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Variations in the Cognitive Models of Relationships with Mothers,
Close Friends, and Acquaintances.

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Paper presented at the Annual Meeting of the International Communication Associations
in Acapulco, Mexico, June 2-6, 2000.

Abstract

This study investigates the utility of Fiske's (1991, 1992) Relational Model Theory (RMT) for the study of interpersonal relationships. By testing predictions made by RMT for three different relationships (mother, close friend, acquaintance) it is shown that RMT is compatible with the current state of knowledge in the field of interpersonal communication and a viable alternative to other cognitive theories of relationships. Through a closer investigation of different relationship domains, it is shown that the categorical representation of social knowledge as proposed in RMT is in fact superior explanation to traditional cognitive theories that propose dimensional representations. In addition, applying RMT to interpersonal relationships yields new and detailed insights into the structure of some of our most important interpersonal relationships.

Cognitive Theories of Relationships

For at least the last four decades, cognitive approaches have played an increasingly important role in the study of interpersonal relationships and interpersonal communication. Whereas early foci of many of the most influential cognitive theories were on attitudes (Katz, 1960), belief systems (Heider, 1958a; Heider, 1958b), and message processing (Greenwald, 1968; Petty & Cacioppo, 1986) increasingly the cognitive representations of relationships themselves have emerged as a major focus of the cognitive approach. Foa and Foa (1974) were among the earliest cognitive scientist to systematically investigate the mental representations of relationships. In their seminal work on the social structures of the mind, they suggested that important interpersonal concepts such as social action and social resources are acquired during children's early cognitive development and then stored in long term memory. From there, they are retrieved for use in interpersonal relationships, both during childhood and later during adulthood. Although the specifications of some of their early concepts have not necessarily received unequivocal empirical support (e.g., Haslam, 1994b), their thoughtful analysis of how children develop cognitive representations of social actions and social resources is still the most complete account available today. In addition, it provided an early example of the type of knowledge that constitutes social cognition.

More recently, rather than focusing on cognition that is relevant to the processing of social information, but that is only tangential to the cognitive representations of relationships themselves, a number of theorists have concentrated their research on uncovering the cognitive representations of relationships proper. The most prominent theories in the area of interpersonal communication are attachment theory (i.e., Bowlby, 1973; Bartholomew, 1990; Hazan & Shaver, 1987; Shaver & Hazan, 1988; Shaver & Hazan, 1994), love styles theory (Lee, 1973), and relationship schema theory (Fiske, 1991b; Fiske, 1992; Fletcher, 1993; Fletcher & Fincham, 1991; Fletcher & Fitness, 1993). Proponents of attachment theory make claims about how persons acquire and use cognitive models of close interpersonal relationships that are similar to Foa and Foa (1974). According to Bartholomew's (1990) four-category model of attachment, for

example, children develop cognitive models of their own worth and the trustworthiness of loved ones based on interactions with their primary care givers during early childhood. These models, in turn, result in attachment styles that have great influence on children's future interpersonal relationships in adult life. Similarly, proponents of love styles suggest that persons have specific cognitive representations of how they should relate to intimate partners. Much like attachment styles, these love styles are enduring personal predispositions that determine how persons act in all their intimate relationships. Finally, proponents of relational schemas or models argued that persons are guided in their interpersonal relationships by cognitive models of relationships stored in long-term memory. These models help persons in selecting their own interpersonal behaviors and interpreting the behaviors of their partners.

Attachment Theory and Love Styles. Among these cognitive theories of relationships, attachment theory has received the greatest amount of attention from scholars of interpersonal communication. One result born from this attention has been the insight that attachment theory suffers from some serious shortcomings that limit its utility as an explanatory framework for many of the phenomena of interest to scholars of interpersonal communication. The most serious limitation is the scope of attachment theory. As a theory of exclusively intimate relationships, it does not apply to the majority of interpersonal communication, which takes place between persons that are in non-intimate relationships with one another. There are other valid reasons for which attachment theory has justly been criticized, but a critical evaluation of attachment theory is not the purpose of this essay. Rather, its limited scope alone is reason enough for researcher interested in a more general theory of interpersonal cognition to prefer other theories instead. A similarly limited scope also makes love styles theory unfit to be of use as a general cognitive theory of relationships.

Relational schemas and models. Two cognitive theories of relationships that apply to a wider range of interpersonal relationships are Fletcher's (1991, 1993) relational schema theory and relational models theory by Fiske (1991, 1992). According to Fletcher, relationship schemas exist in cognition on at least three different levels of generality. On the most general level are

general social or attributional schemas that apply to all interpersonal relationships. Such general schemas contain knowledge structures such as the norm of reciprocity (Roloff, 1987) or that self-disclosure is a sign of intimacy (Taylor & Altman, 1987). Less general are schemas that exist for specific types of relationships, such as friendships, family relations, or acquaintance. These schemas contain knowledge structures, such as beliefs or expectations, that apply to all relationships of a specific type. The least general are relational schemas that persons have for each of their actual interpersonal relationships. These schemas include knowledge structures that apply to the unique relationship persons have with a specific other person, such as memories of past interactions with that person, knowledge about that person's likes and dislikes, and particular emotions associated with that person.

According to Fletcher (1991, 1993), when participating in interpersonal relationships, persons draw from all three relational schemas to enact their behaviors and interpret the behavior of others. This ability to employ relationship schemas of different levels of generalizability allows persons to be efficient in the cognitive processing required when relating to others. Employing knowledge structures stored in general social or relationship type specific schemas allows persons to be competent social actors in a wide variety of social situations without having to allocate an inordinate amount of memory and cognitive processing capability. Because much of human's social behavior is the same in all relationships, humans can generate most of their behaviors and their interpretations of others' behaviors by using the same general social or relationship type specific schemas. Only the social knowledge that is truly unique to a specific relationship needs to be stored independently for each relationship.

Fletcher's (1991, 1993) conceptualization that social knowledge exists in cognition at different levels of generality explains why some of our behaviors do not discriminate between different relationships, whereas other behaviors are occurring uniquely in only particular relationships or only in relationships of similar types. At the same time, this theory provides a very powerful explanation of interpersonal behavior, while at the same time being parsimonious and taking into consideration important findings regarding the mind's efficiency and modularity.

Similar behaviors across different relationships are identified as belonging to the more general social schemas, behaviors that occur in only a few relationships belong to the relationship type specific schemas, and unique behaviors belong to relationship schemas that are associated with particular relational partners.

In contrast to Fletcher's (1991, 1993b) theory, which deals with the cognitive representation of social knowledge at different levels of generality, Fiske's (1991, 1992) relational models theory is exclusively concerned with knowledge structures at the universal social knowledge level. More specifically, the relational models proposed by Fiske constitute the most fundamental ways of relating. They are fundamental because they constitute the smallest coherent piece of relational knowledge. That is, they are not further divisible into smaller units. The models are universal because they are used in every social relationship and because they are used by all humans, independent of their culture. Because they are fundamental and universal, Fiske's relational models are part of all social cognition relevant to relationships and therefore also relevant to most, if not all, social behaviors. Much like Fletcher's theory, which suggests that the knowledge of general social schemas invariably apply to all relationships, at least one of Fiske's relational models also applies to every social relationships.

It is important to note that relational models are basic cognitive models of relating and not of relationships, that is, they do not correspond to relational schemas as identified by Fletcher (1991, 1993b). As Fletcher has pointed out, universal relational knowledge applies to all relationships and is thus different from cognition related to specific relationships, that is, relational schemas. According to Fletcher (1991), relational schemas are unique for each relationship because they contain historical knowledge about specific events in the relationship. General social knowledge (e.g., relational models) is included in those more specific relational schemas, much like grammatical knowledge is part of the cognitive representation of a sentence, for example. That means that relational models are contained in relational schemas. For each relationship domain in any given relationship, a particular relational model or a combination of

relational models may be used. It is how relational models are combined that differentiates between different relationships and different relationship types.

As I have argued elsewhere (-----, 1998), Fiske's Relational Model Theory is poised to become the dominant cognitive theory of relationships. Because it clearly identifies relational models and specifies how they give rise to more complex cognition about relationships and behaviors, it is more specific than Fletcher's theory. Fiske's (1991, 1992) theory also makes the more general claims about the role of cognitive relational models in people's communicative behaviors. Fiske argued that people interact with one another to construct and to participate in relationships that are based on one or more of only four fundamental relational models. He further claimed that the impact of these basic models is: pervasive, that is, governing all domains and aspects of social relationships; exhaustive, meaning no other fundamental types of relating exist; and generative, meaning that all relationships are constructed from the four basic relational models he proposed.

Relational Model Theory Delineated

The four relational models defined by Fiske (1991, 1992) are communal sharing (CS), authority ranking (AR), equality matching (EM) and market pricing (MP). As discussed earlier, these four models are types of relating rather than relationship types. That is, they are comparable to Fletcher's (1991, 1993) general social schemas rather than to Fletcher's relationship type specific schemas. Persons in actual and ongoing interpersonal relationships can, and usually do, relate to others in ways specified by all four relational models within the context of the same relationship. That does not mean that relational behavior is inconsistent in similar situations, rather, it means that relational behavior varies between relationship domains. In other words, in some relationship domains an actual social relationship might be characterized by communal sharing, whereas in other relationship domains the partners employ authority ranking or equality matching. An example would be a couple that pools its income in one checking account (CS), where one partner takes an instructor role in gardening and tells the other what to do (AR), and where both partners take turns cleaning dishes (EM).

The model of CS is one where there are no differences between individuals in the relationship. That is, relating according to this model is based on the perception that the partners are equivalent and undifferentiated. The focus is on shared attributes and commonalities in values, beliefs, and goals. Within CS, no distinct individual identities exist, rather, the groups to which individuals belong are differentiated. CS is often based on perceptions of common bonds, such as blood relationships. From the perspective of CS, other persons either belong to the in-group or to the out-group, but no further distinctions are made among group members. Generally, when applying CS to evaluate people, members of one's in-group are evaluated as being superior and more valuable than members of the out-group.

The AR model of relating is one where persons are differentiated by social rank. Using AR means to place persons in relations to one another and assigning a social identity that is equivalent to social status. That is, differences between individuals arise from their hierarchical positions in respect to one another. Persons of equivalent rank are not differentiated and people

higher up in the hierarchy are evaluated as superior. Each rank brings with it its own set of rights and responsibilities in regard to other ranks, and these rights and responsibilities form the basis for expectations and evaluations of one's own and others' behaviors.

The EM model of relating is one of equality between social entities. Therefore, persons using EM are motivated to maintain an even balance in their relations with others. Unlike CS, where individuals in CS relationships belong to be the same social entity, EM recognizes individuals as distinct social entities that have the exact same rights and responsibilities. When using the EM models, interactions and exchanges are expected to be balanced in a direct one for one reciprocity, such as turn taking, tit-for-tat retaliation, or egalitarian justice. Imbalances occurring in social exchanges are noted and expected to be resolved, because they violate the equality that is the basis for EM.

The MP model of relating is one where interactions and social exchanges are much like economic transactions in a market economy. Relating according to the MP model is characterized by proportionality and equity of cost and reward ratios. To achieve this, different aspects of relationships are reduced to a single currency or metric. As a consequence, existing imbalances in one domain of a relationship can be balanced out by reverse imbalances in another domain of the same relationship. That is, unlike EM that require homomorphic exchanges, in MP a deficit in affection can be balanced with a surplus in interpersonal control, for example. At the same time, existing imbalances within a relationship can be expressed by a singular value, the cost/benefit ratio. This ratios allows individuals to determine the relative social value of relational partners in regard to one another and the comparative relational outcome for each partner in the relationship. Thus, the MP relational model is roughly equivalent to formulations of social exchange theory (i.e., Chadwick-Jones, 1976; Roloff, 1987).

Empirical evidence for relational model theory. Most empirical evidence for the existence of Fiske's relational models comes from research by Fiske and Haslam and their associates (Fiske, 1991; Fiske, 1992; Fiske, 1993; Fiske & Haslam, 1996; Fiske & Haslam, 1997; Fiske, Haslam, & Fiske, 1991; Haslam, 1994a; Haslam, 1994b; Haslam, 1995; Haslam, 1997; Haslam

& Fiske, 1992; Haslam & Fiske, 1999; Haslam, 1993). This research mainly tested the assumption that if persons use relational models in their social cognition, their social memory should also be organized around relational models. In a series of seven studies, Fiske et al. (1991) investigated social mistakes for evidence of this proposed organization of person memory around relational models. They asked participants to record in diaries instances in which they confused one person with another person. Analysis of these social errors revealed a tendency of participants to confuse people with one another that were in similar social relationships (as defined by Fiske's four relational models) with the participants. The relative importance of relational models in social memory became apparent when the researchers compared the influence of relational models on these mistakes to the influence of other pertinent social information commonly associated with personal memory (i.e., race, sex, or age). Fiske et al. found that relationships participants had with the others were better predictors of social errors than any personal attribute of the others, with the sole exception of sex. That is, only a person's sex was more salient in social memory than the relationship type one has with that person, all other personal attributes were less salient.

In another study, Fiske (1995) compared relational models to other social schemas that might be used in the organization of persons' memories. He found that in their recall of their acquaintances, persons recalled acquaintances together with whom they had the same type of relationship. They did not recall acquaintances together that had similar attributes. That participants' memory of other people was organized according to relationship type rather than according to personal attributes showed again that relational models are more salient in social cognition than other knowledge historically associated with social cognition, such as personal attributes.

An extensive empirical research program investigating the schematic structure of people's knowledge of social relationships is that of Fiske's student Nick Haslam (1994a, 1994b, 1994c, 1995, 1997; Fiske & Haslam, 1996; Fiske, Haslam & Fiske, 1991). For relational model theory to be valid, it is important to show that relational knowledge is categorical, rather than

dimensional. In one study, Haslam (1994b) investigated whether relational knowledge is categorical, dimensional, or specifiable by laws of symmetry and complementarity. Based on the responses of 40 participants, Haslam obtained results more consistent with the categorical representation of relational knowledge than with the dimensional representations or the presence of laws of symmetry and complementarity. In another set of studies, Haslam (1994a; 1995) compared different conceptualizations of relational schemas and found strong evidence favoring Fiske's (1991, 1992) relational type models. In one study using factor analysis, Haslam (1995) obtained results indicating a better fit of the relational models than the relational resources (Foa & Foa, 1974) as factors organizing participants' cognition of actual social relationships. Haslam (1994a) also found that Fiske's relational models were better descriptors of relational knowledge than either resource categories or colloquial role descriptions (i.e., close friend, supervisor, colleague).

Combined, the results of this research provide strong evidence that relational knowledge in human cognition takes the form of the relational models identified by Fiske (1991, 1992). Fletcher's (1991, 1993b) conception of relational schemas at different levels is equally intuitive, but indirect comparison received significantly less empirical support. But it is not only the empirical evidence for its validity that makes Fiske's theory the ideal candidate to become the eminent cognitive theory of relationships. It is also the universality of relational models, their generative nature, and ultimately their explanatory power that make relational model theory particularly suited to become that theory.

Relational Models and Different Relationships

One of the main claims of Fiske's (1991, 1992) theory is that actual ongoing interpersonal relationships result from the combination of relational models. Even though Fiske uses pure types (i.e., relationships defined by only one relational model) in his descriptions of the relational models in his writings, this is done primarily for ease of understanding. It is never implied that actual relationships are determined by only one relational model. In fact, relationships determined by only one relational type model should be rare, as that would be largely

inconsistent with the relational models' role as generative. It is precisely that relational models can be combined that makes the theory so powerful.

The purpose of the present study is to test this basic claim and to investigate how relational models are combined in different relationships. Although no research to date has looked at this particular question, some research that ostensibly has looked at other variables is able to inform us about relational models in different relationships. The two most prominent of such variables are the dimension of communality (i.e., as in Clark's [1979] communal and exchange relationships) and authority (i.e., as in Hofstede's [1980] power distance). The theoretical overlap between these two dimensions and Fiske's four relational models has been noted by Haslam (1995). Although he ultimately presented data that showed that there was more empirical support for Fiske's relational models than for these two dimensions (Haslam, 1995), at issue in that study was whether the social knowledge associated with communality and authority is dimensional or categorical. In regard to the content of the theoretical constructs, Haslam argued that in respect to authority, the AR model corresponds to high authority or great power distance, whereas the EM model corresponds to low authority or small power distance. In respect to communality, the CS model corresponds to high communality, whereas the MP model corresponds to low communality. A similar observation was made by Triandis and colleagues (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis & Gelfand, 1998) on a cultural level, who argued that CS and MP define the collectivist and individualistic aspects of cultures, and that AR and EM define the vertical and horizontal aspects of cultures, respectively.

Based on the observed theoretical correspondence of Fiske's relational models with well researched variables that are relevant to interpersonal relationships, it is possible to make specific predictions about the extent to which certain relational models will be used by persons in specific types of relationships. Research on intimacy and communality has shown that more intimate relationships are perceived to be more communal than less intimate relationships (i.e., Clark, 1979, 1998). Combined with Roloff's (1987) claim that less intimacy is associated with increased social exchange, this would suggest that more communal relationships are

characterized by a relative greater importance of the CS model than the MP model. Specifically for this study, it was predicted that the CS model played a more important role than the MP model in participants' relationships with their mothers and close friends as compared to their relationships with acquaintances (H1). Conversely, it was expected that the MP model was more important in participants' relationships with acquaintances as compared to their relationships with mothers and close friends (H2).

In regard to authority, research has shown that Americans are very concerned about perceived equality in their in friendships and acquaintances (Marin, 1985), but are less concerned about status differences with their parents. In regard to authority, it was therefore predicted that the AR model plays a relatively greater role in persons' relationships with their parents than in their relationships with close friends or acquaintances. Specifically for this study, it was predicted that the AR model plays a greater role in participants' relationship with their mothers than in their relationships with their friends and acquaintances (H3). Conversely, it was predicted that the EM relational model played a greater role in participants' relationships with close friends and acquaintances than in their relationships with their mothers (H4).

Theoretical advantages of relational model theory. Support for these four hypotheses would establish that relational model theory is consistent with explanations provided by other, already established interpersonal theories. This would show that relational model theory is consistent with, and a plausible alternative to, existing theories of interpersonal communication. Without showing that the application of relational model theory enables researcher to gain additional insights into interpersonal relationships that go beyond those provided by existing theories, however, there would be only limited utility in introducing yet another cognitive theory of relationships. To make a strong case for relational model theory, therefore, it is necessary to show that relational model theory is able to make insights possible that go beyond those provided by existing theories.

One such additional insight would be provided by relational model theory if the patterns by which the four relational models define different relationships would vary significantly across

distinct relationships that are not necessarily differentiated by the dimensions of communality and authority. Specifically for this research, this means that the patterns of the importance of the four relational models for different relationship domains would vary considerably even between those relationships that are not differentiated by their intimacy or authority, namely the mother and close friend relationships. Because the exact pattern of such variations should be culturally dependent rather than a function of the relational models (Fiske, 1991) and because the cultural expression of relational models in different relationships within our culture is not yet well understood, it is not possible to make clear predictions of these variations. Thus, how and in which domains exactly these variations would occur was a research question in this study (R1).

The final hypothesis tested in this study addresses a measurement question that is likely to trouble relational model research for time to come. Thus far, measuring relational models has proven difficult (i.e., Haslam, 1994; XXXX, 1998). In most of his early studies, Fiske presented participants with short descriptions of the four relational models and asked participants to identify the dominant model in their relationships. This proved necessary because more desirable multi-item measures often produced low reliability coefficients. One reason for this low reliability is a discrepancy between the instrument that is designed to assess the importance of relational models for the entire relationship, on the one hand, and the theoretical model that proposes that actual social relationships are characterized by the simultaneous application of all four relational models, although to different degrees in different relationship domains. Consequently, any measure that has content validity, that is, that operationalizes relational models across a wide range of relationship domains, such as Haslam and Fiske's (1999) new instrument, cannot have very high reliability coefficients.

This problem should be particularly prevalent for complex relationships in which participants relate to each other in a variety of domains and experience interactions across a wide range of social situations. Conversely, less complex relationships that are confined to a few relationship domains should be more likely to be dominated by only one or two relational models and should produce more reliable measures. Specifically, for this study it was predicted that the

instrument used to assess the relational models across a wide range of relationship domains (Haslam & Fiske, 1999) would be more reliable for the less complex relationships participants have with acquaintances as compared to the more complex relationships they have with their mothers and close friends (H5). Conversely, the instrument should have lower reliability coefficients for the more complex relationships participants have with their mothers and close friends as compared to their relationships with acquaintances (H6).

Method

Participants were 145 undergraduate students enrolled in communications courses at a large Eastern university. Their mean age was 21.02 (range: 18-45), 69% of the participants were female and 31% were male. In regard to ethnic background, 3.4% of the participants identified themselves as African, 2.1% as Asian, 91% as Caucasian, 0.7% as Hispanic, and 1.4% as being of another ethnic background. Participants were recruited in communication courses and offered extra credit for their participation. Students who agreed to participate made appointments to come to a research lab during their free time. At the lab, participants were informed about the procedures and the purpose of the study. Those who consented to participate completed a questionnaire that contained Haslam's and Fiske's (1999) relational model instrument (RMI). The instrument consists of 36 items that assess participants' endorsements of each of the four relational models in eight different relationship domains. The domains are exchange, distribution & use, work, relationship ethics, decision-making, influence, identity, and relationship and are intended to reflect the breadth of the relationship construct. For a detailed description of the instrument and its psychometric properties, see Haslam and Fiske (1999). Participants were asked to complete this instrument for each of their relationships with their mother, with a close friend, and with an acquaintance. Finally, participants also complete a demographic section and an unrelated instrument assessing communication patterns within their families.

Results

Prior to testing any of the other hypotheses, the psychometric properties of the relational model instrument were assessed, thereby also testing hypotheses 5 & 6. Generally, the four scales

of the instrument proved reasonably reliable, although the reliability coefficients were somewhat lower than those reported by Haslam and Fiske (1999). In support of hypotheses 5 & 6, there were the predicted differences in the reliabilities of the scales for different relationship types. Overall, the instrument proved more reliable for the less complex relationships that participants had with acquaintances and proved less reliable for the more complex relationships that participants had with their mothers and close friends (see Table 1). With the exception of the EM scale, which had similarly low reliability for all three relationships, the scales were significantly more reliable when assessing participants' relationship with acquaintances than participants' relationships with their mothers. For CS and AR, the scales were also significantly more reliable when assessing participants' relationships with acquaintances than with close friends. Thus, for three of the four scales measuring relational models, hypotheses 5 & 6 were supported.

A different way of testing the reasoning behind the prediction that the scales are less reliable for more complex relationships is by comparing the proportions of the scale variances that result from differences of the item means. In other words, variances due to differences in the extent to which the relational models were endorsed for the eight different relationship domains measured by the instrument. This variance is represented in Table 1 by the between-item mean square error (MSE) of the scales. This error is larger when the means for the eight different items of each scale are very different from one another and smaller when they are very similar to one another. In other words, a large MSE indicates a large variation in the extent to which a relational model was endorsed by participants across the eight relationship domains. Conversely, a small MSE indicates that a relational model was endorsed consistently to the same extent across all eight relationship domains. The advantage of this indicator is that it isolates the variance that is due to differences between the items and ignores differences between subjects and variances due to error. As expected, the MSEs for all four scales of the RMI were larger for participants' relationships with their mothers than for their relationships with their acquaintances, further supporting hypotheses 5 & 6.

To test hypotheses 1 – 4, which predicted differences in the importance of the four relational models depending on relationship type, the means for each RMI scale were computed and compared. The difference between the means according to relationship type was tested using a within subjects MANOVA, with relationship type being the predictor variable and RMI scale scores being the predicted variable. The overall $F(8/572) = 103.06$ was significant at $p < .0001$, showing that the scale means were different for the different relationship types. The individual hypotheses were tested through pairwise comparison of means, reported in Table 2.

The comparison of the individual scale means showed that H1 – H4 were fully supported by the data. As predicted in H1, CS was significantly more important in participants' relationships with their mothers and close friends than in their relationships with acquaintances. As predicted in H2, MP was significantly more important for participants' relationships with acquaintances than for their relationships with mothers and close friends. Not predicted was the statistically significant difference between the MP means for mothers and close friends, but assuming that participants' relationships with their mothers are more intimate than their relationships with close friends, this pattern supports the underlying logic of H2. H3 predicted a statistically significant higher mean of AR for participants' relationships with their mothers as compared to their relationships with close friends and acquaintances. This predicted pattern was observed in the data. H4, which predicted higher EM scores for participants' relationships with their close friends and acquaintances than for their relationships with their mothers, also was supported by the data.

These results showed that relational models play very different roles in participants' relationships to their mothers, close friends, and acquaintances. In this regard, they are consistent with our predictions that were based on our knowledge of the roles of communality and authority in interpersonal relationships. These results, however, were obtained with the mean scores of the relational models for each relationship, which means that they are based on averages across eight different relationship domains and consequently somewhat less specific and less insightful than relational model theory allows. As the discussion of the psychometric properties of the RMI has

shown, there are great variations in the extent to which each relational model applies to each of the eight individual relationship domains assessed by the RMI. There is a lot of theoretically relevant information in these variations. As previously discussed, a core assumption of relational model theory is precisely that the different domains of interpersonal relationships are determined by different relational models. Thus, a mean score for relational models across all eight relationship dimensions is likely to be a gross generalization. In contrast, an investigation of the means of relational models for individual dimensions of relationships provides much more detailed information about the role of each relational model for the relationships. To describe these variations and to thereby answer R1, the means for each of the eight items for each of the relational models were compared between the three different relationships (see Figure 1).

Comparing the means of the eight different relationship dimensions for CS, the most obvious observation is that as predicted in H1, across all dimensions, CS is more relevant to participants' more intimate relationships with their mothers and friends than to their less intimate relationships with acquaintances. Noteworthy is that for most dimensions, the means mirror each other, that is, the lines plotting these means run parallel. In other words, although CS is consistently less relevant for acquaintance relationships, the relative importance of CS for each relationship dimension largely follows the same pattern in acquaintance relationships than in the more intimate mother and close friend relationships. Specifically, CS is relatively more relevant to exchange, work, relationship ethics, and decision-making and relatively less relevant to distribution and influence for all three relationships. This parallel was not observed for all dimensions, however. In the dimensions of identity and relationship, the opposite pattern is observed. In the mother and close friend relationships, CS is extremely high for the dimensions identity and relationship, whereas in the acquaintance relationship, CS is extremely low. This indicates that participants used CS in these dimensions to distinguish between intimate and less intimate relationships.

For AR, the means on the eight dimensions for friend and acquaintance relationships are similarly low and essentially the same for all eight domains. The means for the mother

relationship are a little higher and for the most part run parallel to the means of the other two relationships, with three noteworthy exceptions. In regard to relationship ethics, identity, and relationship, AR scores for acquaintance and friends are near the lower bound of the range, whereas for mothers, they are near the higher bound of the range. This suggests that the differences between mothers, on the one hand, and friend and acquaintance relationships, on the other hand, are largely symbolical. For those domains of relationship that are more concrete and more behavior oriented (i.e., exchange, distribution & use, decision-making, & influence), the means were very similar for all three relationships. For those domains that are more abstract and more perception oriented (i.e., relationship ethic, identity, & relationship), however, there was a great difference in the means for participants' relationships with their mothers as compared to their relationships with friends and acquaintances.

In regard to EM, as predicted, the means for the mother relationship were lower for all eight dimensions than the means for either the close friend or the acquaintance relationship, indicating that the mother relationship was less determined by the EM relational model than the other two relationships. In contrast to CS and AR, where there were differences between the three relationships in the patterns of relative importance of each of the relationship dimensions, this pattern for EM was identical for all three relationships. Still, even this very consistent pattern yielded a lot of interesting information. In all three relationships, EM was most important for the dimensions of identity, relationship ethics, and relationship and less important for exchange, distribution & use, decision-making, and influence. As it was the case for AR, these differences suggest that EM is more important to relationships in a symbolic and abstract sense than in determining actual behaviors in the relationships.

Similar to EM, MP played a less important role in participants' relationships to their mothers as compared to their relationships with close friends and acquaintances. For acquaintance relationships, MP was above the mid-point of the scale for all relationship domains save decision-making and influence. The patterns of means of mother and close friend relationships ran essentially parallel, with the exception of distribution and use. Here the mean

for close friend relationships was near the mid-point of the scale, whereas for mother relationships, it was at the lower range, indicating an interesting difference between these two otherwise very similar relationships. In regard to distribution and use, participants' relationships with their mother were characterized by an almost complete absence of MP, whereas MP figures much more prominently in participants' relationships with their close friends.

Plotting the same data from the perspective of the relationships rather than from the perspective of the relational models (Figure 2), leads to an understanding of the extent to which each relationship domain is influenced differently by the four relationship models. This detailed understanding of the relationship is much richer than the insight that comes from just comparing the means of the four scales for the entire relationships. The graph showing the item means for the eight domains of the mother relationship shows that while CS was most influential across the board, in several domains of this relationship (i.e., work, relationship ethics, influence, & identity) all four relational models were about equally important. The graph for the close friend relationship shows that all domains were most heavily influenced by either CS or EM, but that MP also played an important role for most relationship dimensions. Only AR played just a small role for all eight domains of the close friend relationships. The graph showing the item means for the acquaintance relationship, on the other hand, shows how this relationship was largely dominated by EM and MP, with the exception of decision-making and influence, where all four relational model were about equally important.

Consistent with the reasoning that led to hypotheses 5 & 6, combined these graphs show that the mother relationship was most complex with all four relational models consistently being identified by participants as being relevant to this relationship. The close friend relationship was second in complexity, because CS, EM, and MP all were relevant for most relational domains. Finally, the acquaintance relationship was least complex, with only MP and EM having been consistently identified as relevant to the eight relationship domains and CS and AR having been identified as largely irrelevant for all eight dimensions of that relationship.

Discussion

Results from this research demonstrated the applicability and utility of Fiske's (1991, 1992) relational model theory to the study of interpersonal relationships. On the one hand, relational model theory maps almost perfectly onto existing research on the roles of communality and authority in interpersonal relationships. As such, it led to similar predictions that were fully supported by the data collected in this study. This suggests that relational model theory is compatible with the majority of findings that have been made in regard to interpersonal relationships and consequently with the current state of knowledge about interpersonal relationships. On the other hand, relational model theory also allowed us to gain insights into the inner workings of, and subtle differences between, interpersonal relationships that have escaped research inspired by previous theories of relationships. Because relational model theory was able to produce these insights without any significant loss in parsimony of the theoretical model (i.e., four categories are conceptually not any more complicated than two dimensions), and other research has suggested that relational model theory has more external validity than dimensional models (Haslam, 1995), one result of this research is that relational model theory emerged as a serious contender for the position of preeminent cognitive theory of relationships.

The compatibility of relational model theory with the current state of knowledge about communality and authority in interpersonal relationships was impressively provided by the results that unequivocally supported hypotheses 1-4. As predicted, relationships that we know are high in communality were characterized by high levels of the CS relational model. Conversely, relationships that we know are low in communality were characterized by high levels of the MP relational model. Similarly, relationships that we know are high in authority were characterized by high levels of the AR relational model, whereas relationships that we know are low in authority were characterized by high levels of EM. This must not be interpreted to mean, however, that relationships are consistent with only one relational model. Rather, results have also clearly shown that actual relationships have in them elements of all four relational models, although to different degrees and depending on the relationship domain.

It is particularly this ability of relational model theory to describe how each individual relationship domain is influenced by the four relational models that provides truly new insights. We can now understand that persons' relationships with their mothers are complex and that they make use of all four relational models in these relationships. In contrast, persons' relationships with acquaintances are simpler, and in most domains, are dominated by EM or MP. We now can also appreciate that the main difference between relationship with mothers and relationships with close friends is in the absence of AR in the close friend relationship. The analyses of relationship types with this level of detail have not been possible using alternative cognitive theories of relationships.

In addition to these detailed statements about different relationship types, now we are also able to describe relationship domains with greater insight. Some of these domains are consistently characterized by the same degree of importance of certain relational models regardless of relationship type, whereas for other domains, which relational model applies is greatly dependent on the relationship type. For example, regardless of relationship type, EM is most relevant to relationship ethics and least relevant to work. This indicates that equality is a tremendously important aspect of our relationship ethic for all relationships, but is not used by us to organize and distribute work. Distribution and use, on the other hand, is determined by CS for mother relationships, equally by CS and EM for close friend relationships, and by MP for acquaintances. This indicates that distribution & use are an area where relationships are truly different from one another.

The greatest limitation of this research and, more generally of relational model theory as operationalized here, is the dependence of single item indicators for the eight relationship domains. Clearly, to have more confidence in the findings presented here, these results have to be replicated, ideally with a new instrument that provides multi-item measures of the relational models for each of the relationship domains. This applies especially to the findings that are based solely on the single item measures. The results that were obtained through the use of the scale means (i.e., the general descriptions of the three different relationships and the test of hypotheses

1-4) are much more robust. Another limitation of this study is its reliance on self report measures. Ultimately the goal of any research in interpersonal communication must be to test theory using observational data rather than self reports. This applies especially to research that is investigating essentially unobservable entities such as cognition. Without linking supposed cognitive processes to observable outcomes such as persons' interpersonal behavior, cognitive theories will never be able to remove justified doubts about its validity and utility.

Overall, however, this research is an encouraging first step in the application to the study of interpersonal communication and relationships of what is probably the most exciting cognitive theory of relationships to have emerged in the last few years (Berscheid, 1995). This research has shown that relational model theory is not only consistent with our current knowledge of interpersonal relationships, but also enables us to gain additional insights not available to us before. Another benefit of investigating relational model theory in the context of interpersonal communication is less tangible, but equally important. For interpersonal communication as a discipline it is vital that we keep abreast of the developments of relationship theories in allied fields, such as social psychology, and to contribute to their development. Particularly in the area of interpersonal relationships, communication research can make important and significant contributions because of our unique understanding of the role that communication plays for relationship development and relationship function and satisfaction. Because of its prominent role in allied fields, relational model theory provides us a great opportunity to accomplish that. Consequently, to apply relational model theory to communication processes must be one of our most important immediate and long term goals.

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Table 1. Coefficients alpha and between item mean square error (MSE) for the four scales of the Relational Model Instrument by relationship types.

Relationship	Scale Alphas				Between Item MSE			
	CS	AR	EM	MP	CS	AR	EM	MP
Mother	.60 _a	.58 _{ab}	.52	.65 _{ab}	41.7	81.4	97.7	66.5
Close Friend	.65 _b	.66 _{ac}	.59	.73 _a	27.3	56.0	105.2	56.0
Acquaintance	.75 _{ab}	.79 _{bc}	.58	.73 _b	41.3	13.2	47.8	56.6

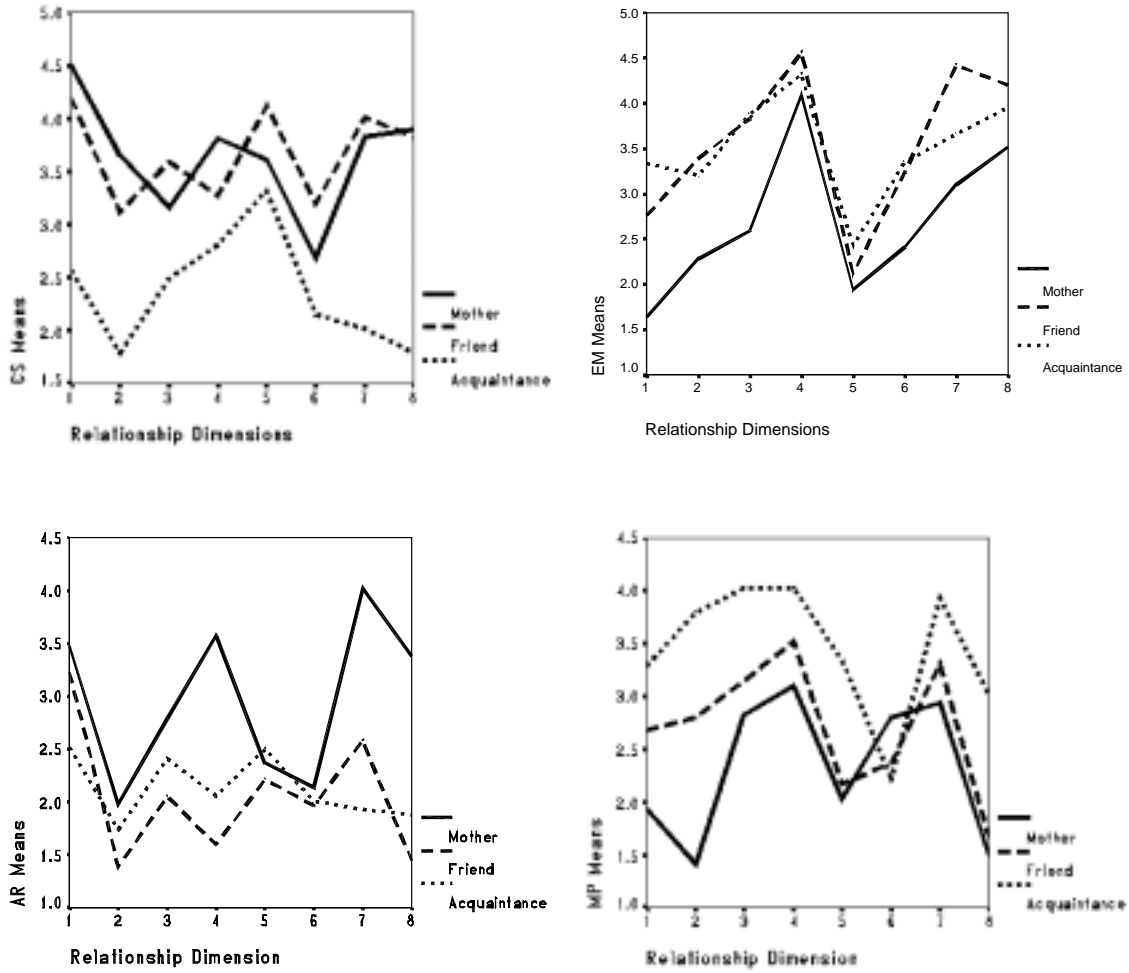
Note: Reliability coefficients in the same column with same subscript are different at $p < .05$

Table 2. Means and Standard Deviations for the Four Relational Models Across Three Relationships.

Relationship	Relational Model			
	CS	AR	EM	MP
Mother	3.64(.05) _a	2.97(.05) _{ab}	2.70(.04) _{ab}	2.32(.05) _{ab}
Close Friend	3.67(.05) _b	2.06(.05) _a	3.57(.05) _a	2.71(.06) _{ac}
Acquaintance	2.37(.06) _{ab}	2.13(.06) _b	3.52(.05) _b	3.46(.06) _{ac}

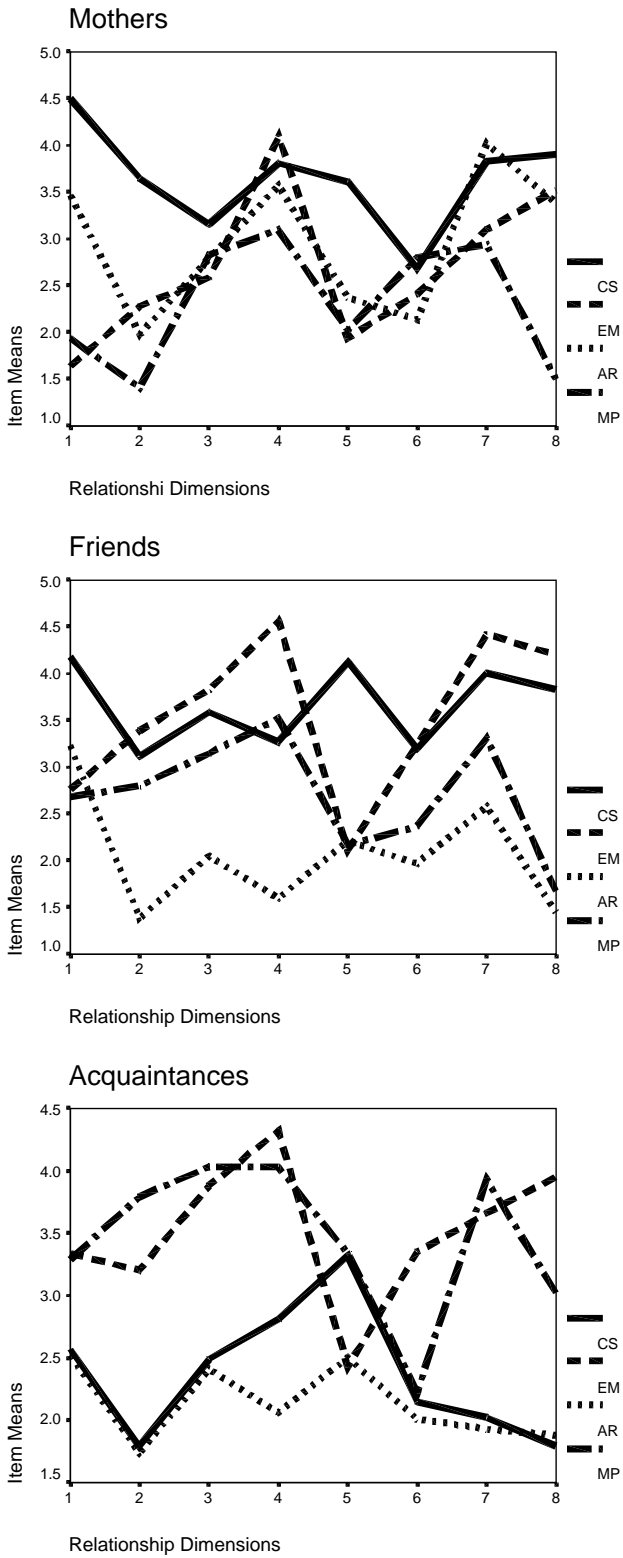
Note: Means in the same column with the same subscript are different at $p < .001$.

Figure 1. Comparisons of the Means for the Four Relational Models in Three Relationships.



Note. 1 = exchange, 2 = distribution & use, 3 = work, 4 = relationship ethics, 5 = decision-making, 6 = influence, 7 = identity, 8 = relationship.

Figure 2. The Means for the Four Relational Models in Three Different Relationships.



Note. 1 = exchange, 2 = distribution & use, 3 = work, 4 = relationship ethics, 5 = decision-making, 6 = influence, 7 = identity, 8 = relationship.