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Appealing to the Heart of a Social-Relationship:
The Role of Relational Models in Pro-Social Message Processing and Persuasion

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Abstract

Relational Model Theory (Fiske, 1991, 1992) proposes that interpersonal relationships are based on only four fundamental relational models that reside in human cognition: communal sharing, authority ranking, equality matching, and market pricing. The type of relational model persons use in their interpersonal relationships determine what type of behaviors persons enact in their relationships, and how they interpret the behaviors of their partners. Because relational models play this central function in determining interpersonal behavior, they should play an equally important role in the cognitive processing of messages designed to influence interpersonal behavior. This prediction was tested in the context of persuasive messages soliciting support for an organization for mentally ill persons. Results showed that the relational models receivers used in their relationships with mentally ill persons influenced their attitudes, their judgments about the message, and that an appeal that matches receivers' relational models is more persuasive, at least for communal sharing and authority ranking.

Persuasion and Interpersonal Relationships

Mental illness is among the most serious threats to the well being of Americans. The Surgeon General in 1999 reported that in any given year, about 20 percent of the adult population and a similar percentage of children experience instances of mental illness. In about half these cases, the mental illness is strong enough to seriously impair the individuals' functioning. Simultaneously, four of the ten leading causes of disability for persons age five and older are mental disorders (Surgeon General, 1999). Yet, as a proportion of overall expenditure related to health (\$943 billion), spending on mental illness has actually declined to only seven percent of the total in 1996 (Mark et al., 1998), with a little more than half (53%) coming from public sources, mainly in form of Medicare and Medicaid. A consequence of these developments is that providers of care for mentally ill persons have to increasingly rely on the private sector for funding. These fundraising efforts could be greatly aided by a better understanding of what makes persuasive messages in a pro-social context more effective. To explore the efficacy of persuasive messages based on different relational models is the purpose of this paper.

A Model of Interpersonal Relationships in the Persuasion Context

Although there is a vast amount of research on persuasion, the role that interpersonal relationships play in that process is not very well understood, especially if the interpersonal relationship is not between message source and receiver (Author, 2001). That is, while some researchers have investigated the role of interpersonal relationships in interpersonal influence interactions, these investigations have almost exclusively focused on situations where the interpersonal relationship is between the message source and the message receiver. For example, De Bro, Campbell and Peplau (1994) investigated the

situation where a woman tries to persuade her sex-partner to use a condom. The role of interpersonal relationships in influence situations, however, where the interpersonal relationship is between the message receiver and another person or persons and where the message source is not part of the relationship, has almost completely been ignored (Author, 2001).

That does not mean, however, that there is no information that would allow one to make predictions of how receivers' interpersonal relationships influence receivers' processing of persuasive messages. Quite to the contrary; if persuasion is conceptualized as cognitive information processing, then persons' interpersonal relationships impact this process through their mental representations. Thus, a model that combines cognitive theories of message processing with cognitive theories about the mental representation of relational knowledge should provide an adequate description of the persuasion process and allow researchers to generate hypotheses for empirical testing. Fortunately, there are established theories in both these areas that allow the construction of precisely such a model.

Schemas and information processing. Cognitive theories that describe the role of pre-existing knowledge structures on information processing often have focused on schemas (Fiske & Taylor, 1991) and their effects on encoding, memorizing, and inferring. In encoding, schemas influence the perception of stimuli by reducing their complexity and by highlighting certain aspects of the stimuli that are consistent with the schema, and suppressing other aspects that are inconsistent with the schema. That is, most frequently, stimuli are assimilated, although in specific circumstance, schemas can also lead a person to focus on the stimuli's inconsistencies rather than the consistencies, for example, with

members of an outgroup. In either case, however, the new information is compared in to information existing is schemas.

In regard to memory, schemas influence how information is stored, and, more importantly, what additional information is retrieved from memory for purposes of cognitive processing (Fiske & Taylor, 1991). Information residing in memory that is connected to the new information through schemas is more accessible and available than existing information that is associated with other schemas. Similarly, information that is consistent with a schema is more easily stored with that schema, than information that has no connection to any schema. Finally, inference, the most important outcome so of information processing, is influenced by schemas not only because of the described memory effects, but also because schemas often contain heuristics and other decision rules, causal inferences, and interpersonal scripts that lead to an automatic information processing and a quick, not consciously controlled decision making (Fiske & Taylor, 1991). Thus, schemas have the potential to affect the persuasiveness of a message by affecting the encoding of the message, the access to other information in memory, and the process of information processing, as long as the schema is indeed relevant to the particular cognitive process. Obviously, for messages about persons' behavior in their interpersonal relationships, the relationship schema for that relationship has that relevance.

Relationship schemas. Theories that conceptualize cognitive representations of relational knowledge have received considerable attention by communication scholars in the last decade. One example is attachment theory (Bowlby, 1969, 1973, 1980; Hazan & Shaver, 1987) and its application to intimacy and involvement (Guerrero, 1996a), relationship maintenance and termination (Bachman & Zakahi, 1996), communication

avoidance (Bartholomew, 1990), information seeking and action plans (di Battista, Abrahams, & Clark; 1996), and the expression of anger and sadness (Guerrero, 1996b). Another example is relationship schema theory and its applications to information processing in interpersonal (Baldwin, 1992, 1994; Baldwin, Carrel, & Lopez, 1990) and in intimate relationships (1993; Fletcher & Fincham, 1991). Finally, there is Fiske's (1991, 1992) relational model theory, which only recently has caught the attention of communication scholars, but that among all the theories conceptualizing a cognitive representation of relational knowledge seems most appropriate for a more general theory of persuasion, because it does not limit itself to intimate relationships but applies to all social relationships.

Relational Model Theory

Relational model theory (Fiske, 1991, 1992) proposes that humans are inherently social beings that interact with one another mainly to construct and to participate in interpersonal relationships. Further, these relationships are based on one or more of only four fundamental relational models that exist within human cognition: communal sharing (CS), authority ranking (AR), equality matching (EM) and market pricing (MP). According to Fiske (1992), 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 models delineated. 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 and relationships are often based on perceptions of common bonds, such as blood relationships or the same ethnicity. From the perspective of CS, other persons either belong to the ingroup or to the outgroup, and no further distinctions are made among group members. Generally, when applying CS to evaluate people, members of the ingroup are evaluated as being superior and more valuable than members of the outgroup.

The AR model of relating is one where persons differentiated by social rank. Using AR means to place persons in relations to one another and assigning a social identity that depends on 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 of others' behaviors.

The EM model of relating is one of equality between independent social entities. Therefore, persons using EM are motivated to maintain an even balance in their relations with each other. Unlike CS, where individuals 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 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 quickly resolved, because they violate the balanced 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, which requires 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 ratio 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).

Evidence for relational models. Although a relative recent theory, relational model theory has been thoroughly investigated, with most empirical evidence for its validity coming from research by Fiske and Haslam and their associates. This research tested and supported the hypotheses that social memory is organized around relational models in both storage and retrieval (Fiske, 1991, 1992, 1995; Fiske & Haslam, 1996), and that relational knowledge is schematic rather than continuous-dimensional (Haslam, 1994a, 1994b, 1995, 1997; Fiske & Haslam, 1996; Fiske, Haslam & Fiske, 1991). Combined, results of this research provide strong evidence that relational knowledge in human cognition takes the form of the relational models identified by Fiske.

Relational Models and Social Relationships with Mentally Ill Persons

The relational context in which this study investigated relational models was the respondents' social relationships with mentally ill persons, members of a socially marginalized group. The reason this context was chosen is that a better understanding of the relationships between persons in the mainstream and mentally ill persons has great societal significance. In today's climate of reduced government spending on social issues, pro-social groups and organizations are increasingly dependent on persuading members of the mainstream to support their efforts to be able to provide assistance and help to mentally ill persons. Clearly, the results of this study have the potential to help these pro-social actors significantly in their efforts.

This particular social context, however, also has several practical advantages for researchers that make it an ideal testing ground to investigate the role of relational models on persuasion. Relational models as conceptualized by Fiske (1991, 1992) fit into Fletcher's (1993) class of general relationship beliefs. As such, they are the cognitive foundation of more elaborate relationship schemas, which in addition to general knowledge of relating (such as relational schemas) contain relationship type and relationship specific beliefs (Fletcher, 1993). Most actual interpersonal relationships, however, are co-specified by more than one relational model (Haslam, 1994a). As a consequence, the more complex relational schemas that people have about their actual, ongoing relationships, are based on, and contain, more than one relational model. Because thus far we do not know what factors determines which relational schema is most salient within a given relationship at a given time, an investigation of relational schemas within the context of a complex, ongoing relationship is much difficult, if not entirely impossible.

Relationship schemas of hypothetical social relationships with members of social groups one is unfamiliar with, such as mentally ill persons, however, are less likely to be as complex as relationship schemas of other social relationships, such as friendships or family members. In fact, most persons will not even have relationship schemas available for their relationship with mentally ill persons and will have to construct new schemas or rely on default schemas should they need to process information regarding these for them hypothetical and unfamiliar relationships.

Because relational schemas represent the most fundamental level of generalized relationship knowledge, it is reasonable to assume that the hypothetical relationships participants have with mentally ill persons are mentally represented by relational schemas that are based on Fiske's (1991) four relational models. That is, these relationships with mentally ill persons are unfamiliar enough for most participants that to not be represented by complex relationship schemas, which would make it difficult to determine which relational model is most salient for them at the time of a study. At the same time, these hypothetical relationships are plausible enough for the results to have external validity, which would be a problem if one were to investigate clearly hypothetical and less plausible relationships.

Relational Models and Persuasion

If the basic assumptions of the theories regarding relational models and information processing are accurate, then how persons behave in their social relationships is largely a function of the relationship models they employ. In other words, persons use relational models in their social cognition, including the planning of their own behavior, the interpretation of the behaviors of others, and in the processing of information relevant to

the relationship. For persuasion that is designed to influence persons' behaviors in interpersonal relationships, the central role of relational models for social cognition has one important consequence: Persuasive messages are processed based largely on the relational models used by messages receivers.

One conclusion about persuasion suggested by the central role of relational models in message processing is that the behavior advocated in a message should match the relational model used by receivers in their relationships with the target of that advocated behavior. The reason is that if persons base their behavior in relationships on the relational models they are using in their relationships, then only messages that advocate behavior consistent with the used models are persuasive. Conversely, messages that advocate behavior inconsistent with or violating the relational model are rejected by the message receiver and are not persuasive. Evidence for the effectiveness of matching messages to existing cognitive structures relevant to information processing comes from research based on the functional approach to attitudes (Katz, 1960), which showed that messages that address the functions attitudes serve for recipients are more persuasive than messages that do not address the attitudes' functions (Edwards, 1990; Millar & Millar, 1990; Millar & Tesser, 1989; but see LaFrance & Boster, 2001).

For messages advocating helping mentally ill persons, the logic of matching the behavior advocated in persuasive messages with the relational models persons use in their relationships suggests that persons who use either a communal sharing model or an authority ranking model would be more persuaded by such a message than persons holding an equality matching or a market pricing relational model, respectively. Helping one another, that is, sharing one another's resources and responding to the needs of one another

is the very definition of communal sharing. Similarly, taking care of the socially inferior is part of the authority ranking relationship. Equality matching and market pricing relationships, however, are based on reciprocity and exchange of resources, and therefore unilateral behaviors such as helping are inconsistent with these models. Consequently, the first hypothesis tested in this study is:

H1: Message receivers who use a communal sharing or an authority ranking relational model in their relationship with mentally ill persons will report greater willingness to help mentally ill persons and make more positive judgments about the message and message source than message receivers using a equality matching or market pricing relational model.

Not all behaviors that could be advocated in a persuasive message, however, are unambiguously either consistent or inconsistent with a relational model. In fact, most social behavior is inherently ambiguous (Fiske & Taylor, 1991). Thus, in most cases, it is not the behavior that is advocated in a message per se that determines whether a message is consistent with a relational model and therefore persuasive. Rather, the persuasiveness of a message depends on whether the message succeeds in showing that the advocated behavior is consistent with the relational model. In other words, given a relational ambiguous behavior, it is how the behavior is framed relationally that determines whether a person is influenced by the message. If the message frames the behavior as consistent with the relational model, it is persuasive; if the message frames the behavior in a way inconsistent with the relational model, it is not persuasive. Thus, the next four hypotheses tested in this study are:

H2: Message receivers' use of a communal sharing relational model in their relationship with mentally ill persons will be positively correlated with them being persuaded by a message making an appeal based on a communal sharing relationship.

H3: Message receivers' use of an authority ranking relational model in their relationship with mentally ill persons will be positively correlated with them being persuaded by a message making an appeal based on an authority ranking relationship.

H4: Message receivers' use of an equality matching relational model in their relationship with mentally ill persons will be positively correlated with them being persuaded by a message making an appeal based on an equality matching relationship.

H5: Message receivers' use of a market pricing relational model in their relationship with mentally ill persons will be positively correlated with them being persuaded by a message making an appeal based on a market pricing relationship.

Although the theoretical reasons discussed above suggest that relational models are very influential in the process of persuasion, it is difficult to estimate the size of that influence without some point of reference. To obtain such a point of reference, several other measures usually associated with compliance to persuasive messages were also assessed in the current study, most notably involvement, personality traits, and social desirability. That is, in addition to the above hypotheses, the following research question also was pursued in this study:

R1: How do the effects of relational models on the persuasiveness of messages compare to the effects of involvement, social desirability, and the personality traits of anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability?

Method

Participants and Procedure

Participants (N = 227) for this experiment were recruited in several communication arts courses at Midwestern university. More women (N = 151) than men (N = 76) participated in the experiments, which reflects the higher enrollment of women in communication courses. The mean age of participants was 20.5 (Range: 18-50) and their ethnic make-up (African = 1.7%; Asian = 6.5%; Caucasian = 79%; Hispanic = 1.8%; Native American = 1.3%; Missing or Other = 9.7%) corresponded closely to that of the general student population. Sophomores (35%) and Juniors (29%) were represented in greater numbers than Freshmen (16%), Seniors (19%), and graduate students (0.7%).

After arriving at the laboratory and giving informed consent, groups of 1-8 participants watched a video containing four messages advocating the support of an imaginary advocacy group for mentally ill persons, the American Association for the Advancement of the Mentally Ill (AAAMI). Participants were randomly assigned to one of eight message conditions (sex of speaker * 4 different message sequences). All together, 116 participants saw the male speaker and 111 participants saw the female speaker with at least 25 participants in each of the eight cells.

After participants watched the first message, the experimenter paused the video and participants completed a post-message questionnaire assessing the participants' evaluation of the message and message source as well as their attitudes and behavioral intentions in respect to supporting the AAAMI (the messages and measures are discussed in detail in the following section). After all participants completed their post-message questionnaire, the video was restarted. Before participants saw the next message,

however, the video presented a distraction task to the participants, who then recorded their answers to the task on their questionnaires before seeing the next message. This procedure was repeated until participants saw all four messages.

After watching the fourth message and completing the last of the post-message questionnaires, participants were led to an adjacent room where they completed a second questionnaire by computer. First, they answered the 43 items of the RMQ on 5 point scales and then, in a forced choice task, selected 1 of 4 one-paragraph long descriptions of each model type as best describing their actual relationship with mentally ill persons. Next, they completed the NEO-PI (Costa & McCrea, 1985, 1997) on a 5 point scale, a social desirability measure (Crowne & Marlowe, 1980), and a measure of involvement, also using 5 point scales. Finally, participants answered some demographic questions. After participants completed the questionnaire, they were thanked for their participation and fully debriefed.

Stimulus Materials and Measures of Variables

Persuasive messages. To keep participants more interested and to increase the applicability of the study to actual fund raising efforts, video taped messages containing both visual and audio stimuli were used. The messages were 79 seconds in length, of which the first 65 seconds of each message were identical visually and aurally. In the messages, mental illness was described as a serious social problem and statistics were presented to back up that claim. In addition, AAAMI was introduced as a local organization engaged in addressing and solving the problems caused by mental illness.

Each message started with a speaker addressing the audience directly from behind a desk, followed by other visuals showing a map of the United States, two street scenes, a

self-help group in discussion, mentally disabled children at school, the outside of the AAAMI building, and again the self-help group in conversation before returning to close-up of the speaker who then directly addressed the audience. Throughout the visuals, the speakers voice continued to be heard off screen providing factual information about mental illness and the work of the AAAMI.

The last 14 seconds of each message contained a direct appeal to the audience to support AAAMI and it was this appeal that distinguished the messages from one another. The four different appeals were written to be consistent with each of the four relational models conceptualized by Fiske (1991, 1992), but were of equal length and the advocated behavior (generically to support the AAAMI) also was the same (see Table 1). This was done to minimize the possibility that other variables, such as number of arguments or the costliness of the advocated behavior, would influence the results.

To be able to control and test for possible effects that the sex of the speaker might have on message processing and persuasiveness, each message was presented by a female and by a male speaker. Both speakers were advanced students in communication with an interest in journalism and acting who were professionally dressed and groomed and presented the messages fluently and professionally. Whereas sex of speaker was a between subjects factor in the study, appeal type was a within subject factor. To control for order effects, four different videos were created for each speaker and the order of the messages was varied using a Latin Square design to prevent order effects. Overall, the combination of the between subject factors sex-of-speaker and order-of-appeals resulted in eight (2*4) stimulus conditions for persuasive messages.

To minimize possible effects of previously presented messages on participants'

responses to subsequent messages, two very challenging visual puzzles were presented between each of the messages. Each puzzle consisted of a slide showing 4-9 panels with geometric figures and an empty cell, and a row of six additional figures. The task, taken from the Detroit Tests of Learning Aptitude (Hammill & Bryant, 1986), was for participants to select the one figure among the six extra figures that fit best into the empty cell of the panel.

Relational Model Questionnaire (RMQ). The RMQ is a self-report measure using 43 Likert type statements operationalizing the four relational schemas conceptualized by Fiske (1991, 1992). Each relational schema subscale consisted of 10-13 items, which were derived from Fiske's theoretical descriptions of the models and their expression in different areas of a relationship, including distribution, cooperation, decision-making, and power. Participants expressed their agreement with the statements on five point scales, ranging from "agree completely" (5) to "disagree completely" (1), centered around a neutral response (3). Alpha reliabilities for the four subscales were satisfactory to low (CS = .75; AR = .71; EM = .56; Mp = .65), but not unexpectedly low. The RMQ subscales measure the use of relational models in eight different relationship dimensions to have content validity, so a certain trade-off with reliability is to be expected (Kerlinger, 1986). Of course, it would be possible to construct a more reliable instrument reflecting the second order factor structure, but such an instrument would need to contain at least 96 items ($3 \times 8 \times 4$), making it too long, especially in study like the present one that also manipulate and measure many other variables.

Social-desirability measure. Participants' inclinations to behave in socially desirable ways were measured using the Marlowe-Crowne Social Desirability Scale (CM-SD)

(Crowne & Marlowe, 1980). The CM-SD consists of 33 Likert Type items making statements describing persons' behaviors in public settings. Participants indicated their agreement or disagreement with each of these statements using 5 point scales from "strongly agree" to "strongly disagree." After the deletion of 2 items, the remaining 31 items formed a reliable measure ($\alpha = .82$) and responses were averaged to arrive at a single descriptor of participants inclination to respond in socially desirable ways ($M = 2.97$; range: 1.81- 4.23).

Personality measures. Six major personality features of participants were measured using Costa and McCrea's (1985) NEO-PI. The NEO-PI consists of 47 Likert type items assessing the personality of respondents. Participants indicated the applicability of these items to themselves using 5 point scales ranging from "strongly agree" to "strongly disagree." The NEO-PI is a frequently used measure of personality that has been reliably used to assess six important personality factors (Costa & McCrea, 1997; Digman, 1990). The reliability coefficients of the sub-scales in this sample were acceptable, which indicates the usefulness of the measures (Reliability coefficients: anxiety = .76; hostility = .75; depression = .79; self-consciousness = .75; impulsiveness = .61; vulnerability = .78).

Involvement. Involvement in this study was operationalized as participants' actual experiences with mentally ill persons or their expressed interest in such an experience. Specifically, involvement was measured by three Likert type items that on five points scale assessed participants' agreement with statements that declared personal knowledge of mentally ill persons, caring about mental illness, and having taken action on the issue of mental illness (Cronbach's $\alpha = .75$).

Measures of Dependent Variables

Variables assessing message processing outcomes. To assess participants' message processing, after each message, participants completed a questionnaire designed to measure several outcome variables associated with the processing of persuasive messages. Attitudes regarding the advocated behavior were measured as well as perceived attributes of the message source, the message, and the persuasive appeal. Attitude valence regarding the advocated behaviors were measured using a 3 item semantic differential (alphas of this measure for the eight message conditions fell between a range of .87 - .94). Behavioral intention was measured using a single question that asked participants to indicate their support for AAAMI on a scale from 0-100. Attitude ambivalence was measured using 2 Likert type items (alphas: .68 - .84). Perceived message quality was measured using 3 Likert type items (alphas: .63 - .77) and perceived message relevance using 2 Likert type items (alphas: .63 - .85). The perceived rational quality of the appeal was measured using 3 Likert type items (alphas: .83 - .93) and the affect quality of the appeals was measured by a two item semantic differential (alphas: .84 - .94). Perceived source quality was measured using 3 Likert type items (alphas: .69 - .77) and a 4 item semantic differential (alphas: .63 - .77).

Results

Hypothesis 1 predicted that message receivers who use the CS or the AR relational models in their relationships with mentally ill persons are more likely to help mentally ill persons than message receivers using the EM or the MP relational models and to have more positive attitudes about persuasive messages and message sources advocating such helping behavior. To test this hypothesis, multiple linear regression analyses were

conducted with participants' score on the four RMQ sub-scales the independent variables (see Table 2). The dependent variables were participants' scores on the nine message processing variables averaged across all four message types.

CS emerged as a statistically significant predictor for eight of the nine variables, and AR for five out of nine variables. EM and MP did not significantly predict any of the nine dependent variables. Thus, these results generally support H1. Participants' use of CS was associated with a more positive attitude about helping mentally ill persons, less attitude ambiguity, more positive judgments of the appeal, and more positive judgments of the speaker. Participants' use of AR in their relationships with mentally ill persons was associated with more positive attitudes about helping mentally ill persons and more positive perceptions of the message, the appeal, and the message source.

Hypotheses 2-5 predicted that message that match receivers' relational models are more persuasive than messages that do not match receivers' relational models. To test these hypotheses, multiple linear regressions were computed for each of the nine dependent variables, although this time the scores on the dependent variables for each message type were used rather than the average used for testing Hypothesis 1. In addition, only the scores for the RMQ sub-scales that matched the relational model of the message were entered in the regression equation (Table 3).

Results showed that four messages with a CS appeal, message receivers' score on the CS subscale were correlated with all nine outcome variables, indicating a more positive attitude about helping mentally ill persons, less attitude ambiguity, and more positive judgments about the message attributes and the message source. For messages with an AR appeal, message receivers' scores on the AR subscale were correlated with

their scores on five out of nine dependent variables, indicating a more positive attitude about helping mentally ill persons and more positive judgments of the quality of the message and the appeal, but also more attitude ambiguity. For messages with an EM appeal, participants' scores on the EM subscale were predictive of only two outcome variables, indicating more support and more positive judgments of the quality of the affective appeal in the message. For messages with a MP appeal, receivers' scores on the MP subscale were predictive of seven of the nine outcome variables, but for all of them in the opposite direction from the prediction. That is, the higher message receivers scored on the MP subscale, the more negatively was their attitude about helping mentally ill persons, and the more negative was their judgments of the quality of the message, the appeal, and the message source.

Research Question 1 addressed the issue of the size of the influence relational models have on message processing, especially in comparison to the effects of other variables known to have an influence on message processing, such as involvement, social desirability, personality traits, and attributes of the message source. To establish reference points to which to compare the influence of relational models on message processing, zero-order correlations and multiple linear regressions were computed for the nine message processing variables and the independent variables. Any variable that had either a statistically significant zero-order correlation or regression coefficient with any of the dependent variables were retained and entered together as a block in regression equations with the nine message processing variables as the dependent variables (see Table 4).

Results show that the variable most frequently correlated with message processing outcomes was anxiety with eight statistically significant coefficients, affecting all

message processing outcomes with the exception of perceived rational appeal quality. Involvement also had statistically significant effects on four message processing outcomes, mainly related to receivers' perceptions of argument quality and more generally to receivers' attitudes about helping mentally ill persons. Sex of the message source was, not surprisingly, correlated with both variables measuring source attributions and showed that receivers who saw the female speaker reported a more positive attitude about helping mentally ill persons. Hostility and social desirability were poor predictors of message processing, with only two statistically significant coefficients. In regard to size, the statistically significant coefficients ranged from .18 -.32, with the exception of involvement's coefficient with information relevance, which was .50.

Comparing the number of outcome variables affected by the independent variables and the size of their coefficients to the number of outcomes affected by relational models (between 2-8) and the sizes of their coefficients (.13 -.40), it appears that the relational models receivers used in their relationships with mentally ill persons are about as influential on message processing as hostility, and more influential than such well established variables as involvement, anxiety, social desirability, and the sex of a message source. In other words, the effects of relational models on the cognitive processing of persuasive messages has to be considered to be equal or larger to the effects of variables that are considered important predictors of message processing and persuasiveness.

Discussion

The results of this study provide strong support for the theoretical claim that relational models play a pivotal role in influence situations where persuaders attempt to

influence receivers' behavior in ways that are relevant to receivers' interpersonal relationships with other persons. The investigation of persuasive messages designed to get message receivers to support an organization for mentally ill persons has shown that receivers' use of communal sharing or authority ranking relational models in their relationships with mentally ill persons is positively correlated with their attitudes about supporting the organization and their behavioral intentions, as well as their judgments regarding message quality, the rational and affective qualities of the appeal, and positive attributes of the message source. Conversely, message receivers' use of equality matching or market pricing relational models did not correlated with their attitudes about helping mentally ill persons or their judgments of the persuasive messages.

Establishing that relational models affect message processing is only the first step in of the investigation of the role of relational models in message processing. The second step is to learn how relational models influence message processing. Results from this study support the matching hypotheses for communal sharing and authority ranking relationships. That is, the use of communal sharing and authority ranking models in their relationships with mentally ill persons makes message receivers more receptive to messages that are base their appeal on these relational models. These results are consistent with the logic of matching messages to attitude functions that developed from the functional approach to persuasion.

The most surprising finding of this study was that the exact opposite was observed for the market pricing relational model. Here, the matching of the message to the receivers' use of market pricing in their relationships with mentally ill persons actually led receivers to make more negative judgments about the message, the message source,

and to ultimately report more negative attitudes about helping mentally ill persons. Not only were these findings unexpected, they also were unambiguous, with negative correlations observed for eight of the nine message processing variables.

One possible explanation of these results is that the messages were ineffective and rejected by receivers because of a fundamental mismatch between the advocated behavior and the relational model. Although Fiske (1991) has argued convincingly that each relational model allows for moral arguments and can be used to justify prosocial behavior, clearly some of the relational models are more consistent with helping than others. Particularly the equality matching and the market pricing model frame helping in terms of reciprocity rather than altruism (CS) or social responsibility (AR). Thus, receivers using these models might have been more keenly aware that in their relationships with mentally ill persons, the necessary condition of reciprocity is not met. As a result of this, these receivers came to judge the message and its appeal as weak and illogical, which led them to reject the message. Unfortunately, the data of this study only suggests this explanation and does not provide for an independent test of it.

A major shortcoming of this study in this regard is that the findings regarding the matching of message appeal with the relational models of receivers for equality matching proved inconclusive. Clearly, if the above explanation is true for market pricing, the same should also be true for equality matching. To either observe or to not observe the same pattern of correlations would suggest a lot about the validity of the reasoning leading to the explanation above. Unfortunately, only two of the nine possible correlations reached statistical significance. Because equality matching was the one subscale of the RMQ that had real reliability problems ($\alpha = .56$), it is possible that no statistically significant

correlations were observed because of methodological problems with the instrument rather than because users of the equality matching relational model negatively evaluated equality matching messages. Only a replication of the study with a more reliable measures of the equality matching relational model will be able to answer this question conclusively.

Overall, however, the study has shown that persuasion in the context of receivers' other interpersonal relationships is influenced by the relational models receivers use in these relationships. This influence is strong and comparable to that of anxiety and involvement, and stronger than the influence of hostility, social desirability, and the sex of the message source. Consequently, relational models of receivers definitely deserve the attention of creators of persuasive messages. At least for receivers using communal sharing and authority ranking relational models, a matching appeal seems to significantly increase the persuasiveness of a message. Whether the same holds true for receivers using equality matching and market pricing relational models is a question that needs to be answered in a future study.

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Table 1.Final Appeals Based on the Four Relational Schemas Used in the Persuasive Messages About Mental Illness.

Communal Sharing: We believe that every mentally ill person is one of us and deserving of our help, regardless of how they became mentally ill. Give freely, help your brothers and sisters in need by supporting the AAAMI .

Authority Ranking: We believe that we people higher up the social ladder have the right to determine how we should help the mentally ill. Give freely, be a benefactor of the mentally ill by supporting the AAAMI.

Equality Matching: We believe that all mentally ill persons should receive exactly the same help, regardless of their social class. Give freely, help making equality possible for the mentally ill by supporting the AAAMI.

Market Pricing: We believe that our help should go where it will do the most good, that is, where it will help those who can take advantage of it. Give freely, help the mentally ill help themselves by supporting the AAAMI .

Table 2.

Standardized Regression Coefficients for Relational Models Predicting Various Message Processing Outcomes.

Dependent Variable	Relational Models				Regression Equation			
	CS	AR	EM	MP	R ²	F	df	p ≤
Attitude Valence	.40***	.20**	.01	.01	.19	13.00	4/209	.001
Support in Percent	.31***	.21**	.07	-.01	.16	10.11	4/209	.001
Attitude Ambiguity	-.31***	.10	-.02	-.05	.10	5.70	4/209	.001
Message Quality	.13	.20**	.10	-.06	.09	4.93	4/209	.001
Information Relevance	.30***	.11	-.02	-.13	.15	8.91	4/209	.001
Rational Appeal Quality	.18*	.22**	.14	-.02	.12	7.40	4/209	.001
Affective Appeal Quality	.22**	.13	.13	-.03	.10	5.98	4/209	.001
Speaker Attributes (Likert)	.16*	.12	.07	-.13	.08	4.25	4/209	.003
Speaker Attribute (S-D)	.26***	.15*	.13	-.14	.16	10.08	4/209	.001

Note. * = $p < .05$; ** $p < .01$., *** = $p < .001$.

Table 3

Standardized Regression Coefficients for Relational Models Predicting Various Message Processing Outcomes when Matched with Message Type.

Dependent Variable	Relational Models			
	CS	AR	EM	MP
Attitude Valence	.34**	.17**	.06	-.23**
Support in Percent	.33**	.18**	.13*	-.15*
Attitude Ambiguity	-.26**	.13*	.01	.11
Message Quality	.14*	.18**	.03	-.11
Information Relevance	.32**	.08	.02	-.23**
Rational Appeal Quality	.20**	.17**	.06	-.13*
Affective Appeal Quality	.23**	-.01	.18*	-.15*
Speaker Attributes (Likert)	.13*	.05	.03	-.18**
Speaker Attribute (S-D)	.29**	.10	.11	-.24**

Note. * = $p < .05$; ** $p < .01$.

Table 4

Standardizes Regression Coefficients for Alternative Variables Predicting Various Message Processing Outcomes.

Dependent Variable	Independent Variables					Regression Equation			
	Inv	SD	Hos	Anx	Sex	R ²	F	df	p <
Attitude Valence	.15*	.11	.26***	.06	.19**	-.12	5.53	5/208	.001
Support in Percent	.18**	.12	.29**	.14	.12	-.14	6.59	5/208	.001
Attitude Ambiguity	-.17*	.17*	.06	.08	-.06	.08	3.58	5/208	.004
Message Quality	.03	.11	.19*	.02	.07	-.04	1.59	5/208	.165
Information Relevance	.50***	.02	.22***	.12	.09	-.33	20.65	5/208	.001
Rational Appeal Quality	.03	.08	.08	.14	.03	.02	0.79	5/208	.554
Affective Appeal Quality	-.03	.00	.22**	.27**	-.03	.07	3.19	5/208	.009
Speaker Attributes (Likert)	.03	.19*	.18*	.07	.32***	-.15	7.39	5/208	.001
Speaker Attribute (S-D)	.07	.16	.23**	.19*	.27***	-.16	8.06	5/208	.001

Note. * = $p < .05$; ** $p < .01$., *** = $p < .001$. Inv = involvement; SD = social desirability; Hos = hostility; Anx = anxiety; Sex = sex of message source.