

RELATIONAL MODELS THEORY

A Contemporary Overview

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Research on the Relational Models: An Overview

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Philosophers of science disagree about what constitutes a good theory, but most researchers seem to share a rough understanding. A good theory should do several things well. The explanatory concepts that it employs—structures, processes, mechanisms, and the like—should map onto real, demonstrable states of affairs. These concepts ought to make powerful sense of a wide range of phenomena within the theory's field of relevance. Ideally they should do so economically, elegantly, and better than alternative theories. The theory should offer original understandings of existing findings, and yield bold and testable predictions about new ones. It should apply universally, not only in particular times or places. It should generate active research programs and inspire new and ramifying lines of theoretical inquiry. As philosophy of science goes this list of desiderata is a mishmash, but it surely captures much of what theories aspire to do.

The theory of relational models (RMs), reviewed by Alan Fiske in the previous chapter, has given rise to a large and diverse body of research in the last decade, and the time is ripe to take stock. How well has the theory stood up to the many tests that theories face? What are we to make of its past, present, and future, not as a set of abstract tenets but as a living body of ideas and a growing tradition of work? In this chapter I survey the research literature that has drawn on the theory of RMs, and come to some conclusions about how well it has performed, where it is likely to go, and where, perhaps, it needs to go further.

Deciding where to mark the perimeter of this research literature is no easy task, for three reasons. First, RMs theory has been widely cited in a variety of fields in the decade since its inception. Second, "research" can be defined more or less narrowly, depending on methodological taste. Third, it is frequently difficult to decide when a citation of the theory represents a substantive inspiration for a piece of research, or an original piece of conceptual research in its own right, rather than being merely an acknowledging nod to the theory's relevance in a particular empirical context. I have attempted to resolve these ambiguities by being comprehensive in my coverage of the existing work, by defining "research" in a broad and inclusive way to accommodate everything from experiments to speculative exercises in conceptual linkage, and by referring only to studies whose use of RMs theory was more than incidental.

The review is divided into four main sections. In the first section, entitled "Structures," I discuss work on the structural basis of the theory, its adequacy as a specification of the cognitive structures that govern social relations. The second section, entitled "Influences," surveys research on the role of the RMs in accounting for psychological and social processes and practices. It is divided into subsections that address various individual-level and collective phenomena, as well as individual differences. A third section on "Connections," reviews a diverse collection of theoretical linkages that have been proposed between the models and other concepts within the social and behavioral sciences. A final "Conclusions" section offers some thoughts in closing on the status of RMs theory in light of the existing research and on directions for future work.

SECTION I: STRUCTURES

A significant amount of empirical research has addressed the structural component of RMs theory. Fundamentally the theory makes three basic structural claims: that there are four basic models governing social relationships, that these models are best understood as discrete and incommensurable categories rather than as dimensional continua, and that their core features match Fiske's characterization. None of these claims is self-evident. Theorists have proposed classifications containing anywhere from two to very many categories, and have often failed to specify whether these categories represented groupings of actual relationships or of the psychological structures that generate them. Often theorists have eschewed categories altogether, preferring to formulate differences among relationships in terms of dimensions of warmth, formality, inequality, and so on. Needless to say, no theory has formulated its basic relational categories in quite the way that Fiske did, so it is entirely conceivable that he was mistaken in his

specification of at least some of their features. The three fundamental structural claims of the theory of RMs therefore require thorough empirical validation.

In the first attempt to assess whether the RMs as described by Fiske (1991a) conformed in a coherent manner to four underlying psychological structures, Haslam (1995a) conducted an exploratory factor analysis of undergraduates' ratings of their personal relationships. Each participant rated a sample of their relationships on items measuring features of the four RMs and four resource classes—Love, Information, Status, and Services—drawn from Foa and Foa's (1974) resource exchange theory, an alternative relational taxonomy. Two bipolar factors emerged from this analysis, one opposing Communal Sharing (CS) items to Market Pricing (MP) items and the other opposing Equality Matching (EM) to Authority Ranking (AR). There was some tendency for EM items to fall closer to the CS region of the factor space than to the MP region, and for AR items to show the opposite pattern, suggesting that the two apparent dimensions may not be truly independent. Items within each model generally cohered adequately. The resource class items, in contrast, showed relatively poor coverage of the two-dimensional space and failed to adhere to either the underlying dimensions or a spatial ordering proposed by Foa and Foa (1974).

Although the two-factor solution obtained by Haslam (1995a) provided some evidence for the coherence of the RMs, in other respects it was contrary to theoretical expectation. Two factors emerged with particular RMs at each pole whereas four factors, each corresponding to one model, would have been conjectured. Nevertheless, there are several grounds for treating this analysis as less than final. First, the factor structure of the RMs may have been distorted by the inclusion of the resource class items. Second, the analysis may have suffered from the methodological limitations of exploratory multivariate research, so that the factor solution may reflect unsystematic influences peculiar to the study and its dimensionality may be questionable. Finally, the analysis constrained its factors to be independent, contrary both to theoretical expectation and to the apparent structure of the RMs items as revealed in the analysis, implying that it may have misrepresented the latent structure of the models.

Two studies have since attempted to overcome these methodological limitations by performing confirmatory factor analyses on improved item sets restricted to the RMs. In the first, Haslam and Fiske (1999) used items from the now-standard questionnaire measure of the RMs—the Modes of Relationships Questionnaire (MORQ)—that assessed the operation of each model in multiple domains (e.g., social exchange, morality, social identity). A group of non-student adults rated a representative sample of their personal relationships on this instrument. The fit of three alternative factor models to this data set was compared: two- and four-factor solutions, with

the latter either allowing for or not allowing for correlations among the factors. The two-factor solution reflected a reductive understanding of the RMs as poles on bipolar dimensions of authority or inequality (AR vs. EM) and warmth (CS vs. MP), comparable to the solution obtained by Haslam (1995a), and the four-factor models represented the predicted distinctness of each model as a single unipolar factor. Permitting factor intercorrelations (obliqueness) represented the predicted systematic covariation of some models as a function of contingent social and cultural norms, contrasted with the normal assumption that relationship factors are statistically independent. Haslam and Fiske's (1999) findings demonstrated the clearly superior fit of the theoretically favored factor structure containing four oblique dimensions. All MORQ items loaded satisfactorily on their correct RM, in support of the internal coherence of Fiske's characterization of the models. The CS factor was strongly associated with the EM factor, and MP was less strongly associated with both EM and AR.

In a second confirmatory factor analysis, Vodosek (2000a) developed a new questionnaire concerning beliefs about how work teams should function, with items representing distinct goals linked to the four RMs. Graduate business students rated their goals for consulting teams in which they worked, rather than a sample of personal relationships. Nevertheless, Vodosek's findings concur impressively with the earlier analysis. A structure composed of four oblique factors demonstrated significantly better fit than one in which the factors were constrained to be orthogonal. All items loaded substantially on their predicted factor. The CS factor was highly correlated with the EM factor, and AR was significantly associated with MP. In addition, the fit statistics in Vodosek's analysis were decidedly better than in Haslam and Fiske's (1999), and indicated that the oblique factor solution was a very close approximation to the obtained data.

Discreteness

The factor-analytic work reviewed earlier furnishes strong evidence for the structural adequacy of RMs theory. Collectively, these studies indicate that four correlated, unipolar factors capture the structure of social relationships, and that these factors are well described by coherent sets of relational features proposed by the theory. These factors fail to correspond to more established taxonomies, which have generally invoked a smaller number of independent and bipolar factors. People's intuitions about the structure of their personal relationships also seem to map onto the four models, and they have little trouble assigning particular relationships to a RM.

Although it has substantially confirmed the structural basis of RMs theory, this factor-analytic research fails to address a bold, central postulate of

the theory, namely its insistence that the RMs are categories that apply to particular relationships in an all-or-nothing fashion. In contrast to the standard assumption that relationships differ by degrees along a set of continuous axes (e.g., Wish, Deutsch, & Kaplan, 1976)—an assumption that is built into factor analysis—the theory maintains that each model provides a discrete and incommensurable way of organizing relationships. Two studies have tested between these dimensional and categorical alternatives, using taxometric procedures (e.g., Meehl, 1992).

In the first taxometric study, Haslam (1994a) had undergraduate participants rate a representative sample of their personal relationships on items that assessed aspects of the four models, as well as items assessing four of Foa and Foa's (1974) six resource classes. Item sets for each proposed relational form were analyzed using Meehl's MAXCOV procedure, which yielded unambiguous evidence for the discreteness of all four of the RMs but only two of the resource classes (Love and Status), which other evidence suggested were essentially redundant with one another and with one of the RMs (CS).

Besides the main finding that the hypothesized features of the RMs cohered in ways that imply discontinuities between different relationships, four further findings of the study are noteworthy. First, very few of the sampled relationships did not belong to one of the RMs. Second, a majority of relationships were governed by more than one model, consistent with Fiske's (1991a) claim that different aspects or domains of particular relationships may be organized according to different models. This is consistent with the argument that the RMs do not represent a taxonomy of relationships but a set of discrete principles for organizing social cognition and interaction. Third, taxometric evidence indicated that Americans may tend to disavow AR and MP relationships, because the estimated proportions of these relationships in the sample was substantially smaller than the proportions participants give when they freely assign their relationships to the models. Finally, the RMs seemed to be more powerfully informative about relational features than colloquial role terms such as *boss* or *friend*, supporting their primacy as determinants of interpersonal activity.

In a second study (Haslam, 1999), another sample of relationships was gathered and rated on a different set of items assessing the RMs. These items were again employed in taxometric analyses of the models, using two different procedures (MAMBAC and admixture analysis) in addition to MAXCOV. Once again, the results of these analyses were highly consistent with RMs theory's conjecture that the structure of social relationships is discontinuous.

Although all of the studies reviewed to this point have used self-report data, none of them have directly asked whether the RMs map cleanly onto

people's intuitive understandings of their relationships. Structures matching the models might be detectable in people's ratings of their relationships without these statistically inferred structures corresponding to their folk taxonomies, or to the ways in which they classify relationships in an explicit and self-conscious fashion. A lack of correspondence would be no great surprise, and would not harm the theory of RMs, which are conceptualized as implicit social grammars rather than explicit folk understandings. A scientific theory of grammar would be on shaky ground, after all, if it had to mirror laypeople's intuitive formulations of grammatical rules, although their self-reported intuitive judgments of grammaticality are indispensable. Nevertheless, if correspondences were found between latent and manifest structures in this way it would extend the theory's claim to capture fundamental distinctions among social relationships.

With this in mind, Haslam and Fiske (1992) conducted a study in which intuitive understandings of the structure of relationships were assessed in two distinct ways. Participants freely sorted a sample of their personal relationships into groups and rated the similarity of pairs of these relationships, from which relationship groupings were derived cluster-analytically. In addition, participants classified each relationship according to five relationship taxonomies: the RMs, Foa and Foa's (1974) resource classes classification, Mills and Clark's (1984) communal versus exchange dichotomy, Parsons and Shils' (1951) role expectations, and MacCrimmon and Messick's (1976) social orientations. The extent to which participants' intuitive groupings of their relationships mapped onto each of these taxonomies was then examined.

The RMs classification performed well in the company of its four contenders. It was associated with the intuitive groupings just as strongly as the role expectations and resource classes, compared to which it was employed with somewhat greater reliability and ease, and it was more strongly associated than the social orientations and communal versus exchange classifications. The RMs also showed a relatively complete coverage of a multidimensional relational attribute space derived from the five theories, uniquely capturing the crucial authority and equality-related aspects of relationships and failing only to recognize degrees of formality or rule-governedness. Within RMs theory such variations might be understood as contingent implementation parameters rather than basic relational forms. The results also indicated that intuitive relationship groupings were best modeled by about four categories, consistent with RMs theory. Simpler classifications, such as the communal versus exchange dichotomy, appear to be insufficiently differentiated for that task. In sum, the theory of RMs emerged from the study as a superior reflection of participants' reflective understandings of their relationships. Its relative success appears to rest on a

taxonomic structure of sufficient complexity, economy, and comprehensiveness for that purpose.

A second study assessed intuitive understandings of relationships in a quite different manner. Rather than having participants classify personal relationships in intuitive as well as theory-guided ways as in Haslam and Fiske (1992), Haslam (1994b) had them rate the prototypicality of a sample of hypothetical relationships, or choose which of several forms of behavior of one interactant—described in terms of interpersonal circle octants (e.g., Kiesler, 1983)—would be most appropriately paired with a specific form of behavior of a second interactant. The fit of three alternative structures—dimensional, lawful, and categorical—to these rating and choice data was then compared. The dimensional structures modeled judgments in terms of their degrees of warmth and dominance, whereas the lawful structures corresponded to complementarity rules proposed by interpersonal circle theorists (e.g., Wiggins, 1980). The categorical structures accounted for relationship prototypicality judgments in terms of discrete relational categories corresponding to the CS and AR models. Regression analyses indicated that these relationship categories modeled the rating and choice data more strongly and economically than the alternatives. Although confined to only two of the RMs, this study supports their capacity to make sense of people's intuitive understandings of relationships.

The research reviewed in this section makes a solid case for the soundness of the structural component of RMs theory, and gives affirmative answers to its three fundamental claims. The confirmatory factor-analytic and taxometric studies support the existence of four models irreducible to a smaller set of more basic structures, and Haslam and Fiske (1992) indicate that four relational structures may be close to sufficient to account for intuitive understandings of relationship types. It is impossible to rule out the existence of additional models—although their theoretical grounding in the four established scales of measurement (Fiske, 1991a) would argue against this—but the finding that the models appear to govern all but a small minority of relationships, most of which are probably asocial or Null relationships (Fiske, 1991a), suggests that the four models are not lacking an indispensable fifth. The taxometric studies and Haslam (1994b) support the discreteness of the RMs, and directly challenge any understanding of them as dimensional constructs, making this the first relational taxonomy to have established such support. The factor analytic and taxometric studies confirm the coherence of the RMs, indicating that several distinct sets of items intended to tap diverse aspects of the models all covary systematically. In addition to noting this chorus of support for the structural basis of the theory, it is also worth acknowledging that when the RMs taxonomy has been compared to its primary alternatives it has tended to fare well (Haslam, 1994a, 1994b, 1995a; Haslam & Fiske, 1992).

SECTION 2: INFLUENCES

Establishing the empirical credentials of the structural component of RMs theory is an important step toward validating it as a whole. Any research that employs the taxonomy is only as sound as the taxonomy itself, and if the latter draws spurious distinctions or conflates distinct structures by failing to draw correct ones, such research will have limited success. All the same, validating the theory's structural component is just a preliminary step, as the theory's true test is whether it can account for social phenomena. A number of studies attest to the power of the RMs in accounting for individual-level social cognition and behavior and collective phenomena.

Individual Cognition and Behavior

The first paper to demonstrate the usefulness of the RMs theory in accounting for individual cognitive and behavioral phenomena reported a series of seven studies (Fiske, Haslam, & Fiske, 1991). These studies examined social errors, inadvertent slips in which one person is mistakenly substituted for another. Errors of three types were examined: "misnamings," in which an addressee was referred to by the wrong name, "person memory errors," in which the wrong person was recalled as having been present in a situation or event, and "misactions," in which an interpersonal behavior was addressed to an unintended person (e.g., calling the wrong person on the telephone). In each study, a sample of participants collected personal examples of one or more kinds of these errors and recorded them using a standard diary methodology. In addition to describing each error, participants described the people who figured in it on multiple dimensions, including the RM they employed with each of these people.

In all seven studies participants demonstrated a significant tendency to substitute people with whom they related in the same manner (i.e., according to a particular RM). This finding held equally for the RMs taxonomy as a whole and for each model individually. The effects of RM on confusability were more robust than the effects of such variables as acquaintance age, social role, race, and name similarity, of which they were statistically independent. They were also stronger than those of two alternative relational taxonomies, Foa and Foa's (1974) resource classes and Mills and Clark's (1984) communal versus exchange distinction. Only gender rivaled RM as a determinant of slips. Importantly, the RMs appeared to underlie and largely account for the effect of social role. Participants tended to substitute acquaintances designated by the same culturally available role term in large part because they shared with these acquaintances the same kind of relationship, indicating that the "deeper" relational structures were more important and basic for social cognition than the colloquial role categories.

In a second paper on social errors, Fiske (1993) replicated the earlier studies with participants from four diverse cultures (Bengali, Chinese, Korean, and Vai [from Sierra Leone and Liberia]). All participants were living in the United States but were relatively unacculturated, and the studies were conducted in their native tongues. In every sample, social errors systematically preserved the RM governing the participants' relationships with the substituted persons. This effect of the RMs was, if anything, stronger among less acculturated participants. Social role, as well as individual attributes such as gender and age, also predicted errors, but these effects were frequently accounted for by participants' tendencies to associate with, and hence substitute, people of a particular demographic profile. Consequently, at least some of these effects do not reflect cognitively appraised social equivalence. This study therefore demonstrates 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 (1997b) examined intentional substitutions, in which an initially intended interactant was replaced with another when the former was unavailable or the latter 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.

Seeking further evidence for the wide-ranging role in social cognition of the RMs, Fiske (1995) had two samples of participants freely list their acquaintances by name and subsequently classify them according to relational properties (models, resources, communal vs. exchange, role term, situations in which they interacted) and 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.

The social error, substitution, and recall studies indicate that social 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 attri-

butes that inhere in them. Moreover, these consequential relationships are well captured by the RMs. Much social cognition truly is "thinking about relationships" (Fiske & Haslam, 1996), and approaches to social cognition that implicitly conceptualize the social field as a collection of attribute bundles, rather than as a web of interrelations, risk a serious misrepresentation. Such a misrepresentation, which treats social cognition as similar in kind to object cognition, can be understood as a reflection of the taken-for-granted methodological individualism of much American social psychology. It also reflects a tradition of laboratory research in which the social element is represented either by strangers or hypothetical persons rather than real acquaintances.

The studies conducted by Fiske and colleagues on the influence of RMs on social cognition have run counter to this tradition, implicating participants' actual relationships. However, a few studies have taken different approaches to the role of the RMs in social cognition. Baldwin (2000) used a priming methodology to demonstrate that the RMs can be activated by particular words in ways that allow inferences about the implicit structure, correlates, and chronic activation of these models via reaction times to the identification of other target words. Baldwin obtained intriguing evidence for gender differences in the salience or activation of the RMs and in their associations with parental figures. Female participants tended to identify a CS target faster and MP and AR targets slower when primed by "Dad" than by "Mom," suggesting that these models are selectively associated with the two parents. The male participants demonstrated precisely the opposite pattern of reaction times, and also tended to identify a MP target quicker than women, implying greater chronic activation of this model. Baldwin's work suggests that the RMs are amenable to rigorous laboratory methods, which may enable studies of automatic or implicit cognitive processing about relationships.

Iacoboni et al. (2002) present a particularly exciting demonstration of how laboratory methods can illuminate RM theory, employing cutting-edge neuroscientific procedures. Using functional magnetic resonance imaging (fMRI), they investigated the brain regions involved in CS and AR relationships, activating these with a number of carefully controlled movie clips depicting relationships of each type. CS and AR clips activated largely overlapping bilateral brain regions relative to a resting control, and these regions differed substantially from those activated under standard cognitive tasks. AR clips activated certain temporal and frontal regions more than CS clips, and both clip types generated somewhat distinct activation patterns when two interactants were presented rather than a lone individual. The findings suggest that social cognition employs somewhat different brain areas than nonsocial cognition, and that somewhat different neural mechanisms underpin the interpretation of social interactions governed by

different RMs. They are consistent with the view that we understand social relationships by interpreting the actions of others as embedded in a meaningful context, and by simulating them as if they occurred to us.

This research on the functional anatomy of the RMs should help to deepen our understanding of the models and place them in an expanded theoretical and empirical context. It should, for instance, help to understand what mental functions the RMs draw on, and how they emerge and develop. It might help to establish homologous brain structures in other species and thereby enable speculations about the evolution of social competence. It might also afford new perspectives on individual differences in the use of the RMs, such as those that might underpin certain psychopathologies (see chaps. 11 and 12, this volume).

At the other end of the cognitive science spectrum from this neuroimaging work, Jackendoff (1992, 1994, 1995, 1999) has presented formal analyses of the conceptual structures underpinning social relations that support the existence of a distinct faculty of social cognition of which the RMs might be a part. Arguing on multiple grounds for the plausibility of a central module dedicated to social cognition, Jackendoff (1994) proposed that cultural learning must involve the fleshing out of skeletal abstract frames or notions like the RMs. Any simple inductive account of cultural learning founders, he maintains, on the existence of irreducibly social conceptual primitives that are not linked perceptually to the world and hence must be in some way grasped intuitively. Cultural knowledge, that is, must have a "fairly substantial innate endowment" (p. 204). Besides its theoretical consistency with Fiske's account of cultural learning (Whitehead, 1993) as an externalization of universal frameworks and the linkage of them to local implementation parameters, Jackendoff's work supports RMs theory by suggesting that the models are apt to be some of the fundamental frames in any social module.

Collective Phenomena

The empirical studies of the structure of the RMs and of their influence on social cognition and behavior bear on important facets of the theory, but focus almost exclusively on the mental activity of individuals in relation to their personal social milieus. The theory of RMs was also intended to make sense of social or collective phenomena involving shared activities, understandings, and values; that is to say, culture and social organization. A variety of research projects have trained their attention on phenomena of this sort.

Perhaps the richest evidence for the fruitfulness and explanatory reach of the RMs comes from ethnographic studies. Two ethnographic studies have thus far been conducted: Fiske's (1990, 1991a) among the Moose of Burkina Faso and Whitehead's (2000a, 2000b) among the Seltaman of New

Guinea. Fiske's ethnography represents the founding study of RMs theory, in which its abstract conceptual synthesis touches dusty ground and establishes that it is workable. The ethnographic material is rich with examples that reveal the operation of the four models not only in family contexts of social exchange, distribution, work, kinship, and so on, but in less straightforwardly interpersonal spheres of Moose culture, such as moral systems, relations with divinities, and orientations to land, time, and artifacts. Especially as presented in Fiske (1991a, Section IV), this work serves as an unmatched source of examples that convey the distinct flavors of the RMs. It also provides empirical support for the theoretical claim that humans are inherently sociable (Fiske, 1991b), demonstrating how calculative individualism is hardly the universal social logic it is sometimes assumed to be within strands of Western social science.

Whitehead (2000a, 2000b) employed RMs theory among the Seltaman of Papua New Guinea. She showed that food sharing and food taboos could be illuminated by the RMs. Like Fiske's ethnographic work, Whitehead's brings into sharp relief the extent to which basic relational assumptions in one culture may diverge in recognizable ways from those in another. The American tendency to disavow and avoid the hierarchical dimension of social life, and to esteem the "higher" position within the AR relationships that they acknowledge, contrasts with the taken-for-grantedness of AR in Seltaman society, and their eagerness to take subordinate roles.

Several researchers have used RMs theory to approach questions associated with social justice. Folger, Sheppard, and Buttram (1995) present an overview of distinct justice principles often identified as equity, equality and need, and show how these principles correspond to, and are elucidated by, the MP, EM, and CS models, respectively. They show further how these principles apply at multiple levels—individual, interpersonal relations, and institutions—and extend them to refer to procedural as well as distributive justice. AR is seen to have a place in justice research as a model for ensuring procedural aspects of fairness, although in a study by Sondak (1998) MBA students rated this model least procedurally just as a way to allocate positions in elective classes, preferring MP. Folger et al.'s (1995) work helpfully discusses the ways in which the multiple "lenses" for making sense of justice can lead to ambiguity and lack of consensus within organizations—especially when provoked by rapid organizational change and intercultural contact—and proposes ways of handling this multiplicity.

Goodnow (1998) has examined justice perceptions outside of the organizational context, focusing instead on divisions of work within households (see chap. 5, this volume). She finds that RMs theory offers an illuminating account of the distribution of responsibilities among household members. Decisions regarding distributions depend crucially on the models members believe should apply to the relevant relationships, and these models

are implemented in varied ways as a function of age and family role. Moreover, the RMs clarify relationship errors of particular kinds, such that different family positions are associated with sensitivity to confusions that these positions invite, mothers being alert to confusions with maids (MP) and adolescent children to receiving "orders" (AR). Goodnow's analysis presents a valuable explication of implementation parameters and reveals the many dimensions of relational tension and negotiation that arise within households.

Mikula (1999) has also investigated perceptions of justice in relation to the distribution of household tasks, studying both adolescents within families and college students living in shared flats. In three studies, he inductively developed a classification of distributive arrangements and rules, and examined how perceptions of these varied according to the nature of the task and of the social system (family vs. cohabiting students). There was a general tendency for egalitarian and balanced (EM) arrangements to be perceived as more just, although less regulated communal (CS) arrangements were considered somewhat more acceptable within families than within the student households, and strict apportionment of tasks to the person who created the need for them less acceptable. Consistent with this finding, participants in a scenario study regarded unreciprocated assignment of a task to a particular person less unjust among close friends than among acquaintances. The perceived justice of particular distributive arrangements varied considerably by task as well, according to whether they required special skills, benefitted or were necessitated by identifiable individuals, and were time consuming, suggesting several determinants of the conditions under which particular RMs may be implemented. In addition, there were large discrepancies between the arrangements judged to be most just and those actually implemented, and possible self-interest biases in such judgments, with those who contributed the least household work rating arrangements that do not enforce balance or prevent free riding more just. These findings imply a large amount of conflict and disagreement surrounding distributive arrangements within the home, and suggest that a RMs-based analysis may help to understand the forms that this dissent will take.

Three studies have investigated how the RMs taxonomy might illuminate group psychology. Sondak (1998) presents a re-analysis of a study of string quartets, investigating how they handle problems of democracy, leadership, rivalry, and conflict management in terms of the models. He makes a number of informal observations about how the more successful quartets navigated these issues—cultivating a strong CS ethos but also allowing the first violin to adopt an AR position within the group, for example—and how the implementation of every model needs to be studied for an adequate picture of the group dynamics to emerge.

In a detailed study of science research groups, Vodosek (2003) demonstrated the negative group outcomes and atmospheres that occur when members lack a shared definition of intra-group relationships. Dissimilarity in the relational models that group members applied to their relationships with one another was associated with lower satisfaction with and commitment to the group, more negative affective response to it, and greater intention to quit. Interestingly, this dissimilarity was greater among more culturally diverse groups, as predicted. Vodosek's work therefore points to an important source of negative outcomes in groups, and also offers a useful framework for understanding how relational models dissimilarity affects group outcomes.

Lickel, Hamilton, and Sherman (2001) used the RMs taxonomy to investigate people's intuitive understandings or "theories" of different kinds of groups. Their work starts from a robust finding that people intuitively recognize four qualitatively distinct group types: *intimacy groups* such as families, *task groups* such as work teams, *social categories* such as women, and *loose associations* such as people who like classical music. These group types are perceived to differ on many dimensions, including size, duration, permeability, internal similarity, subjective importance to members, and so on. Lickel et al. (2001) show that people also perceive that different types of relationship occur among members of the different group types, and draw strong inferences from group types to likely relational norms. Intimacy groups are associated with CS and to a lesser extent EM relations, task groups with AR and to a lesser extent MP and EM relations, and loose associations with MP relations. Social categories were not perceived to have a consistent relational style. Study participants also made reliable and symmetrical inferences from prevailing relational norms to probable group types and other group features, such as size and permeability, indicating the extent to which intragroup relationships figure in lay theories of groups. For instance, groups organized in a CS fashion were found to be judged the most unified, coherent, and entity-like, and to draw stronger judgments of collective responsibility when one member committed a wrongdoing. These studies demonstrate the potential role of RMs theory within group psychology, and within the broader domain of lay theories of the social domain.

A significant quantity of research conducted under the banner of RMs theory has focused on conflict, at intrapersonal, interpersonal, and intergroup levels. The theory lends itself to this focus because it proposes discrete and incommensurable frameworks for social relations. If interacting individuals or groups bring different prescriptive frameworks to their engagement, the result is likely to be friction of some sort. Not only is there likely to be mutual incomprehension and a moralized sense of violation, but there will also be no ready way to mediate the disagreement because the

models are in principle irreconcilable (Fiske, 1990). The implications of RMs theory for the depth and quality of conflict differ from those derivable from standard dimensional accounts of social relations. By these accounts, divergences between individuals' or groups' prescriptive standards for interaction simply amount to differing parameters along continua of warmth, inequality, and so on, and should therefore yield to a gradual recalibration between the parties. There is no obvious reason why differences in relational norms should be difficult to reconcile, as there are no in-principle discontinuities between them.

Fiske and Tetlock (1997, 2000) have spelled out a relational theory of conflict that relies heavily on the issue of incommensurability (see chap. 8, this volume). They observe that people commonly resist making tradeoffs that involve apparently incompatible values—such as placing a dollar value on a human life—when such "taboo tradeoffs" are inescapable for many decision makers and should, in principle, be readily performed by laypeople if they operated according to the utility calculus of *Homo economicus*. Fiske and Tetlock (1997) argue that tradeoffs are taboo whenever they "require assessing the value of something governed by the socially meaningful relations and operations of one RM in the terms of a disparate RM" (pp. 256–257). When confronted with such an intermodal comparison, people react with confusion, indignation, attribute immorality or irrationality to the person making the tradeoff, and want to punish and ostracize the person. They commonly refuse to make such tradeoffs themselves. Fiske and Tetlock present a series of hypotheses about the conditions under which tradeoffs are taboo. For example, they propose that political ideologies correspond to preferences for particular RMs for social organization and decision making, and that intrusions of MP valuations into the domain of CS relations will be judged particularly offensive. In sum, Fiske and Tetlock's taboo tradeoff account illuminates conflict at multiple levels: within the person contemplating a tradeoff, between that person and others who abhor it, between ideological positions that take different stances toward it, and between cultures if they draw the boundaries between distinct relational domains such that an ordinary tradeoff for one is a boundary-crossing atrocity for the other.

Several empirical studies have been conducted on taboo tradeoffs. In preliminary work, Tetlock, Peterson, and Lerner (1996) confirmed that taboo tradeoffs in which MP rules were applied in inappropriate domains elicited punitive and moralized trait attributions, anger and disgust, and social ostracism. Tetlock, Kristel, Elson, Green, and Lerner (2000) demonstrated in two studies that taboo tradeoffs generated greater outrage toward those who perform or even seriously entertain them than routine within-model tradeoffs, and that this effect is moderated by participants' political ideology. Interestingly, they also showed that people appear to find the mere

contemplation of taboo tradeoffs morally contaminating, prompting attempts at "moral cleansing" to restore their sense of virtue.

Tetlock, McGraw, and Kristel (2000) further showed that a taboo tradeoff-like phenomenon affects the valuation of objects. In three studies, participants proposed ridiculously inflated valuations (selling prices) for objects acquired outside the "normative orbit" of the MP model, or commonly refused to sell these objects at any price. Consistent with a prediction based on Fiske and Tetlock (1997), distress and outrage at the prospect of selling the object, and monetary "overvaluation" of the selling prices, tended to be greatest for objects acquired in CS relational contexts and steadily diminished as the context more nearly resembled MP (i.e., $CS > AR > EM$). These findings represent striking violations of the basic economic principle of source independence—the independence of an object's value from its manner of acquisition—and strongly challenges the reducibility of all values to a single utility metric in everyday cognition. Indeed, Tetlock, Kristel, Elson, Green, and Lerner (2000) suggested that findings such as these call for a new metaphor of people as intuitive "moralist-theologians" who strive to "protect sacred values from secular encroachments" (p. 857) at least as much as they strive to achieve accurate prediction and control or to maximize utility, as the prevailing intuitive scientist or economist metaphors would have it.

In a further extension of Tetlock and Fiske's work on taboo tradeoffs, Poulson (2000) investigated everyday interpersonal conflicts. In two studies, participants made judgments about their imagined reactions to conflict scenarios involving contribution, distribution, decision making, or social influence. In each conflict scenario, a protagonist held interpersonal expectations based on one RM which were violated by another person's behavior. These violations either preserved the expected RM but contradicted its desired implementation or, more radically, stemmed from the use of a different model. Contrary to hypotheses based on model incommensurability, between-model conflicts did not produce more negative reactions than within-model conflicts. Interesting incidental findings of the study included tendencies for within-model conflicts involving CS to be judged very negatively, and for those in which EM was enacted to be judged relatively inoffensive. The latter findings support a weak default preference among the participants for egalitarian relationships and the former points to the special emotional fraughtness of communal relationships.

Although all of the research on conflict presented earlier has employed experimental methods and artificial conflict scenarios, a field study by Connelley (1997) shows how the RMs can make sense of real and consequential conflicts (see chap. 6, this volume). 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 had produced misunderstanding and distrust both from the targeted employees, who complained about hiring, performance evaluation, and promotion decisions and whose retention rates were poor, and from the predominantly White male workforce, which nurtured an angry backlash. Connelley established that three groups of employees—the White male "establishment," and the White female and African-American targeted minorities—thought and spoke about workplace relationships and human resource systems in the terms of 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 the career benefits of informal workplace networking. The White females preferred a MP definition of the work environment, with competence and efficiency governing the allocation of rewards along meritocratic lines. African-Americans, in turn, favored the strict parity of an EM model, supporting firm hiring and promotion targets.

Connelley's study is valuable not only in its qualitative detail and its clear delineation of the relational fault lines of a deep organizational conflict, but also in its implication that the "choice" of a RM may be at least partially strategic and positional, motivated as a response to a prevailing ethos, in this case CS, that does not serve one's relational goals. It figures as the first investigation to use RMs theory to understand conflict in organizations, although Vodosek (2000b) has laid out a useful integration of organizational research on work group conflicts that strongly supports this line of work. Vodosek demonstrates the limits of existing theories of intragroup conflict—based variously on demographic and value differences and on social identity or equity theory—which presuppose a particular form of relational cognition (CS for social identity and demographic accounts, MP for equity theory). RMs theory promises a more differentiated understanding of intragroup conflict, and Vodosek presents a set of predictions about conflict as a function of divergences among group members' operating models.

All of the research reviewed to date has addressed relationships between individuals or between groups within organizations. An innovative analysis by Sheppard and Tuchinsky (1996) suggests that relationships between business firms can also be understood in terms of the four relational "grammars." Focusing on relationships between "customer" firms and their suppliers, they argue that American management thinkers, dominated by economic, network, and behavioral negotiation theories, have relied too much on hierarchy and the market (AR and MP) as organizing principles. These principles imply a level of distrust and fear of opportunism in customer-supplier relations that may be counterproductive. Sheppard and Tuchinsky discuss ways in which these relations might be reconfigured along CS and EM lines which, they argue, are likely to be more effective

when the firms' products are complex, must be swiftly introduced to the market, and employ parts that are highly integrated and depend on rapidly changing technology. Integrated relationships in which suppliers closely "tailor" (EM) their products or services to the customer's specifications or "align" (CS) with them directly to develop products collaboratively embody such models. Besides demonstrating that the RMs can be applied at this macro level of organizational analysis, Sheppard and Tuchinsky's work illustrates just how intellectually and practically limiting a field of study's core assumptions about the nature of social reality can be. RMs theory offers a set of distinct social grammars that can, they imply, call any univocal approach into question, and force investigators to be more self-conscious about the assumptions of their own preferred set of explanatory concepts.

Individual Differences

Relatively little research has pursued the implications of RMs theory for the study of individual differences. The models have been conceptualized primarily as components of the universal psychological endowment of the human mind, rather than as sources of differentiation among people. Nevertheless, ways in which the models might account for differences between people in the domains of psychopathology and personality have been developed in several pieces of theoretical research (Fiske, 1991a; Fiske & Haslam, 1997a; Haslam, 1995b, 1997b). Running through this work is the supposition that people may differ in a systematic, trait-like manner in their tendencies to employ the models in making sense of their interpersonal worlds. More specifically, some people might completely lack the capacity to construe social relations in terms of one of the models, others might consistently over- or underimplement a model with respect to the normative expectations of their culture, either from a cognitive bias or a motivational abnormality, and still others might fail to implement models in accordance with socially appropriate rules and parameters. In all of these cases, affected people should show a distinctive pattern of interpersonal aberration in which their expectations and forms of conduct conflict with those prevailing within their society.

Such an account of interpersonal aberration has several theoretical merits, discussed at greater length in chapter 12 of this volume. It presents an innovatively relational analysis of interpersonal disturbance, both in its reference to aberrant forms of relational cognition and to the interpersonal context in relation to which disturbed individuals are aberrant. Alternative interpersonal accounts tend to be resolutely individualist in their focus, referring to the individual's deviant forms of behavior within social interactions, rather than to his or her forms of relational construal, and making no reference to the normative expectations of the surrounding social milieu.

This mindfulness of social context enables the RMs-based account of interpersonal disturbance to account for cultural variations in the forms of interpersonal disturbance, such as personality disorder. In addition, the account offers an analysis of the cognitive processes and structures that underpin interpersonal traits rather than leaving these traits as unanalyzed entities. In contrast, some interpersonal theories of personality disorder employ such dispositions—dependency, vindictiveness, and so on—as explanatory entities when they might be better understood as purely descriptive. Is paranoia "explained" by high levels of dispositional vindictiveness or simply characterized by it, and might not a more satisfactory explanation refer to tendencies to construe relationships in terms of calculative rationality and individualized competition in interpersonal settings where such construals are culturally inappropriate?

The first specific analysis of individual differences to make use of RMs theory was developed by Allen and Gilbert (1997), who proposed an innovative evolutionary account of depression (see chap. 11, this volume). According to their account, depression originated phylogenetically as an adaptive mechanism for ensuring a risk-averse strategy in social interaction when people perceived their social resources to be at critically low levels. This strategy dictates vigilance to social threats, general behavioral risk aversion, and agonistic signaling to others that the person poses no threat, and serves to protect and defend the person against a further, calamitous loss of resources. Allen and Gilbert propose that this depressive strategy should manifest itself in a changing profile of relationships comprehensible in terms of the RMs. They argue that it might entail an increased dependency on resources grounded in CS relationships, perhaps coupled with an increased attentiveness to the risk of exclusion from the communal unit, both intelligible as increases in the activation or implementation of the CS model. They also postulate a strategic withdrawal from exchange relationships, specifically EM and MP, given the greater risks of nonreciprocity and being cheated. Finally, they propose that in AR relationships the depressive strategy would promote an increase in submissiveness, a reduction in up-rank challenging, and perhaps a generalized increase in sensitivity to rank and status. In effect, this account of the cognitive and behavioral underpinnings of depression represents it as an intrinsically relational phenomenon. The strategy represents a motivated alteration in ways of thinking and behaving within relationships of different kinds.

Only one study to date has assessed the claims of Allen and Gilbert's "social risk hypothesis." Semedar (2000) examined differences between depressed and nondepressed students—as well as between students with and without cyclothymia—in the implementation of the RMs in role-based relationship types. Consistent with hypothesis, depressed students were more likely than their nondepressed peers to understand their relationships with

family members and employers in CS terms, and also to construe family and close friend relationships in AR terms. Contrary to expectation, they showed an overimplementation of EM with family and with colleagues. Although these findings are preliminary and not entirely consistent with Allen and Gilbert's theory, they do appear to support an increased dependency on communal relationships and increased sensitivity to rank and perhaps inclusion-exclusion among the depressed.

In addition to this work on depression, one study has investigated links between the RMs and personality disorders. As adumbrated in a series of theoretical treatments (e.g., Fiske, 1991a; Haslam, 1997b), some personality disorders—maladaptive and inflexible dispositions predominantly expressed in interpersonal relationships—may represent aberrations in the use or implementation of particular RMs (see chap. 12, this volume). Such a claim can take stronger and weaker forms, ranging from a conceptualization of a disorder as specifically caused by the categorical absence of a particular model to a formulation in which the disorder is simply taken to be associated with an aberrant degree of implementation of a particular model. It is possible to develop predictions about the form of aberration specific to a particular personality disorder. 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 as expressions of an underimplementation of EM and overimplementation of AR.

Haslam, Reichert, and Fiske (2002) conducted a study of aberrant use of the RMs in a sample of people with self-identified interpersonal problems. These participants completed self-report measures of their personality disorder symptomatology, their interpersonal problems, and their implementation of, motivation for, and difficulties with relationships governed by each of the four RMs. Although the sample was nonclinical, it showed elevated levels of personality disturbance. Numerous predicted associations between specific personality disorders and relational aberrations received support, despite the study's modest statistical power. Interestingly, the RMs captured distinctive interpersonal components of disorders that have no interpersonal profile according to the interpersonal circumplex (e.g., Wiggins, 1980), the most prominent interpersonal account of personality disorder, and distinguished between pairs of disorders to which the circumplex ascribes identical profiles. For example, the circumplex implausibly identifies both schizoid and avoidant personality disorders 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.

The personality disorder study was followed up by Caralis and Haslam (2002), who examined relational correlates of normal personality dimensions. In a sample of psychiatric outpatients, measured on implementation

of and motives for the RMs as well as the five-factor model of personality, numerous predicted associations were obtained. 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 Neuroticism and low Agreeableness and Openness. These findings point to a rich variety of links between normal personality and relational tendencies, and suggest that contrary to claims that Extraversion and Agreeableness are *the* interpersonal trait dimensions, *all* such dimensions have relational aspects or correlates.

Research on individual differences in the use of the RMs is plainly in its infancy, but the evidence to date suggests that the RMs approach offers a promising new way of making sense of interpersonal tendencies associated with chronic personality abnormalities, episodic mood disorders, and normal personality.

SECTION 3: CONNECTIONS

Much of what can properly be called research on the RMs consists in demonstrating links between the models and other concepts and theories in the social and behavioral sciences. These conceptual connections have the potential to open new vistas for empirical research and to offer fruitful reconsiderations of existing theoretical accounts. RMs theory appears to propagate an unusually rich variety of connections.

Evolution

One area in which RMs theory has been put to work is in relation to the evolution of sociality. In a review of primate social relationships, Haslam (1997a) argued that three of the RMs evident in humans have precedents and parallels in the social behavior and cognition of other species. CS is linked to kinship phenomena, such as kin recognition and the unconditional grooming observable within some primate kin groups, evidence that categorical inclusion-exclusion distinctions are drawn and differentiations within the ingroup largely ignored. AR is linked to dominance hierarchies, and the transitive inferences about status within them that some primate species appear to make. Social reckoning akin to human EM can be seen in the formation of alliances and coalitions and related phenomena understandable abstractly in terms of reciprocal altruism. Only MP seems to lack parallels among nonhuman primates, its reliance on ratio-based figuring appearing to exceed their cognitive capacities. Haslam (1997a) argues that MP therefore represents one aspect of human social-cognitive distinctiveness in the midst of several im-

portant continuities with primate social cognition. Consequently it is a mistake to imagine that essentially discontinuous capabilities such as language and "theory of mind," the attribution of mental states, exhaust the human social-cognitive apparatus (see chap. 4, this volume).

Whereas Haslam (1997a) examined the phylogenetic precursors of the RMs, Fiske (2000) has recently discussed the evolutionary status of the models in broader terms. He offers the models as examples of "cultural coordination devices" for which humans have evolved proclivities. These proclivities have been selected to support and channel the learning, construction, and enactment of local cultural paradigms and for discerning these paradigms in the process of social learning. Culturally specific forms of social coordination are based, by this account, on a form of coevolution of congruent proclivities and cultural paradigms. In this "complementarity theory," the relation between the universal and culturally specific aspects of the RMs is clarified, and their development is understood as the child's active externalization of proclivities in guided search of their local realizations, rather than as internalization.

Emotion

The evolutionary implications of RMs theory have been further exploited by TenHouten (1996, 1999a, 1999b, 2000) in a series of papers presenting a "socioevolutionary" approach to the emotions. TenHouten strives to give sociological content to Plutchik's (1980) evolutionary account of the emotions, which represents eight primary emotions as adaptive reactions to the negative and positive polarities of four basic existential problems of life: territoriality, hierarchy, temporality, and identity. TenHouten (1996, 1999b) proposes an isomorphism between these survival-related themes and the RMs, such that the models figure as "sociological generalizations" of the themes that were evolved to enable them to be addressed collectively. Territorial issues of ownership and control of resources are linked to MP, hierarchy linked straightforwardly to AR, temporal issues of reproduction and loss linked to CS, and identity concerns related to acceptance as an equal member of a group linked to EM. Implications are drawn for likely emotional responses to social situations in which people are successfully or problematically engaged in social relations of a particular kind. For example, CS relationships are proposed to have privileged connections to joy and sadness, and AR to be associated with anger and fear.

In addition to these wide-ranging speculations on their affective linkages, TenHouten (1999a, 1999b) argues that the RMs are associated with four distinct forms of time consciousness which are especially evident in cross-cultural perspective. MP, for instance, is aligned with a form of linear time consciousness suitable for quantitative measurement and the figuring of ef-

ficiencies. CS, in contrast, carries with it a "patterned-cyclical" sense of time marked by strong links of the present with the past which are re-enacted in repetitive fashion by ritual and ceremony. Temporal modes such as this are preferentially associated with distinct modes of cognition, ranging from more holistic "Gestalt-synthetic" processing for CS to the more "logico-analytic" reasoning characteristic of MP. TenHouten proposes that the RMs involve two polarized pairs—CS versus MP and AR versus EM—and that AR is linked to MP in an "agonic" couple, and EM with CS in a "hedonic" couple. Although this reduction of Fiske's tetrad to polarized pairings runs counter to his theory, it nevertheless makes heuristic connections. It is somewhat consistent with Francis and Jackson's (in press) finding that people are more emotionally vulnerable to discrepancies between their self-concepts and how others think they ought to be when they are in CS and AR rather than EM or MP relationships with these others.

Psychoanalysis

Although Fiske (1991a, 2000) gives an account of the learning of the RMs, both in concrete terms of their order and age of emergence and in the abstract language of externalization, little theoretical or empirical work has been done on social development from a RMs perspective. The one exception is a paper by Forsyth (1995) that examines the mapping of the RMs onto psychoanalytic concepts. Consistent with the psychoanalytic emphasis on earlier stages in psychosocial development, Forsyth argues that CS and AR are the most fundamental social logics and presents EM and MP as essentially derivative. In view of their respective ages of appearance and their formal complexity, CS and AR are linked to preoedipal and oedipal themes, respectively, with the oedipal conflict itself corresponding to the overlaying of a rivalrous and asymmetrical triadic relationship onto the child's earlier dyadic relation with its mothering figure. Aside from these and other conceptual links, Forsyth makes the useful observation that individual differences in the salience of particular models may reflect developmental experiences.

Trust

Two pairs of theorists have explored the ways in which the RMs illuminate the study of trust. Earle and Cvetkovitch (1997, 1999) used the RMs taxonomy to test a theory of "social trust" in the context of environmental risk management. Against a rationalist account of trust in institutions, according to which trust depends on empirically demonstrated competence and responsibility, they argued for a value similarity account by which trust is assigned according to cultural values that institutions narratively represent or espouse. Con-

sistent with general prediction, judgments of trust in a fictitious environmental agency depended on the match between people's environmental values, classified according to the RM taxonomy, and the cultural values expressed in messages issuing from the agency. This finding indicates that the RMs capture elements of environmental values and mediate responses to social-psychological processes like the assignment of trust.

Sheppard and Sherman (1998) go beyond this indirect influence of the models on trust, proposing that the very quality and level of trust varies according to the prevailing RM (see chap. 10, this volume). They suggest that the models are underpinned by bipolar dimensions involving the range, importance, and frequency of interaction (shallow vs. deep) on the one hand, and the degree of contingency between the persons within a relationship (dependent vs. interdependent). CS and AR relationships are relatively deep in these terms, and CS and EM relatively interdependent. Levels of trust and of interpersonal risk vary predictably between the models when they are located within this schema.

Cultural Dimensions

One mapping between the RMs and another set of constructs has been proposed by Triandis and Gelfand (1998), who argue that the models are associated with the dimensions of individualism and collectivism. The former is understood as a social pattern involving loosely collected individuals driven by personal goals and independent self-understandings, the latter as a pattern of connectedness in which people give priority to collective norms, duties, and goals. These "cultural syndromes" have been influential in the comparative study of cultures and in organizational research, and afford a way for established differences among cultures to be reconceptualized as different degrees of implementation of the four RMs. Triandis and Gelfand distinguish vertical (ranked, unequal) and horizontal (egalitarian, similar) forms of both individualism and collectivism, and suggest that collectivism corresponds to CS, individualism to MP, the vertical dimension to AR, and the horizontal dimension to EM.

In a study testing these predicted associations between the two theoretical schemes, Vodosek (2000c) examined consulting group members' judgments of relationships within the group and of the recommendations generated by the group ("outcomes"). Group members' scores on Triandis and Gelfand's (1998) scales for assessing vertical and horizontal individualism and collectivism generally failed to correlate strongly with the RMs. MP was correlated with vertical but not horizontal individualism, CS was associated with horizontal but not vertical collectivism, and EM was associated with horizontal collectivism but not individualism, and all of these findings obtained in judgments of group outcomes only. All associations between the

two systems were weak as well as inconsistent, suggesting that there is less redundancy between them than Triandis and Gelfand (1998) proposed. However, limitations of the study, such as its correlation of general individualist versus collectivist dispositions with contextually bound RM judgments suggest that these associations are worth pursuing in future research.

In a similarly cultural vein, Earley (1997, 1998) applied RMs theory to the study of "face," proposing that different dimensions of face are salient in societies whose social exchange practices are governed by particular models. A dimension involving the person's position within a social hierarchy is most prominent in societies with preponderantly AR and MP exchange practices, and a dimension involving conformity to rules for moral conduct is most prominent in societies in which exchange is governed more by CS and AR.

SECTION 4: CONCLUSIONS

This chapter began with a list of general desiderata for scientific theories. How well has RMs theory measured up to these standards? Any assessment is provisional, given that the research literature is steadily growing, and needless to say this assessment is not impartial. Nevertheless, the research conducted to date allows some tentative judgments to be made.

One of the basic requirements of any theory is that its explanatory concepts correspond to real, demonstrable entities or processes. As reviewed in Section 1, the structural component of RMs theory has accumulated a large amount of empirical support. A series of studies has confirmed and replicated all of the structural postulates of the theory. The models have been found to correspond to four distinct and discrete categories, and the descriptive features of each appear to cohere as hypothesized. Whether the four models are exhaustive is harder to establish, but there is evidence (Haslam & Fiske, 1992) that there is no major dimension of social relations captured by its alternatives that it does not encompass, and these alternatives tend to be less exhaustive. With only four explanatory entities, its coverage is not purchased at the expense of economy, another theoretical desideratum. In sum, the evidence for the structural adequacy of RMs theory is probably stronger than the evidence for any other relational taxonomy.

Our review of the influences of the RMs in Section 2 allows a tentative assessment on some of the other criteria set out at the beginning of the chapter. The range of phenomena that they have been used to explain is quite plainly very extensive, ranging widely over individual and collective levels of analysis, from cognitive psychology to organizational behavior, and from relationships between multinational corporations to the oedipus complex. However compelling individual studies and conceptual analyses may be, this diversity demonstrates that theorists and researchers have found the

theory to be effective and versatile. The theory has shown itself capable of accounting for a large variety of phenomena as well as offering an integrative understanding of existing accounts that offer more partial understandings subsumable under one of the models. Its breadth of application also speaks to a desirable capacity to inspire a range of research programs, both empirical and theoretical.

Our review of research also indicates that the theory has stood up quite well to comparisons with other theories. Although the field of relational taxonomies is somewhat sparse and comparative studies rare, RMs theory has yet to be clearly outperformed in an empirical test and has predicted a variety of phenomena—including slips, lay understandings of relational structure, and psychometric structures underlying personal relationships—at least as well as its alternatives. When the focus of comparison is changed to culture an equally positive conclusion can be drawn. Not only have the RMs been found to be readily applicable to ethnographic studies in West Africa and Papua New Guinea, not to mention a great deal of secondary ethnographic material worldwide, but several of their effects that were first established in the United States have been replicated in other cultures. The theory can therefore make a relatively strong case for universality.

A theory that purports to synthesize a great deal of previous thought leaves itself open to the “old wine in new bottles” critique, and a hostile critic might be inclined to question how far RMs theory goes toward offering original understandings of familiar phenomena or falsifiable predictions about new ones. Ideally, of course, a theory ought to do both. It is true that a large proportion of research using RMs theory employs it in an interpretive rather than hypothesis-testing manner, and throws support back onto the theory by the cogency of its analyses rather than by the survival of Popperian tests. Nevertheless, the theory has shown itself not to be predictively empty, and has yielded a large number of empirical studies with overwhelmingly supportive results. The fair-minded reader would also grant, I think, that many of the more theoretical or conceptual analyses reviewed here also offer valuable reframings of existing fields of study, pointing to new ways of thinking about a range of phenomena or indicating that some existing theoretical accounts of particular phenomena rely implicitly on a single model. Revealing the limiting assumptions of existing theoretical accounts and the possibility that several perhaps equally plausible alternatives may exist is surely one way in which a theory can establish its ability to yield new understandings.

Directions for Future Research

In view of its youth, dispersion across disciplines, and wide range of application, research on the RMs has inevitably been thinly spread. It is therefore difficult to single out areas that seem especially promising for future

research efforts or to be in need of further refinement. To this reviewer, a few areas do stand out all the same.

First, there has been almost no systematic work on the factors that influence the “choice” of model to be implemented in particular contexts. This question can be pitched at multiple levels, from why most societies tend to organize certain relationships according to particular models to why individuals of particular social positions or life histories tend to employ particular models on specific occasions. Research suggests that partial answers could be found at the levels of adaptive functionality, social ecology, learning history, political ideology, negotiation between initially discrepant interactants, and self-interested or strategic figuring. Whatever shape such analyses take, however, at present it is clear that we know with much more confidence *that* the models exist and *what* they influence than we do about *when* they are used and *why*.

Second, we know precious little about the developmental aspects of the RMs, aside from Fiske's (1991a) speculations about their ages of origin and the “externalization” view of social learning, and Forsyth's (1995) psychoanalytic reconceptualization. The ontogenetic development of the RMs should be a research priority. As a side note, it is also notable that there has been no longitudinal research on the development (or decay) of relationships of different sorts. In theory, the dynamics of relationship change should show some interesting discontinuous features, when one predominating model gives way to another.

Third, although RMs theory has unusually strong cultural credentials as a psychological theory, there has been no systematic research on cultural comparison in terms of the models. The cultural universality of the models and their role in social cognition and action has been supported in several studies, but we know little about how cultures differ in their “preferences” for particular models either in general or in relation to specific kinds of relationships. How such preferences map onto established dimensions of cultural comparison awaits further study.

Fourth, the general area of relations among relations—how relationships governed by particular models combine, interlock, or conflict with one another—has yet to attract adequate theoretical or empirical attention. This is an important task in linking dyadic interpersonal relationships to social organization more broadly, and should extend and deepen our understanding of the relational embeddedness of social cognition. It might also draw fruitful connection to work on social networks whose disciplinary home base of sociology is underrepresented in research and theory on the RMs.

Fifth, although substantial work has been addressed to the RMs themselves, little attention has been paid to specifying the nature and form of the implementation parameters that enable them to be realized in concrete relationships. Ideally, future research might begin the task of modeling and

giving a theoretical account of these parameters, without which they risk functioning in a manner akin to unanalyzed error terms within the theory.

Other directions for further research readily come to mind. This reviewer has high hopes for continued work on individual differences, for applications of laboratory-based implicit cognition methodologies, and for a swelling of the encouraging voices within organization studies. The good news for prospective researchers is that so much remains to be done.

All in all, this review of the research literature on the RMs presents a picture of growth and diversity. RMs theory has generated or seeded a wide variety of empirical studies and conceptual explorations, and these have, in turn, given a generally positive report on its standing as a theory. It seems reasonable to expect that its second decade sees further development and consolidation.

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