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**DISCORD IN RELATIONAL MODELS AS A SOURCE OF
INTERPERSONAL CONFLICT**

by

BARTON POULSON

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

1999

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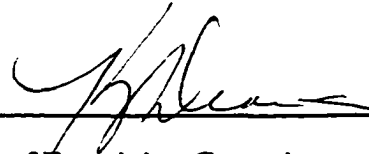
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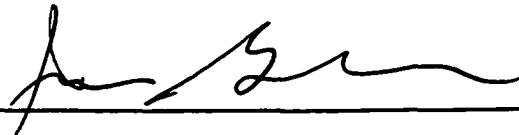
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This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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ABSTRACT

DISCORD IN RELATIONAL MODELS AS A SOURCE OF INTERPERSONAL CONFLICT

by

BARTON POULSON

Adviser: Professor Kay Deaux

Three experiments examined reactions to social conflicts involving A. P. Fiske's (1991, 1992) four Relational Models (RMs): Communal Sharing (CS), Authority Ranking (AR), Equality Matching (EM), and Market Pricing (MP). Because each relational model has a different logical structure, any operations and relations based on one RM may be unintelligible or incommensurable with another RM. Consequently, conflicts in which people use different RMs (i.e., between-model conflicts) were hypothesized to lead to more negative reactions than conflicts in which people use the same RM but otherwise disagree (i.e., within-model conflicts). This may be called the congruency hypothesis. Additionally, it was hypothesized that if the RMs are ordered (e.g., according to permissible logical operations or formality) then reactions would be stronger for greater discrepancies (i.e., the distance hypothesis). Finally, stronger reactions were predicted when partners use RMs that are more formal than expected compared to when less formal RMs are used (i.e., the direction hypothesis).

Study 1 provided a preliminary investigation of these hypotheses but results were uninformative due to substantial differences in the valence of the interaction outcome.

Study 2 controlled for outcome differences and extended the range of behaviors described.

The congruency and direction hypotheses were contradicted, whereas the distance hypothesis was partially supported (i.e., the largest discrepancies elicited more negative reactions than did the smaller discrepancies). In Study 3, the congruency and direction hypotheses were again contradicted, whereas no effect was found for distance. Moreover, both studies revealed special roles for conflicts involving CS and EM.

One possible reason for the general failure of the data to agree with the hypotheses may be the moderate valence of the conflicts used in these studies. In addition, the lack of clear cultural standards of acceptability of behavior may have contributed to the lack of support for the hypotheses. A third possibility is that the implications of the RMs and RM conflicts are different for positive interactions than for negative interactions. Further research is proposed to investigate each of these possibilities.

DEDICATION

Many people have helped me gain a vision of how I fit in the world. They have encouraged and guided me in my academic pursuits and always insisted that I make positive, meaningful contributions.

Tomi-Ann Roberts first introduced me to Social Psychology. She shared her love for the field with me and showed me how an academic researcher could be passionately involved in significant social issues.

Lynn and Ellina Poulson, my father and mother, supported me in my academic career both financially (for much of it) and emotionally (for all of it). They gave me the courage to do what I felt I needed to.

J. Richard and Jacqueline Bell, my father- and mother-in-law, have trusted and encouraged me consistently, in addition to giving my wife and me a safe place to stay while I finished this work.

Jacque Lynn Bell, my wife, is the one who really made this all happen. Several years ago, I was going to abandon my education to be with her but she made me see the importance of this work and gave me a vision of the good I could do with it. She has kept me focused on the need for education and service to make life meaningful. Thank you, Jacque.

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Many others have been critical in my efforts to understand Relational Models Theory and apply it to the resolution of conflict. I thank Drs. Alan Page Fiske, Robert Folger, Michele Gelfand, Holly Arrow, Debra Connelley, David Ho, and Keith Allred for their willingness to discuss the theory with me and give me vital insights into conflict and social relations.

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INTRODUCTION

Conflict is a possibility anytime people interact. Consider how a person might react to these episodes:

- Rita's best friend Stephanie throws a big party for a mutual friend but doesn't invite Rita.
- When Michael graduated from high school his parents gave him an old Dodge station wagon. When his sister Alice graduated from high, she was given a new Acura coupe.
- Dave is a starving artist and his friend Orlando is a well-to-do doctor. Orlando takes Dave out to dinner at a very expensive restaurant and then asks Dave to split the bill, which he can't afford.
- NBA star Karl Malone has been the pride of the Utah Jazz for almost a decade. Many Utah residents have regarded him as one of the most positive aspects of their state. Recently, however, Malone said that he was underpaid and underappreciated and that he would never play in Utah again. This has provoked the ire of local residents, leading to the defacing of his ads and the near boycott of his car dealerships.

In each of these situations, someone's expectations were contradicted, often leading to conflict between the people involved. Obviously, conflicts can involve different people with different expectations in different situations, but certain patterns may be discerned. In the four episodes described above, certain changes in the fundamental structures of the relationships were involved. Research by Fiske (1991, 1992; Fiske & Haslam, 1996) demonstrated that four fundamental logical structures, or relational models, are used universally by people to organize their social relations (these relational models will be

described more fully below). Using Fiske's framework, the first two interactions were logically consistent although the person's specific expectations were still contradicted. That is, different conclusions were reached using the same logical approach. In the first example, Rita and Stephanie took the two different sides of an all-or-none logic to the party (you are either invited or not invited). In the second example, Michael's parents felt it was important to give each child the same thing at graduation: a car. Michael also felt that he and his sister should receive the same thing: a car of equal value. Michael and his parents were both trying to use balance and equality in their relationships but they were defining equality differently.

In contrast, the expectations in the second two interactions were not logically consistent. In the third example, Dave expected his friend Orlando, who has much greater resources, to provide for his poorer friend. Dave believed that people with more social resources or power should take responsibility for others. Orlando, meanwhile, saw Dave as an equal peer (perhaps not monetarily but in other important ways) and therefore felt that splitting the bill would be a way to honor their equal standing. In the last example, Utah residents believed that they had a communal, unconditional relationship with Karl Malone. Malone, however, felt that the validity of the relationship was contingent on his salary. In these last two examples, a logical contradiction exists: Dave and Orlando cannot be both equal and unequal in social power (at least as far as paying for dinner is concerned) and Utah residents and Karl Malone cannot have a relationship that is both contingent and unconditional.

The differences between these sets of interactions—i.e., between conflicts in which the underlying logic is shared and those in which the logic differs—can lead to differences in reactions to the conflicts. Affective, behavioral, and cognitive reactions to conflict may all vary according to the common or divergent use of underlying relational logic. This research examines whether reactions to social conflict reflect this pattern of structural differences (i.e., logically consistent or inconsistent expectations and behavior). This

research relies on the Relational Model Theory (RMT) of Alan Page Fiske (1991, 1992). However, researchers and practitioners in many fields have emphasized the importance of relationships in psychological health and functioning. The work by these people lays the foundation for Fiske's synthesis or unified model of social relations.

Approaches to Relationships

The centrality of social relationships in life is illustrated by a belief found in certain Asian cultures. As explained by Ho (1998), the Hindu doctrine of karma and reincarnation and the related secular Chinese belief of yuan (meaning a predestined relationship) involve the continuation of social obligations beyond death. According to these belief systems, a person may be reincarnated specifically to repay a past debt, either by expressing gratitude, by repaying an obligation, or by seeking vengeance for a wrong. According to this system, the relationship persists, even when the life of the person does not. A multitude of psychological researchers and practitioners has given similar precedence to relationships in shaping a person's life. Relationships have been emphasized in psychoanalytic theory, sociology, economics, anthropology, and social psychology.

Psychodynamic theories of identification and attachment

In contemporary psychological theory, some of the earliest work on the importance of relationships was by Freud. For example, the theories of the Oedipus and Electra complexes (Freud, 1923, 1924) foregrounded interpersonal desire, fear, and social identification. Central to the theory was the idea that a young child learned how to become masculine or feminine by first challenging and then identifying with the same sex parent. Although Freud's theory of the motivation for identification (i.e., sexual desire for the opposite sex parent and fear of the competing parent) has been strongly criticized, it nonetheless pointed out the significance of social relations.

As a student of Freud's, Erikson expanded on the importance of relationship with his theory of psychosocial development (1950, 1982). Erikson's theory proposes that certain relationships are central to healthy development. Examples include the relationship

between an infant and a caregiver in the stage “trust versus mistrust” or the relationship between a young adult and a loving, intimate partner in the stage “intimacy versus isolation.” Unsuccessful relationship formation in these stages was hypothesized to lead to perceptions of the world as basically cold and hostile or to a profound sense of isolation.

A different take on infant relationships with parents can be found in object relations theory. Also based on Freud’s work, object relations theory (Klein, 1975; Kohut, 1984) is concerned with how an infant’s relationship experiences with important others become part of the self. These early attachments form a schema or map of social objects (i.e., significant people in the person’s life) toward which libidinal energy is directed. These object schemas can then strongly affect current relationships. It was claimed that successful object relations as an infant were vital for emotional stability as an adult.

Bowlby (1969, 1973, 1980) took some of the ideas of object relations theory and elaborated on them to explain infant attachment to caretakers. According to Bowlby, a caretaker needs to be accessible and responsive to the infant’s needs if healthy relationships are to result. In a series of studies, three general attachment styles were described: secure, insecure/avoidant, and insecure/anxious-ambivalent. As with object relations, children were believed to develop maps or mental models of themselves (as worthy or unworthy of love and support) and the people to whom they were attached (as dependable or undependable).

Other researchers have taken Bowlby’s ideas and translated them into the social-cognitive language of experimental psychology (e.g., Bretherton, 1985). A particularly powerful experimental extension of Bowlby’s work was provided by Ainsworth, Blehar, Waters, and Wall (1978). These researchers created a standardized situation, called the “strange situation,” for investigating how infants would react under a number of threatening conditions (e.g., in a new location, in the presence of a stranger, alone in the location) which could constitute violations of the infant’s relational script or map. The researchers were particularly interested in how the infant would react when reunited with the parent. The data obtained were consistent with Bowlby’s work: infants can be

categorized by their reactions to the caregiver's return as securely attached, avoidant, or anxious/ambivalent (with subgroups for each attachment category).

Patterns of attachment and reactions to relational violations can have far-reaching consequences. A substantial body of research (e.g., Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996; also see the review by Berscheid, 1994) discusses the relevance of attachment research to adult relations. People of all ages need predictable, reliable partners in order to form satisfying, secure relationships. This, however, leads to the need to describe how people mentally form and represent their relationships with others.

Parsons and Shils' Pattern Variables

Parsons and Shils (1951) work on social relationships was particularly influential in American sociology for several decades (Haslam & Fiske, 1992). After a critical analysis of Toennie's (1935) and Weber's (1946) work on social relations, Parsons and Shils proposed five dichotomies, called "pattern variables," to explain social expectations. That is, before engaging in an interaction, a person must define the interaction by choosing one part or the other of each dichotomy. If the five choices are not made, the situation is indeterminate and compromised. The first pattern variable, "affectivity versus affective neutrality," addresses the extent to which a person considers consequences before pursuing gratification. The second, "self-orientation versus collectivity-orientation," concerns the extent to which a person considers the consequences of their personal actions on groups or moral codes. The third pattern variable, "universalism versus particularism," refers to how much a person adapts his or her behavior to the specific person with whom he or she is interacting. The fourth, "ascription versus achievement," concerns the extent to which a person considers the actions (i.e., achievements) or inherent qualities (i.e., ascribed characteristics) of the interaction partner. The final pattern variable, "specificity versus diffuseness," refers to the extent to which people limit or circumscribe their interactions to situationally specified behaviors or allow the possibility of more extensive social behaviors. This scheme of pattern variables became very influential in American sociology for many

decades but does not appear to address significant aspects of social interactions such as social conflict.

Dimensional approach

In personality psychology, another approach has been particularly influential. Using factor analysis or multi-dimensional scaling, several researchers (e.g., Kiesler, 1983; Leary, 1957; Wiggins, 1979) have found two-dimensional systems for describing social relations. The first dimension has been labeled by various authors as love/hate, friendliness/hostility, or simply positive/negative. A second, orthogonal dimension has been called dominate/submit, active/passive, or control/autonomy. In the theory of the structural analysis of social behavior, Benjamin (1974) presents a synthesis and extension of the circumplex model of social behavior. Benjamin used the terms affiliation and interdependence for the first two dimensions and added the dichotomous distinction of active/passive, or parentlike/childlike. (Benjamin actually had a third category called “introject” or self-directed, but that is not relevant here.) Benjamin’s contribution was to use the resulting charts of social behaviors to describe behavioral complements, opposites, and antidotes. A behavioral complement is one that occupies a topologically similar place (i.e., similar values on the affiliation and interdependence dimensions) but that varied on the active/passive dichotomy. For example, the complement of “stimulate, teach” (which is an active behavior high in affiliation and interdependence) is “absorb, imitate (a passive behavior, also high in affiliation and interdependence). A behavior is said to “pull” for its complement, or bring it out in the interaction partner. The opposite is “neglect, ignore” (an active, or parentlike, behavior low in affiliation and interdependence). Moreover, in Benjamin’s theory, the antidote to a behavior (i.e., the most appropriate way to change another person’s behavior) is the opposite of the complement. The antidote would be used most often to change another person’s negative behavior. For example, the antidote to “shout, criticize” is “display, court.” According to Benjamin’s system (and other circumplex systems), interactions are sensible to the extent that they involve complements,

opposites, or antidotes. This is not to say that the relationship is satisfying—the opposite of “embrace, tender, touch” is “murderous attack”—but it is interpretable at the logical level as the diametric opposite of what was intended. On the other hand, “obey routines” has no clear logical relation to “embrace, tender, touch.” Consequently, it would not be interpretable as a response in a social interaction. One application of this system could be to conflicts, in which the reactions to logical opposites or antidotes could be compared with reactions to illogical interaction combinations. Benjamin (1974) reported data in which patterns of reactions that are not consistent or logical can be especially confusing and upsetting.

Another way of defining interpersonal dimensions was presented by Brown (1965). Operating under the assumption that language accurately reflects social relationships, Brown uncovered dimensions of social relations by analyzing forms of address over hundreds of years in English and in many different cultures and languages. Patterns were found in the use of familiar and formal pronouns (e.g., tu and vous in French, or, historically, thee and you in English) and the use of first names versus titles and last names. The patterns corresponded to the dimensions of status and solidarity. These dimensions were not only reflected in linguistic use but also in personal characteristics, spatial relations, sentiments, behavior, and various social symbols. To the extent that use of forms of address was inconsistent or unclear, relations were seen as uncomfortable and in need of resolution. For instance, conflict could be reflected in the persistent use of last names when first names were expected (i.e., resistance to closeness) or vice-versa (i.e., insulting over-familiarity).

Exchange and equity theories

Although the dimensional approach has been very influential in describing personality and interpersonal relations, other approaches have also proven useful. Exchange and equity theories, for example, consider the objects of exchange and the manner in which they are exchanged as the data of relationships.

Thibaut and Kelley (1959) were among the first in social psychology to study the exchange patterns of relationships. Using 2 x 2 cost/benefit matrices to structure interdependence, Thibaut and Kelley discovered four principles that influenced the extent of conflict and cooperation. Conflict became stronger as: (a) the number of competing responses increased; (b) the competing responses became more incompatible or interfered more with each other; (c) the absolute strength or intensity of the responses increased; and (d) the relative strength of the responses approached equality. The experimental work of Thibaut and Kelley proved to be very lasting and amenable to research. The game theoretic approach to social relations reached its zenith in the work of Becker (1976), who presented a formalized, axiomatic, economic approach to social relationships (e.g., mate selection or divorce). A guiding assumption to this approach is that all social interactions can be reduced to some form of maximization behavior guided by utility or some other symbolic value.

Aspects of this approach may also be seen in sociobiology (Buss, 1994), which represents one form of exchange theory in relationships. According to this theory, social behaviors that maximized the reproduction and perpetuation of particular genes become dominant in the behavioral repertoire through the process of natural selection. In a stereotypical exchange a woman's youthfulness and fertility is balanced by a man's ability to provide and protect (Buss, 1994). In such an exchange, which is believed to be universal (Buss, 1989), an economic ideal is reached as genes maximize the ratio of benefits to rewards (see Dawkins, 1976, on the "selfish" nature of the gene). Conflict, then, would generally concern impediments to reproduction maximization. However, the theory does not go into more detail regarding the sources and resolutions of conflict.

In summary, the exchange models of social relationships often have the benefit of mathematical precision and the sheen of hard science. Most of them also involve the social psychological principle of perceptualism—that is, they focus on the subjective perceptions of what constitutes a fair or favorable exchange (Moghaddam, 1998). On the other hand,

the equity theories tend to be exceptionally cognitive. As such, they often miss the tremendously strong affective responses that can accompany social interactions, particularly social conflicts. Additionally, most exchange/equity approaches to relations are overly monistic in that they reduce relations to a single metric of utility or hedonism. Thus, they fail to capture the rich array of alternative motivations in social actions. Other theories for describing relationships have overcome some of these shortcomings. Some of these are extensions to exchange/equity theory, whereas others take completely different approaches.

Mills and Clark (1984), for example, took a slightly more elaborate approach to relationships by discussing communal relationships in addition to exchange relationships. Building on Goffman's (1961) distinction between social and economic exchange, Mills and Clark distinguish between benefits (i.e., something that is of use or value to the recipient) and rewards, or "the pleasures, satisfactions, and gratifications the person enjoys (Thibaut & Kelley, 1959, p. 12). In exchange relationships, benefits are given with the assumption that they (or other benefits) will be returned. This is what Pruitt (1972) called the "norm of mutual responsiveness." Benefits in communal relationships, on the other hand, are non-contingent. Instead, partners are expected to be responsive to the other's needs. In addition, communal relationships vary in strength, whereas exchange relationships are all or nothing.

In an experimental study of interpersonal norm violations (Clark & Mills, 1979), unmarried male participants were led to desire either a communal or an exchange relationship with an attractive female confederate. When the confederate violated the expectations (i.e., by behaving in a communal manner when an exchange relationship was desired, and vice-versa), she was judged as significantly less attractive and less likable than when she acted in a manner congruent with the relational expectation. Mills and Clark recognize, however, that their approach, while more varied than simply exchange or equity theories, does not address all possible kinds of relationships.

Foa and Foa's (1974) theory of resource exchange represents a more complete catalog of social interactions. They classify relationships according to the content matter that is exchanged in the relationship. Foa and Foa identified six resources that may be exchanged when people interact. They are love, status, information, money, goods, and service. The resources are differentiated in a developmental process (i.e., an original required resource of warmth, softness, care, and food eventually becomes the six others). The six resources may also be arranged in a circumplex using the two dimensions of particularism (e.g., love is the most particular or tailored to the individual with whom one is interacting and money is the least particular) and concreteness (e.g., services and goods are the most concrete, whereas status and information are the least concrete). The six resources can also be aligned to various social needs (e.g., status and love together compare to the need for approval, whereas status and information satisfy the need for competence). This approach can be used to study reciprocity or frustration. For instance, Dollard, Doob, Miller, Mowrer, and Sears (1939) defined frustration as "an interference with the occurrence of an instigated goal response at its proper time in the behavioral sequence" (p. 7). However, this definition is not specific about the types of goal responses that can be blocked and whether frustration differs according to the resource or goal involved. Foa and Foa point out that having a comprehensive theory permits more careful and detailed studies of frustration and aggression, in that the theory makes possible the differentiation of previously confounded constructs. A comprehensive theory can also point out areas of conflict that were previously ignored in research. This is one of the benefits of a comprehensive theory of social interactions. However, other classification strategies for social relations have been proposed that may also serve this purpose well.

MacCrimmon and Messick (1976) also built a comprehensive theory of social relations by using a mathematical approach not unlike that of Thibaut and Kelley (1959) or Becker (1976). MacCrimmon and Messick constructed forms of relationships by combining logical operations (e.g., addition, division, etc.). They derived 10 motives: self-

interest, self-sacrifice, altruism, competition, proportionate competition, cooperation, proportionate cooperation, equalitarianism, and minimax (which means making choices so that the person who is worse off is then better off—i.e., improving one without demoting the other). Simple and complex combinations of motives are also possible. This approach facilitates the diagnosis of motivations (e.g., only a few questions about preferences between behavioral alternatives are necessary). The detail provided by the theory allows more precise discussions of motives and can help explain why small changes in the structure of a situation (e.g., the Prisoner's Dilemma) can cause behavior to rapidly change from competition to cooperation and back again. However, MacCrimmon and Messick's approach is thoroughly cognitive. As such, it does not address the emotional components of relations and social motivations.

Relational Schemata and Scripts

A different approach to studying relationships has been used by Baldwin (1992), who focused on the knowledge structures associated with relationships instead of the forms of relationships per se. Aside from permitting a much more idiosyncratic picture of relationships (i.e., one that changes from person to person and across time), Baldwin's discussion ties relationship research into the well-established research topics of schemas and scripts. Relational schemas as discussed by Baldwin (see also Ginsberg, 1988) consist of a schema for self, a schema for other, and a script (which includes thoughts, feelings, and actions of other). Baldwin's discussion consists mainly of the ways that schematic effects on the perception, encoding, and recall of information are also manifest in thinking about relationships. Research by Altman and Taylor (1973) supports the significance of social schemata by demonstrating that persons who adhere more closely to social-established and accepted scripts for interpersonal behavior (e.g., appropriate levels of self-disclosure) are more successful at establishing satisfactory relationships with others.

Abelson (1981; Schank and Abelson, 1977) defined scripts as "expectation bundles" (Abelson, 1981, p. 717) that contain simplified, flexible action rules. Things go

wrong with scripts when interference disrupts the continuity of the script. Interference can take the form of obstacles (e.g., not having a car is an obstacle to driving to work) or errors (e.g., if you are driving from Queens to Manhattan, then missing an off-ramp and going across the George Washington Bridge is an error in driving to work).

Anderson's (1983) ACT* (for Adaptive Control of Thought) model of cognition provides an even more formal definition of scripts and schemas. Working within the field of cognitive science, Anderson divides knowledge into declarative knowledge and procedural knowledge. Declarative knowledge consists of specific facts and can include abstract ideas and concepts. (i.e., semantic knowledge) as well as information about specific past events (i.e., episodic memory). Procedural knowledge, on the other hand, concerns of the rules of behavior (e.g., if-then statements), including how to accomplish specific tasks such as social interactions. Declarative knowledge is usually quickly learned and often quickly forgotten. In contrast, procedural knowledge is more difficult to learn (and to articulate) but much more durable (Lefton, 1997). As a model of thought to be used in the development of artificial intelligence, Anderson's theory is successful in explaining certain target behaviors such as success or failure at deriving mathematical proofs. However, it does not address the reflexive and interactive nature of social cognition, nor does it address affective or motivational components of social interaction. The ACT* model is therefore of limited heuristic value to understanding social conflict. It is, however, important because it underscores the importance of procedures and scripts in knowledge. Social knowledge, in particular, is particularly detailed as to the procedures to be used in particular situations. It is not surprising, therefore, that research has shown that interpersonal scripts or procedures have been particularly important in shaping conflict and justice.

Conflict and Justice

Conflict is a difficult term to define adequately. According to Gall, Beins, and Feldman (1996), conflicts are “disagreements resulting from the incompatible or opposing needs, drives, wishes, or internal demands” (p. 83-84). This, of course, is a classical definition, one that reflects Sherif’s (1966; Sherif, Harvey, White, Hood, & Sherif, 1961) work on the realistic conflict model, which emphasized that competition for scarce resources is the root cause of conflict. However, this definition of conflict does not address the more psychological causes of strife. Reber (1985) came closer when he said that conflict is “an extremely broad term used to refer to any situation where there are mutually antagonistic events, motives, behaviors, purposes, impulses, etc.” (p. 146). Coser (1994) probably came the closest to the process part of conflict when he defined conflicts as “a struggle over values or claims to status, power, or scarce resources, in which the aims of the conflicting parties are not only to gain desired values but also to neutralize, injure, or eliminate their rivals.... There are conflicts within the rules of the game and conflicts about the rules of the game. The first type of conflict may lead to new adjustments and reforms, whereas the second type is likely to lead to breakdown or revolutionary change” (pp. 103-105). Conflicts over procedures and social relations typically represent the second kind of conflict—struggles over the very rules of the game. Several research projects in the justice domain have investigated these conflicts specifically.

Distributive & Procedural Justice

In a theoretical paper, Deutsch (1975) stated that to function adequately, groups need at least a modicum of productivity, solidarity, and nurturance of the group members. Principles of distributive justice can help, in theory, to meet each of these needs. Equity, which is based on equal ratios of contributions and benefits, is well suited to promote productivity. Equality, which means that each person in the group receives exactly the same amount of the distributed item, promotes solidarity and harmonious social relations. Finally, need, in which people are given what they need regardless of performance or what

other people receive, nurtures the group members by promoting personal development and personal welfare. Deutsch (1985) describes several experimental tests of these hypotheses. Groups of participants completed tasks using the three distribution strategies previously described (equality, equity, and need) as well as a fourth, winner-take-all. Surprisingly, the distribution strategy affected productivity in only one study. Even then, equality led to the greatest productivity and winner-take-all led to the least. Moreover, winner-take-all and equity led to significantly less cooperation and positive feelings among group members than did equality or need-based distribution of rewards. The manner in which distributions are made (and not simply the outcome assigned) was shown to influence the way that people related to each other, and vice-versa.

Procedural justice represents a complementary aspect of justice research. Thibaut and Walker (1975) were responsible for the first formulations of procedural justice. As the name implies, procedural justice is concerned with the process by which decisions are made. Procedural justice represents a separate dimension from distributive justice, in that many different processes can lead to the same distribution pattern. Thibaut and Walker demonstrated that individuals can be displeased with outcomes that appear to be in their favor (i.e., favorable distribution) but which violate rules of procedure (i.e., receiving a raise due to nepotism and not high work evaluations). The argument advanced was that distributions are discrete events, limited in time and space, so that a benefit or loss incurred in one situation may not occur in another. Processes, on the other hand, continue in time and across situations, so that the implications of just or unjust processes can be much greater for outcomes in the end. Consequently, Thibaut and Walker present procedural justice as a way of ensuring favorable outcomes over an extended period. For this reason, their approach has been called the instrumental approach to procedural justice.

Lind and Tyler (1988; Tyler & Lind, 1992) took another approach to procedural justice. They argued that although just procedures may ensure favorable outcomes, justice may serve an even more important social function. According to their relational or group-

value model of procedural justice (Lind & Tyler, 1988), procedures provide important information about how one is viewed by social groups. Specifically, just procedures can communicate three important factors: (a) standing, or status and respect within a group with which one identifies; (b) neutrality, or the use of objective information in making decisions, which shows the group is not biased against the individual; and (c) trust, meaning the consistent benevolence of the decision-making person or group. Tyler and Lind (1992) liken their group-value model of procedural justice to social identity theory (Tajfel, 1982; Tajfel & Turner, 1979) and self-categorization theory (Turner, 1987). The similarity between the theories is that they all address the individuals desire for self-evaluative information and the source of this information in social comparison. The key difference is that social-identity theory and self-categorization theory focus on intergroup comparisons, whereas Lind and Tyler's groups-value model focuses on intragroup comparisons. Nevertheless, the value of functional, comprehensible social relationships in all three theories is clear.

As a note, researchers have proposed additional principles of procedural justice. For example, Leventhal (1980) discussed six other possible process rules: (a) consistency across people and situations; (b) suppression of bias in the form of personal self-interest and narrow-mindedness; (c) accuracy, in that decisions should be based on the best information possible; (d) correctability, in that decision that may be modified or revised are preferred; (e) the process must be representative of the concerns of all persons and groups involved; and (f) the decision must comply with prevailing moral and ethical standards.

The proliferation of rules and justice principles has the potential to create just as much confusion as order. The situation is comparable to the embarrassment of riches in particle physics in the 1950's, when new, supposedly fundamental, sub-atomic particles were being discovered on almost continual basis. Physics was greatly aided by the theoretical proposal (and later experimental verification) of quarks, which reduced the clutter of particles and reintroduced order and comprehensibility to the field. A similar

unifying theory for social relations (including identification, attachment, exchange, conflict, distribution, and procedure) has been proposed by Alan Page Fiske, in the form of Relational Models Theory (RMT; Fiske, 1991, 1992).

Relational Models Theory

Fiske's great contribution is not that he has invented new principles for organizing social life but that he has brought order and intelligibility to the myriad principles already discussed. His work has also supported the theory that people are inherently relational. That is, it is inaccurate to think of people as isolated, individual units that happen to interact with each other in order to serve individual purposes. Instead, Fiske's work (see, e.g., Fiske, 1991, 1992, Fiske & Haslam, 1996) has shown that people think, feel, and act about and towards other people in inherently social ways. One of the major implications of this is that it is not appropriate to isolate individuals and analyze them outside of their social context, nor is it appropriate to interpret human behavior in purely economic principles of individual payoffs or rewards. People are inherently social and act in ways that preserve and promote their sociality.

RMT was developed through theory and practice in many different domains. In addition to the researchers already mentioned—Foa and Foa (1974), Parsons and Shils (1951), Mills and Clark (1984), MacCrimmon and Messick (1976), Kiesler (1983), and Wiggins (1979)—RMT also synthesizes work from several other fields: in anthropology, Polanyi (1957), Udy (1959), Sahlins (1965), and Malinowski (1961); in sociology, Tonnies (1888/1935), Weber (1915/1946), Buber (1923/1987), Durkheim (1933), and Blau (1964); in psychology, Leary (1957), and Piaget (1973); and in theology, Ricoeur (1967). In addition to these established sources, Fiske's own extensive fieldwork in West Africa provided the practical, deductive source of RMT.

The patterns that Fiske found could be summarized in four Relational Models (RMs) or interpersonal constructs that operate at an abstract, logical level and are believed to be used universally by people in constructing social relations. These RMs are Communal

Sharing (CS), Authority Ranking (AR), Equality Matching (EM), and Market Pricing (MP). CS relationships are based on the idea of categorical inclusion or exclusion. In CS relations, all people in the relationship are treated as identical in some sense and are undifferentiated. Examples of CS relationships may include those between family members (e.g., they may eat together at dinner or they may pool money in a joint checking account) or within ethnic or religious groups (e.g., a person may define him- or herself as Christian and see members of other religions as essentially equivalent). AR relations involve linear ordering or hierarchy, in which certain people (i.e., superiors) are given precedence and others (i.e., subordinates) come after them or depend on the superiors. Examples of AR include military hierarchy (e.g., generals have precedence over colonels who have precedence over captains) and some traditional family structures (e.g., the father runs the family and family members are obedient to his will). The third relational model, EM, assumes strict balance or in-kind reciprocity. Examples of EM include exchanging dinner invitations (e.g., if you have me over for dinner, I invite you over for dinner, after an appropriate delay) or one person-one vote elections in which all people have equal influence. Finally, MP relationships are based on proportional contributions and distribution, such as cost/benefit analyses. Unlike EM, in which tradeoffs are between identical acts or objects, MP strives to balance inherently unequal quantities or objects. Examples of MP include receiving wages for labor or trading three video games for one pair of skates.^{1,2}

Haslam and Fiske (1992) compared the four RMs with the relational categories of Foa and Foa (1974), Parsons (Parsons & Shils, 1951), Mills and Clark (1984), and MacCrimmon and Messick (1976). They concluded that Fiske's RMs described how people thought of their relationships as well as the theories of Parsons and of Foa and Foa and substantially better than Mills and Clarks' and MacCrimmon and Messick's approaches. In addition to providing a sound description of how people actually organize their social relations, RMT has other strengths to recommend it. RMT has provided a

unified description of disparate fields of social inquiry. For example, RMT may be used to describe distributive justice (e.g., Deutsch, 1985; Folger & Buttram, 1993; Folger, Sheppard, & Buttram, 1995), social influence (e.g., Cialdini, 1988), motivation (e.g., McClelland, 1955; Murray, 1938), conflict negotiation (Gelfand, Dominguez, & Nishii, 1998), and other behavioral domains.

Aside from its descriptive, synthesizing value, RMT has provided new insights into important social phenomena. Connelley (1996, 1997), for example, examined how RM conflicts contributed to worker attrition at one corporation. The traditionally white male organization had developed a culture of conformity that alienated women and minorities. Seen as outsiders who were fundamentally different from the company norm, they did not fare well with the company's vaguely articulated promotion policies which primarily involved how well one got along with the other employees. Connelley described the corporate culture as one based on Communal Sharing, in which all white men were seen as part of a group that took care of each other as a family would. In contrast to this norm, the white women that Connelley interviewed described a preference for Market Pricing relations: they wanted to be evaluated based on the quantity and quality of their work, not personal characteristics. The African American men and women she interviewed stated a clear preference for Equality Matching relations, in which all employees would be granted equal recognition and given equal opportunities for promotion, regardless of other criteria. In using Fiske's RMs, Connelley was able to provide a new dimension to the literature on discrimination and injustice. The different RMs preferred by each group highlight the role of relational logic in ingroup/outgroup dynamics. This approach stands in contrast to the more common explanations of economic self-interest or social identity. The categorical, mutually exclusive nature of the RMs also helps explain why compromises can be especially difficult to effect.

Given the strengths of RMT, it seems natural to investigate more thoroughly how this theory can inform interpersonal conflict and other significant social phenomena.

Types of RM Discord

Fiske and Haslam (1996) reviewed evidence from over two dozen studies showing that people from several cultures do, in fact, use RMs in organizing their social knowledge. Social errors (in which one person is mistaken for another), intentional substitutions (e.g., finding a new partner for a game of tennis), order of recall for friends, and personality disorders show that people use RMs more than information such as roles, personality, race, age, or the relational categories proposed by Clark and Mills, Foa and Foa, Parson, or other theories of interpersonal relations.³ Inasmuch as people use one of the four Relational Models to structure their relations in any given interaction, several kinds of conflict are possible. These include conflicts in which both people use the same RM but otherwise disagree and conflicts in which people use different RMs. When people use different RMs, the distance between RMs may impact reactions, as can the direction of the discrepancy. Each type of conflict is discussed below.

Within-RM conflicts

The first type of conflict arises when the interactants use the same RM but otherwise disagree (i.e., within-RM conflict). For example, when negotiating a price for a used car (an MP transaction) the buyer may place more emphasis on the car's mileage whereas the seller may see the maintenance history of the car as more significant. In this example, conflict results because the interactants disagree about how to implement properly the RM.

Between-RM conflicts

Another possibility for discord arises when the interactants use conflicting RMs (i.e., between-RM conflict). For example, in allotting office space, a manager may see AR as appropriate, in which case managers would get bigger offices than their subordinates. On the other hand, an employee may believe that EM would be better, in which case everyone would get equal size offices. This kind of conflict not only involves different objective outcomes but also involves differing logical foundations for the relationship. This

necessarily leads to interpersonal conflict. In this example, the manager is ranking people but not otherwise specifying how much higher one person ranks than another. Instead, all that matters to the manager is that they are not equivalent and can be placed in order. The employee, however, sees the people in the office as equivalent in a meaningful way (e.g., they all work for the company, they all work overtime when projects need to be completed, they are all essential to the company's output, etc.). People cannot be both equivalent and non-equivalent on the same criterion simultaneously. These two approaches represent distinct logical structures. The conflict between the employee and manager, then, is about not only the worth of employees, but also whether it is even appropriate to assign differential worth to employees. The four RMs reflect these differences of underlying logic—none of the RMs can be translated or rendered a special case of any of the others.

Distance between RMs

When people disagree about which RM to use, two other kinds of conflicts are possible. Both kinds of conflicts rely on the order in which the RMs are placed. Twenty-four orders are mathematically possible for the 4 RMs but two orders in particular have received substantial attention. Fiske (1991, 1992) presented the order $CS < AR < EM < MP$, which is based on a progressive addition of logical operations and a developmental sequence. The progression of logical operations parallels that of the levels of measurement (Stevens, 1946). CS relations are essentially nominal, in that a person is either in the relationship group or not (e.g., a child is either your son or daughter or is not, although the criteria for making that decision can vary). AR relations are essentially ordinal, in that one person comes before or takes precedence over another (e.g., in the military no two people are at exactly the same level—you are always superior or subordinate to any other person). Ordering is an operation not possible in nominal or CS relations. EM relations are analogous to interval measurement in that balance can be determined. For example, if you substituted for me one day in class then I should be willing to substitute for you one day. It doesn't matter if we have covered for each other only once or a hundred times—if you have

substituted one more time than I have then I am behind by that amount. In this way EM adds equivalence and balance to AR. Finally, MP relations add proportionality in the same way as the ratio level of measurement. For example, an instructor could be paid according to credit hours taught or according to grant money brought in.

Fiske (1991) also presented informal observations of his own children, indicating that the cognitive abilities to use each RM appear to develop in this same order, lending some additional validity to the CS<AR<EM<MP ordering.

A somewhat different order was proposed by Haslam (1994a, 1994b). Haslam's criterion is interpersonal "warmth," which switches the middle two RMs so that the order is CS<EM<AR<MP, with CS representing the warmest relationships and MP the coldest. This ordering is based in part on data reported in Haslam and Fiske (1992), in which multidimensional scaling placed EM and AR at equivalent positions on a dimension representing intimacy or affiliation, but (not surprisingly) placed EM high on equality and AR high on dominance. Because EM and AR are so close on affiliation (which may also be considered "interpersonal warmth"), it is essentially at the researcher's discretion as to which should come before the other when the RMs are ordered. Haslam's ordering has intuitive appeal that makes it worth considering in any RM research. The use of Haslam's alternate ordering does not affect whether conflicts are within- or between-RM, but it does change discrepancy distances substantially and discrepancy directions slightly. It is important to note, however, that this ranking is based on the positive aspects of social relations. It could be that the ordering of RMs could reverse (i.e., MP<AR<EM<CS) when negative interpersonal events are the focus because of the greater discrepancy between interpersonal expectations and reality. This possibility, however, is conjecture at the moment and has not been empirically studied.

Regardless of which strategy is used, if it is possible to place RM categories in a specific order, then it is possible to investigate the effect of greater or lesser differences between RMs. Fiske's ordering, for example, is based on the addition of logical operations

for each level of measurement, which extends to the RMs. CS, for instance, has a nominal level of logic. It provides information only about whether a person is a member of a group or not, just as a nominal variable only indicates the category that the data represents. AR, like the ordinal level of measurement, provides additional information by being able to place the categories in order. Consequently, it makes sense in AR to say that one person is more deserving than another is or that one person should take priority over another. AR also specifies whether a person is a member of a particular category. CS only addresses the latter question and so distinctions of rank or order do not make sense in the CS framework. MP provides even more information and allows ratio based relational operations. MP allows one to determine group membership (as with CS) as well as establish ranks or priorities (as with AR), but MP also permits the use of ratios like contribution/reward or income/buying power. In this sense, MP provides not only different information than the other RMs, it provides more information because it contains all of the information the earlier RMs contain and then adds some. Using this standard, MP represents more of a change from CS than does AR and may require more a cognitive shift by a perceiver if it is to be used when CS was anticipated. Alternatively, if Haslam's revised ordering is used, then using CS (which is considered warmest, at least for positive acts) when MP (the coldest RM) is expected represent a bigger shift in interpersonal warmth than using AR (the second coldest RM) when MP is expected.

Either approach implies that certain discrepancies are more substantial and may require greater cognitive reorganization (relative to what was expected) than others. Because discrepancies between expectations and reality or eventuality are assumed to be negatively experienced (at least when the reality is personally less advantageous than the expectation), it is expected that RM conflicts that are characterized by greater RM "distances" will lead to more negative responses by the perceiver. Again, it should be noted that this hypothesis assumes (a) that it is possible to order the RMs; and (b) that a valid ordering has been employed. Of the 24 mathematically possible permutations of the four

RMs, only two (possibly three, if Haslam's order is reversed for negative events) have been presented. There are sound reasons for using these orders (e.g., ordered by warmth, developmental sequence, or addition of logical procedures) but there is always the possibility that other orders would serve particular purposes well. One potential contribution of this project would be to provide some data on RM ordering and the conditions under which different orderings may be more applicable.

Directions of RM discrepancies

If the RMs are ordered, then it is not only possible to talk about the distance or "size" of a discrepancy between RMs, it is also possible to discuss the direction of the discrepancy. This possibility assumes that there is asymmetry in the RM ordering. That is, a situation in which a perceiver expects CS but EM is enacted (which may be abbreviated CS/EM) would lead to different reactions than would a situation in which EM is expected but CS is enacted (i.e., EM/CS). For example, if a landholder dies and leaves land to his or her children, then the inheritance may be distributed in a CS manner (in which all of the land belongs to the children collectively and not individually) or in an EM manner (in which the land is divided into equal size parcels and each heir receives one parcel). Other distribution strategies, of course, are possible. However, the point is that expecting to share the land collectively and then finding that the land is being parceled could lead to different psychological responses than expecting the land to be parceled and then learning that it will be left to the heirs collectively.

Either criterion for ordering the RMs could be used to explain this directional asymmetry. According to Fiske's (1991) levels of measurement analogy, certain operations make sense in some of the RMs and not in the others (e.g., ordering makes sense in AR, EM, and MP, but not in CS; proportionality makes sense in MP but none of the others). Consequently, a person who is using MP to structure an interaction (and relying on categorical membership, order, balance, and proportionality) may feel that a person who uses CS (thus, only categorical membership) is being simpleminded or foolish. For

example, a person who allocates the use of company cars on an MP basis (requiring, for instance, that the driver be a member of the company and that a business case be presented for the car, explaining the importance of the travel, the length of the travel, etc.) may feel that another person who suggests allocating company cars on a CS basis (i.e., any company member can take any company car for any reason) is not being realistic or practical by not taking additional information (beyond categorization as a company member) into consideration. However, the person suggesting CS may feel that the person proposing MP is splitting hairs and going beyond the bounds of reasonable behavior. Experience suggests that reactions to over-zealous rule making may be more negative than to oversimplified reasoning, but this should be tested empirically.

The asymmetry of reactions becomes clearer when Haslam's criterion of interpersonal warmth is used to order the RMs. If CS is generally seen as warm and MP as cold (with EM and AR taking intermediate values), then a person who expects CS but receives MP may feel the other person is being cold and uncaring. A person who expects MP but receives CS may actually be pleased by the change, in that CS is considered warm and caring. However, negative outcomes (as are the emphasis in these studies) are usually experienced negatively, regardless of which RM was expected or enacted. In fact, negative outcomes in CS can include factors such as racism or sexism, inasmuch as the outcome relies on a particular group membership. Examples of discord asymmetry employing Haslam's warmth continuum can include reactions to various proposals for welfare or health care. A CS orientation to these issues could take the form of universal government health care or need-based welfare. These approaches may be seen as humanitarian and sensitive to human needs and feelings (i.e., they are warm). On the other hand, welfare systems based on deservingness and healthcare systems based on financial ability or level of risk (i.e., poor people or people with poor health would not be covered as thoroughly, if at all) may seem utilitarian, numbers-driven, and cold. Based on this reasoning, people may react more negatively when their RM expectations are contradicted by colder RMs

(i.e., closer to MP on the continuum than what they expected) than when they are contradicted by a warmer RM (i.e., closer to CS). However, most of the research and theorizing on this topic has addressed positive relationships or outcomes and it may be that negative outcomes would alter the warm/cold dimension of the RM continuum considerably. For example, whereas being welcomed into a CS relationship can be very comforting (e.g., when an in-law says “We’ve not lost a son but gained a daughter”), being excluded on a CS basis (e.g., racial discrimination) can be particularly painful. Therefore, the effect of RM discrepancy direction may vary significantly with the valence of the interaction.

Consequences of RM Conflicts

Given the number of factors that can influence the perception of social interactions, it is not surprising that social behavior often misfires. If two people perceive the same interaction differently and structure their behavior and expectations differently (in terms of either different RMs or different implementations of the same RM), then the interaction is essentially unstable. As the interaction breaks down, in the form of unmet expectations and perceived relational violations, negative reactions result. These reactions can be manifested in several ways. Fiske and Tetlock (1997) hypothesized that the diagnostic reaction to RM violations is moral outrage. People can experience strong emotional responses to social behavior that they view as inappropriate. It is possible that disagreements over implementation could lead to irritation or frustration but that disagreements over RM could lead to stronger negative affects such as shame, anger, or hostility.

Relational conflicts affect what a person does (or wants/intends to do) as well. In a study on the moralization of victimless violations of social norms, Haidt, Koller, and Dias (1993) discussed the desire that a person may have to correct or punish a person who they feel has acted inappropriately (e.g., by eating the family dog after it had died). These immediate behavioral reactions can be extended to long-term intentions to continue or discontinue interactions with the partner. One unfortunate consequence of cutting off

interaction could be a perpetuation of negative judgments, in that the offended perceiver would not be able to observe the partner acting in other situations that could disprove the idea that the partner was a bad person who needed to be avoided.

Relational discord can also lead to negative thoughts and beliefs about the interaction partner. For example, a person whose implementation expectations are contradicted by a partner may believe the partner to be foolish, prejudiced, insensitive, or simply contrary. All of these conclusions are negative-valenced cognitions. However, a person whose RM expectations are contradicted may believe that his or her partner is illogical, obscene, or immoral (Fiske & Tetlock, 1997).

Affective, behavioral, and cognitive reactions are potentially independent, so that a person could react affectively to an interaction but not behaviorally or cognitively. For example, Haidt et al. (1993) assessed moral evaluations and bother (both of which tap into affect), interference (that is, should the person be stopped, which is behavioral), and justifications for the behavior and judgments of harm (both of which are cognitive). Similarly, Planalp and colleagues (Planalp & Honeycutt, 1985; Planalp, Rutherford, & Honeycutt, 1988; Planalp & Rivers, 1995) assessed the effects of surprising events on beliefs about the partner (cognitive), emotional reactions (affective), and engaging or avoiding communication (behavioral). Intuitively it seems likely that these three domains would more often occur together than apart but that is an empirical question that may be answered by the current studies. Fiske and Tetlock (1997) do not distinguish between affective, behavioral, and cognitive domains in their discussion of RM violations. Instead, their argument focuses on overall negativity instead of breaking down the reaction into particular components. In light of this ambiguity about the independence of affective, behavioral, and cognitive reactions to RM conflicts, one possible contribution of the current research would be to indicate whether reactions to RM violations are unitary or divisible into separate components.

Hypotheses

If Fiske's Relational Models do indeed represent logically incommensurable interpersonal categories that can be ordered according to some criterion, then conflict over the use of RMs and the specific nature of the RM discord should lead to negative reactions.

This reasoning suggests three hypotheses concerning RM conflict to be investigated:

1. Because of the incommensurable logical structures of different RMs, it was hypothesized that between-model conflict would lead to more negative reactions than would within-model conflict.
2. Of the conflicts that involve different RMs, it was hypothesized that discrepancies of greater distances between RMs (that is, distances of 1 RM versus distances of 2 RMs versus distances of 3 RMs, relying on either of the RM orderings) would lead to more negative reactions than would discrepancies of smaller distances.
3. Between-RM discrepancies in the direction of MP would lead to more negative reactions than would discrepancies in the direction of CS.

STUDY 1

Overview

Study 1 was conducted as a preliminary investigation of reactions to within-RM and between-RM conflicts. Study 1 also permitted an analysis and refinement of the reaction scales to be used in subsequent studies.

Method

Participants

A convenience sample of 53 participants (14 Males, 33 Females, and 6 not specified) was obtained from the student population at Hunter College via direct personal solicitation. Age and ethnicity were not recorded. However, in consideration of the population at Hunter College, it may be assumed that the students were generally between 20 and 30 years old and represented a wide range of ethnicities.

Materials

Scenarios

Four relational conflicts were constructed in which a perceiver expected CS or MP and was contradicted with CS or MP. In each scenario, the perceiver's expectation for the situation is contradicted with negative outcome. For example, the CS/CS scenario (the first RM is the one expected by the perceiver; the second RM is the one ultimately enacted) reads as follows:

Imagine that your spouse's family is trying to make a difficult decision unanimously. You make a suggestion and they say that although you are married to a member of the family, you yourself are not a member of the family, so they disregard your suggestion and do not involve you in the decision-making process.

It was assumed that being excluded from a decision would be a negative outcome for the perceiver. The scenarios involved different behavioral domains (e.g., distribution, contribution, and decision making) and different interaction partners (e.g., doctors in a hospital, a new employer). The scenarios are presented in Appendix A with their mean evaluation and reaction scores.

Outcome measures

Fourteen questions followed each scenario (see response sheet in Appendix B). Twelve items measured participants' reactions using 5-point Likert scales (1 = "Not at all negative" to 5 = "Very negative"). Affective, behavioral, and cognitive reactions to conflict were measured separately. Reliability was assessed for the individual subscales and as combined scales.⁴ Because the alphas for the combined scales were higher than for the individual scales and because there were no compelling theoretical reasons why reactions to relational models discord should be different for affective, behavioral, and cognitive reactions, the combined scores were used in subsequent analyses.

Completing the questionnaire were two questions that assessed how reasonable the scenarios were: "I have had interactions very similar to this" and "I can imagine an interaction like this taking place." Both questions were answered with a yes or no.

All questionnaires presented the scenarios in the order CS/CS, CS/MP, MP/CS, then MP/MP.

Procedure

Participants were instructed that this study involved reacting to conflict situations. Participants were asked to imagine themselves in the scenarios described. Questionnaires were distributed and after reading each scenario, participants were asked to answer the 14 questions on the answer sheet. At the end of the questionnaire, the participant's sex was recorded. Participants were then thanked for their time, the purpose of the study was explained, and comments were recorded.

Results

Overview

The data consisted of reactions to conflict scenarios as evaluated on 5-point scales. Data were analyzed for expected and enacted RM main effects, which were not hypothesized, and an interaction, which would be evidence of between-RM versus within-RM effects. Data on the valence of scenario outcomes were analyzed in a similar manner, and the relationship between reaction scores and outcome evaluations was explored.

Reaction scores

The means and standard deviations for the reactions to the conflicts are shown in Table 1. The analysis consisted of a 2 (Expected RM: CS or MP) x 2 (Enacted RM: CS or MP) repeated measures ANOVA. A significant main effect was found for expected RM, with more negative reactions when CS was expected ($M = 3.78$, $SD = .71$) than when MP was expected ($M = 3.28$, $SD = .68$), $F(1, 51) = 30.61$, $p < .001$ (η^2 [eta-squared⁵] = .38 ; power = 1.00). A significant main effect for enacted RM was also found, with more negative reactions when MP was enacted ($M = 3.75$, $SD = .71$) than when CS was enacted ($M = 3.32$, $SD = .76$), $F(1, 51) = 15.59$, $p < .001$ ($\eta^2 = .23$; power = .97). More importantly, between-model conflicts (i.e., discord that results from the use of different RMs) were found to be associated with significantly more negative responses (using a measure of combined affective, behavioral, and cognitive reactions; $M = 3.65$, $SD = .68$) than were within-model conflicts (i.e., those that result from different implementations of the same RM; $M = 3.43$, $SD = .72$; $F(1, 52) = 7.83$, $p < .01$; $\eta^2 = .13$; power = .78). These findings are consistent with the hypothesis that reactions to discordant interactions are significantly influenced by agreement (or lack thereof) over the underlying logical structure of the relationship. However, inspection of the cell means indicated that the between-RM conflicts were remarkably inconsistent. The CS/MP conflict, which elicited the most negative

Table 1

Mean Reactions (and Standard Deviations) for Relational Model Conflicts: Study 1

Expected Relational Model	Enacted Relational Model		
	Communal Sharing	Market Pricing	Average
Communal Sharing	3.46 (0.89)	4.11 (0.78)	3.79 (0.71)
Market Pricing	3.18 (0.87)	3.39 (0.87)	3.29 (0.68)
Average	3.32 (0.76)	3.75 (0.71)	3.54 (0.63)

Note: Scores range from 1 (Not at all negative) to 5 (Very negative). $N = 53$.

reactions, involved a person being denied emergency medical treatment because he or she could not pay. On the other hand, the MP/CS conflict, which involved working overtime at a job without compensation, was the least negative of the four conflicts. Thus, it appears that the extreme reaction to the medical emergency scenario was distorting the average for the between-RM conflicts.

Outcome evaluations

Although the interaction supports the hypothesis (i.e., between-RM conflicts, on average, led to more negative reactions than within-RM conflicts), the inconsistency of the between-RM conflict scenarios and the failure to pretest the scenarios left open alternative explanation for the results. After the study was conducted, it was noted that the scenarios differed drastically in the severity of their outcomes (i.e., what ultimately occurred in the interaction, regardless of the perceiver's expectation). Consequently, the outcomes were separated from the complete scenario (CS/CS: "How bad is it to be excluded from

Table 2

Mean Evaluations (and Standard Deviations) for Scenario Outcomes in Study 1

Expected Relational Model	Enacted Relational Model		
	Communal Sharing	Market Pricing	Average
Communal Sharing	1.71 (0.83)	3.00 (0.00)	2.36 (0.41)
Market Pricing	0.79 (1.19)	1.57 (1.28)	1.19 (0.99)
Average	1.25 (0.73)	2.29 (0.64)	1.78 (0.50)

Note: Scores range from 0 (Not at all negative) to 3 (Very negative). $N = 14$.

an important decision?"; CS/MP: "How bad is it to be denied emergency medical treatment?"; MP/CS: "How bad is it to have to work overtime without payment?"; MP/MP: "How bad is it to have to pay high insurance premiums?") and a second sample of 14 participants rated the interaction outcomes on a 7-point scale (-3 = Very negative; +3 = Very positive). The positive end of the scale was included because conflicts may involve outcomes that would otherwise be positive, such as receiving a raise, but that become negative because of the perceiver's expectations, such as a much larger raise. However, this did not turn out to be the case. The data (with the positive expectations deleted and the negative expectations given positive numbers for consistency with other data; see Table 2) confirmed the belief that the scenario outcomes differed substantially in valence. In fact, for the medical emergency (CS/MP) scenario, there was no variability—all 14 participants gave it the most extreme evaluation. The overall pattern of results largely echoed that of the reaction scores to the complete scenarios. There was a significant main effect for the expected RM, with participants evaluating the outcomes of the scenarios in which CS was expected ($M = 2.36$, $SD = .41$) as more negative than the outcomes of the scenarios in

which MP was expected ($\underline{M} = 1.18$, $\underline{SD} = .99$), $F(1, 13) = 15.04$, $p < .005$ ($\eta^2 = .54$; power = .95). Participants also evaluated the outcomes of the scenarios in which MP was enacted ($\underline{M} = 2.29$, $\underline{SD} = .64$) as more negative than the outcomes of the scenarios in which CS was enacted ($\underline{M} = 1.25$, $\underline{SD} = .73$), $F(1, 13) = 17.38$, $p < .001$ ($\eta^2 = .57$; power = .97). However, unlike the reaction data, the interaction of expected and enacted RM was nonsignificant, as evaluations of within-RM scenario outcomes ($\underline{M} = 1.64$, $\underline{SD} = .66$) did not differ from evaluations of between-RM outcomes ($\underline{M} = 1.89$, $\underline{SD} = .59$), $F(1, 13) = 1.54$, ns ($\eta^2 = .11$; power = .21).

Correlation between reactions and outcome evaluations

The evaluations for the outcomes were highly correlated with the reactions to the scenarios, $r(2) = .99$, $p < .05^6$. When the influence of outcome evaluation was removed from reactions scores, the residuals were practically microscopic, given the original 5-point scale for reactions: CS/CS = $-.05$; CS/MP = $.04$; MP/CS = $.07$; MP/MP = $-.06$.

Unfortunately, due to the small sample size (and consequent lack of variation within cells), it is impossible to determine if main effects or interactions for the residuals would parallel those of the original reaction scores. However, from this pilot test it became readily apparent that any scenarios used in subsequent research would need to be balanced for valence of the interaction outcome if the role of RM expectations and conflict were to be investigated.

Discussion

Despite its flaws, Study 1 provided useful information for the subsequent two studies. The most important flaw was the lack of pretesting, which permitted the use of scenarios that differed substantially in ways not related to the hypothesis. That is, the scenarios differed in outcome valence and not just RM structure. Moreover, the differences in outcome valence almost completely explained the variance in reactions to the scenarios. Another problem was the use of scenarios that did not come from the participants' own lives (or, at least, were not judged to be consistent with events in student's lives). In fact,

several participants pointed out that it is illegal to deny a person emergency medical treatment because they cannot pay. These two flaws underlined the need for pretesting and careful evaluation of the scenarios to be used in the subsequent studies. It became apparent that the scenarios needed to be both plausible to the participants and essentially equivalent in outcome valence so that the contributions of RM structure could be more apparent.

One positive result from Study 1 was the possibility of reviewing and shortening the outcome questionnaire. The questionnaire was originally designed to assess affective, behavioral, and cognitive reactions separately with four questions each. The high intercorrelations between the items and the high coefficient alphas (between $\alpha = .87$ and $.89$) when 11 of the 12 items were combined (“shame” was excluded) suggested that it might be appropriate to combine the affective, behavioral, and cognitive reaction scales into a single scale measuring “negativity.” More importantly, if all of the items loaded onto a single scale, then the number of items could be reduced. An analysis of item-total correlations suggested six items (two each for affect, behavior, and cognition) that could be used to measure negative reactions in subsequent studies while maintaining acceptable reliability. Study 2 was designed to incorporate these improvements in design, as well as to allow an investigation of all hypotheses by including all 16 possible RM combinations.

STUDY 2

Development of scenarios

Pretesting was used to compose scenarios that reflected the various RM conflicts and that appealed intuitively to the experimental population (students from Hunter College and Lehman College, with wide variation of age, ethnicity, and cultural background). Scenarios were based on social conflicts described by students or on conflicts composed by the experimenter. The student conflicts were described by 8 participants in a pilot study who were asked to describe situations in which they had to contribute or distribute resources, make a group decision, or exercise social influence. Responses were coded for RM and modified to include a perceiver/partner conflict (this was necessary because the participants described only what they felt was appropriate in the situation and not what a potential partner would have done). Because this pilot study generated only a small number (approximately 18) of social interactions that could be used in the study, additional conflict scenarios were composed by the experimenter

For the experimenter-created scenarios, approximately 130 scenario topics (i.e., “Deciding where to go for lunch,” or “How to get baby-sitting”) were written. After consultation with three persons familiar with Relational Models Theory, 64 topics (4 for each of 16 possible RM combinations) were developed into scenarios. Each scenario described the perceiver’s expectations for a particular social situation and the interaction partner’s actions (which were constructed so that they invariably contradicted the perceiver’s expectations). Expectations and actions were chosen to reflect clearly and unambiguously the definitions of each RM given by Fiske (1991, 1992). A group of 18 students enrolled in an experimental social psychology course then reviewed the list of 64 scenarios to determine which conflicts could be plausible events in the lives of CUNY students. At least one scenario (often more) in each of the 16 conflict categories (i.e., RM

expected x RM enacted) was deemed plausible. Of these scenarios, 32 were selected for further pretesting.

The two sets of scenarios (i.e., those described by students and those composed by the experimenter) were then combined. A separate group of participants evaluated the outcomes of the 53 total interactions on a seven point scale (ranging from -3 = "Very negative" to +3 = "Very positive"). This was done to ensure that the outcomes are all approximately equal in valence (defined as valence ranging from -1 to -2), without regard to the participant's expectations. This was necessary because otherwise positive events can be perceived negatively depending on the evaluative context and the perceiver's expectations (Festinger, 1957). For example, an employee would normally be glad to receive a large cash bonus but may be very upset if that bonus is less than that given to other, similar employees. Therefore, to assess the effect of RM expectations, any potential differences in the objective outcome (that is, an evaluation of the outcome that is not made relative to the perceiver's expectations) must be minimized.

As a result of the outcome pretesting, 18 of the 32 scenarios that had previously been evaluated for plausibility had to be revised so that the valence of the outcome would fall within the desired range. In order to obtain 32 scenarios in the desired range, the six outcomes closest to the desired range (2 less negative and 4 more negative) were revised. Sixteen variations of the revised outcomes were then rated by a sample of 31 participants. One variation of each of the 6 close outcomes fell in the desired range and these revised versions were combined with the outcomes that already fell in the desired range to make a total of 32 outcomes that were approximately equivalent in outcome valence⁷.

New scenarios were written that included these outcomes. The expectations and enactments in the 32 scenarios were coded for RM by two raters. Substantial agreement was shown, with an overall percentage agreement of 94% (60/64 judgments) and Cohen's chance-corrected coefficient of $\kappa = .92$.

Participants (n = 19) rated the complete scenarios for plausibility on a 5 point scale (1 = “not at all likely” to 5 = “very likely”) for use as a controlling variable (see Results). These participants also commented on the possible contingencies or ambiguities of each scenario. Their comments are included in the discussion.

Method

Participants

A sample of n = 199 (153 females, 45 males, 1 not specified) participants was recruited from psychology department participant pools at Hunter College and Lehman College⁸. No selection criteria were used in recruiting participants except the ability to read English and being at least 18 years old. The mean age was 26.1 years (median = 23, and ranged from 18 to 60). Participants’ ethnicity was coded as Black/African American (16%); West Indian (9%); Hispanic/Latino/Latina (33%); Asian American/Asian (12%); or White/European American (28%). 2% did not provide ethnicity information. In subsequent analyses, the Black/African American and West Indian categories were combined into a single category in order to be approximately equivalent in size to the other categories. Participants were from 38 countries.

Materials

Two sets of 16 scenarios each were developed in pretesting (the selected scenarios are contained in Appendix C). Each scenario briefly describes the situation, the perceiver’s expectations, and the partner’s actions. For example, a scenario in which the perceiver expected Equality Matching but an undesirable form of Authority Ranking was enacted instead reads:

Imagine that you’re working with several people to organize a group project. You expected that the group would vote on the various decisions. However, one of your group members claims to be a natural leader with very high standards. Because

nobody's suggestions meet his/her standards, this person decides to make all of the decisions and tells everybody what to do.

On the response sheet (see Appendix D) participants were asked to imagine themselves in the place of the perceiver (this occasionally required participants to adopt possibly unfamiliar roles, such as spouse, parent, sibling, or employee, although pretesting indicated that this would not be a problem). A space was provided below each scenario for participants to write their reactions to the partner's behavior in their own words.

One the bottom of each page of the questionnaire were 6 items which were rated using a 5 point Likert scale (1 = Not at all, 2 = A little, 3 = Moderately, 4 = Quite a bit, 5 = Very Much). These items were chosen from an original pool of 12 items based on their relatively high item-total correlations (ranging from .43 to .79) in pretesting and their theoretical coherence. Two items assess affective reactions: "This interaction made me feel upset," and "This interaction made me feel hostile." The next two items assess behavioral responses: "I wanted to stop this interaction immediately," and "I wanted to change this interaction." The final two items assess cognitive reactions: "I thought that this interaction was strange or unusual," "I thought that this person was insensitive." The alphas for this scale in pretesting ranged from .85 to .89 (alphas were computed separately for each scenario). A final item functioned as a manipulation check, to which participants responded yes or no: "I have had interactions very similar to this." Pretest analyses indicated that most people had experienced or were able to imagine the interactions presented. The results of the pretest study did not change appreciably when people who had not had such experiences were excluded from the analysis.

Two sets of scenarios were used and these were placed into two random orders. Participants were randomly assigned to one set and one order of scenarios via shuffled questionnaires.

After responding to each of the 16 scenarios, participants completed a demographics form, which asked sex, age, ethnicity, country of birth, how long the person has lived in the United States, the school they currently attended, and how long they had attended that school.

Procedure

Participants were surveyed in classrooms in groups ranging in size from 2 to 20. The study was described in detail, using example scenarios and illustrating the methods for responding. Consent forms were also distributed and collected. Different versions and orders of packets were then randomly distributed and verbal instructions were given (in addition to written instructions). After each of the 16 scenarios, participants completed several scales to evaluate their affective, behavioral, and cognitive reactions to these episodes. Halfway through the questionnaire (i.e., after 8 scenarios) written instructions suggested that participants take a break to avoid fatigue. Finally, participants completed a demographics sheet. The entire study required approximately one to one and one-half hours for each participant. Participants were thanked for their time and debriefing sheets and credit slips were distributed.

Results

Overview

Three dependent variables (DVs) were measured in this experiment: (a) the valence of the scenario outcome; (b) the perceived likelihood of the complete scenario; and (c) the reaction (or negativity score) to the interaction. Correlations between the three variables were examined and then ANOVAs were conducted for each variable. Although the data were examined for expected and enacted RM main effects, the interaction was of greater interest. A significant interaction would be a prerequisite for significant effects for any of the three hypotheses. The data were coded and analyzed separately for each hypothesis, using the Rom sequentially rejective procedure.⁹ Finally, the data were explored graphically for unanticipated patterns.

Correlations between dependent variables

Three dependent variables (DVs) were measured in this experiment: (a) the valence of the scenario outcome; (b) the perceived likelihood of the complete scenario; and (c) the reaction (or negativity score) to the interaction. The correlations between the 3 variables (using the mean scores for the 32 scenarios) were negligible: Overall reaction to scenario and outcome evaluations, $r(30) = -.01$, ns; overall reaction and perceived likelihood of scenario, $r(30) = .19$, ns; and outcome evaluation with perceived likelihood, $r(30) = -.07$, ns. Because the correlations between the DVs are so small and because the measurements were obtained from separate samples, each DV was analyzed separately.

Outcome evaluation

In an effort to avoid the problems that occurred in Study 1, pretesting was conducted to ensure that all scenarios had more-or-less equivalent outcomes¹⁰. The means and standard deviations for the 32 scenario outcomes are presented in Table 3.

Means and standard deviations within-RM and between-RM conflicts for Set A, Set B, and the combined sets were as follows. For set A: within-RM, $M = 1.85$ ($SD = 0.76$); between, $M = 1.59$ ($SD = 0.55$). For set B: within, $M = 1.44$ ($SD = 0.75$); between, $M = 1.55$ ($SD = 0.58$). For the combined sets: within, $M = 1.65$ ($SD = 0.65$); between, $M = 1.57$ ($SD = 0.51$).

The data were analyzed with a 4 (Expected RM: CS, AR, EM, MP) x 4 (Enacted RM: CS, AR, EM, MP) x 2 (Set: A and B) ANOVA with repeated measures on both factors (See Table 4 for analysis results). A significant effect was found for Enacted RM. Post-hoc t-tests showed that outcomes for scenarios in which CS was enacted ($M = 1.38$, $SD = .77$) elicited significantly less negative reactions than when AR was enacted ($M = 1.73$, $SD = .58$), $t(32) = 3.36$, $p < .005$. Additionally, the three-way interaction of Expected RM x Enacted RM x Set was statistically significant, but does not appear to

Table 3

Mean Evaluations (and Standard Deviations) of Scenario Outcomes: Study 2

Expected Relational Model	Enacted Relational Model				Average
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing	
Communal Sharing					
Overall	1.14 (1.20)	1.86 (1.00)	1.82 (0.87)	1.50 (0.82)	1.58 (0.68)
Set A	1.13 (1.74)	1.87 (1.26)	1.94 (0.97)	1.61 (1.03)	1.62 (0.74)
Set B	1.18 (1.33)	1.88 (1.14)	1.72 (1.14)	1.39 (1.00)	1.53 (0.84)
Authority Ranking					
Overall	1.30 (1.19)	1.97 (0.97)	1.51 (0.90)	1.62 (0.81)	1.60 (0.64)
Set A	1.33 (1.29)	1.97 (0.97)	1.33 (1.08)	2.00 (1.39)	1.65 (0.76)
Set B	1.27 (1.53)	1.97 (1.24)	1.70 (1.38)	1.27 (1.10)	1.55 (0.74)
Equality Matching					
Overall	1.64 (1.02)	1.39 (1.10)	1.74 (0.76)	1.50 (1.50)	1.57 (0.66)
Set A	1.81 (1.15)	1.19 (1.49)	2.00 (0.94)	1.09 (1.55)	1.52 (0.83)
Set B	1.48 (1.12)	1.65 (0.95)	1.48 (1.09)	1.90 (1.94)	1.63 (0.64)
Market Pricing					
Overall	1.41 (1.14)	1.67 (0.93)	1.56 (1.22)	1.74 (0.99)	1.59 (0.65)
Set A	1.55 (1.92)	1.65 (1.34)	1.75 (1.65)	2.26 (1.29)	1.80 (0.79)
Set B	1.27 (1.35)	1.69 (1.00)	1.39 (1.68)	1.16 (1.35)	1.38 (0.83)
Average					
Overall	1.38 (0.79)	1.73 (0.58)	1.66 (0.68)	1.58 (0.56)	1.59 (0.51)
Set A	1.46 (0.95)	1.67 (0.81)	1.75 (0.79)	1.74 (0.60)	1.65 (0.54)
Set B	1.30 (0.86)	1.79 (0.64)	1.57 (0.80)	1.42 (0.79)	1.52 (0.57)

Note: Scores range from 0 (Not at all negative) to 3 (Very negative). $N = 33$.

Table 4

ANOVA Table for Evaluations of Scenario Outcomes: Expected Relational Model, Enacted Relational Model, & Set: Study 2

Effect	df	F	η^2	power
Expected Relational Model	3, 90	0.03	.00	.06
Enacted Relational Model	3, 90	3.57*	.11	.77
Set	1, 30	2.61	.08	.35
Expected RM x Enacted RM	9, 270	1.58	.05	.74
Expected Relational Model x Set	3, 90	2.32	.07	.57
Enacted Relational Model x Set	3, 90	1.29	.04	.33
Expected RM x Enacted RM x Set	9, 270	2.84**	.09	.78

Note: RM = Relational Model. * $p < .05$. ** $p < .01$.

have theoretical importance. No other effects were significant.

Scenario Likelihood

In an effort to avoid some of the same difficulties as Study 1, the perceived likelihood of the interactions in the scenarios was evaluated, albeit post-hoc. A sample of $n = 19$ participants rated all 32 scenarios (both Set A and Set B) on a 5-point Likert scale (1 = "Not at all likely" and 5 = "Very Likely"). See Table 5 for scenario means and standard deviations.¹¹

The data were analyzed with a 4 (Expected RM: CS, AR, EM, MP) x 4 (Enacted RM: CS, AR, EM, MP) x 2 (Set: A and B) ANOVA with repeated measures on both

Table 5

Means (and Standard Deviations) for Scenario Likelihood: Study 2

Expected Relational Model	Enacted Relational Model				Average
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing	
Communal Sharing					
Overall	4.03 (0.63)	3.39 (1.17)	3.74 (0.59)	2.79 (0.90)	3.49 (0.47)
Set A	4.26 (0.81)	3.58 (1.22)	3.68 (0.75)	2.95 (1.18)	3.62 (0.49)
Set B	3.79 (0.85)	3.21 (1.44)	3.79 (0.79)	2.63 (1.16)	3.36 (0.59)
Authority Ranking					
Overall	4.11 (0.72)	4.29 (0.63)	3.68 (0.77)	3.13 (0.94)	3.80 (0.41)
Set A	4.74 (0.45)	4.26 (0.73)	3.32 (1.25)	2.95 (1.43)	3.82 (0.54)
Set B	3.47 (1.17)	4.32 (0.58)	4.05 (0.78)	3.32 (1.00)	3.79 (0.56)
Equality Matching					
Overall	3.95 (0.74)	3.95 (0.98)	4.08 (0.63)	3.47 (0.70)	3.86 (0.41)
Set A	4.26 (0.81)	4.21 (1.03)	4.16 (1.07)	3.53 (1.07)	4.04 (0.44)
Set B	3.63 (1.26)	3.68 (1.16)	4.00 (0.94)	3.42 (1.07)	3.68 (0.63)
Market Pricing					
Overall	4.16 (0.65)	3.55 (0.76)	3.84 (0.80)	3.82 (0.85)	3.85 (0.44)
Set A	3.63 (1.07)	4.32 (0.67)	3.61 (1.14)	3.89 (0.94)	3.87 (0.52)
Set B	4.68 (0.48)	2.79 (1.23)	4.11 (0.81)	3.74 (1.33)	3.83 (0.46)
Average					
Overall	4.06 (0.29)	3.80 (0.40)	3.83 (0.36)	3.30 (0.56)	3.75 (0.26)
Set A	4.22 (0.43)	4.09 (0.37)	3.68 (0.64)	3.33 (0.75)	3.83 (0.29)
Set B	3.89 (0.42)	3.50 (0.55)	3.99 (0.43)	3.28 (0.68)	3.66 (0.29)

Note: Scores range from 1 (Not at all likely) to 5 (Very likely). $N = 19$.

Table 6

ANOVA Table for Scenario Likelihood: Expected Relational Model, Enacted Relational Model, & Set: Study 2

Effect	df	F	η^2	power
Expected Relational Model	3, 51	2.60	.13	.61
Enacted Relational Model	3, 51	13.01***	.43	1.00
Set	1, 17	9.37**	.08	.35
Expected RM by Enacted RM	9, 153	2.35*	.12	.90
Expected Relational Model by Set	3, 51	1.30	.07	.32
Enacted Relational Model by Set	3, 51	3.82*	.18	.79
Expected RM by Enacted RM by Set	9, 153	5.84***	.26	1.00

Note: RM = Relational Model. * $p < .05$. ** $p < .01$. *** $p < .001$.

factors (see Table 6 for analysis results). Five of the seven effects reached statistical significance. For Enacted RM, CS scenarios ($M = 4.06$, $SD = 0.29$) were rated as more likely than AR scenarios ($M = 3.80$, $SD = 0.40$; $t(18) = 2.46$, $p < .05$), EM scenarios ($M = 3.83$, $SD = 0.36$; $t(18) = 2.84$, $p < .05$), or MP scenarios ($M = 3.30$, $SD = 0.56$; $t(18) = 5.27$, $p < .001$). AR scenarios were not significantly different from EM scenarios ($t(18) = -0.35$, ns), but AR scenarios were rated as more likely than MP scenarios ($t(18) = 3.56$, $p < .005$). Finally, EM scenarios were rated as more likely than MP scenarios ($t(18) = 4.04$, $p < .001$).

The 32 scenarios were arbitrarily divided into 2 sets labeled “Set A” and “Set B,” so that more than one scenario would estimate reactions to each RM conflict (e.g., two scenarios for CS/EM conflict). The scenarios in Set A were rated as more likely ($M = 3.83$,

$SD = 0.29$) than the scenarios in Set B ($M = 3.66$, $SD = 0.29$), $F(1, 17) = 9.37$, $p < .01$. Set assignment was a random factor, however, so there is no meaningful interpretation for the difference between sets in likelihood ratings.

The following three interactions were also statistically significant: Expected RM by Enacted RM, Enacted RM by Set, and Expected RM by Enacted RM by Set. These complex interactions are not of theoretical interest, however, so they will not be discussed further.

Of the seven effects and interactions included in the ANOVA, only two (Expected RM and Expected RM by Set) failed to reach conventional levels of statistical significance. These results indicate substantial systematic variation in the perceived likelihood of the scenarios. This result opens the possibility that negative reactions are the result of unusual behavior and not RM conflict, per se. However, when the perceived likelihood of the scenarios was correlated with mean outcome evaluations and mean reactions, none of the correlations (ranging in absolute value from .01 to .19) was significant. Therefore, it appears that the differences in perceived likelihood did not influence responses to other, more central variables.

Reaction Scores

The main data for Study 2 consisted of the combined affective, behavioral, and cognitive reactions that people had to the conflict scenarios (see Table 7; Table 8 breaks down the data into effects for Expected RM, Enacted RM, and the interaction of the two; Figure 1 presents the hypothesized pattern of results; Figures 2 and 3 present graphical representations of the obtained results). The reaction scores were coded on a five-point scale, with 1 indicating no negative reaction to the scenario and 5 indicating a strong negative reaction.

A 4 (Expected RM: CS, AR, EM, MP) x 4 (Enacted RM: CS, AR, EM, MP) x 2 (Sex: Male, Female) x 4 (Ethnicity: Black, Hispanic, Asian, White) ANOVA with

Table 7

Mean Reactions (and Standard Deviations) to Conflict Scenarios: Study 2

Expected Relational Model	Enacted Relational Model				Average
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing	
Communal Sharing					
Overall	3.64 (1.17)	3.39 (1.16)	2.57 (1.13)	3.10 (1.16)	3.17 (0.85)
Set A	3.48 (1.20)	3.66 (1.10)	2.84 (1.09)	3.31 (1.12)	3.32 (0.86)
Set B	3.81 (1.12)	3.12 (1.16)	2.29 (1.11)	2.88 (1.17)	3.03 (0.81)
Authority Ranking					
Overall	2.99 (1.26)	2.81 (1.19)	2.41 (1.12)	2.85 (1.09)	2.76 (0.77)
Set A	3.62 (0.94)	2.62 (1.17)	2.60 (1.11)	2.82 (1.09)	2.92 (0.78)
Set B	2.35 (1.22)	2.99 (1.19)	2.21 (1.09)	2.87 (1.11)	2.61 (0.72)
Equality Matching					
Overall	2.66 (1.24)	2.93 (1.22)	2.78 (1.20)	2.64 (1.21)	2.75 (0.86)
Set A	3.08 (1.17)	3.35 (1.11)	3.09 (1.15)	2.65 (1.14)	3.04 (0.82)
Set B	2.24 (1.17)	2.50 (1.19)	2.47 (1.18)	2.64 (1.28)	2.46 (0.80)
Market Pricing					
Overall	3.49 (1.11)	3.33 (1.15)	2.56 (1.22)	3.15 (1.27)	3.14 (0.86)
Set A	3.37 (1.15)	3.35 (1.11)	2.75 (1.29)	3.58 (1.08)	3.27 (0.87)
Set B	3.61 (1.05)	3.31 (1.19)	2.38 (1.12)	2.71 (1.31)	3.01 (0.83)
Average					
Overall	3.20 (0.80)	3.11 (0.88)	2.58 (0.83)	2.93 (0.81)	2.96 (0.72)
Set A	3.38 (0.86)	3.24 (0.88)	2.82 (0.82)	3.09 (0.78)	3.13 (0.74)
Set B	3.01 (0.69)	2.98 (0.86)	3.34 (0.76)	2.77 (0.80)	2.78 (0.65)

Note: Scores range from 1 (Not at all negative) to 5 (Very negative). $N = 199$.

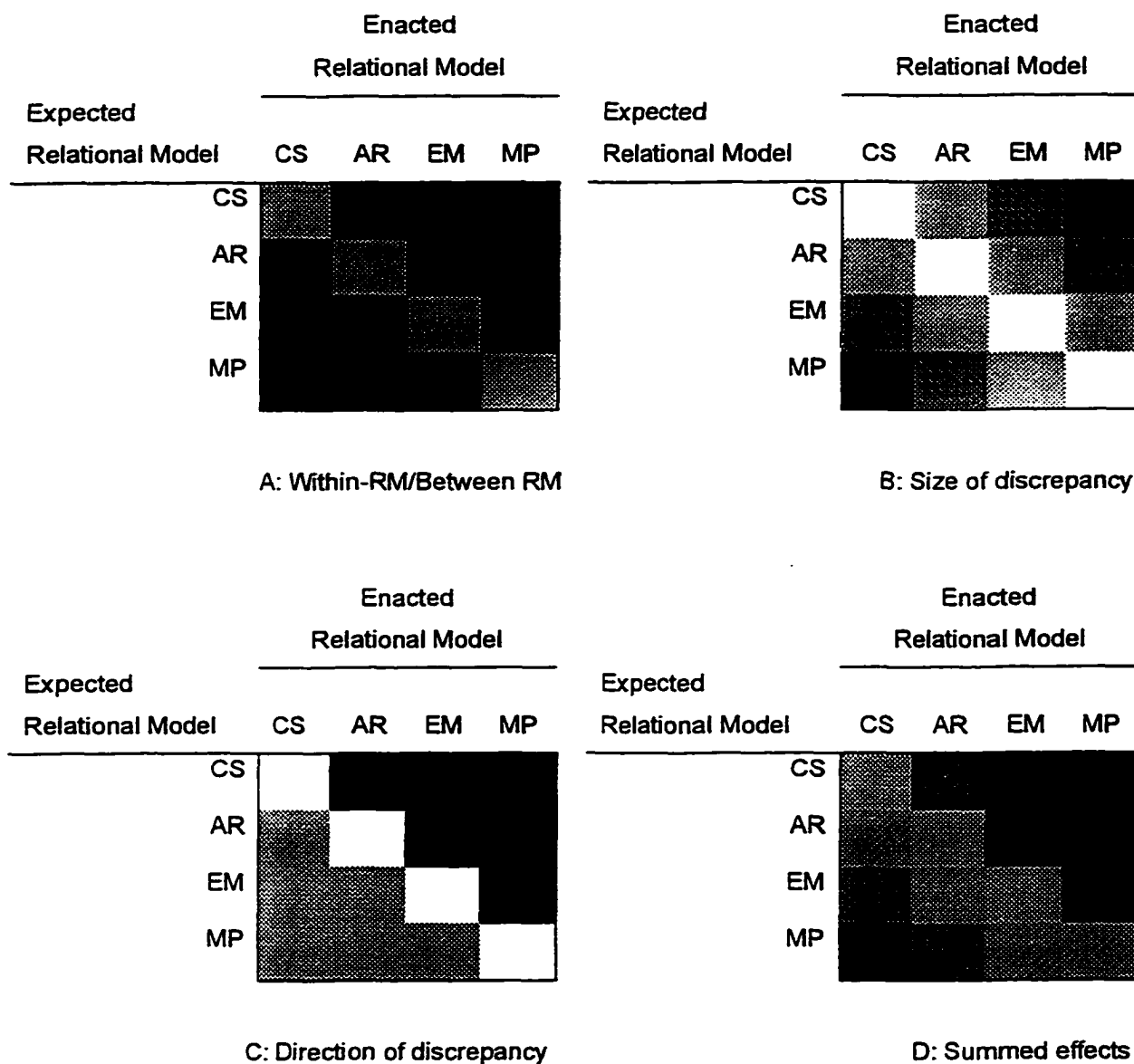
Table 8

Reaction Residuals: Study 2

Expected RM	Enacted RM				Row Effect
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing	
Communal Sharing	0.23	0.06	-0.23	-0.05	0.22
Authority Ranking	-0.01	-0.11	0.02	0.11	-0.19
Equality Matching	-0.33	0.02	0.40	-0.09	-0.20
Market Pricing	0.12	0.04	-0.20	0.04	0.18
Column Effect	0.24	0.16	-0.38	-0.02	2.96

Figure 1

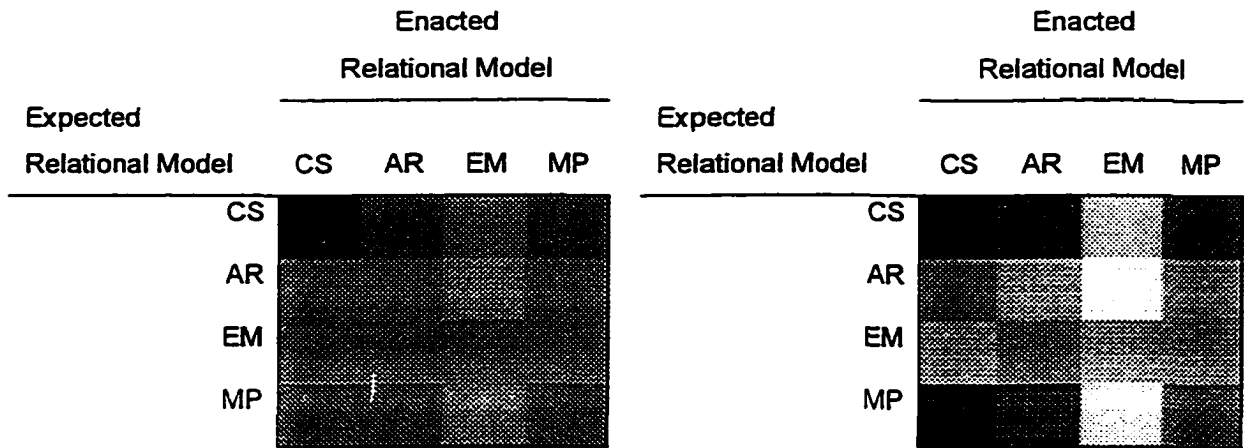
Predicted Reactions to Relational Model Conflicts



Note: Darker shading indicates greater negativity

Figure 2

Observed Reactions to Relational Model Conflicts: Study 2



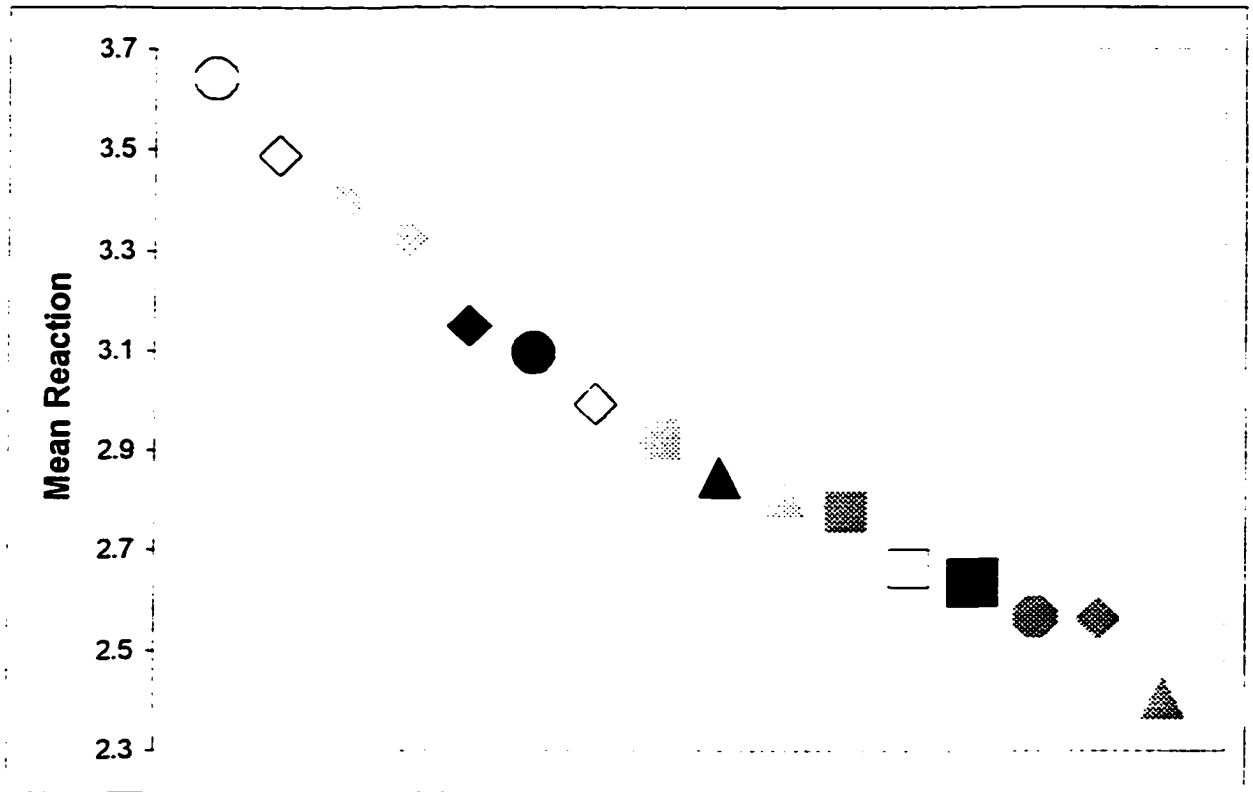
A: Observed Reactions from Study 2

B: Study 2; Increased Contrast

Note: Darker shading indicates greater negativity

Figure 3

Mean Reactions to Study 2 Scenarios in Descending Order



Expected RM	Enacted RM			
	CS	AR	EM	MP
CS	○	⊙	●	●
AR	△	⊙	▲	▲
EM	□	⊙	■	■
MP	◇	⊙	◆	◆

Table 9

ANOVA Table for Reactions to Scenarios: Expected Relational Model, Enacted Relational Model, Sex, & Ethnicity: Study 2

Effect	df	F	η^2	power
Expected Relational Model	3, 495	19.72***	.11	1.00
Enacted Relational Model	3, 495	28.51***	.17	1.00
Sex	1, 165	0.70	.00	.17
Ethnicity	3, 165	0.80	.01	.22
Expected RM x Enacted RM	9, 1485	5.24***	.03	1.00
Expected Relational Model by Sex	3, 495	2.70*	.02	.66
Expected Relational Model by Ethnicity	9, 495	0.77	.01	.39
Enacted Relational Model by Sex	3, 495	0.33	.00	.12
Enacted Relational Model by Ethnicity	9, 495	0.41	.01	.21
Sex by Ethnicity	3, 165	1.82	.03	.47
Expected RM by Enacted RM by Sex	9, 1485	1.70	.01	.79
Expected RM by Enacted RM by Ethnicity	27, 1485	0.72	.01	.68
Expected Relational Model by Sex by Ethnicity	9, 495	0.90	.02	.45
Enacted Relational Model by Sex by Ethnicity	9, 495	0.85	.02	.43
Expected RM by Enacted RM by Sex by Ethnicity	27, 1485	1.19	.02	.95

Note: RM = Relational Model. * $p < .05$. ** $p < .01$. *** $p < .001$.

repeated measures on the first two variables was calculated (see Table 9 for ANOVA results). Four significant effects were found out of fifteen possible. The first was a main effect for Expected RM. Post-hoc tests showed that people reacted more negatively to scenarios in which CS or MP were expected than to scenarios in which AR or EM were expected. More specifically, CS scenarios elicited more negative reactions than either AR scenarios or EM scenarios. CS scenarios, however, did not differ from MP scenarios. AR scenarios did not differ from EM scenarios but were significantly less negative than MP scenarios. EM scenarios were also significantly less negative than MP scenarios.

A main effect for Enacted RM was also observed. Scenarios in which CS or AR was enacted elicited the most negative reactions, followed by MP scenarios, and EM scenarios elicited the least negativity. More specifically, CS scenarios did not differ from AR scenarios but did elicit more negative reactions than either EM or MP scenarios. AR scenarios were more negative than either EM scenarios or MP scenarios. Finally, EM scenarios were significantly less negative than MP scenarios.

Two interactions were also statistically significant. The first, Expected RM by Enacted RM, indicates that reactions depend jointly on expectations and outcomes. The three hypotheses of this study all concern patterns of interactions for these factors and the significant interaction simply confirms that these analyses are required. A second interaction, Expected RM by Sex (see Table 10), failed to yield any interesting interpretation. No gender differences were found in reactions to violations of each expected RM (i.e. men's and women's reactions to violation of CS, etc.). Additionally, the patterns across RMs were only slightly different for men and women: conflicts in which MP was expected were least upsetting to men (all others were equally high). Women rated AR and EM violations as together less upsetting than conflicts in which CS or MP were expected.

No other main effects or interactions were significant in the ANOVA. Because gender and ethnicity did not have three or four way interactions with Expected RM and

Table 10

Mean Reaction (and Standard Deviations) to Conflict Scenarios by Expected Relational Model and Sex: Study 2

Sex	Expected Relational Model			
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing
Male	2.99 (0.83) ^a	2.80 (0.85) ^{ab}	2.58 (0.79) ^c	3.01 (0.88) ^a
Female	3.23 (0.85) ^a	2.76 (0.74) ^b	2.81 (0.87) ^{bc}	3.18 (0.85) ^a

Note: Cells that share a superscript are not significantly different from each other.

Enacted RM (which would have been necessary for gender or ethnicity to impact the central hypotheses), they were excluded from the remaining analyses.

Within-RM and Between-RM conflicts

The first research hypothesis proposed that people would react more negatively to conflicts in which the two parties used different Relational Models (i.e., between-RM conflicts) than to conflicts in which the same Relational Model was employed (i.e., within-RM conflicts). Contrary to this hypothesis, participants generally reacted more negatively to within-RM conflicts ($M = 3.10$, $SD = .85$) than to between-RM conflicts was ($M = 2.91$, $SD = .73$), $t(194) = 4.44$, $p < .001$ (the effect size¹² was $d = .32$; power = .95). That is, participants were more upset when their partners shared their RM than when they did not, which is a surprising finding that requires further study.

Size of Discrepancy

The second research hypothesis stated that larger discrepancies between the expected and enacted relational models (based on the ordering CS<AR<EM<MP) should lead to more negative reactions. The data were analyzed with t-tests for the three discrepancies (i.e., one step, two steps, or three steps). RM discrepancies of three steps elicited the more negative reactions ($M = 3.30$, $SD = .94$) than discrepancies of one step ($M = 2.82$, $SD = .80$), $t(192) = 8.55$, $p < .001$, or discrepancies of two steps ($M = 2.85$, $SD = .80$), $t(192) = 7.89$, $p < .001$. Two and three step discrepancies did not differ from each other, $t(192) = 0.72$, *ns*.

It is important to note, however, that these results depended on an ordering of the RMs based on mathematical precedence and developmental emergence (Fiske, 1991). If a criterion of interpersonal warmth is used, the ordering changes to CS<EM<AR<MP (Haslam, 1994a, 1994b). When analyses were performed using this revised ordering, the pattern of results did not change substantially. RM discrepancies of three steps elicited the more negative reactions ($M = 3.30$, $SD = .94$) than discrepancies of one step ($M = 2.79$, $SD = .77$), $t(194) = 9.32$, $p < .001$, or discrepancies of two steps ($M = 2.90$, $SD = .84$), $t(194) = 6.79$, $p < .001$. Differences between discrepancies of two and three steps approached significance but did not differ from each other when the sequentially rejective test was used, $t(194) = 2.57$, *ns*.

Direction of Discrepancy

The third research hypothesis stated that discrepancies in the direction of MP (meaning that the enacted RM is closer to MP than the expected RM, following the order CS<AR<EM<MP) should lead to more negative reactions than discrepancies in the direction of CS. Contrary to the hypothesized pattern, reactions to discrepancies in the direction of CS were more negative ($M = 3.00$, $SD = .82$) than discrepancies in the direction of MP ($M = 2.82$, $SD = .74$), $t(192) = 4.49$, $p < .001$.

When the revised RM ordering was used, reactions to discrepancies in the direction of CS ($M = 2.91$, $SD = .79$) were identical to discrepancies in the direction of MP ($M = 2.91$, $SD = .79$), $t(194) = 0.10$, *ns*.

Data exploration

Because of the surprising nature of the data and because this study represents an initial investigation into RM conflict, exploratory techniques were used to find any unanticipated patterns in the data. This was accomplished with two kinds of data graphics (see Figures 2 and 3). Although this technique risks capitalizing on chance patterns in the data, it is useful as a heuristic and guide in the analysis. (Additionally, patterns found by exploring one data set should always be validated with a separate data set. See Study 3 for this cross-validation.) Graphical analysis of the data suggested unusually negative reactions to CS/CS conflicts (i.e., conflicts in which the perceiver expected one form of Communal Sharing but another form of Communal Sharing was enacted), and generally mild reactions to conflicts involving EM (either expected or enacted). For further statistical analysis, the scenarios were placed into three categories: CS/CS conflicts ($M = 3.64$, $SD = 1.17$), EM conflicts ($M = 2.65$, $SD = 0.77$), and midrange conflicts ($M = 3.14$, $SD = 0.77$). Post-hoc tests using the Rom procedure showed strong differences between these three conflict categories. CS/CS conflicts elicited significantly more negative reactions than did midrange conflicts, $t(192) = 7.06$, $p < .001$, or EM conflicts, $t(192) = 12.55$, $p < .001$. Midrange conflicts were also significantly more negative than EM conflicts, $t(192) = 14.09$, $p < .001$. Although unanticipated, these differences appear to reflect general preferences for equality, as discussed in the negotiation literature (e.g., Fisher, Ury, & Patton, 1991; Rubin, Pruitt, & Kim, 1994) and the exceptional dichotomous nature (i.e., all or nothing) of CS relationships. This pattern will be discussed more fully in the general discussion.

Discussion

Only a small amount of support for the hypotheses was found. All analyses yielded statistically significant results but the findings were often the opposite of what had been

hypothesized. The first surprising result was that within-RM conflicts led to more negative reactions than did between-RM conflicts. This appears to have been largely due to the extreme scores for the CS/CS conflicts. In fact, in post-hoc analyses, the three remaining within-RM conflicts did not differ from the between-RM conflicts.

A second unexpected result in this study was that participants reacted more negatively to discrepancies in the direction of CS than to discrepancies in the direction of MP. This hypothesis depended on the validity of the RM ordering $CS < AR < EM < MP$, which is based on the progressive additional of permissible operations (following the parallel of the levels of measurement: nominal, ordinal, interval, and ratio) and the developmental emergence of the each RM in children. This ordering, however, has been challenged. As noted earlier, Haslam (1994a, 1994b) switches the middle two to form a continuum of interpersonal warmth, and there may be other valid orderings of the four RMs. When this alternate ordering was used, the effect for discrepancy direction disappeared.

The third research hypothesis, which examined the distance or number of steps between RMs used in the interaction, did receive partial support. Regardless of which RM order was used, conflicts involving discrepancies of 3 steps (of which there were two: CS/MP and MP/CS) led to stronger reactions than did smaller discrepancies. Again, the validity of this finding depends on the validity of the $CS < AR < EM < MP$ ordering, which needs to be investigated more fully. It may be that the distance finding is due more to the unique nature of tradeoffs between CS and MP than to the fact that they are 3 steps apart (a possibility suggested by Nick Haslam, personal communication, June 2, 1998). More specifically, MP transactions always involve some sort of weighing of costs and benefits, whereas no calculation at all is made in CS relationships. MP is a structured, often formal relationship that can be conducted in an entirely impersonal manner (although extreme forms of this would constitute null or asocial relationships).

Overall, the results of Study 2 contradicted most of the hypotheses. Before revising the hypotheses, it would be prudent to investigate these hypotheses with an alternate data set because some methodological shortcomings may explain the unexpected results in Study 2. First, the scenarios involved different kinds of situations (e.g., decision making, social influence, contribution, etc.) with different kinds of partners (e.g., spouse, insurance company, etc.). In addition, judgments concerning likelihood and interaction outcome were made by separate groups of participants and not those whose reactions constituted the main data of the study. The potential sources of uncontrolled variability make unambiguous interpretations of the results difficult. For this reason, a third study was designed to overcome some of these shortcomings and possibly provide data that are more reliable.

STUDY 3

Study 3 modifies the experimental scenarios to overcome some of the weaknesses of Study 2. Participants again read one of two sets of 16 scenarios describing each possible combination of RMs and were asked to respond to evaluative items. However, several important changes were made: (a) Only two domains—distribution and decision making—were used in a more controlled manner (e.g., one set of scenarios for each), whereas the previous study used social influence and contribution as well; (b) Scenarios were all explicitly interpersonal with a known Other (e.g., parents or spouse), whereas the previous study often involved collective groups or anonymous groups (e.g. an insurance company); (c) Instead of 6 evaluative questions, only one was asked after each scenario (“How upset”); (d) Covariates were included for each scenario (“How likely”) and for each set of scenarios (“How bad”); and, most importantly, (e) Scenarios were constructed in a combinatorial manner, such that four expectations and four enactments were combined to make the 16 scenarios.

Method

Participants

A convenience sample of $N = 132$ participants (43 Male, 85 Females, 4 not specified) was recruited at Hunter College. The mean age was 26.1 ($SD = 7.2$; Range: 18-60). Ethnicity was recorded in an open-ended manner and then coded as Black/African American/West Indian¹³ (11%), Hispanic/Latino/Latina (18%), Asian/Asian American (14%), or White/European American (53%); 4% did not provide ethnicity information.

Materials

Two sets of scenarios were prepared by the experimenter for this study (see Appendix E). It was decided that all scenarios should involve one or two identifiable people (and not a large group or corporation) with whom people typically had CS relationships (e.g., spouse, child, parent). The first set of scenarios involved asking a parent for money

to buy schoolbooks and being denied that money (the distribution condition). The second set of scenarios involved deciding with one's spouse on an apartment to rent and ending up in the personally less-desired apartment (the decision-making condition). Scenarios were constructed in a combinatorial manner. That is, the same expectation was used for the four distribution scenarios in which CS was expected (instead of having a new interaction with a new expectation for every scenario, as was the case in Study 2), another expectation was used for the four distribution scenarios in which AR was expected, and so on. A similar procedure was used for the enacted RMs. The outcome was identical for every scenario in each behavioral domain (i.e., distribution or decision making). In this way, the scenarios were as consistent as possible. However, this also made fatigue very likely (as all 16 scenarios would resemble each other strongly). In an effort to reduce the effect of fatigue, participants responded to only two questions after each scenario (see Appendix F): How upset would they feel and how likely did they think the interaction was to occur in real life. No open-ended questions were included. The scenarios and questions were written on small slips of paper that could be reordered for each participant. After responding to the scenarios, participants were also asked to evaluate the outcome of the scenarios (e.g., "How bad is it to live someplace you don't really like?"). By asking for likelihood ratings and outcome evaluations for each questionnaire, it was possible to evaluate and possibly control for the effects of these variables on the reaction scores. Participants were also asked to indicate their sex and ethnicity at the end of the study.

Procedure

The questionnaires were administered to participants individually or in small groups. Participants were randomly assigned to complete either the distribution or decision making conditions. The scenarios were shuffled for random order of presentation for each participant. Participants were asked to read each scenario carefully, as they were very similar. They were also asked to imagine themselves in each interaction. After reading and responding to each scenario, participants evaluated the outcome of the scenarios and

provided demographic data. They were then asked for comments on the study, debriefed, and thanked for their time.

Results

Overview

Three dependent variables (DVs) were measured in this experiment: (a) the valence of the scenario outcome; (b) the perceived likelihood of the complete scenario; and (c) the reaction (or negativity score) to the interaction. Correlations between likelihood and overall reactions were calculated and then ANOVAs were conducted for all three variables. Unlike Studies 1 and 2, Study 3 included an additional independent variable to be used in the ANOVA: behavioral domain (behavioral domains were unsystematically varied in the other studies). As with the previous studies, the data were examined for main effects for expected and enacted RM main effects, but the interaction was of greater interest. A significant interaction would be a prerequisite for significant effects for any of the three hypotheses. The data were then coded and analyzed separately for each hypothesis, using Rom sequentially rejective procedure. The data were graphically explored for unanticipated patterns and the patterns that were found in Study 2 were cross-validated with this data. Finally, the results of Study 2 and Study 3 were compared.

Relations between dependent variables

Participants provided data on three variables: how likely each interaction was to occur, how bad the outcome was (without considering the perceiver's expectations), and reactions to the scenarios. Likelihood ratings and reaction scores were provided for each scenario. The average scores for each scenario on these variable were significantly negatively correlated, $r(30) = -.48$, $p < .005$. This indicates that people were more upset by interactions that they viewed as less likely or, conversely, people were less upset by familiar or likely interactions. This relationship implies a role for perceived likelihood as a potential mediator in that perceived likelihood may explain the variance of reactions more completely than or instead of RM structural conflicts.

Outcome evaluation

Outcome evaluations for scenarios from both behavioral domains were compared. No difference was found between the average evaluation for the distribution scenarios ($M = 4.27$; $SD = 0.96$) and the decision making scenarios ($M = 4.39$; $SD = 0.74$), $t(121) = -0.77$, *ns*.

Scenario Likelihood

Perceived likelihood (see Table 11) was evaluated with a 4 (Expected RM: CS, AR, EM, MP) x 4 (Enacted RM: CS, AR, EM, MP) x 2 (Behavioral domain: Distribution or Decision Making) x 2 (Sex: Male or Female) ANOVA with repeated measures on the first two variables. A significant main effect for Enacted RM was found, $F(3, 372) = 14.41$, $p < .001$. Post-hoc t-tests showed that scenarios in which EM was enacted were rated as less likely than all other scenarios, which did not differ from each other. This effect, however, was qualified by an interaction of Enacted RM with Behavioral domain, $F(3, 372) = 29.22$, $p < .001$. Post-hoc analyses showed that scenarios in which CS was enacted were seen as more likely for distribution situations than for decision making scenarios. The opposite pattern occurred when MP was enacted (see Table 12). Additionally, for distribution, scenarios in which CS was expected were seen as less likely than any other scenarios, which did not differ from each other. For decision making, CS was most likely, MP least likely, and AR and EM did not significantly differ from any other RMs.

Reaction Scores

The reaction data (see Tables 13 and 14; Figures 4 and 5) were analyzed with a 4 (Expected RM: CS, AR, EM, MP) x 4 (Enacted RM: CS, AR, EM, MP) x 2 (Behavioral domain: Distribution or Decision Making) x 2 (Sex: Male or Female) ANOVA with

Table 11

Mean Likelihood Ratings (and Standard Deviations): Study 3

Expected Relational Model	Enacted Relational Model				Average
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing	
Communal					
Sharing	3.30 (1.27)	3.19 (1.25)	2.72 (1.29)	3.06 (1.32)	3.07 (0.93)
Authority					
Ranking	3.22 (1.26)	3.17 (1.24)	2.75 (1.24)	3.17 (1.33)	3.08 (0.92)
Equality					
Matching	3.23 (1.22)	3.07 (1.25)	2.70 (1.30)	3.03 (1.36)	3.01 (1.00)
Market					
Pricing	3.20 (1.29)	3.12 (1.27)	2.74 (1.28)	3.08 (1.38)	3.03 (0.95)
Average	3.24 (1.07)	3.14 (1.05)	2.73 (1.10)	3.09 (1.22)	3.05 (0.89)

Note: Scores range from 1 (Not at all negative) to 5 (Very negative). $N = 132$.

Table 12

Mean Likelihood Ratings (and Standard Deviations) by Enacted Relational Model and Behavior Domain: Study 3

Behavioral Domain	Enacted RM			
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing
Distribution	3.37 (1.09) ^a	3.00 (1.19) ^b	2.88 (1.14) ^{bd}	2.47 (1.16) ^c
Decision Making	3.11 (1.04) ^a	3.27 (0.89) ^{ab}	2.58 (1.06) ^d	3.70 (0.93) ^e

Note: Cells that share a superscript are not significantly different from each other.

Table 13

Means (and Standard Deviations) for Reactions by Behavioral Domain: Study 3

Expected Relational Model	Enacted Relational Model				Average
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing	
Communal Sharing					
Combined	3.71 (1.18)	3.42 (1.24)	3.30 (1.19)	3.39 (1.29)	3.45 (0.90)
Distribution	3.35 (1.18)	3.62 (1.26)	3.39 (1.20)	3.79 (1.22)	3.54 (0.98)
Decision	4.08 (1.07)	3.21 (1.20)	3.21 (1.18)	2.98 (1.25)	3.37 (0.82)
Authority Ranking					
Combined	3.60 (1.23)	3.48 (1.20)	3.30 (1.34)	3.40 (1.22)	3.45 (0.90)
Distribution	3.20 (1.19)	3.74 (1.18)	3.24 (1.30)	3.65 (1.33)	3.46 (0.98)
Decision	4.00 (1.15)	3.23 (1.17)	3.35 (1.38)	3.15 (1.06)	3.43 (0.81)
Equality Matching					
Combined	3.72 (1.14)	3.58 (1.26)	3.67 (1.18)	3.49 (1.33)	3.62 (0.91)
Distribution	3.38 (1.19)	3.91 (1.32)	3.79 (1.16)	3.91 (1.34)	3.75 (1.01)
Decision	4.06 (0.99)	3.26 (1.11)	3.55 (1.19)	3.08 (1.18)	3.48 (0.77)
Market Pricing					
Combined	3.73 (1.18)	3.45 (1.26)	3.38 (1.25)	3.30 (1.31)	3.47 (0.95)
Distribution	3.41 (1.11)	3.76 (1.23)	3.32 (1.14)	3.61 (1.40)	3.52 (0.97)
Decision	4.06 (1.16)	3.15 (1.23)	3.44 (1.35)	2.98 (1.13)	3.41 (0.95)
Average					
Combined	3.69 (1.05)	3.48 (1.08)	3.41 (1.05)	3.39 (1.10)	3.50 (0.85)
Distribution	3.33 (1.03)	3.76 (1.10)	3.44 (1.02)	3.74 (1.16)	3.57 (0.93)
Decision	4.05 (0.95)	3.21 (1.00)	3.39 (1.09)	3.05 (0.94)	3.42 (0.78)

Note: Scores range from 1 (Not at all negative) to 5 (Very negative). $N = 132$.

Table 14

Reaction Residuals: Study 3

Expected RM	Enacted RM				Row Effect
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing	
Communal Sharing	0.06	-0.02	-0.07	0.03	-0.04
Authority Ranking	-0.04	0.05	-0.06	0.05	-0.05
Equality Matching	-0.09	-0.02	0.14	-0.03	0.12
Market Pricing	0.07	0.00	0.00	-0.07	-0.03
Column Effect	0.20	-0.01	-0.08	-0.10	3.50

Table 15

ANOVA Table for Reactions to Scenarios: Expected Relational Model, Enacted Relational Model, Behavior, & Sex: Study 3

Effect	df	F	η^2	power
Expected Relational Model	3, 372	3.62*	.03	.79
Enacted Relational Model	3, 372	5.92***	.05	.95
Behavior	1, 124	0.91	.01	.17
Sex	1, 124	9.82**	.07	.87
Expected RM by Enacted RM	9, 1116	1.71	.01	.79
Expected Relational Model by Behavior	3, 372	1.20	.01	.32
Expected Relational Model by Sex	3, 372	2.42	.02	.60
Enacted Relational Model by Behavior	3, 372	22.50***	.15	1.00
Enacted Relational Model by Sex	3, 372	1.44	.01	.38
Behavior by Sex	1, 124	0.47	.00	.10
Expected RM by Enacted RM by Behavior	9, 1116	0.97	.01	.49
Expected RM by Enacted RM by Sex	9, 1116	1.40	.01	.68
Expected Relational Model by Behavior by Sex	3, 372	1.51	.01	.40
Enacted Relational Model by Behavior by Sex	3, 372	0.66	.01	.19
Expected RM by Enacted RM by Behavior by Sex	9, 1116	0.67	.01	.34

Note: RM = Relational Model. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 16

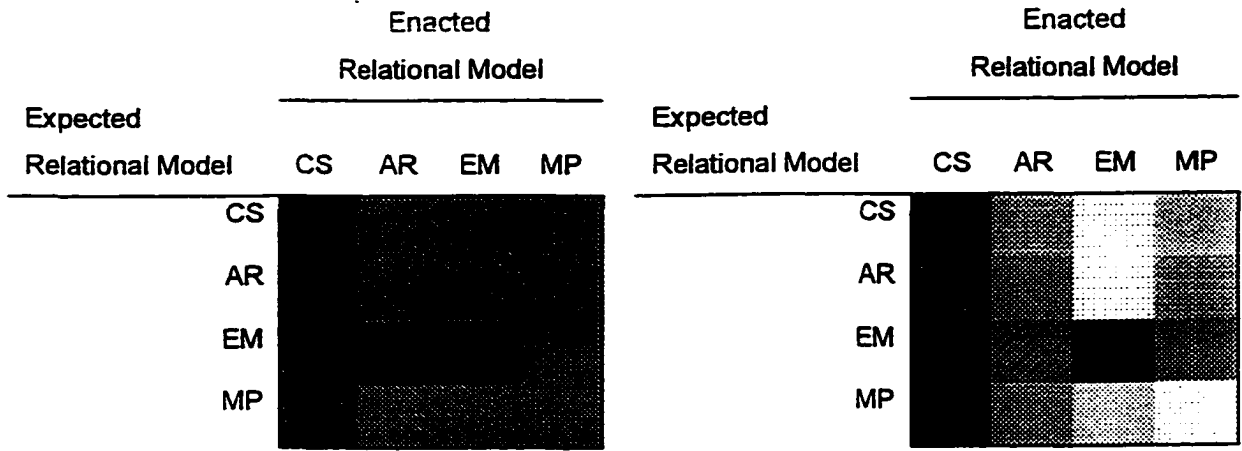
Mean Reactions (and Standard Deviations) to Conflict Scenarios by Enacted Relational Model and Behavior Domain: Study 3

Behavioral Domain	Enacted RM			
	Communal Sharing	Authority Ranking	Equality Matching	Market Pricing
Distribution	3.33 (1.03) ^a	3.76 (1.10) ^b	3.44 (1.02) ^{ab}	3.74 (1.16) ^b
Decision Making	4.05 (0.95) ^c	3.21 (1.00) ^{bd}	3.39 (1.09) ^{bd}	3.05 (0.94) ^d

Note: Cells that share a superscript are not significantly different from each other.

Figure 4

Observed Reactions to Relational Model Conflicts: Study 3



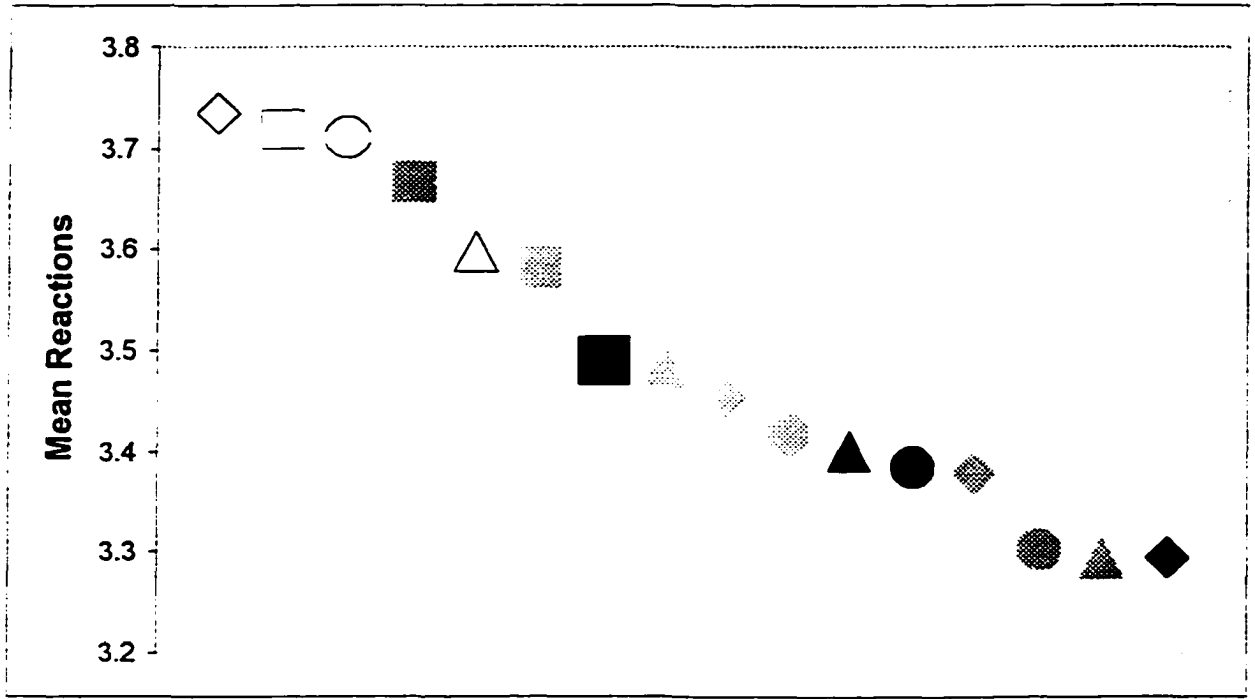
A: Observed Reactions from Study 3

B: Study 3; Increased Contrast

Note: Darker shading indicates greater negativity

Figure 5

Mean Reactions to Study 3 Scenarios in Descending Order



Expected RM	Enacted RM			
	CS	AR	EM	MP
CS	○	◐	◑	●
AR	△	◐	◑	▲
EM	□	◐	◑	■
MP	◇	◐	◑	◆

repeated measures on the first two variables (see Table 15 for ANOVA results). Only 4 of the 15 effects were statistically significant. The main effect for Expected RM was significant, $F(3, 372) = 3.62$; $p < .05$. Post-hoc t-tests showed that scenarios in which EM was expected ($M = 3.62$; $SD = 0.91$) led to more negative reactions than CS scenarios ($M = 3.45$; $SD = 0.90$), AR scenarios ($M = 3.45$; $SD = 0.90$), or MP scenarios ($M = 3.47$; $SD = 0.95$), none of which differed from each other.

A significant main effect for Enacted RM was also found, $F(3, 372) = 5.92$; $p < .001$. Scenarios in which CS was enacted ($M = 3.69$; $SD = 1.05$) led to significantly more negative responses than did EM scenarios ($M = 3.41$; $SD = 1.05$; $t(130) = 3.17$; $p < .005$). No other differences were significant. This pattern, however, was qualified by an interaction of Enacted RM and Behavioral Domain (see Table 16). Distribution scenarios in which CS or MP were enacted led to more negative reactions than did corresponding decision making scenarios, while there were no differences in AR or EM scenarios. Patterns of responses within each domain varied considerably. For distribution scenarios, CS had the least negative responses although it was not significantly lower than EM scenarios. AR and MP scenarios elicited more negative responses for distribution scenarios than CS, but not significantly more than EM. For decision making, CS elicited significantly more negative responses than AR, EM, or MP scenarios, which did not differ from each other.

Sex of participant also had a significant effect on responses to conflict scenarios, with male participants giving less negative responses ($M = 3.19$; $SD = 0.85$) than female participants ($M = 3.68$; $SD = 0.82$); $F(1, 124) = 9.82$; $p < .005$. No other main effects or interactions were significant.

Within-RM and Between-RM conflicts

The omnibus ANOVA did not show a significant Expected RM x Enacted RM, which would typically be a prerequisite for any of the three research hypotheses to also be significant. However, because it is possible for interactions to occur without any significant

lower-order effects, it was decided to test the hypothesized interaction patterns. Responses to within-RM conflicts ($M = 3.54$; $SD = 0.92$) did not differ significantly from between-RM conflicts ($M = 3.48$; $SD = 0.85$). This nonsignificant finding, however, could be the result of low power. With an effect size of $d = .16$ (which is below the $d = .20$, which is usually considered a small effect) and $N = 132$, power is only .40, approximately. For power of .80, approximately 350 participants—almost three times as many—would be required.

Size of discrepancy

In Study 2, RM discrepancies of three steps were associated with more negative responses than smaller discrepancies. That pattern failed to replicate in this study. Reactions to discrepancies of three steps ($M = 3.56$; $SD = 0.99$) did not differ significantly from responses to discrepancies of two steps ($M = 3.47$; $SD = 0.87$) or one step ($M = 3.46$; $SD = 0.89$). Using the revised RM ordering did not change these results. Low power for such small effect sizes (d 's ranging from .02 to .15) may again be partly responsible for the lack of significance.

Direction of discrepancy

Discrepancies in the direction of CS ($M = 3.53$; $SD = 0.91$) elicited slightly more negative responses than did discrepancies in the direction of MP ($M = 3.38$; $SD = 0.94$). Although this pattern is similar to that found in Study 2, the difference was not significant when using the Rom sequentially rejective t-test, which maintains the experimentwise alpha rate. It should be noted that the effect was larger than the other effects ($d = .24$) and reached significance easily with a conventional t-test ($t(130) = 2.81$, $p = .006$). The revised RM ordering did not affect this pattern. Again, with a larger sample and more power, this difference may reach statistical significance with the more appropriate Rom test.

Post-hoc cross-validation

Exploration of the data in Study 2 showed that CS/CS conflicts elicited the most negative responses and conflicts involving EM had the least negative responses (the other

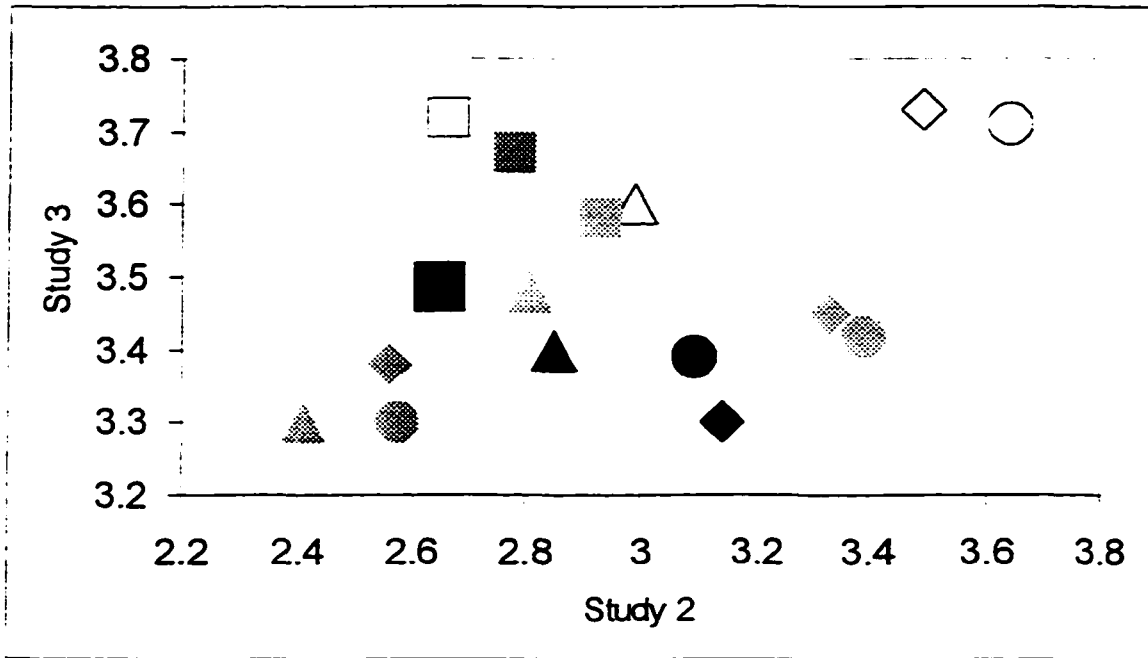
conflicts fell in between). A post-hoc test showed the differences to be highly significant. However, because such data exploration may capitalize on chance patterns in the data, it is common to validate such post-hoc findings by applying them to a different data set. When the post-hoc patterns from Study 2 were applied to the data from Study 3, there was a small amount of agreement (CS/CS conflicts: $\underline{M} = 3.71$; $\underline{SD} = 1.18$; Midrange conflicts: $\underline{M} = 3.49$; $\underline{SD} = 0.90$; and EM conflicts: $\underline{M} = 3.47$; $\underline{SD} = 0.90$) but no statistically significant patterns (using the Rom procedure). This makes the patterns found in Study 2 somewhat suspect. However, the main effect for Enacted RM and the interaction of Enacted RM and Behavioral domain made it clear that Communal Sharing again played an unusual role. Responses to conflicts in which CS was expected were especially negative for the decision making scenarios, which is somewhat surprising because the conflict in this situation did not involve being excluded from the relationship but from other people being included.

Study 2 and Study 3 compared

The results from Study 2 correspond partially with the results from Study 3. When the mean evaluative reactions were compared for each of the 16 RM conflicts in the two studies, the resulting correlation was relatively large but nonsignificant, $r(14) = .38$, *ns*. It is important to note, however, that this correlation is based on 16 data points and the lack of statistical significance may be due more to inherently low power than to a null relationship. The correlation represents a medium effect size, as the evaluations in Study 2 explained about 14% of the variance in the Study 3 evaluations. It is, in fact, notable that the correlation is as large as it is, given that the scenarios shared only their RM structure. Other factors, such as how personal the interaction was or the behavioral domain involved, varied unsystematically. Therefore, a modest correlation implies some meaningful correspondence at the structural or logical level.

Figure 6

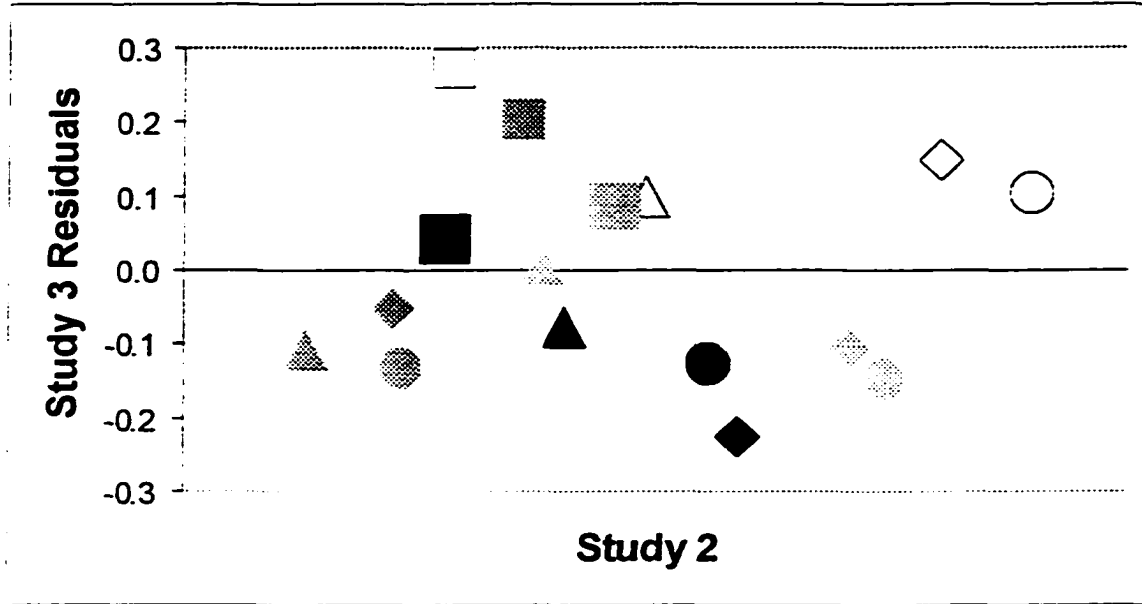
Scatterplot of mean reactions from Study 2 and Study 3



Expected RM	Enacted RM			
	CS	AR	EM	MP
CS	○	○	●	●
AR	△	△	▲	▲
EM	□	□	■	■
MP	◇	◇	◆	◆

Figure 7

Scatterplot of Study 3 Residuals against Study 2 Data



Expected RM	Enacted RM			
	CS	AR	EM	MP
CS	○	●	●	●
AR	△	△	△	△
EM	□	□	■	■
MP	◇	◇	◇	◇

Inspection of the scatterplot (see Figure 6) and residuals (see Figure 7) for Study 2 and Study 3 indicates a few important similarities for the two data sets. For example, scenarios in which EM was enacted generally led to less negative reactions than other conflicts. In addition, the CS/CS conflict was particularly strong in both studies. In this limited sense, the two studies provide convergent support for the special role of CS and EM in conflicts. In future studies, these special roles will be investigated more thoroughly.

Discussion

Study 3 investigated the same hypotheses as Study 2 but had greater consistency among the experimental scenarios and briefer outcome measures. Overall, the results of Study 3 were somewhat similar to those of Study 2. Conflict scenarios in which EM was expected were associated with greater negativity than any other RM. This differs from Study 2, in which discrepancies involving EM expectations (along with AR) were less negative than others. This contradiction qualifies the conjecture that EM serves as a general, most-acceptable model for relations. However, EM did maintain a role as least-offensive enacted RM. In the interaction between Enacted RM and behavioral domain, the other three RMs essentially rotated around EM. CS, for instance, was the least offensive enacted RM (but not significantly less than EM) for distribution scenarios but it was the most offensive enacted RM for decision-making scenarios (in Study 2, CS was highest with AR). In the distribution scenarios for Study 3, the CS enactment involved not receiving money to buy college textbooks from one's parents because one no longer lived at home. This exclusion was familiar and reasonable to many of the student participants in this study, as attested to by the high likelihood score it received. This similarity alone may explain the moderate response to the scenario. Moreover, it is much less harsh than being preempted from a family discussion, as occurred in Study 2's CS/CS scenario. For the decision-making scenarios, however, the CS enactment involved living in a less-desired apartment because one's partner's relatives preferred it. Most participants saw this as an unjustifiable intrusion

into the couple's privacy, although it was still seen as moderately likely. Taken together, these patterns for CS enactments appear to imply a strong sense of individualism. That is, it appears that the participants felt that it is acceptable to be cut off financially from one's family and it is not acceptable to have one's family intrude in a private decision. This pattern of individualism is surprising, considering that the sample was ethnically and culturally diverse with many participants coming from traditionally collectivist backgrounds. However, it is also possible that the participants, all of whom had been college students in the United States for at least a few years, had quickly acculturated to individualistic conventions. It would be interesting to measure collectivism and acculturation at an individual level in a future study to investigate how these variables influence response to Communal Sharing related conflicts.

The major hypotheses of the study, however, were not confirmed. Unlike Study 2, no difference was found between reactions to between-RM conflicts and within-RM conflicts. In addition, unlike Study 2, no effect was found for the size of the RM discrepancy, regardless of which RM order was used. However, a non-significant trend (which would have been significant without the familywise adjustment of the probability level) indicated that, similar to Study 2, discrepancies in the direction of CS were associated with greater negativity than were discrepancies in the direction of MP. With a larger sample size, an effect of similar magnitude could easily reach conventional levels of statistical significance. It should be noted, however, that this trend is the opposite of what was originally hypothesized. As mentioned earlier, this potential reversal may be evidence that the influence of RM contradictions interacts with the valence of the general outcome. That is, relative to other RMs, CS may be especially pleasant and warm when the outcome is positive but particularly cold and hostile when the outcome is negative. This possibility needs to be investigated more directly.

Based on interviews with participants, the overall failure of Study 3 to confirm (or even disconfirm) the experimental hypotheses appears to be due to fatigue and frustration

among the participants. The design was very repetitive—the same situation was described repeatedly with seemingly minor variations of what was expected and what was enacted. These variations were themselves repeated in a combinatorial manner. Although an effort was made to reduce the amount of time required for the study by having participants respond to only two questions after each scenario (as opposed nine in Study 2), participants reported feeling confused and frustrated. Many said that they did not read the scenarios carefully and marked responses haphazardly. Consequently, a large amount of random noise was included in the data. This noise may explain the very small effect sizes and general nonsignificance of many of the findings. As such, the findings may not represent an actual refutation of the hypotheses. Instead, the lack of significance appears to be more the result of low power given the amount of random error in the data. Until a more powerful design that avoids repetition and fatigue can be implemented, Study 3 should be seen as offering a promising but low-power replication of the findings in Study 2.

GENERAL DISCUSSION

Scholarly work on the nature of Relational Models (Fiske, 1991, 1992) and Relational Model conflict (Fiske & Tetlock, 1997) suggested that people may react differently to conflicts in which the RM structures used are concordant than when they are discordant. The three studies presented here investigated three hypotheses based on this work: (a) between-model conflict would lead to more negative reactions than would within-model conflict; (b) discrepancies of greater distances between RMs would lead to more negative reactions than would discrepancies of smaller distances; and (c) between-RM discrepancies in the direction of MP would lead to more negative reactions than would discrepancies in the direction of CS.

Study 1 was plagued with methodological flaws and yielded very little useful information on these questions. It did, however, permit the refinement of an outcome measure for Study 2. Study 2 had a more thorough design and was more carefully constructed than Study 1. Study 2 essentially contradicted the hypotheses in that the participants reacted more negatively to within-RM conflict than between-RM conflict and discrepancies in the direction of CS elicited more severe reactions than did discrepancies in the direction of MP. Partial support was obtained for the discrepancy distance hypothesis. Finally, Study 3 failed to confirm or disconfirm any of the major hypotheses, although this ambiguity may be attributed to fatigue and random noise in the data more than any fundamental flaws in the theory. Each hypothesis merits particular consideration.

Between-RM Conflict and Within-RM Conflict

Because within-RM conflicts share the same logical structure, it was hypothesized that they would be more comprehensible and less disturbing than would between-RM conflicts. The data in these studies showed the opposite pattern, particularly in the case of CS/CS (e.g., expecting CS inclusion and being excluded). In fact, when the CS/CS condition was removed from the analyses, the within/between effect vanished. This may have more to do with the binary nature of the CS/CS conflict than with the fact that it is a

within-RM conflict. That is, a person who has been excluded via CS may feel that they no longer have any relationship at all with the excluding party. For instance, when a relationship based on a particular implementation of MP is rejected (e.g., I reject your company's bid for a 1000 widgets as too expensive), the relationship can still exist on changed terms (e.g., I may offer you a contract for 250 widgets at your given price). CS exclusion, in contrast, is dichotomous—you either are in the relationship or you are not. No middle ground or partial acceptance is possible. Because they are so complete and because they may come when a person is expecting complete acceptance, CS rejections may appear to signal a complete lack of relations (i.e., Fiske's null relation). It is no surprise that this would be particularly painful and upsetting.

Another possible explanation for the non-difference between within-RM and between-RM conflicts may be that the extremity of the reaction depends on the flexibility of the RMs used. This would allow for extreme reactions to CS/CS conflicts, which allow no flexibility (i.e., you are either in or out), than, for example, to more flexible MP/MP reactions, which allow partial or qualified relations. However, as mentioned above, when Cs/CS conflicts were removed from the analysis, no other differences between within-RM and between-RM conflicts were revealed. This leads to the conclusion that this distinction is not productive. That is, knowing the specific RMs expected and enacted may be more important than knowing whether they are the same RM or different. Alternately, the overall valence of the reaction to the situation may not differ for within-RM and between-RM conflicts, but the quality of the reaction may vary. For example, one conflict may lead to personal resentment whereas another may lead to general anxiety. Qualitative data are currently being gathered that may help to answer this question.

Another possible explanation for the apparent reversal was proposed by Herbert Saltzstein (personal communication, May 19, 1998): if sharing an RM implies that two people see the situation in essentially similar ways, then a contradiction may imply that the people disagree about how to act in a particular situation. A conflict in this situation means

that the two people feel that the other person is acting inappropriately, given the way they perceive the situation. On the other hand, if the two people do not share an RM, then they must see the situation as different in some important way and the issue then is simply whether the person sees the situation in a valid way. This means that each person's personal rules about how to act in a given situation are not challenged but the perception of the situation is. However, people may have more flexibility about how to perceive a situation (because situations are multifaceted) than about which RM to use once the situation is perceived. Another way to put this is that having your rules invalidated (i.e., your beliefs about how to act—including which RM to use—in a well-specified situation) may hurt more than having your perception invalidated (i.e., the way that you categorize the situation or which features of the situation you see as more significant). Similarly, suggesting to a person that they simply change their frame of reference from one RM to another may be a way of resolving the conflict while saving face. In future research, qualitative interviews with participants about real-life conflicts may be the most effective way to assess this distinction.

Studies 2 and 3 also showed a special role for EM, which may have served as a possible default relational structure. That is, when people find themselves in ambiguous situations, they may be willing to propose EM but readily give it up for another option. Similarly, people may be more willing to accept EM than other RMs when it is proposed by others. This interpretation is consistent with other work on social conflict (e.g., Fisher, Ury, & Patton, 1991; Rubin, Pruitt, & Kim, 1994) that generally finds a strong preference for EM behaviors in negotiating settlements, even when such behavior is counterproductive. At the moment, however, the potential role of EM as a social default is a conjecture that needs to be investigated more thoroughly.

Direction of RM Discrepancies

Another surprising finding in these studies was that discrepancies in the direction of CS were associated with more negative reactions than were discrepancies in the direction of

MP. One possibility is the effect of direction depends on whether the relational outcome is essentially positive or negative. Most research on RMT so far has focused on generally positive relationships. For instance, Haslam's (1994a, b) ranking of the RMs on a continuum of warmth, with CS the warmest and MP the coldest, reflects the positive focus of most RM research. It is only more recently that researchers (e.g., Connelley, 1996, 1997; Fiske & Tetlock, 1997; Whitehead, 1993) have started to focus on how Relational Models Theory can inform the negative side of social relations. For instance, the studies in this paper concentrate on negative outcomes in relationships (e.g., deprivation, denial, and blame). It may well be that when the situations and outcomes that characterize a relationship are switched from positive (or neutral) to negative that the ordinarily "warmer" RMs (such as CS or EM) become that much colder in comparison to the expectation. For example, the positive form of CS implies acceptance as an equal (or even as part of the others' own self-concepts) whereas the negative form of CS is categorical exclusion, such as sexual or racial discrimination. On the other hand, the positive form of MP involves exchanges based on fair ratios, which may be associated with feelings of competence or esteem. Compare that to the negative form of MP, which can involve one being labeled as an unacceptable risk or overvalued. The difference between positive and negative appears to much more pronounced for CS than for MP, which may contribute to the reversal of the direction effect.

A more likely explanation for the direction reversal is that the order of RMs makes no difference and that the CS/CS conflicts alone accounted for the observed direction effect. In this study, two different orderings of the RMs were employed out of 16 possible orderings. Although there are sound reasons for both Fiske's and Haslam's orderings (logical/developmental progression and warmth, respectively), these orders may not be relevant to social conflicts. Instead, idiosyncratic expectations may be more important. For instance, in Study 3, individual reaction scores were highly correlated with likelihood ratings ($r = -.48, p < .005$), which indicates that people react more strongly to interactions

that they view as less likely. Likelihood judgments, however, can vary substantially from person to person and from culture to culture. Consequently, the hope for a universal, predictive ordering of Relational Models may be a vain one.

Distance of RM Discrepancies

Study 2 provided some support for the hypothesis that greater distances between RMs used in an interaction would be associated with more negative reactions. However, this finding depends greatly on the way in which the RMs are ordered. For reasons just discussed, the particular orders used in these studies and the general practice of ordering RMs is suspect. Instead, individual variations in RM expectations for particular situations may be much more significant. Again, future research will examine individual preferences in RMs and the consequences of particular RM combinations instead of the effects of RM orders.

Conflict Valence and Ambiguity

Another possible reason why the data in these studies do not support the hypotheses may have to do with the nature of the specific conflicts studied. The hypotheses in this paper were most directly based on the theoretical work of Fiske and Tetlock (1997), who presented a number of examples of “taboo tradeoffs” between RMs. Some of these tradeoffs represented more serious conflicts than others. For example, Fiske and Tetlock discuss the horror people might feel at being asked to sell their children or selling a cemetery to a brothel. Both of these situations represent highly unusual, drastic departures from typical relations in most cultures. Although Fiske and Tetlock do present less extreme examples of RM conflicts, such as paying one’s mother for Thanksgiving dinner, it may be that the more extreme examples predominate when evaluating the overall impact of RM conflicts. Consequently, it may be that the valence of the outcomes has more of an influence on people’s reactions to these interactions than the conflict between RMs, per se. In contrast to Fiske and Tetlock’s more extreme examples, Studies 2 and 3 in the present paper intentionally avoided interaction outcomes that were markedly negative. This strategy

was chosen after Study 1 showed that extreme outcome valences could overwhelm the influence of RM conflicts. One consequence of this choice could have been that the tradeoffs or conflicts between RMs were not as pronounced as in certain examples given by Fiske and Tetlock and that the effect of RM conflicts would have been correspondingly reduced. Therefore, it would be informative to study interactions in which the outcome valence varied more than it did in the present studies to determine if this critique can explain some of the unexpected results.

A related possibility is that some of the examples given in Fiske and Tetlock (e.g., applying a price to one's children) very clearly contradicted social norms, regardless of the valence of the interaction outcome. When a social norm is clearly and unambiguously applicable to a situation, any deviation from that norm would be worthy of censure. On the other hand, if a situation is more ambiguous, as most social situations certainly appear to be, then several different standards may be applied. Each standard may correspond with a different RM, and therefore it may not be difficult for people to view a situation in multiple ways and potentially apply any of the RMs. For example, the situations in Study 3 (asking for book money and choosing an apartment) were intentionally chosen because each of the RMs could be applied to the same situation. This flexibility may have actually contributed to the failure to find clear reaction patterns. In future research it would be desirable to assess the ambiguity or flexibility of situations as well as individual differences in the tendency to see situations from multiple perspectives. In this way, the effect of fixed social norms could be separated from the effect of RM discord in shaping individuals' reactions to conflict. In addition, future research could investigate whether the ambiguity of situations could be profitably used to change negative relations (or perceptions of relations) from an uncompromising CS structure to another RM where some negotiation or partial acceptance is possible. If this could be accomplished, at least in the eye of the beholder, then substantial amounts of resentment and future conflict could possibly be avoided.

Sex and Ethnicity

Interestingly, despite reasonably high power, sex appeared to play only a minor role in determining reactions to RM conflicts and ethnicity did not affect the results in any detectable manner. This result is particularly surprising given that RM choice and styles of dealing with conflict are believed to be highly influenced by cultural norms and social rules. Future research could investigate the contributions of social and cultural norms and beliefs to RM preferences and reactions to RM discord more directly by including participants who are known to differ on important cultural criteria. It is anticipated that such research could aid understanding of conflicts based on cultural differences in values and beliefs, such as clashes between the United States and Islamic countries in the Middle East.

Methodological Implications

One important change that could be made in future studies concerns the methodology. The stimulus materials consisted of written scenarios and the outcomes were measured with closed-ended quantitative variables. This highly controlled approach has the advantages of simplified analysis and interpretation, as well as greater efficiency in gathering the data. However, the experimental approach has many limitations, particularly when assessing affectively charged interpersonal situations. The experimental approach used here lacks realism and may not have been convincing or involving to the participants. Moreover, no actual social exchanges took place—participants individually read about conflicts and provided data without conferring with other participants. Finally, the reactions were largely constrained by the quantitative format used.

Many of these shortcomings could be overcome by using pairs or groups of participants in naturalistic interactions. One approach that could be used is the interdependent strategy advocated by Ickes and Gonzalez (1994). They propose that researchers inconspicuously film dyads interacting in an unstructured way in a waiting room setting. After some time has gone by (perhaps 15 minutes), the researchers approach the participants and ask them to review the videotapes and add their thoughts and feelings at

appropriate times in the tape. This approach is considerably more involved but is much more promising. It is more likely to capture the richness of spontaneous social interactions (including some conflict) and give higher quality data. It would also allow the possibility of interviewing the participants at length after they have commented on their tapes.

Another improvement could come from an adaptation of Kenny's (1996) social relations model in which groups of participants rate each other in a round-robin procedure, permitting the estimation of effects for target, perceiver, and interactions. This could be combined with experimental manipulations of RM expectations and enactments to assess specific RM conflicts (e.g., in the form of role-plays).

A third possible methodological improvement would be to have participants report on their own interpersonal conflicts (either retrospectively or prospectively) and describe their affective, behavioral, and cognitive reactions in an open-ended manner. These reports could be written by the participant or could be elicited by the researcher in personal interviews. Any of these strategies could yield more insight into the nature of RM conflicts and possibly help answer some of the remaining questions from this research project.

Resolution of RM Conflicts

Finally, to the extent that this research has provided certain clues as to the sources relational conflict, it is only logical that methods for resolving RM-based discord should be developed and evaluated. More specifically, if the use of incommensurable relational models is a source of discord, what new insights can this research offer? Although the resolution of discord is beyond the scope of the current research, several strategies are possible: (a) reconceptualizing the interaction in such a way that the two people share the same RM (at the very least); (b) adding new relational scripts or templates for relational interactions (e.g., cultural sensitivity training); (c) helping people create more finely differentiated relational scripts so that the complexities of social perception and the myriad exceptions to cultural rules become more salient (along the lines of Tetlock's 1986 value pluralism approach); or, if all else fails, (d) restructuring the social environment so that the

people in conflict no longer interact (i.e., changing the relationship to what Fiske calls a “null relationship”). These and several other possibilities will be explored in future research on how Relational Models Theory can be used to both understand and resolve social conflict.

Conclusion

Relational Models have important effects on interpersonal conflict. CS/CS conflicts are particularly painful: Not being allowed to enter your parent’s house without being invited, for instance, can be especially upsetting. On the other hand, EM conflicts (particularly when EM is enacted) are much less painful. For example, people are often willing to accept an even division of a restaurant check even when they have ordered less than the others at the table. The importance of RM conflict relies on the fact that interactions such as these (and more extreme examples) frequently occur in real life and can have very practical consequences such as worker attrition or lawsuits (e.g., Connelley, 1996, 1997; Folger & Buttram, 1993; Folger, Sheppard, & Buttram, 1995). People get angry not only when they have been objectively slighted; sometimes not even then. Rather, the forms of relationships that people act out can significantly influence whether and to what degree they are satisfied with their interactions.

Appendix A:
Scenarios for Study 1

Scenarios for Study 1

CC Outcome evaluation (1.71); Reaction (3.46).

Imagine that your spouse's family is trying to make a difficult decision unanimously. You make a suggestion and they say that although you are married to a member of the family, you yourself are not a member of the family, so they disregard your suggestion and do not involve you in the decision making process.

CM Outcome evaluation (3.00); Reaction (4.11).

Imagine that you get hit by a taxi and when you arrive at the hospital you find that the doctors, whom you expect will help anybody who needs it, won't work on you because you don't have insurance and can't pay.

MC Outcome evaluation (0.79); Reaction (3.18).

Imagine that you have started working for a new company. An important project comes up that will require you to work overtime for several days. However, instead of being paid for your extra work, you find that the company has traditionally expected employees to work overtime and that everybody there does it willingly.

MM Outcome evaluation (1.57); Reaction (3.39).

Imagine that you are applying for auto insurance. You have an excellent driving record and you assumed this would lower your premiums. However, you learn that the insurance company bases your rates on your age, so you have to pay much more than you had expected.

Appendix B:

Response Sheet for Study 1

RESPONSE SHEET FOR STUDY 1

Please read the following story and try to put yourself in this situation. That is, imagine that you actually had the interaction described below.

- Imagine that you have started working for a new company. An important project comes up that will require you to work overtime for several days. However, instead of being paid for your extra work, you find that the company has traditionally expected employees to work overtime and that everybody there does it willingly.

Now we would like you to describe how you would feel if this actually happened to you. Please answer the questions below by writing a number from the following 1-5 scale that best reflects your thoughts or feelings in the blank next to each question.

1	2	3	4	5
Not at all	A little	Moderately	Quite a bit	Very Much

- _____ This person's behavior made me feel irritable.
- _____ This person's behavior made me feel ashamed.
- _____ This person's behavior made me feel upset.
- _____ This person's behavior made me feel hostile.
- _____ I wanted to stop interacting with this person immediately.
- _____ I felt that I would be comfortable interacting with this person in the future.
- _____ I wanted to stop this person's behavior.
- _____ I wanted to change this person's behavior.
- _____ I thought that this person's behavior was strange or unusual.
- _____ This person's behavior was reasonable or rational.
- _____ I thought that this person was insensitive.
- _____ I thought that this person would get along well with others.

Please respond to the next two questions by circling yes or no.

- Yes No I have had interactions very similar to this.
- Yes No I can imagine an interaction like this taking place.

Appendix C:
Scenarios for Study 2

Scenarios for Study 2

CC1 Outcome evaluation (1.13); Likelihood (4.26); Reaction (3.48).

Imagine that your spouse's family is trying to make a difficult decision. They want to make sure they all agree before they do anything. You make a suggestion and they say that although you are married to a member of the family, you yourself are not a member of the family. As a result, they disregard your suggestion and do not involve you in the decision.

CC2 Outcome evaluation (1.18); Likelihood (3.79); Reaction (3.81).

Imagine that a good friend of yours was throwing a big holiday party. Because you are part of this person's social circle, you had assumed that you would be invited to the party. However, your friend never mentions it to you and when the night of the party arrives you find that were not, in fact, invited to your friend's party.

CA1 Outcome evaluation (1.88); Likelihood (3.58); Reaction (3.66).

Imagine that you are applying for college and that you don't know yet what you want to major in. You decide to ask your parents for some advice with the idea that you would all agree on a particular major unanimously. However, as soon as you show up your parents simply tell you what you to major in (without consulting you) and they expect you to do it whether you like it or not because they are your parents.

CA2 Outcome evaluation (1.88); Likelihood (3.21); Reaction (3.12).

Imagine that you were in a long meeting at work and that you had to go to the bathroom. You assumed that you could leave if you had to (and that it didn't matter who you were). However, as soon as you try to get up to go to the bathroom, your coworkers show strong disapproval and one leans over to tell you that, regardless of need, you are not supposed to leave the meeting before the boss has finished and left.

CE1 Outcome evaluation (1.94); Likelihood (3.68); Reaction (2.84).

Imagine that you were applying to live in a new apartment but that the co-op board wanted you to submit some letters of recommendation attesting to your good character. You ask a good friend to write you a letter of recommendation, with that good friends always help one another gladly. However, your friend refuses to write a letter for you because you once didn't back up his or her character when he or she needed it.

CE2 Outcome evaluation (1.72); Likelihood (3.79); Reaction (2.29).

Imagine that your boss is going to buy some new software at work. Your boss asks for suggestions from you and your coworkers. Because you and your coworkers use the software more often than your boss does you assume that a purchase will be made only when you all agree unanimously. However, your boss decides to put it to a vote and you end up in a minority so your boss ignores your opinion.

CM1 Outcome evaluation (1.61); Likelihood (2.95); Reaction (3.31).

Imagine that you had been feeling somewhat depressed and that you decide to go to the school's counseling center. You expected that any student who felt depressed would receive psychological counseling. However, you find that budget cuts led to a reduction in services at the center. As a result, you were denied counseling for mild depression because the school couldn't justify it financially.

CM2 Outcome evaluation (1.39); Likelihood (2.63); Reaction (2.88).

Imagine that you spent all day helping a friend of yours move into a new apartment. You expected that your friend would be very grateful and express appreciation for your help. However, when you finish your friend did not thank you like you expected but instead calculated the value of your work and offered to compensate you in proportion to your service, as though you were an anonymous employee.

AC1 Outcome evaluation (1.33); Likelihood (4.74); Reaction (3.62).

Imagine that you went to a department store to make some purchases. When you went to the counter to pay for your items, the salesperson was talking with a friend. You assumed that as a paying customer you would be given priority over the salespersons' friend. However, the salesperson simply ignored you and eventually said that you were at the wrong counter and they couldn't help you.

AC2 Outcome evaluation (1.27); Likelihood (3.47); Reaction (2.35).

Imagine that you had a very businesslike relationship with your boss. One day your boss heard about some bad news that happened to you and comes up to talk with you. You assumed that your boss would express sympathy in an appropriate, professional way and then continue with work. However, your boss becomes very close and personal and starts saying how sorry he or she feels about your life being so horrible and how much he or she pities you in so many ways.

AA1 Outcome evaluation (1.97); Likelihood (4.26); Reaction (2.62).

Imagine that your boss asked for your opinion about how the company should deal with some new clients. Because you have worked at the company longer than almost anyone else you assumed that your opinion would be given more weight than the opinion of other, less experienced employees. However, your boss decided to pay more attention to the opinion of other employees who brought in more money for the company (regardless of length of experience) and so your opinion was devalued by your boss.

AA2 Outcome evaluation (1.97); Likelihood (4.32); Reaction (2.99).

Imagine that you just applied for a new job in a field where you had a great amount of experience. You assumed that you would be paid more than people with less experience than you (maybe not much more, but at least a little bit more). However, it soon turned out that pay was ranked not according to experience but according to level of education so that people with less experience but more education than you would get paid more. As a result, you were offered less pay for your work than you anticipated.

AE1 Outcome evaluation (1.33); Likelihood (3.32); Reaction (2.60).

Imagine that your automobile insurance company recently announced that its rates were going up. You assumed that because you have a small car your rates would be changed less than the rates for someone with a sport utility vehicles (i.e., you believed that people with sport utility vehicles get into more dangerous situations and so they should pay more than people with small cars). However, you find that instead of requiring some people to pay more of an increase than others, your insurance company has simply raised everybody's rates by \$10 per month.

AE2 Outcome evaluation (1.70); Likelihood (4.05); Reaction (2.21).

Imagine that you went out to dinner at an expensive restaurant with some rich friends. You assumed that because they made so much more money than you that they would pay for a larger part of the bill. That is, you felt would still pay something but not as much as they did. However, when they bill came your friends proposed that you split the bill so you had to pay a lot more than you expected.

AM1 Outcome evaluation (2.00); Likelihood (2.95); Reaction (2.82).

Imagine that you have a young child that you want to spend more time doing homework and hopefully get better grades. You expect that he or she will do what you say because you're the parent, but instead he or she says you'll need to offer money for good grades.

AM2 Outcome evaluation (1.27); Likelihood (3.32); Reaction (2.87).

Imagine that you wanted to get a loan to buy a new car. Although you have a good job and will be able to make the payments, the bank wants you to have someone to co-sign for the loan (i.e., someone who would take responsibility if you couldn't pay). You assumed you could ask your parents because they have a responsibility to take of and provide for their children. However, when you ask them they say that they don't think it would be a good financial decision and they don't think it's worth the risk to help you out in this way.

EC1 Outcome evaluation (1.81); Likelihood (4.26); Reaction (3.08).

Imagine that you and your roommate agreed to take turn doing dishes (i.e., every other day) but you see that you keep getting stuck with them. Your roommate says that it was too much work to keep track and that the two of you should simply do dishes whenever it's really necessary or convenient for either of you. He or she would rather have each person chip in from time to time (even though it may be infrequent) than have to keep track of whose turn it is.

EC2 Outcome evaluation (1.48); Likelihood (3.63); Reaction (2.24).

Imagine that you spent a substantial amount of time working on a group assignment at work. You assumed that each person in the group would get equal recognition for having worked on the assignment. However, when the project is finished, the group as a whole was thanked but no personal recognition was given so your individual contributions to the assignment went unacknowledged.

EA1 Outcome evaluation (1.13); Likelihood (4.21); Reaction (3.35).

Imagine that you're working with several people to organize a group project. You expected that the group would vote on the various decisions. However, one of your group members claims to be a natural leader with very high standards. Because nobody's suggestions meet his/her standards, this person decides to make all of the decisions and tells everybody what to do.

EA2 Outcome evaluation (1.62); Likelihood (3.68); Reaction (2.50).

Imagine that you try to establish friendly relations with another student at school by offering to help him or her with some work. You expect that the student will reciprocate and offer to help you, too. However, you find that he or she feels you outrank them in some way and feels that although it acceptable to get help from you it would be inappropriate to ever offer help to you.

EE1 Outcome evaluation (2.00); Likelihood (4.16); Reaction (3.09).

Imagine that you went to one of the school's tutors for help with a math class. Several people were there and so you expected that the tutor would split time equally between each of you. However, after one of the people has the tutor work on a very difficult problem that takes a long time, you ask a very simple question that the tutor is able to answer very quickly. The tutor then goes on to the next person, claiming that help is not divided by the amount of time you get but by question. That is, each person gets to ask one question at a time. However, time soon runs out and you did not get as much attention from a tutor as you needed.

EE2 Outcome evaluation (1.55); Likelihood (4.00); Reaction (2.47).

Imagine that your boss at your job explained that assignments would now be handed out on an equal basis. You assumed that this meant you would all get assignments that took the same amount of time. However, you soon learn that what your boss meant is that jobs would be randomly assigned to people so that they everybody had an equal chance of getting each assignment. It turns out that you got one of the very big assignments and so you had to work later than others at your job in order to finish the assignment.

EM1 Outcome evaluation (1.09); Likelihood (3.53); Reaction (2.65).

Imagine that you and your spouse have families that live far apart from each other. You suggest that you spend equal amounts of time with each family (e.g., one week with each family each year) but your spouse says that their family is twice as large as yours so you should spend twice as much time with them each year.

EM2 Outcome evaluation (1.90); Likelihood (3.42); Reaction (2.64).

Imagine that right after you moved out of your family's home your family decided to go on vacation to Barbados. Previous family vacations consisted of driving to visit relatives. You feel that your younger siblings are getting much better vacations than you did and so you feel that you should be given equal treatment and invited to go to Barbados. However, when you tell your parents this they say that they can't really afford to take everyone and so only the younger children are going on the vacation.

MC1 Outcome evaluation (1.55); Likelihood (3.63); Reaction (3.37).

Imagine that you have started working at a competitive job. You expect that your pay and promotions will be proportional to the quality of your work. However, when evaluations eventually take place, you learn that how similar you are to the other employees is actually more important to your boss than the quality of your work.

MC2 Outcome evaluation (1.27); Likelihood (4.68); Reaction (3.61).

Imagine that you were trying to get a taxi on a Friday night. You assumed that since you could pay for the trip you would get a ride. However, several available taxis drive right by because the drivers don't like the way you look (i.e., they feel you are part of a group that cannot be trusted).

MA1 Outcome evaluation (1.65); Likelihood (4.32); Reaction (3.35).

Imagine that you were given responsibility for a few of your coworkers at your job. Because you were still paid the same as you were before you assumed that the amount of work you had to do wouldn't change (i.e., you assumed that pay was strictly proportional to responsibility). However, you find that because of your new responsibility your boss expects you to consistently do more work than others at your job.

MA2 Outcome evaluation (1.69); Likelihood (2.79); Reaction (3.31).

Imagine that you applied for a loan to buy an apartment in a co-op building. You expected that your chances for getting the loan would be proportional to your income and credit rating. However, you learn that the bank only processed a certain number of loans each month and so they would place the applications in rank order (i.e., best qualified, next best, etc.) and only give loans to the top ranking applicants. Although your qualifications were excellent, your application did not rank near the top. Consequently, your application was rejected.

ME1 Outcome evaluation (1.75); Likelihood (3.61); Reaction (2.75).

Imagine that you the IRS came to audit your income tax returns. You had assumed that the chances of getting audited were proportional to how income and how many deductions a person made. Because you didn't make much money and didn't take many deductions you assumed that you wouldn't get audited. However, it turns out the IRS decided to do a certain number of audits at random, so that everybody had an equal chance of being audited and you got selected.

ME2 Outcome evaluation (1.39); Likelihood (4.11); Reaction (2.38).

Imagine that you had a job in addition to the many other demands on your time, such as school and a family. You assumed that your boss would take your responsibilities into consideration when giving you work assignments and make the amount of work you had to do proportional to your time and energy for them. However, you soon find that your boss has divided up the assignments at work so that everybody at work does the same amount of work as everybody else, regardless of outside responsibilities. As a result, you were given more responsibility than you can handle.

MM1 Outcome evaluation (2.26); Likelihood (3.89); Reaction (3.58).

Imagine that you spent a tremendous amount of time working on a final paper for a class. You expected grades to be based primarily on the quality of your work, so you spent a lot of time writing a short but very well thought-out paper. However, you soon find out that the professor was grading more on quantity than anything else and marked your paper down for being short, regardless of how good it was. As a result, you got a C- on your paper.

MM2 Outcome evaluation (1.16); Likelihood (3.74); Reaction (2.71).

Imagine that your parents decided to give cash for presents to the family. You thought they would take into consideration the fact that, as a student, although you are single and have relatively small expenses, you make very little and live in relative poverty, whereas your sibling, who has a large family, makes lots of money and lives well. However, you soon see that your parents based presents on the number of kids (and not income or even per capita income), so your sibling ends up getting much more money than you do.

Appendix D:

Response Sheet for Study 2

RESPONSE SHEET FOR STUDY 2

Please read the following story and try to put yourself in this situation. That is, imagine that you actually had the interaction described below.

- Your spouse's family is trying to make a difficult decision unanimously. You make a suggestion and they say that although you are married to a member of the family, you yourself are not a member of the family, so they disregard your suggestion and do not involve you in the decision making process.

What is your immediate reaction to this interaction? That is, what did you think, feel, or do as a result of this interaction? Please write your answer in the box below.

Now we would like you to describe how you would feel if this actually happened to you. Please answer the questions below by writing a number from the following 1-5 scale that best reflects your feelings. Please respond to the last question by circling yes or no.

1	2	3	4	5
Not at all	A little	Moderately	Quite a bit	Very Much

- _____ This interaction made me feel upset.
- _____ This interaction made me feel hostile.
- _____ I wanted to stop this interaction.
- _____ I wanted to change this interaction.
- _____ I thought that this interaction was strange or unusual.
- _____ I thought that this interaction reflected insensitivity on the part of the other(s).

Yes No I have had interactions very similar to this.

Appendix E:

Scenarios for Study 3

Scenarios for Study 3

Distribution. Outcome Evaluation (4.27).

CC Likelihood (3.44); Reaction (3.35).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you simply because you are a member of the family (and everyone in the family helps each other). However, they said that because you moved out of the house you should be independent and so they refused to give you the money. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

CA Likelihood (3.09); Reaction (3.62).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you simply because you are a member of the family (and everyone in the family helps each other). However, they said that they only had enough money to help your older sibling and you would have to wait your turn (which could be years). As long as they were helping your older sibling they couldn't give you money for school. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

CE Likelihood (2.82); Reaction (3.39).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you simply because you are a member of the family (and everyone in the family helps each other). However, they said it wouldn't be fair to give you money unless they gave the same amount of money to all of their children. They couldn't afford that so they didn't give you anything. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

CM Likelihood (2.41); Reaction (3.79).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you simply because you are a member of the family (and everyone in the family helps each other). However, they said that any more money that they gave you would be less for their retirement. To them it didn't make good business sense to help you so they didn't give you any money. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

AC Likelihood (3.42); Reaction (3.20).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because, as your parents, they have a special responsibility to take care of their children who depend on them. However, they said that because you moved out of the house you should be independent and so they refused to give you the money. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

AA Likelihood (3.06); Reaction (3.74).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because, as your parents, they have a special responsibility to take care of their children who depend on them. However, they said that they only had enough money to help your older sibling and you would have to wait your turn (which could be years). As long as they were helping your older sibling they couldn't give you money for school. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

AE Likelihood (2.92); Reaction (3.24).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because, as your parents, they have a special responsibility to take care of their children who depend on them. However, they said it wouldn't be fair to give you money unless they gave the same amount of money to all of their children. They couldn't afford that so they didn't give you anything. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

AM Likelihood (2.62); Reaction (3.65).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because, as your parents, they have a special responsibility to take care of their children who depend on them. However, they said that any more money that they gave you would be less for their retirement. To them it didn't make good business sense to help you so they didn't give you any money. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

EC Likelihood (3.21); Reaction (3.38).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because they helped your older siblings with exactly the same thing in the past (and your parents should treat all of their children the same way). However, they said that because you moved out of the house you should be independent and so they refused to give you the money. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

EA Likelihood (2.91); Reaction (3.91).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because they helped your older siblings with exactly the same thing in the past (and your parents should treat all of their children the same way). However, they said that they only had enough money to help your older sibling and you would have to wait your turn (which could be years). As long as they were helping your older sibling they couldn't give you money for school. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

EE Likelihood (2.77); Reaction (3.79).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because they helped your older siblings with exactly the same thing in the past (and your parents should treat all of their children the same way). However, they said it wouldn't be fair to give you money unless they gave the same amount of money to all of their children. They couldn't afford that so they didn't give you anything. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

EM Likelihood (2.44); Reaction (3.91).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because they helped your older siblings with exactly the same thing in the past (and your parents should treat all of their children the same way). However, they said that any more money that they gave you would be less for their retirement. To them it didn't make good business sense to help you so they didn't give you any money. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

MC Likelihood (3.39); Reaction (3.41).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because the benefits of your education far outweighed the temporary cost of the books. However, they said that because you moved out of the house you should be independent and so they refused to give you the money. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

MA Likelihood (2.95); Reaction (3.76).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because the benefits of your education far outweighed the temporary cost of the books. However, they said that they only had enough money to help your older sibling and you would have to wait your turn (which could be years). As long as they were helping your older sibling they couldn't give you money for school. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

ME Likelihood (2.98); Reaction (3.32).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because the benefits of your education far outweighed the temporary cost of the books. However, they said it wouldn't be fair to give you money unless they gave the same amount of money to all of their children. They couldn't afford that so they didn't give you anything. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

MM Likelihood (2.41); Reaction (3.61).

Imagine that you asked your parents for some money to help you buy your books for college. You expected that they would help you because the benefits of your education far outweighed the temporary cost of the books. However, they said that any more money that they gave you would be less for their retirement. To them it didn't make good business sense to help you so they didn't give you any money. As a result, you were not able to buy your books and you didn't know how else you would be able to pay for them.

Decision Making. Outcome Evaluation (4.39).**CC Likelihood (3.17); Reaction (4.08).**

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that you would only move if the two of you agreed on one of the apartments. However, your spouse felt that his/her whole family should also agree with your choice before you move. They all wanted you to move into the apartment that you didn't like as much, but you eventually agreed because you saw that they would never agree with you. As a result, you ended up living someplace that you didn't really like.

CA Likelihood (3.29); Reaction (3.21).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that you would only move if the two of you agreed on one of the apartments. However, your spouse was going to spend more time at home than you and therefore felt that he/she should have the final say. As a result, you ended up living someplace that you didn't really like.

CE Likelihood (2.62); Reaction (3.21).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that you would only move if the two of you agreed on one of the apartments. However, your spouse suggested that you just flip a coin to decide and the apartment you didn't like as much won. As a result, you ended up living someplace that you didn't really like.

CM Likelihood (3.71); Reaction (2.98).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that you would only move if the two of you agreed on one of the apartments. However, your spouse said it made more sense to simply take the one that was closest to work. As a result, you ended up living someplace that you didn't really like.

AC Likelihood (3.02); Reaction (4.00).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that because you were going to make most of the money for the rent that you would have final say on which apartment you took. However, your spouse felt that you and his/her whole family should agree unanimously with your choice before you move. They all wanted you to move into the apartment that you didn't like as much, but you eventually agreed because you saw that they would never agree with you. As a result, you ended up living someplace that you didn't really like.

AA Likelihood (3.27); Reaction (3.23).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that because you were going to make most of the money for the rent that you would have final say on which apartment you took. However, your spouse was going to spend more time at home than you and therefore felt that he/she should have the final say. As a result, you ended up living someplace that you didn't really like.

AE Likelihood (2.58); Reaction (3.35).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that because you were going to make most of the money for the rent that you would have final say on which apartment you took. However, your spouse suggested that you just flip a coin to decide and the apartment you didn't like as much won. As a result, you ended up living someplace that you didn't really like.

AM Likelihood (3.73); Reaction (3.15).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that because you were going to make most of the money for the rent that you would have final say on which apartment you took. However, your spouse said it made more sense to simply take the one that was closest to work. As a result, you ended up living someplace that you didn't really like.

EC Likelihood (3.26); Reaction (4.06).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that because your spouse chose your last apartment you would be the one to choose this time (that is, you felt you would take turns). However, your spouse felt that you and his/her whole family should agree unanimously with your choice before you move. They all wanted you to move into the apartment that you didn't like as much, but you eventually agreed because you saw that they would never agree with you. As a result, you ended up living someplace that you didn't really like.

EA Likelihood (3.23); Reaction (3.26).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that because your spouse chose your last apartment you would be the one to choose this time (that is, you felt you would take turns). However, your spouse was going to spend more time at home than you and therefore felt that he/she should have the final say. As a result, you ended up living someplace that you didn't really like.

EE Likelihood (2.64); Reaction (3.55).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that because your spouse chose your last apartment you would be the one to choose this time (that is, you felt you would take turns). However, your spouse suggested that you just flip a coin to decide and the apartment you didn't like as much won. As a result, you ended up living someplace that you didn't really like.

EM Likelihood (3.62); Reaction (3.08).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that because your spouse chose your last apartment you would be the one to choose this time (that is, you felt you would take turns). However, your spouse said it made more sense to simply take the one that was closest to work. As a result, you ended up living someplace that you didn't really like.

MC Likelihood (3.00); Reaction (4.06).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that you would do a cost/benefit analysis and take the one that had the most space for the least money. However, your spouse felt that you and his/her whole family should agree unanimously with your choice before you move. They all wanted you to move into the apartment that you didn't like as much, but you eventually agreed because you saw that they would never agree with you. As a result, you ended up living someplace that you didn't really like.

MA Likelihood (3.29); Reaction (3.15).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that you would do a cost/benefit analysis and take the one that had the most space for the least money. However, your spouse was going to spend more time at home than you and therefore felt that he/she should have the final say. As a result, you ended up living someplace that you didn't really like.

ME Likelihood (2.50); Reaction (3.44).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that you would do a cost/benefit analysis and take the one that had the most space for the least money. However, your spouse suggested that you just flip a coin to decide and the apartment you didn't like as much won. As a result, you ended up living someplace that you didn't really like.

MM Likelihood (3.74); Reaction (2.98).

Imagine that you and your spouse are trying to decide which of two apartments you should rent. You expected that you would do a cost/benefit analysis and take the one that had the most space for the least money. However, your spouse said it made more sense to simply take the one that was closest to work. As a result, you ended up living someplace that you didn't really like.

Appendix F:

Response Sheet for Study 3

Response Sheet for Study 3

After reading each scenario, please answer the two questions below using this 5 point scale:

1	2	3	4	5
Not at all	A little	Moderately	Quite a bit	Very Much

_____ This interaction made me feel upset.

_____ An interaction like this could happen in real life.

After you have read all of the scenarios and answered all of the questions, please respond to the next question (whichever is appropriate) using the same 5 point scale:

_____ Not being able to buy books for school is a bad thing.

or

_____ Living someplace you don't really like is a bad thing.

Finally, in accordance with the research guidelines of the American Psychological

Association, please answer the following two questions:

What is your sex? Male Female

What is your ethnicity? _____

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Notes:

¹ One important characteristic of Fiske's Relational Models is that although the RMs specify the formal structure or permissible operations of social relationships (i.e., whether comparative tradeoff are possible or whether one person can have precedence over another; the logical-mathematical structure of the models is presented in Chapter 9 of Fiske, 1991) the RMs do not contain specific content such as schemas or scripts. That is, the four RMs in no way dictate when and with whom they are to be used, and how they are to be enacted. Rather, the relational schemas associated with each RM are provided by culturally-derived rules and experiences (although they are, in theory, universal; N. Haslam, personal communication, January 29, 1998). These cultural rules specify both when a particular RM is to be used (i.e., the interactions in which each RM is expected or acceptable) and the manner in which it should be used (i.e., the implementation of a particular RM in a specific interaction). Inasmuch as the rules vary from culture to culture, the interactions in which each RM is appropriate and the manner of implementation will also vary from culture to culture.

² Fiske also addresses situations in which a person is being either ignored or treated purely as the means to non-social ends (what he calls "null" and "asocial" relations, respectively). He does not, however, consider these to be social relationships, *per se*. Therefore, they are not discussed further.

³ For an updated list of studies relevant to Relational Models Theory, see Fiske's RM website at <http://www.sscnet.ucla.edu/anthro/faculty/fiske/evidence.htm>.

⁴ Four items each assessed affective, behavioral, and cognitive reactions. Cronbach's α were calculated separately for each scenario. For affective reactions, alpha ranged from .66 to .85; for behavioral reactions, $\alpha = .66-.82$; and for cognitive reactions, $\alpha = .60-.70$. A review of the items with the participants indicated that the affective item concerning shame, which is a "self-directed" emotion, did not fit in with the others

(“irritated,” “hostile,” and “upset”), which are “other-directed” emotions. Consequently, the affect scores were recalculated without the “shame” item and alpha’s generally increased ($\alpha = .87, .86, .82,$ and $.83$), indicating greater item coherence. The items assessing cognitive reactions to conflict were also reassessed, and “rational” was deleted, as it had the lowest overall item-total correlations. Surprisingly, this actually led to generally lower alphas ($\alpha = .66, .47, .63,$ and $.66$). Although separate analyses were originally planned, Cronbach’s alpha was also calculated for 11 of the 12 items (leaving out “shame”) and results were very favorable— $\alpha = .89, .88, .87,$ and $.88$, for CS/CS, CS/MP, MP/CS, and MP/MP, respectively.

⁵ η^2 , or eta-squared, also known as the correlation ratio, is calculated as $\eta^2 = SS_{\text{treatment}}/SS_{\text{total}}$. It is equivalent to R^2 in that it is a measure of effect size that indexes the proportion of variability in the dependent variable explained by the independent variable. Like R^2 , η^2 ranges from 0.00 to 1.00 (positive values only). According to Cohen’s (1977) rule-of-thumb criteria, $\eta^2 = .01$ constitutes a small effect, $\eta^2 = .06$ constitutes a medium effect, and $\eta^2 = .14$ or greater constitute a large effect size.

⁶ The low df is because the data for outcomes and reactions were obtained from separate samples, so the average scores on each variable for each of the four cells were used to create a sample of $N = 4$ observations with $N - 2 = 2$ degrees of freedom.

⁷ Unfortunately, a typographical mistake resulted in the accidental inclusion of one outcome that fell outside of the range. Instead of the intended outcome “you got a C on a paper,” which had a mean evaluation of -1.97, the variation “you got a C- on a paper,” with a mean evaluation of -2.26, was accidentally included.

⁸ An initial power analysis based on Study 1 indicated a medium effect size ($d = .50$), so that approximately 32 participants would be necessary for power = .80 (Lockhart, 1997). However, this figure was revised when the outcome valence artifact in the pilot was

discovered. A revised power analysis, using a small effect size of $d = .20$ for a repeated-measures design, required a sample of 197 participants for power = .80.

⁹ These post-hoc tests and all subsequent analyses were investigated using Rom's sequentially rejective t-test (Wilcox, 1996), which maintains a familywise error rate and has higher power than other procedures like the Bonferroni test. This technique requires first that standard t-tests be computed for all comparisons of interest (a total of 40 for Study 2). The comparisons are ranked according to their probability levels, and the probability levels are compared to criterion probability levels that become more stringent for each ordered comparison. Consequently, it is more appropriate to say simply that a comparison was significant than to give the observed probability level.

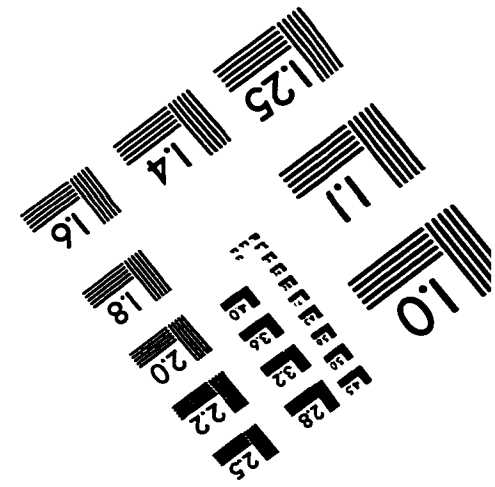
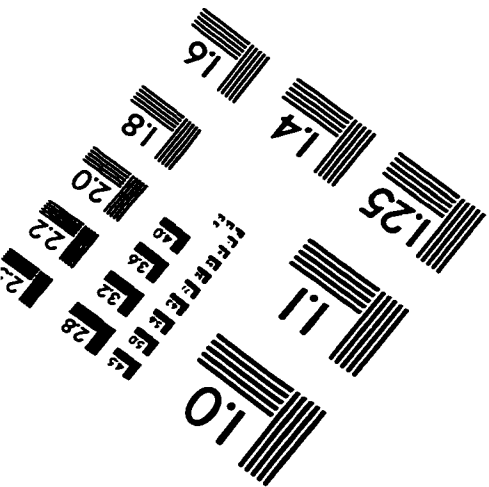
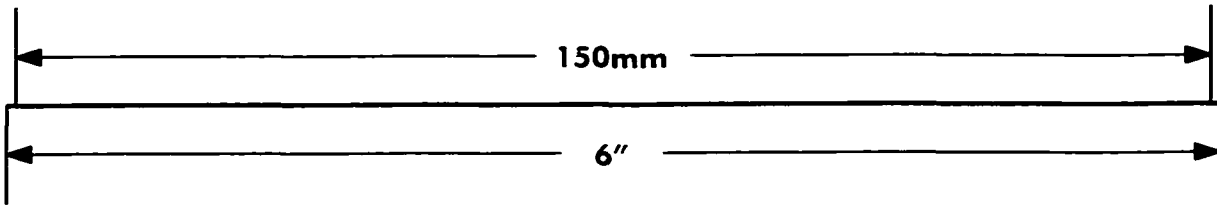
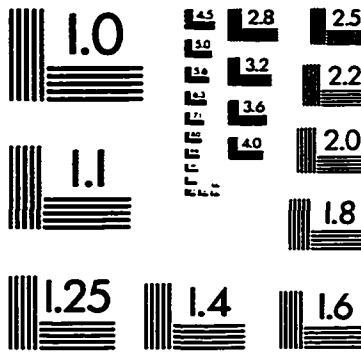
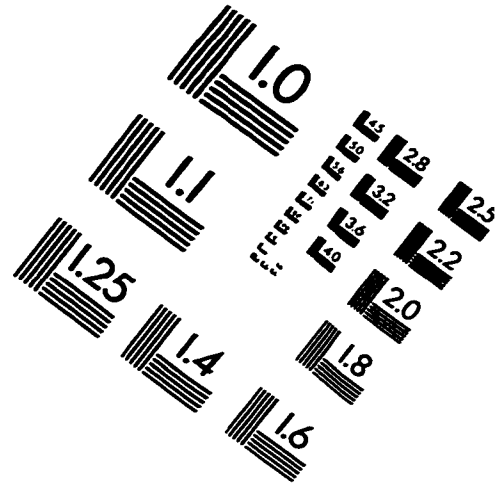
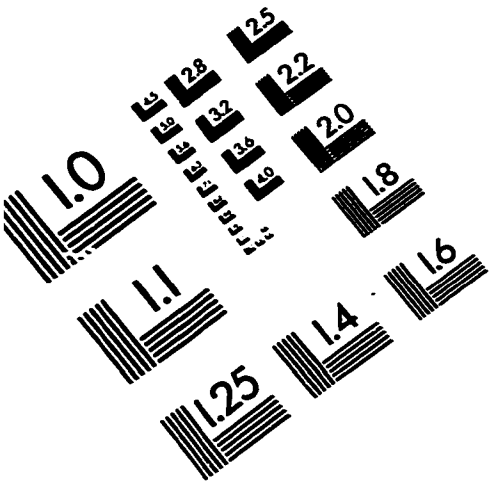
¹⁰ A sample of 33 students rated the outcomes of all 32 scenarios on a 7 point scale, with +3 = Very positive and -3 = very negative. In order to be consistent with other scales and because no positive evaluations were made, this scale was truncated and reversed to go from 0 (not at all negative) to 3 (very negative).

¹¹ For within-RM and between-RM conflicts for Set A, Set B, and the combined sets, the means and standard deviations were as follows. For set A: within-RM, $\underline{M} = 4.14$ ($\underline{SD} = 0.61$); between-RM, $\underline{M} = 3.73$ ($\underline{SD} = 0.36$). For set B: within-RM, $\underline{M} = 3.96$ ($\underline{SD} = 0.41$); between-RM, $\underline{M} = 3.57$ ($\underline{SD} = 35$). For the combined sets: within-RM, $\underline{M} = 4.05$ ($\underline{SD} = 0.47$); between-RM, $\underline{M} = 3.65$ ($\underline{SD} = 0.32$).

¹² Effect size is calculated by dividing the difference between the sample means by the standard deviation of the difference scores ($d = \bar{D}/s_D$). Following Cohen's (1977) effect size conventions, $d = .20$ constitutes a small effect, $d = .50$ is a medium effect, and $d = .80$ represents a large effect.

¹³ Because only 3% ($n = 4$) of the sample was West Indian, that category was combined with Black/African American for the analyses.

IMAGE EVALUATION TEST TARGET (QA-3)



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