework for ethnographic and cross-cultural research. Third, we propose that RMT takes a somewhat broader view of human relationships than many psychological approaches, which commonly restrict their

focus either to close relationships or to interactions with strangers. Finally, we argue that RMT differs from many psychological approaches to the study of interpersonal cognition in taking a thoroughly relational approach, whereas many of its alternatives are implicitly or explicitly individualistic.

As we suggest, RMT applies a common theoretical framework to interpersonal conflict and coordination. If moral obligations, social motives, and emotions are concomitants of implementing RMs, then many kinds of violence can be understood as null or asocial interactions. The existence of a relationship that both parties regard as meaningful, valid, and morally binding is the only intrinsic bar to harming each other. In the absence of a relationship, there is nothing to prevent simply using other people as a means to ulterior ends without intrinsic regard for their well-being. For example, if I don't feel that I have anything essential in common (CS) with something or any obligation to respect or protect it (AR), there is no reason not to chop up a tree or a piece of meat or a living person. Thus it is crucial to discover precisely how social relationships are constituted: What creates a relationship among persons? (See below, and Fiske, 2004b.)

However, RMT highlights the fact that aggression and conflict are often organized forms of sociality—for example, ethnic cleansing to create pure homogeneity (CS), fighting for dominance or asserting dominion (AR), tit-for-tat revenge and arms races (EM), and rationally calculated strategies to maximize kill ratios (MP). RMT also provides a potential explanation for discord and conflict across and within cultures: when people implement different RMs, or implement the same RM according to different rules or parameters, coordination fails, leading to anger and recrimination. If you expect to divide the work evenly, but I treat the task as CS, then you'll be offended when I don't take my turn, and I'll be offended when you don't step in and take care of things for a few days while I'm busy or the work can benefit from your special expertise.

Several lines of research have demonstrated the capacity of RMT to clarify interpersonal conflict. Connelley and Folger's (2004) work on conflict associated with diversity initiatives within a large organization has been described above. Vodosek (2003) collected data on culturally diverse chemistry research groups. He looked at groups composed of participants who had the same RM expectations for their work process and for the benefits that resulted from their work, and compared them with groups whose participants implemented different relational mods for the work process and its products. Groups whose participants were implementing discrepant RMs had less positive attitudes toward the group and were less affectively committed to it, less satisfied, and more inclined to quit. In a similar vein, Fiske and Tetlock (1997) theorize about why people resist making trade-offs across different RMs, reacting angrily to interpersonal transactions that transgress "spheres of exchange" governed by different RMs. In short,

RMT is equally adept at making sense of conflict as it is at understanding smooth coordination.

A second distinctive feature of our RMT approach is its attentiveness to culture. Unlike other approaches to interpersonal cognition, RMT was formulated in an anthropological context, developed in the course of ethnographic fieldwork, and refined through broad ethnological comparison; subsequent research on the RMs has taken pains to study people from diverse cultural backgrounds (e.g., Fiske, 1993; Whitehead, 2000). Indeed, one of the hallmarks of RMT is that it offers a conceptual framework that accounts for the cultural universals and cultural variation (Fiske, 2000). The RMs are universal but indeterminate, depending on cultural complements that specify how to implement them to organize specific aspects of particular domains of sociality. Thus unique, culturally distinctive social practices can be understood in relation to diverse social arrangements in other cultures around the world. Cultural diversity in social practices is the product of universal RMs realized through culturally distinctive "preos": precedents, prototypes, or precepts.[1] These preos of each culture specify who, when, where, how, and with respect to what each RM operates. For example, is decision making in marriage to be structured as CS, AR, EM, or MP? All decisions? Which way should a couple organize household work and the utilization of family resources (Goodnow, 2004)? But selecting an RM is not sufficient to guide action or evaluation: people also need to know how to implement the model. CS is a relational structure that consists of equivalence classes, but each culture defines the groups and determines the membership in each. AR is a linear ordering, but to use this relational structure to organize any specific aspect of any activity, each culture must rank the persons involved. EM consists of additive units, but it is not intrinsic to EM that the units be votes, or lottery chances, or turns. If the culture implements EM in collective decisions as voting, it still remains to be determined who is entitled to vote and precisely what counts as a vote. If children apply EM to the utilization of a playground swing, they have to work out what counts as a turn. When adults implement EM to organize the exchange of dinners, they have to decide what counts as a dinner that balances the dinner they received, and they must know the conventions regarding the proper interval before reciprocating: The same day? Several years later? MP consists of organizing an aspect of interaction with reference to ratios, but there is nothing in the innate human proclivity for MP that determines whether food, land, labor, or sex is for sale, or at what price. Hence the structured but indeterminate RMs require socially transmitted preos to complete them. Because the RMs are innate and universal, by learning the local preos, children, immigrants, and social scientists can comprehend the unique social practices of any culture they enter.[2]

A third distinctive feature of RMT is its attention to a broad variety of social relationships. Whereas the RMs span the full range of human

sociality, some prominent approaches to the study of interpersonal pro-
cesses focus almost exclusively on close or romantic relationships. Attach-
ment theory, for example, has been extremely productive as an approach
to the study of interpersonal schemas and traits, but its main focus is on
how working models and attachment styles affect people's romantic rela-
tionships, supporting or sabotaging their desires for intimacy and interde-
pendence. These relationships are undoubtedly very important, but close
attachments compose only a small fraction of our everyday social bonds.
Relationships based on EM or MP are unlikely to resonate very well with
the attachment perspective. Likewise, authority differentials have no obvi-
ous place within the attachment framework—an omission that is shared by
many approaches to interpersonal cognition and behavior.

Just as attachment and related approaches tend to focus on the in-
tense, intimate end of the relational spectrum, some approaches within the
mainstream social cognition tradition focus implicitly on interactions
among strangers. Commonly this work examines the ways in which people
form impressions and make judgments of others with whom they have no
prior acquaintance, rather than addressing real, enduring relationships. As
with the study of close relationships, this work has paid great empirical
and theoretical dividends, but we would argue that both carve off rela-
tively narrow segments of the interpersonal domain. There is a great deal
of relational ground between the null relationships that hold between
strangers and the intimate relationships of lovers, and one of RMT's
strengths is that it covers this ground in a comprehensive fashion.

A final distinctive feature of our RMT approach to interpersonal cog-
nition and behavior is that its level of analysis and emphasis is relational
rather than individual. Many approaches to interpersonal cognition direct
attention toward the attributes of individual persons, such as demographic
features (e.g., gender, race, age), personality characteristics (e.g., traits, val-
ues), and mental states (e.g., attitudes, beliefs, desires). All of these attrib-
utes characterize, distinguish, and inhere in individuals. When researchers
investigate how we perceive others based on their social category member-
ship, how we infer their dispositions and thoughts (i.e., "theory of mind"),
and how we represent self and others in memory, they are focusing on indi-
vidual-level attributes.

RMT argues that many important processes of interpersonal cogni-
tion cannot be understood at this individual level because people are think-
ing about the structures and processes of interaction. People are intensely
concerned and deeply knowledgeable about relationships in their own
right, not simply about the features of the individuals who participate in
them. We care about and cognize equality, balance, hierarchy, shared com-
munal identity, and so on—all of which describe aspects of relationships
between people that are irreducible to personal attributes. According to
RMT, thinking about relationships (Fiske & Haslam, 1996) represents a

distinct level of cognition from thinking about individuals, and the RMs operate at this level. To be socially competent, it is not enough to be adept at perceiving individuals' emotional states, traits, and demographic characteristics, and not sufficient to have well-organized knowledge about the properties of certain kinds of people. People must also be able to make sense of the irreducibly relational aspects of their interactions, based on organized understandings of the kinds of relationships that people enact (Haslam & Fiske, 2004). Interpersonal theorists and researchers need to pay more attention to people's relational schemas and their perceptions of relationships. Researchers need to recognize that analyses pitched at the individual level are partial analyses. Human sociality is based on shared, culturally informed models that permit people to generate actions that are socially meaningful, to coordinate their actions and evaluations, and to understand and anticipate each other. The properties and dynamics of the relationships that people jointly construct from these models are distinct from the properties and dynamics of the individuals who are relating to each other.

Our insistence that the relational level of interpersonal cognition deserves greater attention may strike some readers as ideological. Indeed, we do believe that individualistic assumptions pervade much psychological research (Fiske & Haslam, 1996) and obscure the irreducible importance of relationships. However, our position is also empirically warranted by our past and ongoing research. In many of our early studies, we found that the RMs predicted a variety of social-cognitive phenomena independently of individual-level variables. In our studies of inadvertent social errors (Fiske et al., 1991), intentional substitutions (Fiske & Haslam, 1997), and person memory (Fiske, 1995), we consistently found that these phenomena were organized by the RMs independently of, and usually at least as powerfully as, individual attributes such as gender, race, and personality. That is, the people who we tend to mistake for one another, select as social substitutes, and recall together in memory are not just those who share similar personal attributes and dispositions: they are people with whom we have the same type of relationship. The work of Iacoboni et al. (2004) underscores this point. When their participants watched videos of realistic social interactions, parts of the brain that support a "default state" of tonic activation were further activated in a way that appears to be unique to the processing of social relations and that does not occur when people think about attributes or categories of objects or persons. In short, beyond the processes involved in reading the attributes, mental states, and traits of individuals, there are special processes in cognizing relationships *among* people.

Our arguments about the importance of the relational level of analysis in interpersonal cognition also extend to interpersonal motivation. Just as some approaches to social cognition are implicitly individualistic in their exclusive focus on individual-level attributes, many social theories make

the individualistic assumption that people are selfish materialists, or proximal fitness maximizers. In contrast, RMT posits that humans have evolved intrinsic motives for seeking, sustaining, sanctioning, and redressing the RMs. People are sociable in large part because relationships are inherently rewarding in themselves; the lack, threat to, loss, or transgression of relationships is inherently distressing (Fiske, 1992, Part IV). Given the heuristics and biases in human cognition, dispassionate cognition alone is insufficient to sustain valuable relationships or to motivate costly punishment of violations (Fiske, 2002). Because human fitness depends on sustaining effective participation in a myriad of long-term relationships, humans have evolved emotions that motivate them to do so.[3] Social emotions and motives—for example, love, need to belong, shame, and anger—are typically focused on processes and states of *relationships* such as exclusion, fairness, respect, loss, betrayal, punishment, or atonement.

Our aim in laying out these four distinctive features of RMT is not to suggest dogmatically that our approach is better than the alternatives but to highlight the ways in which it can complement them. The study of interpersonal cognition is probably best served by a variety of approaches, and we recognize the importance of approaches that are tailored to perception of strangers, that chiefly address close relationships, or that focus on individual-level variables. We acknowledge that theories that ignore evolution, culture, ontogeny, or neurobiology can be useful heuristics nonetheless. However, we do believe that to understand human sociality, we need to adopt a relational approach that explains how people coordinate their interaction. Such an explanation must ultimately encompass natural selection, the development of the child, the functioning of the brain, and the mechanisms of culture. This is what RMT attempts to do.

RECENT THEORETICAL AND RESEARCH DEVELOPMENTS

Up to this point we have described RMT, summarized the research evidence that supports it, and argued that it has several distinctive characteristics as an account of interpersonal cognition and behavior. RMT is also a theory in motion, however, and so we spend the rest of this chapter presenting some of our recent work and our forecasts of some of the directions in which future work will proceed. Among the recent developments of our work, two lines of progress stand out. In the first, Fiske has taken some major theoretical steps toward an understanding of how social relationships are constituted, and how people represent each RM in a distinct semiotic medium. In the second, Haslam and Fiske have attempted to show how RMT can illuminate issues that normally concern clinical and personality psychologists. This line of research and theory indicates that individual differences, both normal and abnormal, can be understood in terms of signature patterns of implementation of RMs.

The Constitution of Relationships

One of the most important—and the least studied—question in the social sciences is, How do people constitute relationships? That is, how do people create, reinforce, modulate, and terminate relationships? Another set of important but neglected questions concerns the connections among the constitution of social relationships, the ways people cognize and communicate them, the cultural reproduction of local forms of relationships, and the manner in which children discover the preos that complete the elementary RMs. Theoretical analysis and a synthesis of the extant, relevant empirical literature suggest that the constitution, cognition, communication, cultural transmission, and cultural completion of relationships compose an integrated "conformation system" (Fiske, 2004b).

The *conformation system* of a relationship is the medium in which people conduct the relationship (Fiske, 2004b). In order to coordinate—in order for people to understand each other and construct a jointly meaningful interaction—participants have to recognize the RM they both intend to use and the manner in which they intend to implement it. For example, to construct a CS relationship, participants need to identify who belongs to what groups. To construct an AR relationship, people need to know everyone's rank. They also have to be able to communicate what is going on in the relationship—to signal that they are incorporating a new person in their group, or deferring to an authority. Furthermore, people have to think about the relationship in a manner that is congruent with how they communicate about the relationship and how they are constituting it. That is, their mental representations of relationships must readily "map onto" the structures and processes of those relationships. As they enter a culture, in order to discover how to coordinate with people in a community, newcomers such as children have to grasp where each RM operates and how they are operating. That means that children must be innately, intuitively attuned to how people constitute and communicate group membership, rank, even balance, and ratios. Children and immigrants can only develop the capacity to participate in local coordination systems if they recognize them and can in turn signal to others their intent to participate in specific relationships, tapping appropriate motives and emotions. Conversely, culture consists of continuity over time and consistency through communities in the ways that people coordinate. The media for transmitting and reproducing the local implementations of the RMs are the media through which children learn to participate in them, and in which people constitute and communicate relationships. This integrated set of mediators of each RM is its conformation system. Simply stated, the conformation system is the way people understand each other, the way they connect. Moreover, it is how they commit, how they motivate each other, and how they evoke the emotions necessary to sustain enduring relationships.

Fieldwork among the Moose and systematic comparison of ethno-

graphies from many cultures suggests that the four RMs each have distinctive and universal conformations. The conformation of CS is consubstantial assimilation, based on the perception that participants' bodies are the same or connected in some essential respect: by birth or nursing; by transfer of blood; by commensal eating or drinking; by skin-to-skin contact; by rhythmic synchronous movement; by features of face, skin, or hair. Recognition that bodies are equivalent evokes sentiments of solidarity and elicits commitments to care—it motivates people to share in other ways. People in CS relationships think of each other as sharing the identity-defining aspects of their bodies, and they communicate about their CS relationships to each other and observers using this conformation system. Children (and other newcomers) recognize core CS relationships in their lives by attending to consubstantial assimilation. Conversely, consubstantial assimilation is the medium through which the primary groups and dyads of a culture are reproduced and sustained (cf. Durkheim, 1912/ 1965). For example, intense and enduring solidarity results from initiation rituals in which adolescents sleep and bathe together, are dressed and adorned alike, dance and eat and drink special foods with each other, and are scarified or circumcised together.

In contrast, the conformation of AR consists of relations of space, magnitude, time, and force. People think and communicate about hierarchy in terms of people being above and below, greater and lesser, stronger and weaker, or preceding and following. This is reflected, for example, in plural forms of address and reference to higher ranking persons; the abasement of the body to show respect; or the elevation of superiors on a dais, hill, or higher floor. It operates when seniority is a function of temporal order of birth, arrival, or joining the group. Young children expect that people higher in rank will be bigger, stronger, go first, and be above them. Indeed, adult speakers of diverse languages talk about "superiors" as high up, big, powerful, and senior. Likewise, people indicate hierarchical positions by the relative elevation of the postures and positions they assume and the elevation and size of the abodes or offices they occupy. This is why supreme gods are far above mortals, pharaohs constructed massive pyramids, and taller candidates tend to win elections. People also assert and confer authority by taking or according positions in time and space—for example, by waiting for superiors to arrive and depart; the order of being served, beginning to eat, or speaking turns; or precedence in making choices.

The conformation of EM consists of concrete procedures such as taking turns, conducting a lottery (such as a coin flip), handing things out one by one in rounds, aligning starting points side by side so they match (as in a race), or acting in one-to-one correspondence to each other (e.g., by working in unison). These concrete operations are ostensive demonstrations of an evenly balanced relationship, so they make a relationship feel

fair and commit participants to the results. This is what underlies the constitutive rules of sports and games, as well as procedures that define equal treatment under the law.

Abstract symbolism is the primary medium of MP—notably, numbers such as prices or cost–benefit ratios; the propositional language of sales, haggling, and contracts; the signals for bidding in auctions and the gestures that seal a deal; and the concept of utility. MP relations are organized with reference to ratios, an utterly abstract concept. The quintessential symbol is money, the units of which represent rates of exchange with all commodities in the market (Simmel, 1900/1990). These symbols are commitments to the terms of relationships: making a claim in a sales pitch, posting a price in an advertisement, gesturing to bid in an auction, and typing in a bid on E-Bay are binding acts. Violations of these symbolic acts evoke strong emotions, arouse moral sentiments, and motivate sanctions. What binds people to a relational commitment depends on the RM. Signing a contract commits contractor and client to the terms symbolically represented in it, while giving birth commits a mother to care for her child.

The concept of conformation systems takes RMT beyond taxonomy, making it a dynamic causal theory of the processes by which people create, transform, modulate, sustain, and terminate social relationships. If this theory of conformation systems is corroborated, it would have wide applications in everyday life, management and politics, and the clinic.

Relational Models Theory and Individual Differences

RMT was originally developed as an account of the shared schemas that allow social relationships to be coordinated and the motives that sustain relationships. The RMs were understood to be universal. Our early studies focused on demonstrating their role in normal social-cognitive processes. Relational discord, discrepancy, exploitation, and pathology were mentioned but not well addressed in the original work, as reviewers pointed out (see especially Whitehead, 1993). More recently we have begun to examine individual differences in the implementation of the RMs, with a special interest in the part that such differences might play in psychopathology. Many forms of mental disorder have prominent interpersonal elements, but attempts to capture these elements as aberrant ways of implementing relationships have barely begun. Nevertheless, our work strongly suggests that a relational approach has a great deal to contribute.

Personality disorders (PDs) are an obvious place to search for deviant relationship patterns. The interpersonal manifestations of these enduring and refractory conditions are very prominent, and their diagnostic features are laced with interpersonal features. As we have argued previously (e.g., Fiske, 1991; Haslam, 1997b), some PDs may represent inflexible aberrations in the implementation of particular RMs. In the strongest form of

this argument, a PD might be caused by the absence of a particular RM, and in the weakest a PD might simply be associated with an aberrant level or manner of implementation of an RM. Predictions about the kind of aberration specific to a particular PD are not difficult to derive. For example, the schizoid personality's aloofness and detachment might be understood as the expression of unusually weak motivation for CS relationships, and the narcissist's grandiosity, need for admiration, and sense of entitlement might be viewed as expressions of underimplementation of EM and overimplementation of AR.

Haslam, Reichert, and Fiske (2002) conducted a study of aberrant use of the RMs in a nonclinical sample of people with significant levels of self-identified interpersonal problems. Participants completed self-report measures of their PD symptoms, their interpersonal problems, and their implementation of, motivation for, and difficulties with relationships governed by each of the four RMs. Numerous predicted associations between specific PDs and relational aberrations received support. Interestingly, the RMs captured distinctive interpersonal components of PDs that have no distinctive interpersonal profile on the interpersonal circle (e.g., Wiggins, 1980), the most prominent interpersonal account of PDs. They also distinguished between pairs of PDs that have identical circle profiles. For example, the circle identifies both schizoid and avoidant PDs with a pattern of cold submissiveness, but the study found them to be marked by unusually high and unusually low motivation for CS relationships, respectively.

Implementing particular RMs in deviant ways is linked to a number of PDs and may also be associated with other mental disorders (e.g., depression; see Allen & Badcock, 2003). Clinical psychologists also hope to understand the factors that predispose people to mental disorders; these vulnerability factors might be equally amenable to a relational approach. Individuals at risk for mental disorders may perceive and implement their interpersonal relationships in distinctively abnormal ways. Detecting any such abnormalities is particularly important, because the abnormalities may play a causal role in precipitating the disorder and may be suitable targets for preventive interventions.

At present, several personality constructs that confer risk for disorders such as schizophrenia and depression have been identified, although the psychological pathways along which these traits promote risk are not well understood. One study of relational correlates of these vulnerabilities recently investigated some possible pathways (Allen, Haslam, & Semedar, 2004). Allen et al. assessed a large undergraduate sample with self-report measures of vulnerability to depression, bipolar disorder, and psychosis, and also with a measure of tendencies to construe personal relationship in terms of the four RMs. Tendencies to construe several relationship types according to particular RMs were then correlated with the vulnerability measures. As expected, depression-proneness was associated with unusu-

ally high levels of CS and AR construal of family and close friend relationships, consistent with the view that depression-prone people have overheated close relationships characterized by dependency and excessive reassurance seeking (Joiner & Schmidt, 1998). People prone to bipolar disorder displayed unusually high levels of EM and CS construal within authority relationships (e.g., with employers or teachers), tending to violate the normative AR expectations that govern these relationships. Psychosis-prone students, finally, tended to approach family and close friend relations in a relatively cold and distant (low CS) manner, and to apprehend relations with peers in an unusually asymmetric manner (high AR).

Although preliminary, the findings of Allen et al.'s (2004) study are illuminating. First, young people at risk of several disabling mental disorders, and at an age when these disorders begin to emerge, show distinctive relational tendencies that distinguish them from their less vulnerable peers. Second, these patterns help to bridge trait (e.g., depression-proneness) and process (e.g., excessive reassurance seeking leading to interpersonal rejection) models of vulnerability. Third, the vulnerabilities appear to have some relational specificity, being manifested in particular relationship types. Finally, in some cases the relational patterns associated with vulnerability seem to place individuals at risk of precisely the sorts of interpersonal turmoil that might precipitate their vulnerability. Behaving in an overly familiar and egalitarian manner with a boss may create problems in the workplace for the hypomanic individual, whose behavior might be perceived as disrespectful or rude. Subordinating themselves to their friends and soliciting care and direction from them is likely to trigger the interpersonal rejection and loss that is particularly toxic for the depression-prone. An RMT-based account of vulnerability might therefore help to illuminate the mechanisms, cognitive and interactional, that result in psychopathology.

Personality factors that predispose people to mental disorders fall in between psychopathology proper and normal personality. Just as our relational approach to individual differences can help to account for the signature interpersonal abnormalities of mental disorders and their vulnerabilities, it should also be able to make sense of normal variations in personality. Any theory of interpersonal cognition and behavior should be capable of explaining how personality dispositions are expressed interpersonally. The challenge for our relational approach is to demonstrate how people who differ along normal trait dimensions differentially construe or enact their relationships.

It is important to note here that trait psychology generally gives a quite limited role to interpersonal factors. For example, accounts of the five-factor model (Costa & McCrae, 1992) commonly characterize only two of the factors, Extraversion and Agreeableness, as being substantially interpersonal. Neuroticism, Conscientiousness, and Openness are normally

presented as fundamentally intrapersonal properties, representing the individual's emotional lability, self-restraint, and imaginativeness. Surprisingly, some writers in the interpersonal tradition have gone along with this restricted view of the interpersonal realm, defining as interpersonal only those traits that project robustly onto the interpersonal circle (Gurtman, 1991), whose dimensions of warmth and control map onto Agreeableness and Extraversion, respectively (Soldz, Budman, Demby, & Merry, 1993). From our relational perspective, we would expect that a considerably broader range of personality factors have important interpersonal components, and we would argue that the interpersonal circle might not be an adequate arbiter of a trait's "interpersonalness."

Only one study has examined associations between relational patterns and normal personality dimensions. Caralis and Haslam (2004) assessed a sample of psychiatric outpatients on implementation of and motives for the RMs and on the five personality factors. Consistent with expectation, a rich set of associations emerged that extended well beyond the Extraversion and Agreeableness factors. People who strongly implemented or desired CS relationships tended to be low in Neuroticism and high in Agreeableness and Conscientiousness. Tendencies to implement EM were associated with low Neuroticism and high Extraversion and Openness. Preferential use of AR was linked with high Neuroticism and low Agreeableness and Openness. In short, every personality factor was associated with a distinctive relational pattern.

This preliminary support for a relational approach to personality has several potentially important implications. First, it enlarges trait psychology's view of the interpersonal domain by refusing to fence off certain traits as "noninterpersonal." All personality dimensions are apt to have interpersonal aspects or expressions, so purely intrapersonal accounts of them fail to capture essential aspects of personality. Second, our findings reinforce the importance of the AR model, showing it to be linked to negative emotionality and disagreeable rigidity, just as our earlier work linked it to several PDs and vulnerability factors. In U.S. middle-class culture, at least, perceiving the social world in terms of rank and status differentials is associated with psychological disturbance, an observation that would not have surprised early psychoanalytic dissidents such as Alfred Adler and Erich Fromm. However, most interpersonal approaches—for example, the interpersonal circle, attachment theory, or the Structural Analysis of Social Behavior model (Benjamin, 1996)—neglect this authority dimension, and cannot readily capture tendencies to apprehend relationships in asymmetrical terms.

A third potential benefit of a relational view of personality is a more psychologically rich account of some traits. Personality psychologists are often criticized for treating traits as reified entities, and for failing to account for the cognitive structures and processes that generate behavioral

regularities. Something important is gained if, instead of explaining some-
one's devious and self-serving behavior by their high Machiavellianism, we
account for it as an unusually strong tendency to construe their relation-
ships in MP terms. The Machiavellianism explanation barely escapes circu-
larity, and says nothing of psychological structures and processes. In con-
trast, the MP explanation makes reference to the mediating role of an
established relational schema, and makes claims about how the person in
question perceives the social world. In principle, RMT might enable inno-
vative relational accounts of such traits as dependency (inflexible and cul-
turally excessive implementation of AR) and envy-proneness (inflexible
and culturally excessive use of EM).

FROM TAXONOMY TO DYNAMICS

We have reviewed two lines of recent work that currently represent grow-
ing edges of RMT. Before concluding this chapter we would also like to
discuss some directions that we believe would be especially fruitful to pur-
sue. We highlight the importance of new methods of measurement of the
RMs. We recommend research on their ontogenetic emergence and cultural
variation. And we propose exploration of discrepant implementations of
RMs in relation to discord in personal relationships, organizations, and
intercultural relations. We also speculate about possible RMT-based inter-
ventions to alleviate these discords.

    Research on any theory depends on measures of its constructs. The
first measure used to study RMs consisted of paragraphs describing each
model; subjects selected the paragraph that best described each of their
own relationships. A more subtle instrument, the Models of Relationship
Questionnaire (MORQ; Haslam & Fiske, 1999) breaks relationships
down into major component domains, asking subjects to characterize, in a
given relationship, decision making, exchange, the organization of work,
and so forth. These measures have worked well but they are limited insofar
as they require subjects to reflectively analyze their relationships. Research
on RMs will be facilitated by the invention of new, less reflective measures,
including some that have recently been developed. For an fMRI study
(Iacoboni et al., 2004), we produced 18 very short digital movies of every-
day CS interactions and 18 of AR. In this study, subjects simply watched
the movies while we did fMRI scans of their brains, but the movies could
be used in many other ways. We are currently using these movies in a de-
velopmental study in which children match each movie to one of two car-
toon line drawings; each pair of cartoons is selected from a set of figures
representing either AR or CS. Another measure under development (by
Mark Sergi, Fiske, and Michael Green) taps Relationships Across Domains
(RAD). Participants are given a stem describing the interaction of a pair of

people in one domain, then asked to decide whether the pair would coordinate in specified ways in three other domains. Each stem and each probe represent coordination in the framework of one RM. So the RAD tests implicit recognition of the RMs, along with implicit understanding that people tend to be consistent in their use of a given RM across domains (as demonstrated in Haslam & Fiske, 1999). Lotte Thomsen, Fiske, and Jim Sidanius are also developing a measure of perception of social relationships, the Circles in Relationship Configuration Arrays (CIRCA), which consists of figures in arrays representing CS, AR, and EM relationships. Participants can be asked to pick the figure that best represents how people in a nation or organization relate, or to express preferences for each configuration. CIRCA is designed especially to assess cultural differences in perceptions of and preferences for relationships, but could be used in many other ways. These instruments can and have been used to capture values, but future measures should go deeper to tap emotional and motivational components of the RMs and their conformations.

Indeed, while several cognitive aspects of the RMs have been investigated, there has been little research on their emotional and motivational components (Fiske, 2002). People can sustain social relationships only if they make sufficient effort to act in accord with the RMs and overcome selfish temptations to shirk or defect. Deficient relational motives may underlie some pathologies of sociality, including psychopathy and frontotemporal dementia; defects in relational emotions may also contribute to some personality disorders and some forms and aspects of schizophrenia. To fully understand relational motives, we need to decipher their neurochemistry—including the social experiences that trigger neurochemical emotional cascades, along with their experiential and behavioral expressions. Maternal and/or pair bonding in some mammals is mediated by oxytocin, arginine vasopressin, and cortisol, among other peptides, but the mechanisms of human social chemistry have hardly been studied. One promising point of entree is MDMA (Ecstasy—a drug often taken at raves), which temporarily produces an intense and indiscriminate CS bond (Fiske, 2004b; Olaveson, 2004).

Other understudied but promising topics include the ontogeny, evolution, and neurobiology of the RMs. RMT suggests that CS emerges in infancy, AR in the second and third years, EM at age 4, and MP by around 10 or 11. However, this developmental aspect of the theory has not yet been tested. The first systematic study of the development of understanding of the RMs (Greenfield, Pfeifer, Fiske, Lim, & Blajesko, 2004) has found that around age 7 children begin to be able to match the Iacoboni et al. (2004) videos of AR and CS to still cartoons of AR and CS, and to free sort the cartoons according to type of relationship. As expected, recognition of CS emerges earlier than recognition of AR, and complete competence in matching CS videos to cartoons is a developmental prerequisite for

complete competence matching the representations of AR. (Clearly children can *participate* effectively in relationships of all types long before they can immediately apprehend what is going on in short videos or simple cartoons.)

The theory further suggests that CS is an evolved generalization of mother–offspring bonding and pair bonds or group ties, while AR is an evolutionary generalization of dominance hierarchies (see Haslam, 1997a). These hypotheses could be tested in part by comparing the neural substrates and neurochemistry of CS to those involved in primate maternal bonding and ingroup affiliation, while comparing the neuroanatomy of primate dominance behavior with that of AR. But no one has yet studied the functional anatomy of relationships in primates, and so far only one study has looked specifically at the functional anatomy of human CS and AR (Iacoboni et al., 2004). Complex social coordination has many adaptive advantages, as the social insects show, and the flexibility in implementation and combination of RMs has helped humans to adapt to more diverse environments and more ecological–technological niches than any other organism (Fiske, 2000). Yet we still have no rigorous model for the processes of natural selection that resulted in our flexible capacities and motives for the four RMs. Furthermore, virtually nothing is yet known about the neurochemistry of the RMs.

Few questions are more interesting than those concerning the nature of culture and the processes by which children develop competence to participate in their culture. And no other phenomena can provide as much insight into the processes connecting human nature and culture. Complementarity theory (Fiske, 2000) and the concept of conformations (Fiske, 2004b) offer a detailed RMT account of how children develop the capacity to coordinate with people in the communities in which they are born, and offer an analysis of the nature of cultural universals and variation. There is ethnologic support for these theories, but they need to be investigated in the lab and with systematic behavioral observation.

RMT posits that meaningful social relationships and their emotional rewards depend on the joint use of RMs to coordinate interaction. The corollary is that discrepant implementations of RMs may be a major cause of social discord and distress. This discrepancy hypothesis is supported by studies of satisfaction and hostility in organizations and groups (Connelley & Folger, 2004; Vodosek, 2002) and research on vulnerability and tendencies to psychopathology (Allen et al., 2004; Caralis & Haslam, 2004; Haslam et al., 2002). Extending this research on RM discrepancy is a high priority, given its explanatory potential. Moreover, where RM discrepancy is a source of discord, interventions might be developed, based on the established premise that everyone intuitively understands every RM and appreciates their fundamental validity. Strategies for intervention could involve explicating the RMs and helping all the participants in the interac-

tions to articulate how they are implementing them. Participants could express how they react to what they perceive as transgressions of their own implementations, and be encouraged to acknowledge the potential validity of each other's implementations. That is, each participant could be helped to recognize that others' actions are appropriate in the framework of another intrinsically valid RM implementation, and not merely aggressive violations of the RM that they themselves are implementing. Applying jointly accepted moral and procedural standards derived from the basic RMs, it might be possible to foster tolerance and eventually find common ground for resolving discord. This basic approach to seeking comity might be adapted for mediating disharmony in close relationships, facilitating group process, improving organizational management, and ameliorating intercultural friction.

CONCLUSIONS

A valid taxonomy provides the necessary ontological foundation for science, and RMT offers a promising taxonomy for fundamental forms of social coordination. Wide-ranging empirical research in the RMT framework has consistently supported the theory, more brightly illuminating the structures of human social relations. Having provisionally identified these fundamental entities structuring human sociality, we now have the opportunity to understand their generative dynamics. We need to develop theory and collect evidence on the processes through which people create and transform relationships. Relational dynamics involves interacting processes in evolution, genetics, neurochemistry, neuroanatomy, development, psychology, cultural transmission, social practices, and institutions. This is a vast, wide-open frontier. Exploring this frontier will be intellectually exciting. And as our comprehension of relational dynamics progresses, we may discover new opportunities to address the myriad problems that beset human social relations.

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NOTES

1. It happens that the English words for most types of preos are "$p(-)r$" words: *practices, paragons, propositions, proverbs, paradigms, parameters.* We can't discern any etymological basis for this, but we have coined the word "preo" to reflect it.

2. RMs are probably not the only innately structured but incomplete social proclivities that must be linked to socially transmitted cultural complements. Complementarity theory (Fiske, 2000) posits that this interdependence of evolutionary and cultural transmission is the basis for language, ritual, marriage, many food and sex taboos, and probably many other cultural coordination devices.
3. The strength of these motives seems to differ, such that typically CS > AR > EM > MP. However, there is considerable cultural, individual, and dyad-specific variation in the relative and absolute strength of the motives to seek and sustain the four types of relationships.

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