



LIBRARIES MICHIGAN STATE UNIVERSITY EAST LANSING, MICH 48824-1048

This is to certify that the dissertation entitled

A TEST OF THE DUAL CONCERN THEORY AND POWER DIFFERENTIAL EFFECT ON INFORMATION SEEKING AND OUTCOMES IN A NEGOTIATION WITH FULLY INTEGRATIVE POTENTIAL

presented by

Sachiyo Morinaga Shearman

has been accepted towards fulfillment of the requirements for the

Ph.D. degree in Communication

12-10-04

Date

MSU is an Affirmative Action/Equal Opportunity Institution

PLACE IN RETURN BOX to remove this checkout from your record. TO AVOID FINES return on or before date due. MAY BE RECALLED with earlier due date if requested.

<u>DATE DUE</u>	<u>DATE DUE</u>	<u>DATE DUE</u>

6/01 c:/CIRC/DateDue.p65-p.15

.

A TEST OF THE DUAL CONCERN THEORY AND POWER DIFFERENTIAL EFFECT ON INFORMATION SEEKING AND OUTCOMES IN A NEGOTIATION WITH FULLY INTEGRATIVE POTENTIAL

By

Sachiyo Morinaga Shearman

A DISSERTATION

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Communication

ABSTRACT

A TEST OF THE DUAL CONCERN THEORY AND POWER DIFFERENTIAL EFFECT ON INFORMATION SEEKING AND OUTCOMES IN A NEGOTIATION WITH FULLY INTEGRATIVE POTENTIAL

By

Sachiyo Morinaga Shearman

This study employed the Dual Concern Theory (DCT) to investigate the effect of two motives (concern for self and concern for the other) and power differentials between negotiators (equal and unequal power) on general strategic choices, specific tactic usage, and negotiation outcomes. An experimental study was conducted (N = 356) employing a three-person role-play negotiation scenario with full integrative potential, where information exchange is needed in order for the negotiators to achieve the integrative solution. Negotiation sessions were videotaped, transcribed and coded for five strategic choices (integration, accommodation, compromise, contention, and avoidance) posited by DCT and nine specific tactics including information seeking and information sharing. The results indicated that the previous findings of DCT were at best only partially supported when using either manipulated and self-reported self-concern or otherconcern for the analyses. The occurrence of five major strategies and the relationship between strategic choices and negotiation outcome indicators were consistent with Dual Concern Theory. Power difference did not significantly influence general strategic choice of integration or obtaining an integrative outcome. Positive associations between information exchange behaviors and

two motives (HSC/HOC and MOC) are observed. In addition, information exchange was significantly positively related with the likelihood of obtaining an integrative solution. The attainment of integrative solution was strongly and positively related with reported outcome satisfaction, process satisfaction, and relational satisfaction. Only about 12 percent of all the negotiation dyads reached an integrative solution, while the majority reached a distributive solution. This result suggests that a fixed-sum view and win-lose orientation to negotiation inhibits negotiators from achieving an optimal solution. Among the tactics examined in the study, emphasizing self-concern, showing other-concern, information seeking, information sharing, reacting positively, and indicating problem solving attitude were significantly and positively correlated with the use of an integrative strategy. Relationship between three personality measures, dogmatism, perspective taking, and need for cognition with the strategic choices and tactic usage were also reported. Implications and limitations of the study as well as the possible agendas for the future study were discussed.

Copyright by SACHIYO MORINAGA SHEARMAN 2004 To David, and a serendipitous encounter that brought us together

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my advisor, Dr. Timothy Levine. He has read drafts numerous times, providing me with constructive criticism and constant encouragement. He helped transform my self-effacing attitudes toward my own research into affirmative and productive ones. He guided me through the hardest time in my graduate studies with his constructive view of research and insatiable pursuit of knowledge.

I would also like to thank my committee members, Dr. Mary Bresnahan, Dr. William Donohue, and Dr. Stan Kaplowitz. Dr. Bresnahan mentored me from the beginning of my graduate studies with her continual trust. Being a part of her intercultural research and assisting her classes have been the most rewarding experience for a researcher-to-be. Dr. William Donohue inspired me with his research in conflict, negotiation, and crisis communication. He kindly let me use books from his personal libraries, and his seminar on conflict helped me shape the early stage of this dissertation. Dr. Stan Kaplowitz has been constantly supportive of my preliminary research paper as well as this dissertation research. His insightful comments and constructive criticisms had and will continue to challenge me, even beyond the completion of this project.

I am very thankful for ALL my fellow students, faculty members and staff members in the Department of Communication at Michigan State University. The faculty and many people in my cohort were helpful during the data collection

vi

process of my dissertation research. Many thanks to Dr. Hee Sun Park, Dr. Janet Lillie, Dr. Kelly Morrison, Cat, Chad, Jonathan, Nythia, Rachel, and Susan. I am thankful for the wonderful research assistants who were confederates and coders, Leslie, Patrice, Aika, and Tim. I am also grateful with my students and friends, Christine, Mrs. Douglas, Aimee, Amanda, Julian, Karen, and Sabrina for their work with transcription and their supports.

I am indebted for the scholarship from the Rotary International Foundation, which made it possible for me to start my graduate studies in the United States. I am also thankful for the financial support, research and teaching experience I had with MSU Department of Communication, MSU Department of Education and MSU graduate school. MSU graduate school's dissertation completion fellowship awarded for this project made it possible for me to carry out time-consuming process of data collection and data analyses. The education and experience at Michigan State University has truly been a blessing for me.

During my endeavor in the doctoral program, supports from my friends both in the U.S. as well as in Japan, have been indispensable. There is nothing more invaluable than to have friends to share joys and pains in life. Thank you, Keiko, Kimika, Kumi, Lynette, Maria, Rie, Hun, Jaemin, Jina, Heajin, Hiromi, Terri, Johnny, Mari, Rieko, Ko, and Kyoko, for their friendship and encouragement.

Lastly, I would like to thank both of my families in Japan and in the United States. Thank you, David, Carol, Gary, Melanie, Kathleen, Teru, Satoshi, Atsushi, and Ako, for being there for me.

vii

TABLE OF CONTENTS

LIST OF TABLES ×	ci
LIST OF FIGURES xiv	v
INTRODUCTION 1	I
CHAPTER 1: DEFINITION AND THEORETICAL FRAMEWORKS FOR 3 NEGOTIATION 3 Negotiation in Our Lives 3 Definition of Negotiation 4 Theoretical Frameworks for Negotiation 5 Theory of Cooperation and Competition 6 Dual Concern Theory 7 Two motives 9 Strategic choices 9 Premises 11 Previous studies 11	3345579911
CHAPTER 2: NEGOTIATION CONTEXTS 13 Social Context in Negotiation 13 Power Differences in Negotiation 14 Power dependency 14 Social Exchange Theory 15 Resource Theory 16 Bases of power 16 Power and communication behavior 17	33445667
CHAPTER 3: STRATEGIES, TACTICS, AND OUTCOMES IN NEGOTIATION 20 Strategies and Tactics) 0 0 1 3 6 6 7
CHAPTER 4: RESEARCH QUESTIONS AND HYPOTHESES	3

CHAPTER 5:METHOD	. 36
Participants	. 36
Pilot data	. 36
Main data	37
Design	37
Procedure	38
Recruitment	38
Lab procedure	38
Negotiation scenario	40
Inductions	42
Confederate	44
Confederate training process	45
Negotiation props	46
Post-negotiation survey	46
Data coding	48
Coder training	48
Coding tactics and strategies	49
	40
CHAPTER 6 RESULTS	51
Preliminary Analyses Result	51
Measurement Validities and Reliabilities	51
Inter rater reliability on coding	51
Linidimensionality of the Measures	51
	51
Dogmatism scale	52
Perspective-taking scale	52
Need for cognition scale	53
	53
Satisfaction measures	53
Intraclass Correlations	54
Effect of confederate's gender	56
Induction checks	56
Main Analysis Results	57
Negotiation Outcomes	57
Types of negotiation outcomes	57
Other negotiation outcome indicators	58
Replications of Dual Concern Theory	59
Strategic choices	59
ANOVAs in equal power condition	60
Regression analyses in equal power condition	61
Information exchange	63
Integrative agreement	64
Power Differences	64
Individual level analyses	64
Dyad level analyses	65

Strategies, tactics and negotiation outcomes	67
Solution types and satisfaction	68
Strategies, tactics, and satisfaction	69
Individual differences	70
Correlation among scales	70
Strategies and tactics	71
CHAPTER 8: DISCUSSION	72
Implications of the study	72
Limitations of the study	77
Directions of the future study	79
CHAPTER 9: CONCLUSION	81
APPENDICES	83
Appendix A – Figures	84
Appendix B – Tables	89
Appendix C - Pre-negotiation documents, instructions, and negotiation	n
props	111
Appendix D - Post-negotiation documents	118
Appendix E – Coding sheet and coding schemes	126
REFERENCES	. 133

LIST OF TABLES

Table 1	Descriptive statistics for the measures included in the study 90
Table 2	Correlations among measures included in the study and reliability (α) in the diagonal
Table 3	Intraclass correlations and F test results on strategies, tactics, outcome satisfactions, self/other concern, and personality measures
Table 4	Means and standard deviations of self-report competitiveness by four conditions with varying levels of concern for self and concern for other
Table 5	Means and standard deviations of self-report cooperativeness by four conditions with varying levels of concern for self and concern for other
Table 6	Distributive statistics on the price (in dollars) per 1% prune share by the types of agreement: no agreement, distributive solution, equal distribution compromise, and integrative solution
Table 7	Time spent (in minutes) to reach an agreement based on the types of agreement: no agreement, distributive solution, equal distribution compromise, and integrative solution
Table 8	Frequencies and percentages of the observed dominant strategies among the DCT's five general strategic choices
Table 9	Correlations among dual concern theory's five general strategic Choices

Table 10	A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on integrative strategy
Table 11	A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on competition strategy
Table 12	A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on compromise strategy
Table 13	A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on accommodation strategy
Table 14	A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on avoidance strategy
Table 15	Frequencies and percentages of reaching different types of solution by four conditions
Table 16	Frequencies and percentages of different types of solution by four Conditions and by power difference
Table 17	Three Way ANOVA with Self-Concern, Other-Concern, and Power, on Integrative Strategy
Table 18	Three Way ANOVA with Self-Concern, Other-Concern, and Power, on Competition Strategy
Table 18a	Mean of cells for self-concern (high/low) and Power Difference (equal/unequal) on competition strategy selection
Table 19	Three Way ANOVA with Self-Concern, Other-Concern, and Power, on Compromise Strategy
Table 20	Three Way ANOVA with Self-Concern, Other-Concern, and Power, on Accommodation Strategy

Table 21	Three Way ANOVA with Self-Concern, Other-Concern, and Power, on Avoidance Strategy 102
Table 22	Correlations between integrative solution, specific tactics, and general strategic choices
Table 23	Descriptive statistics on outcome satisfaction, process satisfaction, and relational satisfaction by the types of agreement achieved 104
Table 24	Correlations among the Dogmatism Scale, Perspective-Taking Scale, and Need for Cognition Scale in the lower triangle, and corrected correlations in the upper triangle
Table 25	Correlations among all the variables of the current study 105

LIST OF FIGURES

Figure 1 The Strategic Choices posited by the Dual Concern Model based on concern for self and concern for other	85
Figure 2 The Strategic Choices posited by the Dual Concern Model with compromise as a fifth strategy	85
Figure 3 Distributive dimension and integrative dimension of the negotiation outcomes explained by self-concern and other-concern	86
Figure 4 The examples of negotiation outcomes based on the Dual Concern Model, using the Peruvian Prune scenario	86
Figure 5 Frequencies of the negotiation dyads' (N = 170) outcomes	87
Figure 6 Frequencies of the negotiator's (n = 170) strategic choices	88

INTRODUCTION

Imagine that two companies are in competition for the same scarce resource. The companies could be competitive attempting to obtain the resource by whatever means necessary and no matter the cost. Alternatively, they could agree to share the resources, or possibly come up with creative ways to share the resources. There are various paths the companies could take. Which path is most productive for your own company as well as for the society as a whole?

When you are in a conflict, how important is it for you to get your way? How much do you care about what the other person wants? How do these concerns influence your behavior? Specifically, how are these concerns communicated and does it influence the outcome of the conflict? Does the power difference between the communicators impact how they interact? These are the some of the questions this study attempts to examine.

This study employed the Dual Concern Theory to investigate the effect of two motives (i.e., concern for self and concern for the other) and power differentials between negotiators on general strategic choices and negotiation outcomes. Specifically, five general strategic choices (i.e., integration, accommodation, compromise, contention, and avoidance), and other specific communication tactics (e.g., information seeking and information sharing) that may influence negotiation processes, negotiation outcomes, and negotiator's satisfaction are investigated.

The two main theories for negotiation behaviors, the Dual Concern Theory and the Cooperation Theory, are revisited. Both general strategic choices and specific negotiation tactics are discussed. Among these, the importance of information exchange is emphasized. A conceptual framework for the concept of power is provided. The present study examined the Dual Concern Model, where parties have either equal or unequal power. Research questions and hypotheses are provided based on the literature reviews. Methods for the experimental study are explained in details. The results of the study are reported together with the implications and limitations of current study as well as the possible agendas for future studies.

CHAPTER 1

DEFINITION AND THEORETICAL FRAMEWORKS FOR NEGOTIATION

Negotiation in Our Lives

Negotiation is observed in many aspects of our lives. Instances of negotiation may arise when deciding where to eat out, planning vacations, scheduling a meeting, discussing a project, negotiating prices, and determining international foreign policies. It is a common and often constructive mean to deal with interpersonal conflicts, business transactions, and international disputes.

Given the importance and ubiquity of negotiation processes, various aspects of negotiation processes have generated an enormous amount of research in such fields as anthropology, communication, economics, labor relations, political science, psychology, and sociology. On a micro level, inner conflict, or the psychological conflict within a person has been studied (Horney, 1945). Game theory provided an economic and mathematical view of competition and its dynamics (von Neumannn, & Morgenstern, 1947). On a more macro level, Darwin's theory of evolution based on natural selection explained the evolution with the view that all the entities in the society are in competition against each other and nature (Darwin, 1859; Darwin, 1871). Later on, Darwin's view was applied to the evolutionary psychological perspective of competition in human society called Social Darwinism (Dawkins, 1986; Wright, 1994). The current study employs a social psychological and interpersonal

perspective on conflict and negotiation, especially examining specific communicative moves, observed in negotiation. First, negotiation is defined, and then two theories of negotiation are summarized.

Definition of Negotiation

Negotiation is defined as a communication process in which two or more parties that perceive themselves to have incompatible goals engage in an attempt to reach a mutually agreeable solution (Putnam & Jones, 1982b; Wilson & Putnam, 1990). Several characteristics of negotiation are discussed in the literature (Lewicki, 1992; Lewicki, Saunders, & Milton, 1999; Rubin & Brown, 1975). First, two or more parties are involved in any negotiation. Second, the parties face disagreement or conflict of interest caused by interdependent relation between them. Third, negotiation is typically a voluntary process, where each party intends to achieve a favorable outcome instead of letting the other side impose a solution. Fourth, the search for a mutually acceptable agreement is preferred to aggression by parties, at least in the beginning of the negotiation. In this sense, negotiation is considered to be an effective way deal with conflict. Fifth, to some extent, reciprocity between the parties is expected. Finally, successful negotiation often involves intangible issues (i.e., rapport building or outcome satisfaction) as well as tangible issues (i.e., resources, money, or terms of agreement).

Theoretical Frameworks for Negotiation and Competition

Two major theories have been advanced to explain negotiation behaviors in social psychology, Deutsch's (1973) Theory of Cooperation and Competition and Pruitt and Rubin's (1986) Dual Concern Theory. These theories explain the factors that influence how we behave and communicate during the negotiation.

Theory of Cooperation and Competition. Deutsch's (1949, 1973, 2000) Theory of Cooperation and Competition presented detailed analyses of two major opposing forces in negotiation, cooperation and competition. The main thesis of Deutsch's theory examines the processes, characteristics, and effects of both cooperation and competitive orientation as well as the factors that lead to these two differing orientations to conflict. Several factors leading to competition and cooperation are identified: the type of interdependency, type of actions, social contexts, and other psychological elements.

In his recent book, *The Handbook of Conflict Resolution*, Deutsch (2000) summarized "the surface effects of cooperation and competition are due to the underlying type of interdependence (positive or negative) and the types of action (i.e. effective or bungling), the basic social psychological processes involved in the theory (substitutability, attitudes, and inducibility), and the social medium and social context in which these processes are expressed (p. 29)." The major thesis of his theory, cooperation orientation and competition orientation and types of interdependency between parties involved in conflict are summarized here.

Cooperation orientation and competition orientation are contrasted in many aspects of negotiation processes including, communication behaviors,

perception of issues at hand, task orientations and problem solving orientations, and attitude toward others (Deutsch, 2000). The cooperative approach facilitates honest and effective communication processes where each party is interested in informing others and being informed. Alternatively, communication is often impaired in competitive processes, characterized by misleading others. unwillingness to communicate, and/or lack of communication. The cooperative process leads negotiators to focus on similarities and common interests, while minimizing the differences among parties. The competitive process tends to emphasize differences and threats, while minimizing the awareness of similarities. Individuals engaging in cooperative orientation can form trusting, friendly relationships with the other party, whereas individuals with a competitive orientation create suspicion, hostile attitudes, and distrust between the parties. Cooperative orientation helps parties define their problems as mutual, whereas parties with a competition orientation see negotiation as a power struggle. The cooperative approach facilitates problem-solving processes, where mutually beneficial agreement is sought, and hence creates a constructive process and an outcome of conflict resolution. On the other hand, competitive orientation facilitates efforts toward a win-lose solution, which often results in a destructive process and negative outcomes for both parties.

Conflict can only exist when there is some sort of interdependence between parties, as no conflict arises when the participants are completely independent of each other. Two types of interdependence are identified (Deutsch, 2000, p 2). Positive interdependence occurs when the negotiators'

goals are related in such a way that one's goal attainment facilitates the potential for the other's goal attainment. In contrast, negative interdependence involves goals that are related in such a way that one's goal achievement lowers the potential of the other's goal achievement. It is rare to encounter a situation that exhibits purely positive or purely negative interdependence, and it is common to have a combination of the two in one situation. It is useful, however, to make a distinction between the two, since these two types of interdependence differently affect the negotiation behaviors. Positive interdependence often facilitates negotiators to engage in cooperative interaction; while negative interdependence often leads to competitive interactions.

In summary, the theory of cooperation and competition specifies two types of orientations, cooperative and competitive, that influence negotiation processes, psychological processes as well as outcomes in negotiation. In short, cooperation is equated with a constructive process of conflict resolution with a problem-solving attitude to reach a mutually agreeable solution, whereas competition is equated with a destructive process of conflict resolution. The theory also explains that other factors such as the types of interdependence, social context, and actions chosen during the negotiation also influence negotiation orientations. This theory has inspired much research in negotiation (e.g., DeDreu, Weingart, & Kwon, 2000; Johnson & Johnson, 1989).

Dual Concern Theory. Although developed separately from Deutsch's (1973, 2000) Cooperation Theory, Dual Concern Theory can be considered as an extension of Cooperation Theory (DeDreu, et al., 2000). The main thesis of

Deutsch's theory focused on cooperation and competition orientations and how these two diverging orientations influence negotiation processes and outcomes. In addition to the cooperation and competition orientation explicated in the Cooperation Theory, Dual Concern Theory introduced an additional factor, concern for self, or the aspiration level of the negotiator.

Dual Concern Theory is a theoretical attempt to explain strategic choices in negotiation using two factors: negotiation motives and perceived feasibility for each strategic choice. Specifically, two motives, self-motives (concern for self) and other-motives (concern for the other), are said to explain the strategic choices in negotiation behavior. In addition, the perceived feasibility for each strategic choice in negotiation is specified as a determinant of strategic choices. Perceived feasibility perspective refers to the extent that certain strategies are viewed as successful or costly in negotiation.

Dual Concern Theory originated from Blake and Mouton's (1964) theories of managerial behaviors. Blake and Mouton postulated that the bases of managerial behaviors rest on three factors: concern for production (or task), concern for people (or relation), and concern for hierarchy. The first two concerns are more central, because the managerial grids provide a range of possible interactions between the two concerns and how they are represented in managerial behaviors. Concern for production refers to "the amount of emphasis supervision places on achieving production," whereas concern for people refers to valuing "the productive unit of organization" (Blake & Mouton, 1964, p. 8). Blake and Mouton explicated five types of interactions based on the concern for

task and people, and termed the manner in which these two concerns are linked together as managerial styles in the hierarchy.

Blake and Mouton's (1964) managerial grid was adapted to explain conflict resolution by many researchers (e.g., Pruitt & Rubin, 1986; Rahim, 1983; 1986; Thomas, 1976). Dual Concern Theory presents a cognitive motivational model for explaining negotiation behavior (Pruitt, 1981; Pruitt & Rubin, 1986; Rubin, Pruitt, & Kim, 1994). The Dual Concern Model borrowed from Blake and Mouton's (1964) managerial grids to illustrate conflict styles in negotiation behavior.

Two motives. Dual Concern Theory explains strategic choices in negotiation employing two types of motivation to negotiation: self-concern and other-concern (Pruitt & Rubin, 1986). Self-concern and other-concern deal with the negotiator's motivation, which varies from weak to strong. Other-concern refers to the strength of concern for the other and is characterized by prosocial motives rather than egoistic motives, and by cooperation rather than competition. Self-concern refers to the strength of concern for self and is characterized by egoistic motives and high personal aspiration. Different labels are sometimes used interchangeably to refer to the two motives. Other-concern is labeled also as cooperativeness, concern for people, or motivations for other, and self-concern is labeled as assertiveness, concern for task, or motivation for self.

Strategic choices. Dual Concern Theory uses the combination of self and other motives to predict preferences for strategies to deal with negotiation and negotiation outcomes (Pruitt & Carnevale, 1993; Pruitt & Rubin, 1986; Rubin,

Pruitt, & Kim, 1994). Specifically, four major strategic choices in negotiation are predicted when employing different combinations of two motives: 1) problemsolving, 2) competition, 3) accommodation, and 4) avoidance (Pruitt & Carnevale, 1993; Pruitt & Rubin, 1986). When concern for self is high and concern for other is high, a negotiator is likely to choose a problem-solving approach, attempting to achieve a mutually acceptable agreement. When concern for self is high, but concern for other is low, one would likely choose a competitive approach in negotiation. If a negotiator is high in concern for other, but low in concern for self, he or she would likely choose to engage in accommodating the other's needs and making concessions. A negotiator with low concern for both self and other would be doing as little as possible: avoiding, or withdrawing from the negotiation. The different patterns of negotiator motives predict strategic choice in negotiation as shown in Figure 1.

Some studies classify strategic choices into five categories, adding compromise in the center of the figure, where moderate concern for self and moderate concern for other intersect (e.g., Filley, 1975; Kilmann & Thomas, 1977; Thomas, 1976). Van de Vliert and Prein (1989) describe it slightly differently, claiming that the compromising style can be placed between integration and accommodation, but farther away from avoidance and competition. This fifth category of compromise is added to the four strategies in Dual Concern Model shown in Figure 2. Pruitt and Rubin (1986) claim that compromise as a fifth category is not necessary, since it results from either halfhearted or failed attempt at problem solving or simple yielding from the both

sides. Alternatively, Pruitt and Carnevale (1993) hold that compromise stems from the combination of high other-concern and moderate self-concern.

Premises. Dual Concern Theory entails the assumption that individuals hold different levels of aspiration. People vary in the extent they are committed to achieving their own goals and in the extent that they are concerned with other's outcomes and are motivated to be cooperative. Dual Concern Theory also presumes that concern for self and concern for other are orthogonal or independent dimensions. It has been reported that the social motive and egoistic motive independently influence the strategic choices in negotiation both theoretically and empirically (Blake & Mouton, 1964; Pruitt & Rubin, 1986; Thomas, 1992; Van de Vilert, 1997). For example, Thomas (1976) points out that it is erroneous to consider the two concerns in a single dimension, selfishness on one hand and cooperativeness on the other, since it is possible to have high concerns for both self and other. Empirical evidence in support of this assumption that other-concern and self-concern are independent of each other is also reported. For instance, both Butler (1994) and Van Lange (1990) reported near zero correlations between the two dimensions.

Previous studies. There have been numerous empirical studies examining the Dual Concern Model by manipulating self-concern and otherconcern (e.g., Ben-Yoav & Pruitt, 1984; Carnevale & Pruitt, 1992; Pruitt & Lewis, 1975, 1977; Pruitt & Rubin, 1986; Rhoades & Carnevale, 1999). Other-concern is often induced through the instruction to behave cooperatively rather than competitively in negotiation (Pruitt & Lewis, 1975), through the induction of a

positive rather than negative mood (Carnevale & Isen, 1986), or by creating anticipation of future interaction with the other negotiator (Ben-Yoav & Pruitt; 1984). Self-concern is often operationalized as increased toughness or resistance to yielding in negotiation, which is induced with the instruction to have high vs. low limits, or aspiration (Pruitt & Lewis, 1975), low vs. high time pressure (Smith, Pruitt, & Carnevale, 1982), or high vs. low accountability to constituents (Kramer, Pommerenke, & Newton, 1993).

Strong evidence consistent with the predictions of the Dual Concern Theory has been obtained from a meta-analysis of the Dual Concern Theory research (DeDreu, Weingart, & Kwon, 2000). DeDreu et al. (2000) summarized the result of 28 negotiation studies testing both Deutsche's (1973) Cooperation Theory and Pruitt and Rubin's (1986) Dual Concern Theory. Although their meta-analysis was consistent with Cooperation Theory in general, DeDreu et al. (2000) concluded that the Dual Concern Theory predicted integration behavior better, because the level of aspiration moderated the effects of other motives on problem solving behaviors.

CHAPTER 2

POWER DIFFERENTIAL AS A SOCIAL CONTEXT OF NEGOTIATION

Social Context in Negotiation

No negotiation exists free of a context. The preceding theoretical discussion was based upon the context as a constant. In practice, however, this is not the case. The negotiation is inevitably influenced by the various factors in the social context and social systems in which the parties are situated (Rubin & Brown, 1975; Thompson, Peterson, & Kray, 1995). Whereas previous findings have been consistent with the predictions of the Dual Concern Theory in that the combination of high concern for self and high concern for other leads to higher joint benefit (DeDreu, Weingart, & Kwon, 2000), this theory needs to be examined in differing negotiation contexts so that the generality of the theory and its boundary conditions might be assessed.

Social power is among the most important structural variables affecting negotiation behaviors and is therefore considered here. Bertrand Russell (1938) claimed that power is a most fundamental concept in social science, in a same manner as the energy is in physics. When there is power inequality between negotiators, it is unclear how well the Dual Concern Theory predicts the negotiators' strategy choices and hence the negotiation outcomes. Thus, the present study compares how the negotiators with unequal power behave

differently from the ones with equal power within the framework of Dual Concern Theory. It is expected that power difference may differently influence the effects of motivational concerns for self and other on tactical and strategic choices in negotiation and negotiation outcomes.

Power Differences in Negotiation

It is important to examine negotiator power differences and its effect on negotiation behaviors, message productions and its outcomes (e.g., Levine & Boster, 2001). Oftentimes, negotiators are not equal at the negotiation table both in terms of resource power or status power. Examples of negotiation with power difference are rife, ranging from the negotiation between companies with different revenue size, to the negotiation between powerful nations and less powerful nations, negotiation between a member of majority group and a member of minority group, the negotiation between a financially independent husband and a financially dependent wife, and negotiation between parents and a dependent child. Given that the negotiations between unequal parties are ubiquitous, it will be beneficial for both researchers and practitioners to gain an understanding of negotiation between unequal groups. Understanding of how power and motives interact, and hence influence communication in negotiation would be greatly beneficial.

Power dependency. Power is one of the primary concerns in human relationships and communication, and it has been the subject of extensive research (Burgoon and Hale, 1984; Shultz, 1958). The concept of power can be explained in terms of the nature of the relationship between people rather than as

a quality that a person holds (Deutsch, 1973; Emerson, 1962). According to Deutsch (1973), "power is a relational concept; it does not reside in the individual but rather in the relationship of the person to his environment. Thus, the power of an agent in a given situation is determined by the characteristics of the situation (p. 15)." Emerson (1962) provided an analysis of degree of power and the dependent nature of the two parties. If two people A and B are in relationship, person A has power over B to the extent that B is dependent on A for goal attainment. The same is the case for the amount of power that person B has over person A. The level of dependency of one person on another is (1) linearly related to the strength of one's motivational investment in goals controlled by the other, and (2) inversely related to the availability of other options in accomplishing goals outside of the relationship (Emerson, 1962, p.31). Using this power dependency concept, researchers conducted empirical examinations of the effects of power on communication behaviors such as the bargaining tactics between employee and employer (Bacharach & Lawer, 1981), and bargaining simulations between sellers and buyers (Levine & Boster, 2001).

Social Exchange Theory. Social Exchange Theory employs an economic metaphor in order to explain human interaction. The theory contains a general assumption that individuals behave in ways that maximize the rewards and minimize the costs they experience within their interactions (Blau, 1964; Homans, 1961). Although it is easy to think of power as if it is an individual quality as in one's ability to get what one wants, many researchers working within the Social Exchange Theory also defined power in relational terms (Blau, 1964; Thibaut and

Kelly, 1959; 1991). Working within the social exchange theory, Thibaut and Kelly (1959) defined that A's power over B as A's ability to influence the rewards and costs that B experiences. In other words, A's power over B increases to the extent that A has an ability to influence the B's outcome.

Resource Theory. Researchers working within the Resource Theory, a subset of social exchange theory, define power in terms of the control of resources (e.g., Blood & Wolfe, 1960; Foa, Converse, Tornblom, & Foa, 1993; Foa & Foa, 1974; Gamson, 1968; Shehan & Lee, 1990). The Resource Theory explains the cognitive organization of resources and various aspects of the mechanism of interpersonal resource exchanges. Based on the Resource Theory, the concept of power in couples can be defined as the differential control of resources of values to others for need fulfillment (Blood & Wolfe, 1960). Hence, a husband might be considered to be more powerful member of a couple, because he controls more resources than his wife.

Bases of power. Power bases refer to the resources for power and/or other methods to exert power to the other party or environment (Coleman, 2000; Lewicki, Saunders, & Minton, 1999). Various typologies for power bases are identified, including wealth, physical strength, knowledge, expertise, and so on. As the sources of power are created by the nature of the relationship and in the contexts, French and Raven (1959) identified five major bases for power in a relationship: *reward power, coercive power, legitimate (status) power, referent power, and expert power. Reward power* occurs when person A has a control over the reward that person B really wants. *Coercive power* exists when person

A can punish person B if person B does not do what person A wants. *Legitimate power* refers to the *status power* where the position of person A is ascribed over person B by the social system. *Referent power* occurs when person A identifies strongly with person B. *Expert power* refers to the knowledge, skills and expertise that person A has that are useful for person B. While these five types of power bases are not exhaustive, it informs us of the complex aspects of relational nature of power.

Power and Communication Behavior

Power plays a pivotal role in many communication behaviors. For instance, an individual in an organization is expected to talk differently to his/her boss, colleague, and subordinate, which will facilitate most effective interaction in the contexts. Power has been shown to affect various communication behaviors such as accommodating behavior (Giles, 1978; Wolfram, 1973), compliance gaining behavior (Levine & Boster, 2001; Howard, Blumstein, & Swartz, 1986), sensitivity toward others (Snodgrass, 1985), perspective taking (Tjosvold & Fabray, 1980; Tjosvold & Sagaria, 1978), and negotiation strategies (Tjosvold, Johnson, & Johnson, 1984).

Research on communication accommodation theory (Giles, 1978; Giles, Coupland, & Coupland, 1991; Giles, Mulac, Bradac, & Johnson, 1987) suggests that individuals with less power, or those in a weaker group in society tend to converge to those with power (Aboud, 1976; Wolfram, 1973). People with less power engage in linguistic accommodation to people with more power. Wolfram (1973), for instance, reports that in New York City, Puerto Ricans assimilate the

dialect of Black Americans far more than vice versa, since both Blacks and Puerto Ricans agree that Blacks have more power and prestige in New York City. Aboud (1976) asked six-year-old Chicano and Anglo-American children to "tell me how to play the game" in either Spanish or English. Seventy-one percent of the Spanish-dominant Chicanos converged, but only 17% of English-dominant Anglos accommodated.

Structural power, based on status or ability to control resources, is reported to have influence on how we communicate and the cognitive variables such as perspective taking (Levine & Boster, 2001; Snodgrass, 1985; Tjosvold, et al., 1984; Tjosvold & Sagaria, 1978). Levine and Boster (2001) reported the interaction between one's power, target's power, and message use. Specifically, Levine and Boster (2001) reported that individuals in low power condition used more compromise and negotiation strategy, while individuals in high power condition employed more direct requests, making offers, and using threats. Howard, Blumstein, and Swartz (1986) examined the effect of power on influence tactics with relational partners, and reported that individuals with higher relational dependence used weaker strategies, such as hinting, flattering, pleading, and acting helpless to their relational partner than those who were less dependent.

Tjosvold and Sagaria (1978) examined the relationship between power and perspective taking, and reported that individuals with more power are less interested in taking the perspective or others, compared to individuals with less power. Tjosvold and Fabray (1980) investigated the effect of relational dependence on motivation in understanding others' intentions, and reported that

relational interdependence significantly increased motivations for the perspective-taking significantly in the role-play decision-making experiments.

Snodgrass (1985) examined the effect of sex and status power on sensitivity to others' thoughts, feelings and reactions. Although it is commonly believed that women are more sensitive to others than men, Snodgrass reported that subordinates were more sensitive to others regardless of sex, and women in superior roles were no more sensitive than men. Tjovold, Johnson, & Johnson (1984) examined power in cooperative and competitive contexts. It was reported that in competitive contexts, high power people used coercion while low power people attempted to negotiate. Alternatively, when in a cooperative context, both high- and low- power people used inducible tactics and demonstrated understanding of each other's perspectives. Given the previous research on the effects of power on communication behavior, it is reasonable to expect that power and power differences interacts with negotiator motives and influences strategic choices and outcomes in negotiation.
CHAPTER 3

STRATEGIES, TACTICS, AND OUTCOMES IN NEGOTIATION

Strategies and Tactics

First, the distinction between tactic and strategy should be noted. Tactic refers an action or a method that you choose to achieve a short-term goal. Strategy refers to a general plan or set of plans in order to achieve a long-term goal. Therefore, both tactic and strategy refer to the plans designed to achieve certain goals, but the differences are in their generality and level of abstraction (Quinn, 1991). This study examines certain tactics of importance in negotiation, including information seeking and information sharing, in addition to the general strategic choices that are predicted by the Dual Concern Theory.

Strategic Choices in Dual Concern Theory

As discussed earlier, Dual Concern Theory specifies five strategic choices in negotiation; 1) integration, 2) competition, 3) accommodation, 4) compromise, and 5) avoidance. The various combinations of negotiator motives predict different strategic choices in negotiation and outcomes (Pruitt & Carnevale, 1993; Pruitt & Rubin, 1986). An integration strategy is characterized by a problemsolving attitude toward the negotiation. Negotiators would attempt to deal with the issue hoping to find a mutually acceptable agreement, although it may be difficult. In order to solve problems, they would engage in information exchange behavior, create positive relationship with one another, and search for the

possible options to solve the problem. A competition strategy is characterized by a contentious and aggressive attitude toward the other negotiator. Negotiators attempt to achieve what they want, by asserting their needs and goals with less regard to those of others. A compromise strategy is characterized by the relatively fair division of recourse, finding a middle ground through mutual concessions. Negotiators would attempt to obtain what they want, while making concessions to what the other wants at the same time. An accommodation strategy is characterized by acceptance of the other's way of dealing with problem. Negotiators would accept, concede, yield to, give in, or accommodate other's needs or interests, the other's suggestions, or other's argument, rather than focusing, proposing, or insisting on one's own. An avoidance strategy is characterized by withdrawal behaviors from the negotiation. Negotiators might demonstrate the passive moves, such as showing a lack of interest, or actively withdrawing from the negotiation.

Strategies and Tactics in Negotiation Studies

In addition to the general strategies, specific tactics should be examined. Whereas the Dual Concern Model describes the four or five general strategic choices, negotiation behaviors can also be understood as various specific tactics. In fact, previous studies testing the Dual Concern Model have used varying coding schemes for tactics and strategic choices in negotiation.

For example, in the original test of the Dual Concern Model, Pruitt and Lewis (1975) manipulated negotiation orientation (problem-solving and individualistic orientation), aspiration (high and low), and communication type

(truthful communication and free communication) to examine the effect of motivation on negotiation behavior and negotiation outcomes. Eight coding categories were employed: 1) asking for truthful information, 2) giving truthful information, 3) giving false information, 4) calling for concession, 5) using pressure tactic, 6) proposing a general approach, 7) showing concern, and 8) coordinating proposals. Pruitt and Lewis (1975) found that problem solving orientations and high limits are associated with certain negotiation behaviors such as giving truthful information, proposing mutual coordination, and making systematic concessions. Specifically, individuals with a cooperative orientation provided significantly more truthful information, expressed sympathy for the other party's welfare, and used fewer pressure tactics than people with an individualistic orientation. The combination of high limits and a problem solving orientation leads to an integrative agreement more often than do the other conditions.

In a second study, Pruitt and Lewis (1975) provided 6 categories: 1) asking for truthful information, 2) giving truthful information, 3) in-role pressing argument, 4) making a positional commitment, 5) using threats, and 6) requesting reactions to a proposal. They examined the effect of aspiration level and cognitive complexity on negotiation behavior and joint outcome. It was found that making systematic concessions, requesting reactions to a proposal, asking for information, and giving truthful information were positively correlated with reaching an integrative solution, while pressing arguments and positional commitment were negatively correlated with reaching an integrative solution. An

interesting finding was that individuals with high cognitive complexity engaged in more information seeking and information sharing, which in turn was significantly related with the higher joint outcome.

Weingart, Thompson, Bazerman, and Carroll (1990) reported a categorization of tactics in negotiation and their relationship with negotiation outcome analyzing both content and grammatical form of negotiation strategies. Weingart et al. (1990) identified nine tactical negotiation behaviors; 1) single issue offers, 2) multiple issue, or package offers, 3) suggesting tradeoffs, 4) asking for information, 5) showing concern for others, 6) providing information, 7) negative reaction, 8) positive reaction, 9) threats or warning.

Each of the tactics was also classified into two higher-order strategies; distributive strategies (i.e., single-issue offers, negative reaction, threats), and integrative strategies (i.e., suggesting tradeoffs, asking for information, showing concern for other party). Although some tactics are found to be clearly distributive or integrative, others were categorized into both distributive and integrative strategies. Thus, it is important to note that certain tactics can have both distributive and integrative orientations and one maynot simply associate certain strategy to certain outcome.

Information exchange. One essential tactic in negotiation is information exchange. Information exchange, which includes both asking for and sharing information, has been claimed to be of great importance in negotiation (e.g., Pruitt, 1981; Pruitt & Lewis, 1975; Putnam & Jones, 1982; Thompson, 1991;

Walton & McKersie, 1965). There are several reasons why information exchange is crucial in negotiation.

First, in the early phase of negotiation, exchanging information is essential in order to have an efficient beginning of negotiation. The phase model of negotiation states that negotiation progresses over the general structure of three phases, an initiation (beginning) phase, a problem-solving (middle) phase, and a resolution (ending) phase (Holmes, 1992). The initiation stage is characterized with establishing the range (Douglas, 1962), searching for agenda (Gulliver, 1979), formulating problems and defining the agenda (Putnam, Wilson, & Turner, 1990), and establishing a relationship (Donohue & Roberto, 1993). To have efficient agenda setting, issue development, and relation formation, information exchange between the negotiators in the initial stage of negotiation is indispensable.

Second, sharing information about the position, interests, and priorities of the other party is crucial for reaching an integrative agreement (Pruitt, 1981; Putnam & Jones, 1982). Walton and McKersie (1965) emphasized the importance of information exchange in integrative negotiation, stating that lack of information exchange would result in "less adequate definition of the problem, fewer alternatives would be generated, and the potential consequences of these alternatives would be less explored," and in turn would result in the "low-grade solutions" (p 140). Rubin, Pruitt, and Kim (1994) identified strategies for integrative agreements such as bridging, cost-cutting, and logrolling. These

strategies for integrative solutions often necessitate us to fully understand the interest and positions of the negotiators.

Third, a cognitive bias called the "fixed-pie belief" is identified as a substantial barrier to reaching an integrative agreement in negotiation tasks (e.g., Bazerman, Thomas, Magliozzi, & Neale, 1985; Bazerman & Neal, 1983; Thompson & Hastie, 1990). The "fixed-pie belief" refers to the negotiators' perception that an integrative solution, or mutually beneficial solution does not exist. People with fixed-pie belief often face negotiation with a win-lose approach and wrongly perceive that the issue at hand is distributive in nature, failing to find out an integrative potential, or a win-win solution to the negotiation (Fisher, Ury, & Patton, 1981, 1991; Neal & Bazerman, 1991; Thompson & Hastie, 1990). Thompson and Hastie (1990) reported that significantly more negotiators assumed their upcoming negotiations were win-lose situations rather than winwin situations. Information exchange is essential to overcome the fixed-pie belief, since the information exchange helps negotiators find out the nature of the negotiation, allowing them to explore others' positions, values, underlying interests, and priorities.

Finally, empirical research shows a positive association between information exchange and joint outcomes (e.g., Kemp & Smith, 1994; Muringhan, Babcock, Thomson, & Pillutla, 1999; Pruitt & Lewis, 1975; Thomson, 1991). Thompson (1991) reported that both mutual information exchange (both party exchanging information) and asymmetric information exchange (one parties

seeking information) would result in more mutually beneficial negotiation solutions.

Negotiation Outcomes

Distributive solutions and integrative solutions. Negotiation outcomes are influenced by the nature of the negotiation. Distributive conflict refers to the situation where parties, who face scarce resources or opportunities, address problems with a win-lose attitude. In other words, in distributive negotiation, one party gains at the expense of the other. A buyer haggling over the price over a rug at a market in Turkey is an example of a distributive negotiation, as the topic is the price of the rug can go up or down at the expense of the seller (Fisher, Ury, & Patton, 1981; 1991). When two men want to marry the same woman, this conflict is also a distributive in nature in monogamous society (Follett, 1942).

Some negotiations are purely distributive, but not all negotiations are distributive in nature, since some negotiations entail an integrative potential. Follett (1942) originally introduced the notion of integration in conflict. Integration is a creative effort to search for a solution that is truly satisfying for both parties in the conflict. Thus, an integrative solution refers to an agreement where the true interests of both parties are satisfied. Walton and McKersie (1965) described "integrative potential" referring to the degree of the potential to develop the integrative solutions. In other words, negotiation has high integrative potential when parties in negotiation have high possibility of achieving a win-win, or a mutually satisfying solution.

Reaching an integrative solution can be difficult due to the unconscious cognitive biases. One cognitive bias, called fixed pie belief, refers to our misconception that a negotiation is a fixed pie to be divided and there is no potential for the integrative solution, such as the mutually beneficial trade-offs other than the pie itself (Bazerman & Neale, 1983). It is reported that an overwhelming majority of people assume any upcoming negotiation is a distributive one (Bazerman & Neale, 1992; Neale & Bazerman, 1991; Thompson & Hastie, 1990).

Follett (1942) provided a good example that illustrates an integrative solution to conflicts. Two students at the library disagree about whether to shut or open a window. One student wants the window open to have fresh air, while the other student wants the window shut so the wind won't disturb her papers. As they both do not want to move their seats, the two students seem to have incompatible goals. A possible integrative solution they could find, however, is to open the window in the next room. This solution is not a compromise in a sense that both of their real interests were truly met. One student has fresh air and the other can study without having the wind blowing directly on him, while both students kept their seats.

Benefits of integrative solution. For very apparent reasons, an integrative solution is more desirable than a distributive solution (Pruitt, 1981). First, an integrative solution ensures the highest joint gain, which creates maximum benefits for both parties separately and as a whole. This maximized joint gain will guide interactants to higher productivity and efficiency in task related

contexts. Second, positive relationships are likely to follow integrative solutions, which then promote trust and attraction between participants. Third, stability between the parties would likely be ensured. The stability of the parties is important because oftentimes, especially when solution from earlier conflicts is not satisfying, similar conflict recurs or redevelops. Follett (1942) pointed out that integrative solutions are less likely to invite later dissatisfaction with the negotiation outcome, since compromise often provides a merely temporally solution while integration satisfies the true interests of parties.

Thomas (1976) provided integrative and distributive dimensions in the joint outcome space of the Dual Concern Model as shown in Figure 3. The integrative dimension can be defined as the joint gain and the total amount of satisfaction for both parties, which runs diagonally between avoidance and integration (Thomas, 1976). Alternatively, the total distributive component is the proportion of profits or satisfaction distributed to each party, which runs diagonally between competition and accommodation in the dual concern model (Thomas, 1976). In order to examine the determinants of an integrative potential, the present study employs a negotiation scenario that has full integrative potential.

CHAPTER 4

RESEARCH QUESTIONS AND HYPOTHESES

Avoidance, competition, accommodation, and problem solving are the four main strategic choices originally specified by Dual Concern Theory. Previous research, however, has tested the Dual Concern Theory using additional categories for strategic choices and specific tactics (e.g., Pruitt & Lewis, 1975; Wingart, et. al, 1990). The coding schemes have not been consistent across studies partly due to different negotiation scenarios and diverging research purposes. As the current study aimed to replicate Dual Concern Theory using a scenario with fully integrative potential, following questions were first examined.

What tactics can be categorized as one of the four to five major conflict strategy categories? Can most tactics be categorized into four or five major strategic choice categories? The present study employed deductive approach by employing the framework of Dual Concern Theory as well as tactic coding schemes suggested in previous studies (e.g., Pruitt & Lewis, 1975; Rhoades & Carnevale, 1999; Wingart, et. al, 1990). The following research questions concerning strategic choice categorization are examined in the current investigation.

Research Question 1: Can observed tactics be reasonably categorized under four or five general strategic choices predicted in the Dual Concern Theory?

Assuming an affirmative answer to research question 1, the following hypotheses consistent with the prediction of Dual Concern Theory were advanced (e.g., Pruitt & Lewis, 1975; Pruitt & Rubin, 1986; Rubin, Pruitt, & Kim, 1994). Replications of the Dual Concern Theory regarding two motives and strategic choices in equal power conditions are posited in hypothesis 1a though 1d. Specifically, DCT predicts that negotiation dyads in high self-concern and high other-concern condition would behave differently than those in other conditions. Negotiators in high self-concern and high other-concern condition are expected to take a problem-solving attitude toward negotiation using more integrative strategies such as information exchange behaviors. On the contrary, negotiators in other conditions would use distributive strategies such as withholding information, making positional statements, and threatening the opponent. Hence, negotiation dyads in high self-concern and high other-concern conditions are predicted to find integrative agreements than those in other conditions.

Hypothesis 1a: In equal power conditions, individuals with high otherconcern and high self-concern will employ more integrative strategies (e.g., problem solving strategies) than individuals in the other three conditions.

Hypothesis 1b: In equal power conditions, individuals with low otherconcern and high-self concern will engage in more distributive strategies (e.g., competitive behavior such as contending) than individuals in the other three conditions.

Hypothesis 1c: In equal power conditions, individuals with high otherconcern and low-self concern will employ more distributive strategies (e.g., accommodating strategies such as concession making) than individuals in the other three conditions. Hypothesis 1d: In equal power conditions, individuals with low otherconcern and low self-concern will be more likely to engage in avoidance strategies than individuals in the other three conditions.

Hypothesis 2: In equal power conditions, negotiation pairs in high otherconcern and high-self concern condition will be more likely to exchange information than negotiation pairs in high other-concern/low self-concern, low other-concern/high self-concern, or low other-concern/low selfconcern condition.

Hypothesis 3: In equal power conditions, negotiation pairs in high otherconcern and high-self concern will be likely to reach an integrative agreement than individuals with high other-concern/low self-concern, low other-concern/high self-concern, or low other-concern/low self-concern.

In the previous research, power difference negatively influences

constructive communication behaviors. Research show that power often

negatively affects the sensitivity toward others (Snodgrass, 1985), the motivation

to take perspective of others (Tjosvold & Fabray, 1980; Tjosvold & Sagaria,

1978), and the likelihood to take cooperative negotiation strategies (Tjosvold,

Johnson, & Johnson, 1984). Individuals with high relative power are by definition

less dependent on others, and thus need not be as concerned with others.

Having more relative power appears to magnify the effects of self-concern, while

having less relative power may diminish the effects of other-concern.

Alternatively, being in a powerless position might fortify motivation to have other

concern, while weakening concern for self in the process of negotiation.

Therefore, the following individual level hypotheses are posited.

Hypothesis 4: Individuals in high power conditions would be less likely to engage in information seeking behavior than individuals in low power conditions.

Hypothesis 5: Individuals in high power conditions would be less likely to engage in integrative strategies (e.g., problem solving strategies) than individuals in low power conditions.

Based on the effect of power on communication behavior documented in the literature, it was predicted that power difference would influence the communication in negotiation, hence impacting the outcome of the negotiation. Specifically, it is predicted that power difference in negotiations would negatively influence the likelihood of using integrative strategies and information exchange behaviors, hence the integrative solutions. It follows then that fewer integrative strategies would be observed among unequal power dyads. Similarly, individuals with greater power difference would engage in less information exchange than those with equal power. With this potential of power as obstacles for desirable negotiation, it is reasonable to expect that negotiation outcome would be hindered by the power differentials between negotiators. Hence, following hypotheses on the dyad level are predicted.

Hypothesis 6: The equal power negotiator dyads will be more likely to exchange information compared with the unequal power negotiator dyads.

Hypothesis 7: The equal power negotiator dyads will be more likely to engage in integrative strategies (e.g. problem solving strategies) compared with the unequal power negotiator dyads.

Hypothesis 8: The equal power negotiator dyads will be more likely to reach an integrative agreement compared with the unequal power negotiator dyads.

Whereas Dual Concern Theory has typically investigated negotiation under the conditions of equal power (e.g., Pruitt and Lewis, 1975; Rhoades and Carnevale, 1999), little research has tested the theory under both equal and unequal power situations. As the effect of power on varying degree of self and other concerns and strategic choices are not clear based on the previous literature review, research questions are posited. Questions are posited regarding how motives affect strategic choices differently among negotiators with equal or unequal power. Individuals in an unequal power relationship with high other-concern and low self-concern might use fewer distributive strategies (e.g., accommodating strategies such as concession making) than those with equal power negotiator dyads. Individuals in unequal power relationship with low other-concern and low self-concern might use more distributive strategies (e.g., competitive behavior such as contending), compared with equal power negotiator dyads of the same condition. In addition, individuals in unequal power relationships with low other-concern and high self-concern might engage in more avoidance strategies, compared with equal power negotiator dyads of the same condition. Thus, the current study examined whether the interaction effect of power with two motives would exist and if it does how it would influence negotiators' strategic choices.

Research Question 2: Are there differences in strategic choices in negotiation between equal power and unequal power negotiation dyads among individuals with varying levels of self-concern and other-concern?

The strategic choices and tactics used during the negotiation are expected to have an impact on the types of solution, and levels of satisfaction. It is predicted that the integrative strategies are associated with the likelihood to reach an integrative solution, while other strategies are associated with the distributive outcomes. In addition, a research question is posited in examining the relationship between the integrative solution and the other strategies. Hypothesis 9: The use of the integration strategy will be positively associated with reaching an integrative solution in the negotiation.

Research Question 3: How are other strategies (i.e., competition, compromise, accommodation, and avoidance) and tactics related to the integrative solution?

Follett (1942) made a clear distinction between integration and distribution and explained the distinct benefits of obtaining integrative solutions rather than distributive solutions, such as overall societal benefits, relational satisfaction, and stability. The current study examined the relationships between integrative outcomes and other outcome variables including time, cost efficiency, and satisfaction. Predictions were made, based on Follett's (1942) analyses on integration. Those who reach an integrative solution would have higher level of satisfaction in terms of process of negotiation, outcome of negotiation, and relationship between negotiators, compared to those who do not.

Hypothesis 10: Those who reached an integrative solution would have higher outcome satisfaction (10a), process satisfaction (10b), and relational satisfaction (10c) than those who reached a distributive solution.

Studies indicate that personality differences likely to influence how people respond to conflict. The current study, therefore, examines three individual difference variables relating to negotiation behaviors. These are examined in relation with negotiation strategies, tactics, and negotiation outcomes. Rokeach's (1960) dogmatism, or the concept of closed-mindedness as an individual difference in cognitive style, has been reported to influence the way people select and process information (Davies, 1993; Davies, 1998). Jones and

Melcher (1982) reported that dogmatism was significantly correlated with the preference for the "confronting strategy" in conflict. Need for cognition, or "the tendency to for an individual to engage in and enjoy thinking" (Cacioppo and Petty, 1982, p.116) was found to be an important variable for our cognitive processes in information seeking and often crucial in maintaining problem solving orientation throughout negotiation. Perspective-taking scale was also included, as being in a conflict is the very situation where perspective taking becomes difficult yet needed. Lack of perspective taking or the tendency to be closed-minded impedes the effective understanding of conflictual situation (Frantz & Janoff-Bulman, 2000). Thus, these three individual difference variables, dogmatism, need for cognition, and perspective-taking, were included in the study and examined in relation with strategic choices, tactical usage, and negotiation outcome.

CHAPTER 5

METHOD

Participants

A total of three hundred and fifty six undergraduate students were recruited from Communication and Telecommunication courses at Michigan State University, a large land grant state university in the Midwest. The data collection was conducted over the course of two semesters, summer and fall of 2003. Extra credit was provided in exchange for the participation in this research.

Pilot data. The first eight pairs of students (sixteen participants), who participated in this study, were used as a pilot data. Seven of them were male and nine participants were female. Participants' age ranged from 19 to 29 with mean of 23 years old and standard deviation of 3.2. Ethnicity of participants included five Caucasian or White American, six African American, four Asian, and one mixed.

The pilot data were used in order for the experimenter and the confederate dealer to be trained to behave consistently, and for the investigator to adjust scenarios, instructions, props, and the setting of the room. The data from the pilot study were not included in the main result of the study, but were used as an aide to create a coding scheme and practice for the coder training. After minor adjustments were made to the scenarios, instruction, and room

setting as well as the training for the confederate dealer, main portion of the data was collected.

Main data. Three hundred and forty undergraduate students participated in this negotiation study. Approximately 42% percent of participants (N = 144) were male and 58% (N = 196) were female. The ages of the participants ranged from 17 years old to 42 years old with mean of 21 years old and standard deviation of 2.24 years old. A majority of the participants (68.8%) reported themselves as Caucasian or White American, 13.8% as African American or Black American, 7.8% as Asian American, 2.1% as Hispanic American, 6.7% as International Students (e.g. those from Asia and Eastern European countries), the rest as mixed or unspecified.

Design

The present study employed an experimental study using a scenario based negotiation game in a lab setting. Three independent-group independent variables with two levels, other-concern (high and low), self-concern (high and low), and power differential (equal and unequal) were included. A 2 x 2 x 2 factorial design was employed, with two levels of self-concern, two levels of other-concern, and two levels of power differential. Dependent variables included the specific tactics, general strategic choices, negotiation outcomes, and satisfaction measures. Pairs of participants were randomly assigned to the eight cells of this design with 20 to 24 dyads in each cell, and those pairs of negotiators served as a unit of statistical analysis for the main analyses of this study.

Procedure

Recruitment. Announcements regarding the study were made in the individual communication and telecommunication courses during class time and/or through the electronic mail messages. Brief explanations of the study and general purpose of the study were provided, and participants were told that the details of study would be explained after they completed their study. Interested students signed up for the study at a convenient time. When they signed up, students were told not to sign up with the same time slot as their close friends. Sign up sheets were posted at the side of investigator's office door for the first half of the data collection. For the second half of the data collection period, the sign up sheet was uploaded on the web, so that students can sign up online at their convenience.

At each time slot for the study, multiple students were asked to show up at the same time to pair up. There were four to six slots to sign up for each time scheduled, so that two negotiation sessions could be held at the same time without being affected by 'no-shows', and so that students would not suspect that the dealer was actually a confederate but rather just an another student who also signed up for the study.

Lab procedure. The participants were asked to come to the G. R. Miller Communication Lab located in the Communication, Arts, and Science Building at Michigan State University for the time they signed up. Two identical rooms with a table and three chairs were set up in the lab. The seats around the table were arranged in a way that the dealer was in between the two buyers, and two buyers

faced each other. The dealer faced the video recorder and a timer, so that they could confirm that video recorder is working and stop the buyer's negotiation when time was up.

When participants arrived at the lab, the investigator herself welcomed and invited them to be in the experimental room with a table and three chairs. Whenever possible, a confederate who played the role of the dealer, was seated already, before other participants would show up. After they were seated, participants were asked to read a consent form.

Permission for videotaping the sessions was obtained in the consent form. If participants expressed concern about being videotaped, it was explained that the videotape would be used solely for the purpose of research analyses, viewed only by the investigators, and the recordings were strictly confidential. A majority of the participants agreed to be videotaped. Two participants objected to the videotaping and were given an alternative survey study and dismissed. Those who did not show up on time were encouraged to sign up again, and those participants' whose partner did not show up on time were given the alternative survey study for their extra credit. Consent form is included in Appendix C.1.

After reading the consent form and agreeing to participate in the study, participants were asked to read the scenario, and then told to follow the instructions and scenarios. They were asked to read the scenario and instructions very carefully. Participants were asked if they had any questions regarding the study. Questions regarding the general situation or structures were answered. When the questions regarding the scenario were asked, they were

told to read the scenario carefully, so that the investigator's explanation would not influence how they would negotiate in the session.

Pairs of participants were randomly assigned to the conditions. Individuals who were assigned in different conditions were given different instructions, although the differences were not apparent by looking at the instruction sheet. A unique identification number was assigned for each participant, which was also used as the label for negotiation dyads.

The Prune Dealer, who in fact was a confederate, also was given a sheet of instructions, which looked similar to the ones for the two buyers. When they were ready to start, participants were told that they would be given 15 minutes to reach an agreement. They were instructed to stop after 15 minutes even if the negotiation had not concluded¹. Investigator started a video recorder, left the room, and then closed the door.

Negotiation scenario. A three-person role-play negotiation scenario, called the Peruvian Prunes² was adopted from Lewicki, Saunders, and Minton (1999). The Peruvian Prune scenario has full integrative potential, and is simiar to the well-known orange and the two sisters scenario and its variation, "Ugli Orange" scenario (Butler, 1994; Lewicki, Bowen, Hall, & Hall, 1988). The Orange scenario involves two sisters fighting over an orange. Both sisters want to have the orange, and they perceive the conflict as distributive in nature because of the

¹ Three negotiation pairs actually went over 15 minutes (18, 20, and 22 minutes respectively). The time of negotiation ranged from 1.30 minutes to 22 minutes, and the average time they spent in discussion was approximately 7 minutes with standard deviation of 4 minutes.

² The original scenario was called "Pakistani Prunes" but was changed to the "Peruvian Prunes" because of the current political situation in the Middle East.

scarce resource (i.e., an orange in this case). However, the fact of the matter is that they want the orange for different reasons. One sister wants to have the juice of orange to make fruit juice, while other need to have orange peels to bake a cake. This is an example of a conflict with fully integrative potential, as both can fully obtain their desired outcomes. The sisters must find out what exactly they want to have (position), and what they want to use it for (interest), in order for them to reach an integrative agreement.

Similarly, the Peruvian Prune scenario involves with two buyers and a Peruvian Prune Dealer, who wants to sell his prunes. The two buyers were the participants of this study and a Peruvian Prune seller was a trained confederate. In the scenario, the two buyers are given the identity of researchers from California. They both want to buy a scarce resource, the annual harvest of the rare and precious Peruvian Prunes. While the two researchers seem to be in conflict in obtaining Peruvian prunes, in fact they want different parts of the Prunes. One negotiator wants to use the mash of prunes for a cholesterol reducing medicine to save the lives of individuals with high risk of heart disease, while the other negotiator wants to have the pits of prunes to make soil additives for better farming to tackle the problem of malnutrition and starvation. As neither negotiator knows the position and interest of their opponent, they have to negotiate and exchange information in order to find out that they actually have an integrative potential. Examples of scenario for both sides are included in Appendix C.2 and C.3.

This particular scenario was chosen for two reasons. First it has fully integrative potential, which requires information exchange behavior to reach an integrative agreement. This scenario helps us understand what are the factors that facilitate discovery of integrative potential and to reach an integrative solution. Second, this scenario will eliminate confounding roles of buyers and sellers. If buyers really want to buy certain products, it is often the case that seller would have power over buyers to the extent that buyer is in control of the resources. Thus, buyers and sellers would have different perspective on the negotiation. Since both negotiators are buyers in this particular scenario, it prevents the negotiation behavior from confounding buyer-seller task framing (Neal, Huber, & Northcraft, 1987).

Inductions. This study included three independent variables, otherconcern, self-concern, and power inequality. These three variables were manipulated in the instructions for the two Prune buyers about the negotiation settings given prior to the negotiation. The Peruvian dealer's behavior was consistent across conditions.

The concern for other was manipulated through the instructions to have a cooperative rather than a competitive orientation in negotiation (Pruitt & Lewis, 1975), and by letting them anticipate the future interaction with the other negotiator (Bem-Yoav & Pruitt, 1984). For the high other-concern condition, participants were told that it is important to be cooperative with the other negotiator in negotiation and that they should anticipate future interaction with the opponents. Alternatively, participants using low other-concern were told that it is

often necessary to be competitive in a negotiation setting and that they will not interact with the opponents in the future.

Self-concern was manipulated using the motivation induction as the high or low accountability to the constituents (Kramer, Pommerenke & Newton, 1993). High self-concern participants were told that they are the representatives of their firm, and are accountable to their constituents (i.e., the boss in their organization or company), while participants in low self-concern conditions were told that they are in charge of the research team and not accountable to anybody. In addition, in order to induce high motivation, high self-concern participants were told that it is important to be concerned with their goals. On the contrary, low self-concern participants were told that it is really not that important for you to be concerned with their goals, as their work is to make a living and their job is secure.

Often, the manipulation for the self-concern is conducted with the instruction to have either high or low limits (Pruitt & Lewis, 1975). High self concern participants are told that they really need to obtain the entire harvest of the annual Peruvian Prunes, while low self concern participants would be told to obtain only a half at least two third of the annual Peruvian Prunes. This way of manipulation for the self-concern confounds self-concern with "achievement goal," which would directly influence the negotiation outcome. The current study, therefore, did not employ high or low limits as a way to induce the self-concern.

Power was manipulated using the status power (Burr, 1973; French & Raven, 1959; Rodman, 1972) and resource power (Foa, et al., 1993; Foa & Foa, 1974). In both conditions, both negotiators are identified as the researchers

either from a Biochemical Research Firm located in San Jose, CA or Biomedical Research Firm located in San Francisco, CA. Resource power was manipulated with varying amounts of money authorized to use at the negotiation table, and status power was manipulated with varying experiences as a researcher.

In equal power conditions, both negotiators are assisted to roles with the similar levels of expertise, and are authorized to use the same amount of money (2 million dollars). In unequal power conditions, one of the negotiators is identified as a young researcher with less experience, while the other negotiator as a senior researcher with more experience (i.e., status power). A young researcher was authorized to use one million dollars, whereas a senior researcher was given three million dollars (i.e., resource power). Thus, those in the high power condition could outbid the one in low power condition.

The identical instructions were prepared for the different roles, one for a researcher who needs the *mash* of prunes, and the other for a researcher who needs *pits* of prunes. The same Peruvian Prune scenarios with different instructions for inducing self-concern (high or low), other-concern (high or low), and power differences (equal, low, or high) were prepared. These scenarios with instructions were randomly assigned to the participants of the study.

Confederate. The Peruvian Prune dealer was a confederate of the study in order to control the responses of the dealer. The Peruvian dealer in the scenario is a worker of an import export company in Peru, who is willing to make a contract to sell Prunes at this negotiation table. The confederate dealer has to sell the Prunes, and can sell the prunes in 5% increments out of 100% annual

prune harvest. The aim of the Prune dealer is to sell 100% of prune harvest for no less than one million and to gain the highest amount of money possible for the annual yields of Prunes. The dealer played the role of a fair and unbiased dealer, who would not influence the buyer in any way. Instructions for the prune dealer are also included in Appendix C.4.

Confederates Training Processes. Four research assistants (3 females and one male) were trained in the role of the Peruvian prune dealer³. First, they went through the negotiation as a "buyer" as if they were the actual participants of the study. The researcher herself played the role of the Peruvian prune dealer in order to demonstrate an example. After the session was over, they were debriefed and had a discussion regarding the study.

The confederate dealers were trained to behave consistently across conditions and sessions. They were told to be passive and to react the buyer's moves consistently, so that the dealer would not influence the behaviors of the buyers or if they did, the influence would be consistent. The confederate dealers were trained to say same or similar phrases for certain situations and questions from the buyers. The possible phrases that they could use were listed in their instruction sheet, which looked identical to the ones for negotiators. They were asked to wait till the negotiators said something, but if they didn't start to say anything, the dealer would say, "I am a prune dealer. I work for an import/export company in Peru, and I heard that you guys are interested in our prunes." When they were asked for the price, they would say, "I am authorized to sell 100% of

³ Two females were confederates in the first half of data collection, and one male and one female in the second half of the data collection. They were recruited from the advanced communication classes.

prune shares for the minimum of \$1 million. I can sell all of them," or "I can also sell them in 5% increments." When they were asked which one of the buyers the dealer would like to sell to, the dealer would say "It seems like both of you have a great cause, my goal is to sell all the prunes," or "I just have to take the best deal I can get." After they could behave consistently and naturally and felt comfortable playing the role of the Peruvian dealer as a confederate, they participated in the data collection.

Negotiation props. In order to increase the realism in negotiation, several props were prepared. The fake copies of \$100,000 dollar bills and \$50,000 dollar bills were prepared for the two negotiators to use. Depending on the conditions they are in, negotiators were given \$1 million, \$2 million, or \$3 million dollars to spend in a manila envelop. For their convenience, \$1 million bills were bundled with a clip. Participants could not see how much money others had. Prune shares of 5% and 10% with a picture of Prunes were prepared for the Peruvian Prune dealer to sell. During the negotiation, participants were told to use the props and to actually exchange the dollar bills and the Prune shares. A paper to write the terms of agreement was provided for the dealer. At the completion of the negotiation, the money used and prunes exchanged were tallied and reported by the dealer. Negotiation money samples are displayed in Appendix C.5, and the prune share samples are displayed in the Appendix C.6.

Post-negotiation survey. At the completion of the negotiation game, the two buyer participants were asked to fill out the post-negotiation survey. The post-negotiation survey included the 5-item induction check for self-concern (i.e.,

perceived self-competitiveness and self-cooperativeness) and other-concern (i.e., perceived other-competitiveness and other-cooperativeness), 3-item measure for negotiation process satisfaction, 3-item measure for negotiation outcome satisfaction, and 3-item measure for relational satisfaction with the other negotiator. Individual difference measures were also included in the survey, such as Shearman and Levine's (2003) 11-item dogmatism scale, a modified Davis's (1980) 8-item perspective-taking scale, and modified Cacioppo and Petty's (1982) 15-item need for cognition scale. All items included in the survey employed 5 point Likert scale format, except for the basic demographic questions included at the end of the survey. Post-negotiation surveys for the negotiators, the negotiation outcome sheet for the dealer, and a debriefing statement are included in the Appendix D.1.

While participants were filling out the post-negotiation survey, the confederate Peruvian Prune dealer was given a sheet to fill in about the various negotiation outcomes. The survey included questions regarding whether they reached an agreement or not, the time they took to reach the agreement, whether they have reached an integrative solution or not, what percentages of prunes are bought by each negotiator, the price they paid, total prunes that they sold, total money the dealer earned, and any special terms of agreements the buyers had arranged. The post-negotiation report for the confederate is included in Appendix D.2.

When they completed the post-negotiation survey, participants were given a debriefing statement. The debriefing statement explained the purposes of the

study, factors included in the study, possible and preferable solutions for the negotiation and information, should they have any questions. Whenever possible, the investigator herself and participants had a discussion about what they thought about the negotiation they just participated in. Debrief statement can be located in Appendix D.3. Following the debriefing, participants were thanked and dismissed.

Data Coding

Coder training. First, two coders, who were the confederates of the study in the second half of the study, transcribed the pilot data of the negotiation sessions. Then, categories for coding scheme with the lists of possible strategies were generated based on the strategies and tactics suggested in the literature review. As for the main data, six research assistants who are blind to the hypotheses and experimental conditions transcribed the videotaped negotiation sessions⁴.

Two additional coders, who were otherwise uninvolved with the study, were recruited to code the entire data set. The two coders first went over the coding schemes, conceptual definitions for each category, and the possible statements that would fit in each category. After they understood each category and what phrases should be included, two coders and the investigator tried coding a negotiation session separately in order to examine the level of agreement. The coders then compared results, shared their perception of the negotiator behaviors, and their reasons for coding. Disagreements on coding

⁴ Research assistants consisted of five students, who were recruited from the author's introductory communication class and a friend of an author who indicated interest in transcribing the videotaped data. They were paid hourly for their transcription work.

were discussed, and an agreement on coding decisions and rules for coding were refined. This process was repeated until a consensus on coding of strategies was reached. Then, the videotaped negotiation data were coded individually.

Coding tactics and strategies. The coding consisted of two main parts: specific tactics and general strategic choices. The coding scheme was created based on the reviews of previous literature and observation of current data (Pruitt & Lewis, 1975; Weingart et al., 1990). The specific coding categories were created borrowing from Weingart et al.'s (1990) nine strategic uses of coding in combination with some additional strategies that were observed in pilot data were added. The specific tactics coding scheme included 1) emphasizing self-concern, 2) showing other-concern, 3) asking for information, 4) providing information, 5) showing positive reaction, 6) showing negative reaction, 7) aggressive comments, 8) withdrawal, or passive, unmotivated move, 9) problem solving orientation, and 10) other (the strategies that cannot be categorized above categories).

The unit of coding was done at the individual level and a negotiator's behavior demonstrated in an entire negotiation session. The two negotiators in dyads were coded separately. As these tactics were demonstrated in different degrees during negotiation session, each tactic was coded using Likert scale. These tactics were recoded using the 5-point Likert rating as in 1) not at all present, 2) somewhat present, 3) moderately present, 4) fairly present, and 5) very much present. The coding was based on how much of each strategies are

displayed (e.g., how much information seeking or information sharing are done during the process) during the negotiation session.

The general strategic choices were coded based on the Dual Concern Theory's five strategies; 1) integration/problem-solving, 2) accommodation/yielding, 3) compromise, 4) competition/contending, and 5) avoidance/withdrawing. The general strategic choices were recoded as 1) not at all present, 2) moderately present, 3) very much dominant approach used by the individual negotiator in the dyad. Tactics categorization, definitions, examples for tactics, and the coding sheet are included in the Appendix E.1, and E.2.

CHAPTER 6

RESULTS

Preliminary Analyses Results

Measurement Validities and Reliabilities

Inter-rater reliability for coding. Using Krippendorff's (1980) α , inter coder reliability was calculated for all coded tactics and strategies. Coders were initially trained in a two-hour session using the pretest tapes. Two raters, who were blind to experimental conditions and hypotheses, coded the entire data separately using videotapes and transcripts corresponding to the videotapes. For all nine tactics and five general strategies, the measures of agreement were found to be acceptable. The ordinal rating of the Krippendorff's α for emphasizing self-concern was .84, .78 for showing other-concern, .82 for information seeking, .83 for information sharing, .81 for positive reaction, .76 for negative reaction, .81 for aggressive comments, .80 for passive withdrawal, and .84 for problem solving orientation. As for the general strategies, the Krippendorff's α for the ordinal coding were .87 for integration, .89 for competition, .92 for compromise, .86 for accommodation, and .84 for avoidance.

Unidimensionality of the Measures

Item analyses and confirmatory factor analyses were conducted to ensure the unidimensionality of the all measures included in the study. Based on the item analyses, error analyses, and tests of internal consistency, an item that

correlated least with other items, and had the largest deviation was deleted. The remaining items were subjected to the same processes, and items were deleted one by one as needed. Through this iterative process, unidimensionality of the scale was obtained.

All measures included in the study were subjected to these analyses individually. Measures in the post-negotiation survey includes negotiation outcome satisfaction, negotiation process satisfaction, perceived motivation for self, perceived motivation for other, and three measures of individual differences on dogmatism, perspective taking, and need for cognition. The results of the reliability analyses and the descriptive statistics are reported for each measure in Table 1, correlations between all scales included in the study with its reliabilities are reported in Table 2.

Dogmatism scale. Five items were deleted from dogmatism scale based on the item analyses and error analyses based on the internal consistency theory of confirmatory factor analyses. The remaining six items were found to be unidimensional and reasonably reliable, $\alpha = .78$, with mean (*M*) of 1.75, and standard deviation (*SD*) of .53. The distribution of the scale was positively skewed with majority of participants reporting low scores.

Perspective-taking scale. Two items were deleted from perspective-taking scale, and remaining six items were consistent with unidimensionality. The distribution of the scale was slightly negatively skewed, indicating that more participants reported to have higher perspective taking scores. The scale reliability was reasonable, $\alpha = .78$ (*M* = 3.81, *SD* = .30).

Need for cognition scale. After item analyses and confirmatory factor analyses, four items were removed from the Need for Cognition scale, and the remaining 11 items were summed to as a measure of the construct. The scale distribution indicated a bimodal tendency. The scale produced reasonably high reliability, α = .85, with a mean of 3.46 and a standard deviation of .34.

Self-report motivation for self and other. The original five items for perceived motivations for other were retained after item analyses and error analyses of tests of internal consistency. Scores were almost perfectly normally distributed having M = 3.00, and SD = .87 with a reliability of $\alpha = .84$. As for perceived motivations for other scale, the original five items were retained. The distribution was strongly negatively skewed, in that participants in general reported themselves that they have behaved cooperatively (M = 4.05, SD = .77, $\alpha = .88$).

Satisfaction measures. Three items for negotiation outcome satisfaction were retained, and summed to have a final score for the construct. The distribution was negatively skewed, as majority of the participants indicated more then average satisfaction for the negotiation outcomes. The reliability of the scale was high, $\alpha = .93$ (M = 4.14, SD = .97). Three items for negotiation process satisfaction were retained. The distribution was also negatively skewed, as majority of the participants indicated more than average satisfaction in terms of their process of negotiation. The reliability of the scale was high, $\alpha = .90$ (M = 4.09, SD = .98). The original three relational satisfaction items were also retained. The distribution was strongly negatively skewed, as majority of the

participants reported to have higher relational satisfaction with their partner in negotiation. The reliability of the scale was high, α = .92 (*M* =4.33, *SD* = .87). *Intraclass Correlations*

When interdependence among the member of the dyad or a group is high, individual level data analyses are not warranted and could yield misleading results, because of violated assumptions of statistical analyses (Kashy & Kenny, 2000; Griffin & Gonzales, 1995). Although it was expected that there would be relatively high interdependence between individuals within dyad, as the manipulations of this study were conducted at the dyad level, actual degree of interdependence between the negotiators was numerically examined using Kashy and Kenny's (2000) formula⁵.

Strong positive and significant intraclass correlations were observed among general strategic choices of integration, $\hat{\rho} = .89$, compromise, $\hat{\rho} = .59$, and competition, $\hat{\rho} = .76$, but no intraclass correlations were observed for accommodation, $\hat{\rho} = .006$, and avoidance, $\hat{\rho} = .051$. As for specific strategies, except for being passive and uninvolved, $\hat{\rho} = -.052$, all the tactics indicated significant positive intraclass correlations; emphasizing self-concern, $\hat{\rho} = .44$, showing other-concern, $\hat{\rho} = .66$, asking for information, $\hat{\rho} = .58$, providing information, $\hat{\rho} = .82$, showing positive reaction, $\hat{\rho} = .73$, showing negative reaction, $\hat{\rho} = .76$, making aggressive comments, $\hat{\rho} = .59$, and demonstrating

⁵ The intraclass correlation ($\hat{\rho}$) refers to the estimate of the relationship between scores of members in dyads or a group was calculated in order to examine the interdependency nature of the dyads for both coded and self-report variables. Positive intraclass correlation indicates interdependence (or reciprocity) between the negotiators in the dyads, while negative correlation indicates non-independence between the negotiators in the dyads.

problem solving attitude, $\hat{\rho}$ = .85. Three outcome measures found to have significant positive intraclass correlations, outcome satisfaction, $\hat{\rho}$ = .265, process satisfaction, $\hat{\rho}$ = .356, and relational satisfaction, $\hat{\rho}$ = .538. Lastly, no intraclass correlations were observed for the three personality measures included in the study, dogmatism, $\hat{\rho}$ = .083, perspective taking, $\hat{\rho}$ = -.012, and need for cognition, $\hat{\rho}$ = .097. The results of intraclass correlation analyses and *F* test results for each were reported in Table 3.

These strong intraclass correlations indicate the interdependence or the nature of reciprocity of strategies, tactics, and outcome satisfaction among negotiators. It is interesting to note that integration and competition obtained stronger intraclass correlation than competition, while no interdependence was observed for accommodation and avoidance. The nature of reciprocity and strategic use in negotiation need to be further examined.

Given the strong intraclass correlations among members of dyads in this study, the main analyses were conducted using the dyad as the unit of analyses. There are generally two options available in order to make pairs of participants in a negotiations session as the unit of analysis. One of the options is to create mean score for each dyad, and the other option is to select one participant out of each dyad were randomly selected. As former option would neutralize the scores of two diverging behaviors displayed by the negotiators in a dyad, the latter option is taken. Online randomization software was employed to create the randomization plan, in order to select one negotiator out of a dyad (Dallal, 2003). The following main analyses were conducted using those data.
Effect of Confederate's Gender

Series of one-way ANOVAs were conducted to examine if there were any effect for confederates' gender on strategies, tactics, and negotiation outcomes, as three of the confederates were female and one was male. The ANOVA analyses with contrast tests showed that there were no statistically significant effects attributable to the sex of the confederate on any dependent variables included in the study.

Induction Checks

At the completion of the negotiation sessions, participants filled out the post negotiation survey including their self-report motivations for self and other. To examine whether the induction worked or not, two-way ANOVAs on self-report competitiveness and cooperation were examined. The main effect of other-concern on self-report competitiveness was statistically significant, *F* (169) = 4.25, p < .05, $\eta^2 = .024$. The means of self-competitiveness in high other-concern and low other-concern induction were significantly different in the direction that was induced. However, no main effect was observed for the self-concern induction, *F* (169) = 0.28, n.s. The interaction between self-concern and other-concern was also non significant both for competition, *F* (169) = 2.995, n.s., and for cooperation, *F* (169) = 0.733, n.s. The induction for other-concern appeared to be moderately successful, but not for the self-concern. Self and other-concern were orthogonal, and in the current study, two factors were orthogonal, *r* (170) = .08, n.s. The means for self-report competitiveness and

cooperativeness were calculated for each of four conditions and are reported in Table 4 and 5 respectively.

In addition to the planned analyses using manipulated self-concern (SC) and other-concern (OC), supplementary analyses were conducted based on selfreported (measured) self-concern (hereafter, mentioned as MSC) and measured other-concern (hereafter, mentioned as MOC) as direct measures of each type of concern.

Main Results

Negotiation Outcomes

Types of negotiation outcomes. Out of 170 negotiation dyads (340 negotiators), twenty-one pairs (12.4 %) reached an integrative solution where they decided to share the entire Prune harvest by dividing the pits and mash of the prunes. The rest, or 87.6 percent of participants (149 pairs, and 298 negotiators) did not realize the integrative nature of the conflict at hand while they are in the negotiation session. The overwhelming majority of participants (84.7%, 143 pairs) ended up with a distributive solution dividing the 100% of annual prune harvest in some way. More than half of participants (52.4%, 89 pairs) chose to compromise by dividing the prunes into half. Some pairs quickly decided to go with the compromise decision after they found out they both wanted to obtain the prunes. Other pairs competed against each other and in the end gave up believing that there is no way but to divide into half. If they did not divide the harvest half, the rest of negotiators (32%, 54 pairs) divided the prunes unequally as in 0%-100%, 10%-90%, 20%-80%, 30%-70% and so on. Six pairs

(12 negotiators, 3.5 %) ended up the negotiation with a deadlock. Ending the negotiation in a stalemate is one of the worst outcomes for the negotiation session. They kept arguing over the issue until time was up, or used up 15 minutes without reaching any forms of agreement. The rates of reaching these three distinctive solutions (no agreement, distributive, and integrative) were examined based the degree of concern for self and other, as well as power differences. The frequency and percentage of types of agreement reached are displayed in Figure 5.

Other negotiation outcome indicators. Price per share was calculated by dividing the amount of money paid by the amount of prune share percentage obtained. The percentage of prune shares obtained ranged from 0% to 100%. The money paid for the prunes ranged from \$0 to \$3 million. The price per share ranged from \$5000 (50% for \$500,000) to \$30,000 (100% for \$ 3 million). It is naturally better for the buyer if the price per share is least possible in obtaining a deal. There was a significant main effect of type of agreement on price per prune share, *F* (2, 338) = 46.617, *p* < .001. Mean price for 1% prune share was lower for the negotiation dyads that reached integrative solution than ones did distributive solution. This indicates that those who reached an integrative solution made most out of the money spent on the prunes. The mean prices per share by the types of agreements, no agreement, distributive agreement (including compromising) and integrative agreement, are presented in Table 6.

The time spent for the negotiation was also significantly different by the type of agreement they reached, F(2, 338) = 49.43, p < .001. The time spent for

the negotiation session was longest for pairs who could not reach an agreement, followed by those reached distributive solution and integrative solution. The average time spent for each type of agreements are listed in Table 7.

Replications of Dual Concern Theory

Strategies choices. The first research question asked whether the strategies observed in the data could be categorized under the five main strategies specified in the Dual Concern Theory. The coding was done using five general strategy categorizations posited by DCT. Nine percent chose integrative as a dominant strategy, 30.6% chose competition, 51.8% chose compromise, 5.3% chose accommodation, and 2.4% chose withdrawal. In the current data, the general strategies used by negotiators were categorized into one of the five general strategies without major problems. This is evidence consistent with DCT in that strategies demonstrated by the participants of this study were reasonably categorized into the five general categories posited by DCT. In addition, the correlations among those strategies were examined. One significant positive correlation was observed between the accommodation and withdrawal, r(169) =.23, p < .001. All correlations among the strategies were significantly and negatively correlated, which indicates that these strategies do not co-occur. Frequencies of strategic choices in percentage are displayed in Table 8 and in Figure 6. The correlations among five strategies are shown in Table 9. Thus, the five general strategic categorization posited by Dual Concern Theory were found to be reasonable in the present data set. Therefore main analysis followed using the five strategic choice categorization posited by Dual Concern Theory.

ANOVAs in equal power condition. The hypotheses 1a, 1b, 1c, 1d, and hypothesis 2 attempt to replicate the Dual Concern Theory in the data of the present study. Hypothesis 1a predicted that in equal power conditions, individuals with high other-concern (HOC) and high self-concern (HSC) would employ more integrative strategies (e.g., problem solving strategies) than individuals in the other three conditions. This hypothesis was not supported in the present data. A contrast test of ANOVA assigning +3, -1, -1, -1 to HSC/HOC, HSC/LOC, LSC/HOC, LSC/LOC respectively indicates that individuals in HSC and HOC condition did not choose integration strategy more than those in other conditions, t (83) = -0.760, n.s.

Hypothesis 1b stated in equal power conditions, individuals with high-self concern (HSC) and low other-concern (LOC) will engage in more distributive strategies (e.g., competitive behavior such as contending) than individuals in the other three conditions. A contrast test of ANOVA assigning -1, +3, -1, -1 to HSC/HOC, HSC/LOC, LSC/HOC, LSC/LOC, indicates that individuals in HSC and LOC condition did not choose competition strategy more than those in other conditions, *t* (83) = 1.14, n.s.

Hypothesis 1c stated that in equal power conditions, individuals with low self-concern (LSC) and high other-concern (HOC) would employ more distributive strategies (e.g., accommodating strategies such as concession making) than individuals in the other three conditions. A contrast test of ANOVA assigning -1, -1, +3, -1 to HSC/HOC, HSC/LOC, LSC/HOC, LSC/LOC, indicates

that individuals in LSC and HOC condition did not choose competition strategy more than those in other conditions, t(83) = -0.542, n.s.

Hypothesis 1d predicted that in equal power conditions, individuals with low self-concern (LSC) and low other-concern (LOC) would engage in avoidance strategies than individuals in the other three conditions. A contrast test of ANOVA assigning -1, -1, -1, +3 to HSC/HOC, HSC/LOC, LSC/HOC, LSC/LOC, indicates that individuals in LSC and LOC condition did not choose competition strategy more than those in other conditions, *t* (83) = -1.16, n.s.

Besides integration, competition, accommodation, and avoidance, compromising is included as the fifth general strategic category in the study. Therefore, an additional analysis was conducted to investigate the relationship between two motives (high self-concern and high other-concern) and the compromising strategy usage. A two-way ANOVA result yielded the significant main effect on other concern, F(2, 86) = 10.42, p < .01, without the significant main effect of self concern and interaction of self concern and other concern. This result indicates that higher other concern is related with the negotiators' choice of compromise strategy in the present data.

Regression analyses in equal power condition. Hierarchical regression analyses on five general strategic choices, using MSC (measured self-concern), MOC (measured other-concern), and interaction between MSC and MOC as predictors were conducted. For all five strategic choices as criterion variables, result summary tables for regression analyses are provided in Tables 10 to 14. Integrative strategies were not explained by the three predictors, thus the data

were not consistent with hypothesis 1a, F(2, 86) = 1.27, n.s., $R^2 = .041$. The two motives and their interaction were not significant predictors of the integrative strategy. Although not significant at p < .05, other-concern was a marginal predictor for the integration strategy (t = 1.89, p = .063). The more other concern in evidence, the more likely the integrative strategy was to be employed.

MSC, MOC, and interaction of MSC and MOC were used as predictors in hierarchical regression analysis for the competition strategy. The data produced a statistically significant multiple correlation, F(2, 86) = 5.77, p < .001, $R^2 = 1.73$. Both MSC, $\beta = .344$, t(86) = 3.41, p < .001, and MOC, $\beta = -.20$, t(86) = -1.98, p < .05, were found to be significant predictors for the strategy, but the interaction of MSC and MOC was not. Competition as the general strategic choice was explained by the higher self-concern and lower other-concern, which is partially consistent with Dual Concern Theory.

As for the compromise strategy, the data were only partially consistent with the prediction, F(2, 86) = 3.44, p < .05, $R^2 = 1.11$. Only MSC, $\beta = -2.93$, t(86) = -2.84, p < .05 was a significant predictor, but not MOC or MSC*MOC. Lower self-concern is associated with the choice of compromise as a general strategy.

The use of the accommodation strategy was predicted only by the interaction of MSC and MOC, β = 2.90, *t* (86) =2.84, *p* < .05, but neither MSC or MOC. The regression model predicting accommodation strategy was found to be significant, *F* (2, 86) = 3.76, *p* < .05, *R*² = 1.20.

The avoidance strategy was predicted by the MSC, $\beta = -2.66$, *t* (86) =-2.54, *p* < .05. The model predicting avoidance strategy was found to be significant, *F* (2, 86) = 2.73, *p* < .05, *R*² = .090. Avoidance strategy was predicted with the lower levels of self-concern, which is again only partially in support of DCT.

Information exchange. Hypothesis 2 predicted that in the equal power condition, negotiation pairs in HSC and HOC condition would be more likely to exchange information than negotiation pairs in other conditions. The information exchange index was created by computing the sum of tactic ratings on information seeking and information sharing. Both information seeking (i.e., asking for information or initiating information seeking) and information sharing (i.e., providing or sharing information) were also examined separately. T-test results indicated that individuals in HSC and HOC engaged in more information sharing, t (83) = 2.16, p < .05 than those in other conditions. No significant differences were observed neither in information seeking, t (83) = 0.814, n.s., nor the information exchange, t (83) = 1.76, p = .083, n.s.

Regression analyses were conducted using MSC, MOC, and MSC*MOC as the predictor variables and the information exchange as the criterion variable. The overall model was found not to be significant, but MOC found to be the significant positive predictor (β = .21, *t* = 1.98, *p* < .05) for the information exchange, though not MSC or the interaction of MSC and MOC. Thus, the present data provided moderate evidence that the concern for other is a predictor for the information exchange behaviors observed in the negotiation session.

Integrative agreement. Hypothesis 3 asked, in equal power condition, negotiation pairs in HSC and HOC will likely to reach an integrative agreement than individuals in other conditions. A chi-square test was conducted to compare the frequency of reaching an integrative agreement using four conditions as the predictor variables. The condition was not a significant predictor for the integrative solution, χ^2 (3, N = 87) = 1.209, n.s. Contrast test of ANOVA among four conditions was conducted assigning +3, -1, -1, -1, -1 to the following conditions HSC/HOC, HSC/LOC, LSC/HOC, LSC/LOC respectively. It was found that HSC/HOC was not significantly different from other conditions in terms of achieving integrative solutions, t(83) = -0.245, n.s. The percentages of reaching integrative solution, distributive solution, and no agreement by four conditions are presented in Table 15, and those collapsed by power differences are presented respectively in Table 16. Hypothesis 3 was not supported in that four conditions with varving degree of self and other motives did not predict the likelihood of achieving the integrative solution.

Power Differences

Individual power difference. Hypothesis 4 predicted that the individuals with high power would be less likely to engage in information seeking behavior than individuals with low power in unequal power condition. Multiple t-tests were conducted to compare the difference on how much information seeking is initiated, how much information is provided, and how much information exchanges were done comparing those negotiators with more power (more resource power and high status power) and those with less power (less resource

power and lower status power). Individuals with more power (M = 1.91, SD = .78) did not engage significantly more in information seeking than individuals with less power (M = 1.79, SD = .72), t(80) = -0.762, n.s. In addition, negotiators with more power (M = 3.31, SD = 1.13) did not share information more than negotiators with less power (M = 3.04, SD = 1.06), t(80) = -1.14, n.s. No significant difference is observed between participants with more power (M = 5.23, SD = 1.64) and participants with less power (M = 4.38, SD = 1.55) for the information exchange, t(80) = -1.12, n.s. The direction of the mean difference was consistent with the prediction in that individuals with low power exchanged information more than those with power. However, the mean difference was minimal and there were no significant differences on information exchange behaviors.

Hypothesis 5 predicted that individuals with more power would be less likely to engage in integrative strategies (e.g., problem solving strategies) than individuals with less power in unequal power condition. This hypothesis also was tested at the individual level and not supported with the t-test comparing those with more power and less power in the unequal power condition. Individuals with more power (M = 1.34, SD = .73) chose integrative strategy, significantly more than individuals with less power (M = 1.09, SD = .35), t (80) = -1.940, n.s.

Dyadic level analyses. Hypothesis 6 predicted that the equal power negotiator dyads would be more likely to exchange information compared with the unequal power negotiator dyads. No significant difference was observed

between equal power dyads (M = 5.17, SD = 1.16) and unequal power dyads (M = 5.00, SD = .93), t (167) = 0.681, n.s.

Hypothesis 7 predicted that greater power differential would inversely related with the likelihood of negotiators choosing integrative strategy. Specifically, it predicted that the negotiation pairs with equal power would more likely to engage in integrative strategies than those with greater power differentials. T-test indicated no significant difference between equal power dyads (M = 1.25, SD = .65) and unequal power dyads (M = 1.20, SD = .55), t(167) = 0.619, n.s.

Hypothesis 8 predicted that the equal power negotiator dyads would be more likely to reach an integrative agreement compared with the unequal power negotiator dyads. This hypothesis was not supported. T-test indicated no significant difference between equal power dyads (M = 1.14, SD = .35) and unequal power dyads (M = 1.11, SD = .31), t (168) = .581, n.s.

Research question 2 asked the general effect of power differentials to the Dual Concern Theory, are there any differences among strategic choices in negotiation with power equality and negotiators with power inequality. A series of 3-way ANOVAs were conducted to examine overall effect of variables, selfconcern, other-concern, and power difference on five general strategic choices. The respective ANOVA result tables are presented at Table 17 to Table 21.

The only interaction effect for power was observed for the competition strategy. The interaction of power and self-concern had an influence on competition strategy selection, *F* (1, 168) = 7.29, *p* <. 01, η^2 = .038. Comparison

of the means in each cell indicate that the HSC and unequal power condition worked like a magic cell, having highest mean for competition as a dominant strategy (Table 18a). The combination of HSC and unequal power would likely to cause selection of competition as a general strategy.

Strategies, tactics, and negotiation outcome

Hypothesis 9 stated the selecting the integration strategy would positively associate with reaching the integrative solution in the negotiation. Hypothesis 9 is supported. Correlation analyses indicated that integrative strategy is positively and significantly correlated with reaching to the integrative solution, r(169) =.811, p < .001, $n^2 = .657$. Additional correlation analyses were conducted to examine the relationship between integrative solution and the rest of the general strategies (i.e., competition compromise, accommodation and avoidance) as well as the nine tactics (i.e., emphasizing self-concern, showing other-concern, asking for information, sharing information, positive reaction, negative reaction, aggressive comments, passive reaction, and problem solving orientation). Correlations among general strategies, tactics uses, and integrative solution as well as other outcomes are displayed in Table 22. Significant negative correlations were found between integrative solution and competition strategy, r $(169) = -.158, p < .04, n^2 = .025, and compromise strategy, r (169) = -.287, p$ <.001, η^2 = .008. No correlation was observed for the accommodation strategy and avoidance strategy with integrative solution.

As for the nine tactics coded in the study, several significant correlations were observed with the degree of integration of the negotiation outcome.

Significant positive correlations were observed with emphasizing self-concern, r (169) = .235, p < .01, showing other-concern, r(169) = .431, p < .001, information seeking, r(169) = .251, p < .01, information sharing, r(169) = .438, p < .01, reacting positively, r(169) = .365, p < .001, and indicating problem solving attitude, r(169) = .788, p < .01. No significant correlations were observed for showing negative reaction, using aggressive comments, and being passive and uninvolved.

Solution types and satisfaction. Satisfaction was measured in three dimensions, satisfaction of negotiation outcomes, satisfaction of negotiation processes, and satisfaction of negotiator relationships. Overall, it was reported that all the participants are generally satisfied with all three indicators of satisfaction: outcome satisfaction (M = 4.05, SD = 1.03), process satisfaction (M = 4.11, SD = .98), and relational satisfaction (M = 4.28, SD = .86)⁶.

It was predicted that those who reached an integrative solution would have higher 10a) negotiation outcome satisfaction, 10b) negotiation process satisfaction, and 10c) negotiator relational satisfaction than those who reached a distributive solution. Differences on satisfaction levels were examined based on the negotiation solutions (i.e., integrative solution or not) that they reached. Levene's test for equality of variances indicated that variance are not equal, perhaps since fewer subjects reached an integrative solution. Therefore, separate variance t-tests (equal variances not assumed) are examined.

⁶ Descriptive statistics for three satisfaction measures using the individual level data (N = 340) were almost identical, indicating outcome satisfaction (M = 4.12, SD = .97), process satisfaction (M = 4.09, SD = .98), and relational satisfaction (M = 4.33, SD = .87).

Hypothesis 10a, 10b, and 10c were supported. Pairs of negotiators who reached an integrative solution had significantly higher outcome satisfaction (M = 4.81, SD = .37), t(71) = 6.92, p < .001, than the negotiators who reached a distributive solution (M = 4.01, SD = .98). Significantly higher process satisfaction, t(66) = 7.31, p < .001, was observed for dyad reached an integrative solution (M = 4.89, SD = .27) than those did a distributive solution (M = 4.03, SD = .97). A significant mean differences on relational satisfaction was observed, t (73) = 6.66, p < .001, among those who reached an integrative solution (M = 4.21, SD = .89).

In addition, the negotiation pairs who reached a unequal distributive solution indicated significantly high outcome satisfaction, t (83) = 3.773, p < .001, process satisfaction, t (85) = 3.157, p < .001, and relational satisfaction, t (85) = 4.869, p < .001, compared to the negotiators who reached a compromise, or an equal distributive solution. Descriptive statistics on the levels of satisfaction by the types of agreement reached are presented in Table 23.

Strategies, tactics, and satisfaction. The relation between the general strategic uses (i.e., integration, avoidance, compromise, competition, and avoidance) and satisfaction indicators (i.e., outcome satisfaction, process satisfaction, relational satisfaction) were examined. Integrative strategy correlated with all three satisfaction indicators, outcome satisfaction, *r* (169) = .223, *p* < .001, process satisfaction, *r* (169) = .275, *p* < .001, and relational satisfaction, *r* (169) = .273, *p* < .001. Compromise strategy also were significantly positively correlated with outcome satisfaction, *r* (169) = .273, *p* <

.001, process satisfaction, r(169) = .235, p < .01, and relational satisfaction, r(169) = .351, p < .001. On the contrary, competition was negatively correlated with outcome satisfaction, r(169) = -.368, p < .001, process satisfaction, r(169) =-.302, p < .001, and relational satisfaction, r(169) = -.289, p < .001. Avoidance was also negatively correlated with outcome satisfaction, r(169) = -.156, p <.001, process satisfaction, r(169) = -.228, p < .001, and relational satisfaction, r(169) = -.298, p < .001.

Individual Differences

Correlations among scales. The present study included three individual differences variables, dogmatism, perspective taking, and need for cognition, which were previously reported to be influencing the cognitive and behavioral aspects of information processing, which would directly influence in negotiation setting. The relationships between these individual differences and strategic choices, tactics, as well as negotiation outcomes were examined. Correlations among the personality measures are displayed in Table 24. Consistent with the theoretical explanations for each construct and its relation, the correlations among the individual difference measures were significantly correlated⁷. Dogmatism scores correlated negatively with perspective taking, *r* (170) = -.553, *p* < .001, corrected *r* = -.67, and need for cognition, *r* (170) = -.331, *p* < .001,

⁷ Similar results were obtained for the correlations among scales using the individual level data (N =340). Dogmatism score are significantly negatively correlated with perspective taking scores, r (339) = -.552, p < .001, corrected r = .67, and need for cognition, r (339) = -.332, p < .001, corrected r = .356. Simultaneously, perspective taking score and need for cognition score was significantly positively correlated, r (340) = .292, p < .001, corrected r = -.395.

corrected *r* = -.536. Simultaneously, perspective taking and need for cognition score correlated positively, r(170) = .328, p < .001, corrected r = .488.

Strategies and tactics. The perspective-taking scores and integration strategy yielded significant positive correlation, r(169) = .174, p < .05. Need for cognition was negatively correlated with accommodation strategy, r(337) = .141, p < .05. The integrative strategy was also positively correlated with need for cognition, r(169) = .16, p < .05. As for specific tactics, information seeking was significantly positively correlated with the perspective-taking score, r(169) = .162, p < .05. Being passive and uninvolved was positively correlated with dogmatism scale, r(169) = .203, p < .05, and negatively correlated with need for cognition, r(169) = -.163, p < .05. Showing problem solving attitudes were positively correlated with perspective taking, r(169) = .193, p < .05, and need for cognition, r(169) = .197, p < .05 and negatively with dogmatism, r(169) = -.179, p < .05. The correlations among all the variables included in the study are displayed in Table 25.

CHAPTER 8

DISCUSSION

Implications of the study

The current study investigated negotiation behavior by testing the Dual Concern Theory. Specifically, this study examined how two motives (concern for self and other) and power differences influence the way people negotiate in an attempt to achieve what they want when there is full integrative potential. Previous findings for Dual Concern Theory were not fully replicated in the current data set either with induced self-concern and other-concern or with self-reported motivations for self and other as predictors.

Only partial support was observed in predicting the strategic choices using manipulated concern for self and other (SC and OC) as predictors. A statistically significant positive relation was observed between concern for other and the use of competitive strategies. Also, a significant effect for self-concern on compromising strategy selection was observed. However, no effect was observed for either self-concern or the interaction between the self-concern and other-concern on the five strategic choices. The combination of HSC and HOC was related positively with the use of information sharing behaviors, though not information seeking and information exchange.

Likewise, the data were only partially consistent with DCT using self-report or measured concerns for self (MSC) and other (MOC). Higher other concern was associated with obtaining an integrative solution and less use of the competitive strategy. Higher self-concern predicted the competitive strategy, while lower self-concern was associated with compromise and avoidance. The measured other-concern was positively correlated with information exchange.

Generally, the data regarding the effect of main determinants of DCT, selfconcern, other-concern and its combination were not consistent with the predictions posited based on DCT. However, evidence consistent with DCT was observed in terms of the strategic choice categorization in coding and the relation between strategic choices and the negotiation outcome variables. General strategic choices were strongly related with the negotiation outcome as predicted. Specifically, selection of integration as a general approach to the negotiation was strongly and positively associated with the integrativeness of the outcome. Alternatively, compromise and competition as general strategic approaches were negatively associated with the integrativeness of the outcome. In addition, integrative solutions were strongly related with reported outcome satisfaction, process satisfaction, and relational satisfaction.

Among the nine tactics coded in the study, emphasizing self-concern, showing other-concern, information seeking, information sharing, reacting positively, and indicating problem solving attitude were significantly and positively correlated with integrative strategy. On the other hand, three tactics, showing negative reaction, using aggressive comments, and being passive, were not

correlated with integrative solution. These results are intuitive, providing the evidence that certain communication tactics are desirable, as they are associated with the potential to reach an integrative solution. The data regarding the tactic usages, strategic choices, negotiation outcomes, and outcome satisfaction were consistent with Dual Concern Theory.

Slightly different relations between self-concern/other-concern and information exchange (information seeking and information sharing) are observed when using SC/OC and MSC/MOC. The combination of HSC and HOC leads one to engage in more information seeking, using manipulated SC and OC. HOC was found to be a significant predictor for information exchange, using measured other-concern. How two concerns would influence information seeking behaviors remains inconclusive, but the consistent positive associations between the motives and information exchange were observed. Information exchange was crucial in the current study, and both information seeking and information sharing did associate strongly with the attainment of the integrative solution.

Power differences were predicted to interact with the two motives to influence the strategic choice. Current study hypothesized the effect of the power with the view of the power as a spoiler, or as a hindrance to achieve integrative solution. Power difference, however, did not constantly influence the general strategic choice of integration and the integrative outcome in the current data set. In addition, there were no significant differences caused by the power

differences on the use information seeking neither at the individual level nor the dyad level.

Interestingly, the only statistical interaction that was observed was the interaction between self-concern and power inequality on the use of competition strategy. Individuals with high power and high self-concern are more likely to choose competition strategy. This result is consistent with the previous literature on power as a corrupting force (Kipnis, 1972; Snodgrass, 1985; Tjosvold, et al., 1984; Tjosvold & Sagaria, 1978).

It should be noted here that some studies indicate an opposing effect of power where powerless people rather than powerful people behave more aggressively (e.g., Donohue & Hoobler, 2002; Goodstadt & Hjelle, 1973). The weak effects in the current study might be attributable to the complex nature of social, relational, and structural power and power attribution (Kaplowitz, 1978). The induction of status and resource power used in the study might not have actually caused some negotiators to perceive the attribution of the power, or the perceived potential power over the outcome.

Only 12.4 % of the participants reached an integrative solution where they decided to share the entire Prune harvest by dividing pits and mash of the prunes. The rest of participants could not reach an agreement or reached some sort of distributive solutions (either equal distribution or unequal distribution). Among the rest of those who chose distributive agreement, 53% of the participants choose to compromise, equally dividing the prune shares and the cost for the prunes. This result suggests that one factor inhibiting the attainment

of integrative solution is the prevalence of a fixed-sum view held by many participants facing the negotiation. The win-lose orientation to negotiation would likely hinder the potential to reach an integrative agreement, even when it's entirely achievable with information exchange.

Types of the agreements were significantly correlated with the quality indicators for the negotiation outcomes; negotiation outcome satisfaction, negotiation process satisfaction, relational satisfaction, time spent for negotiation, and price per 1% Prune share. The negotiation pairs who reached an integrative solution had a shortest time spent for negotiation session and achieved best price per prune shares. In addition, consistent with the theoretical explanations for the benefits of integration, the participants who reached an integrative solution demonstrated higher outcome satisfaction, process satisfaction, and relational satisfaction.

Three individual difference measures included in the study all significantly related with some of the specific strategic choices and general approaches to the negotiation. Showing a problem-solving orientation, a crucial tactic to reach an integrative solution, was correlated with all three of the personality measures included in the study. Dogmatism was significantly negatively correlated with the problem solving orientation, while both perspective taking and need for cognition were significantly positively correlated with it. An especially interesting finding is that the perspective taking was positively associated with the use of specific strategic choices such as providing information, indicating problem solving orientations, and likelihood to choose integrative strategy as a general selection

in negotiation. A very intuitive finding is that those who are high in need for cognition are less likely to be passive and uninvolved in negotiation and less likely to choose accommodation strategy as their general strategic choice.

These results regarding the individual difference variables in the present data set are modest in size, but intuitive and consistent with the previous literatures (Caccioppo & Petty, 1980; Davies, 1993; Frantz & Janoff-Bulman, 2000; Jones & Melcher, 1982; Rokeach, 1960). In lab experiments, random assignment should results in individual differences equaling out across cells. Nevertheless, individual difference variables are not something that should be disregard completely in the study of human behavior because of their potential interaction with the variables included in the study.

Limitations of the Study

The weak inductions for active variables, especially for the self-concern, should be noted. The induction employed in the study was not strong enough. Although a test of other-concern induction yielded significant difference in the direction consistent with manipulation, the effect sizes were weak to moderate at best. The disconfirming data for DCT may be explained by the failure to induce self-concern in the current study. Several possible explanations for the weak support for DCT in the current data are discussed. It may be that the nature of the negotiation required participants to have moderate level of 'self-concern,' which could have caused the weak effect. Second, the implication of the unsuccessful induction for self-concern might be contributed to the nature of the negotiation scenario. In the conflict of interest scenario employed in this study,

participants are expected have moderate levels of self-concern. Third, the induction check was not appropriate and could not capture self-concern, as the self-report on competitiveness in negotiation might not necessarily relate with motives.

Power differences were induced by resource power and status power. No induction check for power difference was included in the study. In the present study, power difference was considered as a structural factor between the negotiator and not the perceived power differences and induction was considered not necessary. In the hindsight, it would be better to examine a self-report measure of perceived power difference and/or attributions of potential power to capture perceived structural power in the dyads (Kaplowits, 1978).

Training coders in an attempt to obtain the high agreement between the raters was a big challenge. The process of coding occupied the most important, and most time consuming portion of the current study. Some messages seem to be multi-dimensional and multi-channeled. One communicative move does not necessarily serve only one function. Some strategic moves are clear-cut but not others. For this reason, it should be noted that coding complex communicative moves necessitates emphasis on certain aspects of communication and cannot capture all aspects of it. For example, we did not include the nonverbal communication in the consideration of our study, although it is an important part of negotiator communication. Process oriented and interaction perspective for the negotiation research using micro level unit for negotiation analyses should further be examined (Donohue, 2003).

Directions of the future study

A strong interdependence observed between the negotiators in a dyad in itself is an interesting data. Except for three personality measures, use of accommodation strategy, use of avoidance strategy, and use of a tactic of indicating uninvolved and being passive, all the rest of strategies, tactics, and other satisfaction measures indicated a strong positive intraclass correlation. Strong intraclass correlations were observed for positive strategy and tactics (e.g., integrative strategy, showing positivity, seeking information) and also for negative strategy (e.g., competition strategy, showing negativity, making aggressive comments). Accommodation and avoidance strategies seemed to be not reciprocated by the negotiation partner, but so were the case of the rest of the strategies. This is an interesting insight into reciprocity of communicative moves in conflict and negotiation situation. Differing levels of reciprocity based on the type of communicative moves and other factors leading to higher reciprocity would be worth examining.

A substantial percentage of the negotiators reached a distributive solution, with either unequal distribution or equal distribution (i.e. compromise). This may be because of the nature of the scenario, which emphasized conflict of interest, regardless of the hidden integrative potential. The other possible reason is the effectiveness of the fairness argument. In the negotiation session, it seemed that suggestion or argument for compromising is overwhelmingly effective to win over the negotiating partner. The apparent ease and fairness of the compromise solution together with a fixed-sum belief seemed to push negotiators to settle

with the compromise solution. The compromising solution might be more preferable to the unequal distributive solution, however, clearly less than an integrative solution. Factors pushing people to settle for a compromise solution rather than trying to negotiate to obtain integrative solution are worth examining.

One reservation for interpreting this study comes from the dynamic nature of the negotiation. Like studies on conflict style, DCT assumes that the negotiators would use a general strategy throughout one negotiation session. Naturally, however, some negotiators could shift their general approach dramatically as the negotiation goes on. It is crucial to understand the interaction among negotiators and how it influences negotiation process.

Process-oriented researchers focus their analyses on the effect of interactions between negotiators and the negotiation processes (McGrath, 1984; Olekalns, Brett, & Weingart, 2003; Putnam, 1990). Oftentimes, micro level unit of analyses in negotiation such as thought units, utterance units, or negotiation phase are employed (e.g., Donohue & Roberto, 1996; Putnam, 1990; Putnam & Wilson, 1989). In the current data, the early stage where negotiators engaged in the assessment of the relationship and direction of the negotiation seemed crucial in determining the general approach they would take in the negotiation. The addition of the negotiation stages or phases in analyses might be able to complement and strengthen the explanatory power of the Dual Concern Theory. Combining DCT with the interactionist view of the research using micro level unit of analyses could be one direction for future study.

CHAPTER 9

CONCLUSION

The present study tested Dual Concern Theory in equal power and unequal power dyad condition. The current data were only partially consistent with the Dual Concern Theory, which employ two motives as the determinants for general strategic choices. Various effects of two motives using both manipulated and measured self-concern and other-concern on different general strategies is documented.

DCT has been previously tested and empirically shown to have explanatory and predictive power (e.g., DeDreu et al., 2000). I believe that the Dual Concern theory's exploratory power is intriguing in that it captures the two most crucial determinants in negotiation, motivation for self-interest and concern for the other party, which then would explain strategic choices and outcomes of negotiation. The DCT can also be tested using different manipulation for selfconcern and in other scenarios to eliminate the potential explanation for the disconfirming data that was obtained in this study.

The use of the integrative strategies were not well predicted in this study on the basis of the two motives; concern for self and other. However, the present data evidenced some of the factors that influence the selection of the integrative strategy, such as self-report other-concern, being less dogmatic, taking

perspective of other, having a need for cognition. The data also indicated communicative tactics such as emphasizing self-concern, showing otherconcern, seeking information, sharing information, reacting positively, and indicating problem solving attitude, are associated with an integrative solution.

Positive associations between information exchange behaviors and two motives (HSC/HOC and MOC) are observed. In addition, information exchange was significantly positively related with the likelihood of obtaining an integrative solution. View of the power as corrupting is partially observed as an interaction effect between power and self-concern leading one to employ competing strategy. However, the effect of power differentials on the strategic choices and integrative solution was observed only minimally in the current data set, and its comprehensive effect on negotiators could further be examined.

Even though a very simple scenario with a fully integrative potential was employed in the study, only roughly one tenth of the participants achieved integrative solution for the scenario. Integrative solution is clearly desirable in many ways, and benefits of further knowledge on integrative solution are immeasurable. However, it is not easy for people to achieve an integrative solution. Further examinations on factors that facilitate us to reach an integrative solution as well as factors that hinder us to reach an integrative solutions or to take problem solving orientations are needed.

APPENDICES

APPENDIX A FIGURES

Figure 1

The Strategic Choices posited by the Dual Concern Model based on concern for self and concern for other



Figure 2

The Strategic Choices posited by the Dual Concern Model with compromise as a fifth strategy.



Figure 3

Distributive dimension and integrative dimension of the negotiation outcomes explained by self-concern and other-concern.



Figure 4

The examples of negotiation outcomes based on the Dual Concern Model, when the Peruvian Prune example is used



Figure 5 Frequencies of the negotiation dyads' (N = 170) outcomes



Figure 6 Frequencies of the negotiator's (n = 170) strategic choices



APPENDIX B TABLES

Table 1				
Descriptive	statistics for	the measures	included in	the study

	N	Mean	SD	Variance	Kurtosis	Skewness	Items
Self-Report Self Concern (SSC)	170	3.02	.89	.80	46	.11	5
Self-Report Other Concern (SOC)	170	4.04	.74	.55	.57	63	5
Negotiation Outcome Satisfaction	170	4.06	1.0	1.06	.91	-1.21	3
Negotiation Process Satisfaction	170	4.10	.98	.97	.64	-1.11	3
Relational Satisfaction	170	4.28	.86	.74	1.18	-1.19	3
Dogmatism Scale	170	1.76	.56	.31	.03	.62	6/11
Perspective- Taking Scale	170	3.86	.56	.31	.11	20	6/8
Need for Cognition Scale	170	3.48	.60	.36	22	.06	11/15

Table 2

Correlations among measures included in the study and reliability (α) in the diagonal

	MSC	MOC	OS	PS	RS	DM	РТ	NC
Measured Self Concern (MSC)	(.84)							
Measured Other Concern (MOC)	.09	(.99)						
Negotiation Outcome	.04	.45**	(.93)					
Negotiation Process	.09	.52**	.84**	(.90)				
Satisfaction (PS) Relational Satisfaction (PS)	.07	.57**	.64**	.77**	(.92)			
Dogmatism Scale (DM)	02	35**	12	22**	19*	(.78)		
Perspective-Taking Scale (PT)	.09	.27**	.12	.16*	.13	55**	(.79)	
Need for Cognition Scale (NC)	.31**	.18*	.19*	.22**	.16*	33**	.33**	(.85)

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
Table 3

Intraclass correlations and F test results on strategies, tactics, outcome)
satisfactions, self/other concern, and personality measures	

		ρ	F	Sig.	N
General	Integration	.89	18.74	.00	337
Strategic	Competition	.59	3.95	.00	337
Choices	Compromise	.76	7.49	.00	337
	Accommodation	.00	1.01	.47	337
	Avoidance	.05	1.13	.22	337
Specific	Emphasizing self-	.44	2.61	.00	337
Tactics	concern				
	Showing other-	.66	4.93	.00	337
	concern				
	Information seeking	.57	3.74	.00	337
	Information sharing	.82	10.12	.00	337
	Positive reactions	.73	6.48	.00	337
	Negative reactions	.76	7.63	.00	337
	Aggressive	.59	3.91	.00	337
	comments				
	Passive withdrawal	05	.901	.75	337
	Problem solving	.85	13.25	.00	337
Outcome	Outcome	.27	1.69	.00	339
Satisfaction	Satisfaction				
	Process	.36	2.18	.00	339
	Satisfaction		0.00		
	Relational	.54	3.33	.00	339
O a l 6 man a sut	Satisfaction		0.00		000
Seit-report	Concern for Self	.33	2.00	.00	339
Self and	Concern for Other	.34	2.03	.00	339
Other					
Personality	Dogmatism	.08	1.18	.14	339
Measures	Perspective taking	01	.98	.56	339
	Need for Cognition	.10	1.22	.10	339

Note. $\hat{\beta}$ = intraclass correlation

Means and standard deviations of self-report competitiveness by four conditions with varying levels of concern for self and concern for other

		Concern fo	Marginal	
		High	Low	Means
Concern	High	M = 2.75	M =3.27	M = 3.00
for Self	_	SD = .86	SD = .84	SD = .88
(SC)	Low	M = 3.01	M = 3.06	M = 3.04
		SD = .72	SD = 1.08	SD = .90
Marginal I	Means	M = 2.88	M = 3.16	
_		SD = .80	SD = .97	

Table 5

Means and standard deviations of self-report cooperativeness by four conditions with varying levels of concern for self and concern for other

		r Other (OC)	Marginal	
		High	Low	Means
Concern	High	M = 4.04	M = 4.07	M = 4.03
for Self		SD = .87	SD = .65	SD = .88
(SC)	Low	M = 4.12	M = 3.95	M = 4.05
		SD = .72	SD = .71	SD = .74
Marginal Means		M = 4.08	M = 4.00	
		SD = .80	SD = .68	

Distributive statistics on the price (in dollars) per 1% prune share by the types of agreement: no agreement, distributive solution, equal distribution compromise, and integrative solution

Types of Agreement	Price per Prune Share (\$)	N	SD (\$)	Minimum (\$)	Maximum (\$)
No Agreement	0	12	0	0	0
Distributive Solution	10595	108	7648	0	30769
Compromise	10399	178	2880	0	20000
Integrative Agreement	5048	42	216	5000	6000
Total	9433	340	5408	0	30769

Table 7

Time spent (in minutes) to reach an agreement based on the types of agreement: no agreement, distributive solution, equal distribution compromise, and integrative solution

	Mean (min.)	N	SD (min.)	Minimum (min.)	Maximum (min.)
No Agreement	15.6	12	1.36	15.00	18.50
Distributive Solution	8.4	108	4.33	2.00	22.00
Compromise	6.0	178	2.87	1.30	15.00
Integrative Solution	4.4	42	1.65	2.00	8.00
Total	6.9	340	3.90	1.30	22.00

Frequencies and percentages of the observed dominant strategies among the DCT's five general strategic choices

	Frequency	Percent (%)
Integration	16	9.4
Competition	52	30.6
Compromise	88	51.8
Accommodation	9	5.3
Avoidance	4	2.4

Table 9

Correlations among dual concern theory's five general strategic choices

	Integration (GS1)	Competition (GS2)	Compromise (GS3)	Accommodation (GS4)	Avoidance (GS5)
GS1					
GS2	181*				
GS3	360**	506**			
GS4	081	260**	130		
GS5	083	217**	179*	.208*	

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on integrative strategy

		Beta	t	Sig.	F	Sig.	R
Model	(Constant)		.917	.362			
1	MSC	.021	.198	.843	1.785	.174	.272
	MOC	.202	1.887	.063			
Model	(Constant)		.910	.365			
2	MSC	.023	.212	.833	1.272	.290	.273
	MOC	.202	1.879	.064			
	MSC*MOC	.056	.525	.601			

Note. MSC = Measured self-concern, MOC = Measured other-concern N = 86 (Equal Power Condition)

Table 11

A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on competition strategy

		Beta	t	Sig.	F	Sig.	R
Model	(Constant)		3.005	.003			
1	MSC	.344	3.441	.001	8.278	.001	.406
	MOC	198	-1.982	.051			
Model	(Constant)		3.007	.003			
2	MSC	.341	3.412	.001	5.769	.001	.415
	MOC	198	-1.980	.051			
	MSC*MOC	089	890	.376			

Note. MSC = Measured self-concern, MOC = Measured other-concern N = 86 (Equal Power Condition)

A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on compromise strategy

		Beta	t	Sig.	F	Sig.	R
Model	(Constant)		4.110	.000			
1	MSC	293	-2.835	.006	5.027	.009	.327
	MOC	.131	1.265	.209			
Model	(Constant)		4.097	.000			
2	MSC	294	-2.838	.006	3.440	.020	.333
	MOC	.131	1.260	.211			
	MSC*MOC	061	587	.559			

Note. MSC = Measured self-concern, MOC = Measured other-concern N = 86 (Equal Power Condition)

Table 13

A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor variables on accommodation strategy

		Beta	t	Sig.	F	Sig.	R
Model	(Constant)		4.623	.000			
1	MSC	043	405	.687	1.551	.218	.189
	MOC	186	-1.733	.087			
Model	(Constant)		4.794	.000			
2	MSC	036	345	.731	3.759	.014	.346
	MOC	186	-1.800	.075			
	MSC*MOC	.290	2.814	.006			

Note. MSC = Measured self-concern, MOC = Measured other-concern N = 86 (Equal Power Condition)

A Hierarchical regression results for MSC, MOC, MSC*MOC as predictor	
variables on avoidance strategy	

		Beta	t	Sig.	F	Sig.	R
Model	(Constant)		9.306	.000			
1	MSC	267	-2.562	.012	4.105	.020	.298
	MOC	148	-1.419	.160			
Model	(Constant)		9.253	.000			
2	MSC	266	-2.540	.013	2.731	.049	.300
	MOC	148	-1.411	.162]		
	MSC*MOC	.029	.273	.785			

Note. MSC = Measured self-concern, MOC = Measured other-concern N = 86 (Equal Power Condition)

Frequencies and percentages of reaching different types of solution by four conditions

	HSC/HOC	HSC/LOC	LSC/HOC	LSC/LOC	Total
No Agreement	0	4	0	6	10
	(0%)	(1.2%)	(0%)	(1.8%)	(2.9%)
Distributive	76	69	79	64	288
Agreement	(22.4%)	(20.3%)	(23.2%)	(18.8%)	(84.7%)
Integrative	12	12	6	12	42
Agreement	(3.5%)	(3.5%)	(1.8%)	(3.5%)	(12.4%)
	88	85	85	82	340
Total	(25.9%)	(25.0%)	(25.0%)	(24.1%)	(100.0%)

Note. HSC = High self-concern, LSC = Low self-concern, HOC = High otherconcern, and LOC = Low other-concern

Table 16

Frequencies and percentages of different types of solution by four conditions and by power difference

PD		HSC/HOC	HSC/LOC	LSC/HOC	LSC/LOC	Total
	No	0	2	0	4	6
	Agreement	(0%)	(1.1%)	(0%)	(2.3%)	(3.4%)
	Distributive	42	31	41	30	144
Equal	Agreement	(24.1%)	(17.8%)	(23.6%)	(17.2%)	(92.8%)
	Integrative	6	8	4	6	24
	Agreement	(3.4%)	(4.6%)	(2.3%)	(3.4%)	(13.8%)
		48	41	45	40	174
	Total	(27.6%)	(23.6%)	(25.9%)	(23.0%)	(100.0%)
	No	0	2	0	2	4
	Agreement	(0%)	(1.2%)	(0%)	(1.2%)	(2.4%)
Un-	Distributive	34	38	38	34	144
equal	Agreement	(20.5%)	(22.9%)	(22.9%)	(20.5%)	(86.7%)
Power	Integrative	6	4	2	6	18
	Agreement	(3.6%)	(2.4%)	(1.2%)	(3.6%)	(10.8%)
		40	44	40	42	166
	Total	(24.1%)	(26.5%)	(24.1%)	(25.3%)	(100.0%)

Three-way ANOVA with Self-Concern, Other-Concern, and Power, on Integrative Strategy

	Sum of Squares	df	Mean Square	F	Sig.
SC	.000	1	.000	.001	.97
OC	.285	1	.285	.757	.38
DPW	.163	1	.163	.434	.51
SC * OC	.001	1	.001	.003	.95
SC * DPW	.000	1	.000	.000	.99
OC * DPW	.001	1	.001	.002	.96
SC * OC * DPW	.438	1	.438	1.165	.28
Model	.871	7	.124	.331	.93
Residual	60.584	161	.376		

Note. SC = Self-concern, OC = Other-concern, DPW = Power Differentials

Table 18

Three-way ANOVA with Self-Concern, Other-Concern, and Power, on Competition Strategy

	Sum of Squares	df	Mean Square	F	Sig.
SC	1.098	1	1.098	1.656	.20
OC	11.891	1	11.891	17.934	.00
DPW	1.019	1	1.019	1.536	.21
SC * OC	.050	1	.050	.075	.78
SC * DPW	4.833	1	4.833	7.290	.01
OC * DPW	.229	1	.229	.345	.55
SC * OC * DPW	.061	1	.061	.091	.76
Model	19.939	7	2.848	4.296	.000
Residual	106.748	161	.663		_

Note. SC = Self-concern, OC = Other-concern, DPW = Power Differentials

Table 18a

Mean of cells for self-concern (high/low) and Power Difference (equal/unequal) on competition strategy selection

		Power Di	fference
		Equal	Unequal
Concern for	Low	1.84	1.68
Self		(N = 43)	(N = 41)
	High	1.66	2.20
	_	(N = 44)	(N = 44)

Table 19

Three-way ANOVA with Self-Concern, Other-Concern, and Power, on Compromise Strategy

	Sum of Squares	df	Mean Square	F	Sig.
SC	.000	1	.000	.000	.987
OC	16.445	1	16.445	24.127	.000
DPW	.341	1	.341	.501	.480
SC * OC	.692	1	.692	1.016	.315
SC * DPW	.778	1	.778	1.142	.287
OC * DPW	.219	1	.219	.321	.572
SC * OC * DPW	.047	1	.047	.069	.794
Model	18.796	7	2.685	3.940	.001
Residual	109.736	161	.682		

Note. SC = Self-concern, OC = Other-concern, DPW = Power Differentials

Table 20 Three-way ANOVA with Self-Concern, Other-Concern, and Power, on Accommodation Strategy

	Sum of Squares	df	Mean Square	F	Sig.
SC	.013	1	.013	.053	.818
00	.031	1	.031	.123	.727
DPW	.102	1	.102	.410	.523
SC * OC	.010	1	.010	.041	.839
SC * DPW	.135	1	.135	.543	.462
OC * DPW	.139	1	.139	.559	.456
SC * OC * DPW	.125	1	.125	.502	.480
Model	.552	7	.079	.316	.946
Residual	40.134	161	.249		

Note. SC = Self-concern, OC = Other-concern, DPW = Power Differentials

Table 21

Three-way ANOVA with Self-Concern, Other-Concern, and Power, on Avoidance Strategy

	Sum of Squares	df	Mean Square	F	Sig.
SC	.046	1	.046	.394	.531
OC	.058	1	.058	.492	.484
DPW	.176	1	.176	1.496	.223
SC * OC	.282	1	.282	2.387	.124
SC * DPW	.124	1	.124	1.047	.308
OC * DPW	.234	1	.234	1.986	.161
SC * OC * DPW	.083	1	.083	.701	.404
Model	1.008	7	.144	1.220	.294
Residual	18.992	161	.118		

Note. SC = Self-concern, OC = Other-concern, DPW = Power Differentials

Correlations between integrative solution, specific tactics, and general strategic choices

	Integrative Agreement (O1)	Distributive Agreement (02)	Compromise (O3)	No Agreement (04)
ST1	.24**	0.06	27**	.18*
ST2	.43**	34**	0.13	26**
ST3	.25**	-0.12	-0.09	0.1
ST4	.48**	-0.12	23**	0.06
ST5	.37**	0	20**	-0.11
ST6	-0.05	0.07	18*	.40**
ST7	-0.09	0.1	19*	.42**
ST8	-0.14	.21**	-0.08	-0.07
ST9	.79**	18**	33**	-0.05
GS1	.81**	19**	35**	-0.02
GS2	16*	.39**	34**	.22**
GS3	29**	42**	.65**	20**
GS4	-0.12	0.11	0	-0.06
GS5	-0.08	.18**	-0.1	-0.04

Note. ST1 = emphasizing self-concern, ST2 = emphasizing other-concern, ST3 = information seeking, ST4 = information sharing, ST5 = positive reaction, ST6 = negative reaction, ST7 = aggressive comments, ST8 = passive withdrawal, ST9 = integrative solution, GS1 = integration, GS2 = competition, GS3 = compromise, GS4 = accommodation, GS5 = avoidance.

Descriptive statistics on outcome satisfaction, process satisfaction, and relational satisfaction by the types of agreement achieved

		Outcome Satisfaction	Process Satisfaction	Relational Satisfaction
No Agreement	Mean	2.61	2.95	4.06
(N = 6)	SD	1.67	1.24	.78
Distributive Solution	Mean	4.00	4.03	4.21
(N = 143)	SD	.37	.96	.89
Unequal distributive	Mean	3.59	3.70	3.78
(N = 54)	SD	1.15	1.12	1.00
Equal Distribution /	Mean	4.26	4.25	4.46
Compromise (N = 89)	SD	.78	.80	.71
Integrative Solution	Mean	4.81	4.89	4.81
(N = 21)	SD	.37	.27	.33
Total	Mean	4.05	4.11	4.28
(N = 170)	SD	1.03	.98	.86

Table 24

Correlations among the Dogmatism Scale, Perspective-Taking Scale, and Need for Cognition Scale in the lower triangle, and corrected correlations in the upper triangle

	Dogmatism	Perspective Taking	Need for Cognition
Dogmatism		67	395
Perspective Satisfaction	524** (339)		.356
Need for Cognition	322** (339)	.292** (340)	

** Correlation is significant at the 0.01 level (2-tailed).

 Table 25

 Correlations among all the variables of the current study

	SC	ос	SSC	SOC	DPW	ST1	ST2	ST3	ST4	ST5
SC	1.00	0.00	-0.02	0.01	0.00	0.07	-0.06	-0.05	-0.01	-0.03
ос	0.00	1.00	-0.16*	0.05	-0.06	-0.18*	0.19*	0.02	-0.07	-0.04
SSC	-0.02	-0.16*	1.00	0.09	0.12	0.31**	-0.17*	0.04	0.12	-0.03
SOC	0.01	0.05	0.09	1.00	-0.04	0.03	0.28**	0.13	0.18*	0.10
DPW	0.00	-0.06	0.12	-0.04	1.00	-0.07	0.03	-0.10	-0.01	0.00
ST1	0.07	-0.18*	0.31**	0.03	-0.07	1.00	-0.11	0.21**	0.46**	0.20**
ST2	-0.06	0.19*	-0.17*	0.28**	0.03	-0.11	1.00	0.31**	0.32**	0.31**
ST3	-0.05	0.02	0.04	0.13	-0.10	0.21**	0.31**	1.00	0.50**	0.20**
ST4	-0.01	-0.07	0.12	0.18*	-0.01	0.46**	0.32**	0.50**	1.00	0.38**
ST5	-0.03	-0.04	-0.03	0.10	0.00	0.20*	0.31**	0.20**	0.38**	1.00
ST6	-0.01	-0.24**	0.33**	-0.14	-0.08	0.34**	-0.39**	0.12	0.19*	-0.09
ST7	-0.05	-0.24**	0.33**	-0.09	-0.08	0.24**	-0.40**	0.04	0.07	-0.07
ST8	0.01	0.01	-0.20**	-0.45**	0.07	-0.28**	-0.17*	-0.08	-0.16*	-0.04
ST9	0.03	-0.02	0.01	0.26**	-0.03	0.31**	0.45**	0.37**	0.55**	0.41**
GS1	0.00	-0.07	-0.04	0.21**	-0.05	0.29**	0.44*	0.28**	0.50**	0.40**
GS2	0.09	-0.32**	0.36**	-0.11	0.11	0.58**	-0.51**	-0.08	0.04	-0.08
GS3	0.00	0.36**	-0.20**	0.11	-0.07	-0.35**	0.32**	0.04	-0.10	-0.08
GS4	-0.01	0.03	-0.08	-0.18*	-0.05	-0.35**	-0.06	-0.09	-0.22**	-0.11
GS5	0.05	-0.06	-0.24*	-0.27**	0.09	-0.41**	-0.15*	-0.08	-0.23**	-0.06

Table 25 (Cont'd)

	SC	ос	SSC	SOC	DPW	ST1	ST2	ST3	ST4	ST5
01	0.05	-0.06	-0.05	0.24*	-0.05	0.24**	0.43**	0.25**	0.48**	0.37**
02	-0.03	-0.27**	0.14	-0.21*	0.29**	0.06	-0.34**	-0.12	-0.12	0.00
03	0.02	0.36**	-0.17*	0.04	-0.22**	-0.27**	0.13	-0.09	-0.23**	-0.20**
04	-0.07	-0.20*	0 20**	-0.02	-0.06	0.18*	-0.26**	0.10	0.06	-0.11
<u>S1</u>	-0.01	0.03	0.04	0.45**	-0.09	-0 10	0 44**	0.06	0.12	0.13
62	-0.01	0.00	0.04	0.52**	0.03	-0.10	0.44**	0.00	0.12	0.10
52	-0.00	0.0	0.03	0.52	-0.03	-0.03	0.41	0.10	0.17	0.14
53	-0.06	0.20*	0.07	0.57**	-0.09	-0.04	0.38**	0.15	0.21**	0.11
P1	0.10	-0.06	-0.02	-0.35**	-0.08	-0.07	-0.06	-0.07	-0.13	-0.13
P2	-0.03	0.00	0.09	0.27**	0.06	0.12	0.09	0.07	0.16*	0.13
P3	0.02	0.06	0.31**	0.18*	0.07	0.10	0.08	0.10	0.12	0.00

Table 25 (Cont'd)

	ST6	ST7	ST8	ST9	GS1	GS2	GS3	GS4	GS5
SC	-0.01	-0.05	0.01	0.03	0.00	0.09	0.00	-0.01	0.05
ос	-0.24**	-0.24**	0.01	-0.02	-0.07	-0.32**	0.36**	0.03	-0.06
SSC	0.33**	0.33**	-0.20**	0.01	-0.04	0.36**	-0.20*	-0.08	-0.24**
SOC	-0.14	-0.09	-0.45**	0.26**	0.21**	-0.11	0.11	-0.18*	-0.27**
DPW	-0.08	-0.08	0.07	-0.03	-0.05	0.11	-0.07	-0.05	0.09
ST1	0.34**	0.24**	-0.28**	0.31**	0.29**	0.58**	-0.35**	-0.35**	-0.41**
ST2	-0.39**	-0.40**	-0.17*	0.45**	0.44**	-0.51**	0.32**	-0.06	-0.15
ST3	0.12	0.04	-0.08	0.37**	0.28**	-0.08	0.04	-0.09	-0.08
ST4	0.19*	0.07	-0.16*	0.55**	0.50**	0.04	-0.10	-0.22**	-0.23**
ST5	-0.09	-0.07	-0.04	0.41**	0.40**	-0.08	-0.08	-0.11	-0.06
ST6	1.00	0.75**	-0.08	-0.04	-0.05	0.40**	-0.32**	-0.13	-0.04
ST7	0.75**	1.00	-0.06	-0.11	-0.12	0.40**	-0.30**	-0.11	-0.09
ST8	-0.08	-0.06	1.00	-0.14	-0.10	-0.05	-0.12	0.33**	0.42**
ST9	-0.04	-0.11	-0.14	1.00	0.91**	-0.15*	-0.32**	-0.12	-0.10
GS1	-0.05	-0.12	-0.10	0.91	1.00	-0.18*	-0.36**	-0.08	-0.08
GS2	0.40**	0.40**	-0.05	-0.15*	-0.18*	1.00	-0.52**	-0.26**	-0.22**
GS3	-0.32**	-0.30**	-0.12	-0.32**	-0.36**	-0.52**	1.00	-0.13	-0.18*
GS4	-0.13	-0.11	0.33**	-0.12	-0.08	-0.26**	-0.13	1.00	0.21**
GS5	-0.04	-0.09	0.42**	-0.10	-0.08	-0.22**	-0.18*	0.21**	1.00

Table 25 (Cont'd)

	ST6	ST7	ST8	ST9	GS1	GS2	GS3	GS4	GS5
01	-0.05	-0.09	-0.14	0.79**	0.81**	-0.16*	-0.29**	-0.12	-0.08
02	0.07	0.10	0.21**	-0.18*	-0.19*	0.39**	-0.42**	0.11	0.18*
O 3	-0.18*	-0.19*	-0.08	-0.33**	-0.35**	-0.34**	0.65**	0.00	-0.10
04	0.40**	0.42**	-0.07	-0.05	-0.02	0.22**	-0.20**	-0.06	-0.04
S1	-0.36**	-0.23**	-0.31**	0.23**	0.22**	-0.37**	0.27**	-0.02	-0.16*
S2	-0.31**	-0.20**	-0.30**	0.29**	0.28**	-0.30**	0.24**	-0.05	-0.23**
S 3	-0 26**	-0.15	-0.34**	0.20**	0.20**	-0 29**	0.35**	-0 23**	-0.30**
P1	0.09	0.01	0.20*	-0 18*	-0 14	-0.09	0 11	0.10	0.08
P2	-0.06	-0.02	-0 11	0.19*	0.17*	0.08	-0.10	-0.12	-0.00
P3	-0.01	0.02	-0.16	0.20	0.13	0.04	-0.08	-0.16*	-0.11

Table 25 (Cont'd)

	01	02	O 3	04	S1	S 2	S 3	P1	P2	P3
SC	0.05	-0.03	0.02	-0.07	-0.01	-0.06	-0.06	0.10	-0.03	0.02
ос	-0.06	-0.27**	0.36**	-0.20**	0.03	0.08	0.20**	-0.06	0.00	0.06
SSC	-0.05	0.14	-0.17*	0.20**	0.04	0.09	0.07	-0.02	0.09	0.31**
SOC	0.24**	-0.21**	0.04	-0.02	0.45**	0.52**	0.57**	-0.35**	0.27**	0.18*
DPW	-0.05	0.29**	-0.22**	-0.06	-0.09	-0.03	-0.09	-0.08	0.06	0.07
ST1	0.24**	0.06	-0.27**	0.18*	-0.10	-0.03	-0.04	-0.07	0.12	0.10
ST2	0.43**	-0.34**	0.13	-0.26**	0.44**	0.41**	0.38**	-0.06	0.09	0.08
ST3	0.25**	-0.12	-0.09	0.10	0.06	0.10	0.15*	-0.07	0.07	0.10
ST4	0.48**	-0.12	-0.23**	0.06	0.12	0.17*	0.21**	-0.13	0.16*	0.12
ST5	0.37**	0.00	-0.20**	-0.11	0.13	0.14	0.11	-0.13	0.13	0.00
ST6	-0.05	0.07	-0.18*	0.40**	-0.36**	-0.31**	-0.26**	0.09	-0.06	-0.01
ST7	-0.09	0.10	-0.19*	0.42**	-0.23**	-0.20**	-0.15	0.01	-0.02	0.02
ST8	-0.14	0.21**	-0.08	-0.07	-0.31**	-0.30**	-0.34**	0.20**	-0.11	-0.16*
ST9	0.79**	-0.18*	-0.33**	-0.05	0.23**	0.29**	0.20**	-0.18*	0.19*	0.20**
GS1	0.81**	-0.19*	-0.35**	-0.02	0.22**	0.28**	0.20**	-0.14	0.17*	0.13
GS2	-0.16*	0.39**	-0.34**	0 22**	-0.37**	-0.30**	-0 29**	-0.09	0.08	0.04
GS3	-0.29**	-0.42**	0.65**	-0.20**	0.27**	0.24**	0.35**	0.11	-0.10	-0.08
GS4	-0.12	0.11	0.00	-0.06	-0.02	-0.05	-0.23	0.10	-0.12	-0 16*
GS5	-0.08	0.18*	-0.10	-0.04	-0.16*	-0.23**	-0.30**	0.08	-0.09	-0.11

Table 25 (Cont'd)

	01	02	O 3	04	S1	S2	S 3	P1	P2	P3
01	1.00	-0.26**	-0.39**	-0.07	0.28**	0.30**	0.23**	-0.14	0.15*	0.08
02	-0.26**	1.00	-0.72**	-0.13	-0.31**	-0.29**	-0.39**	-0.11	0.06	0.05
03	-0.39**	-0.72**	1.00	-0.20	0.21**	0.15*	0.23**	0.21*	-0.16*	-0.08
04	-0.07	-0.13	-0.20**	1.00	-0.27**	-0.23**	-0.05	-0.03	0.04	-0.07
S1	0.28**	-0.31**	0.21**	-0.27**	1.00	0.84**	0.64**	-0.12	0.12	0.19**
S 2	0.30**	-0.29**	0.15*	-0.23**	0.84**	1.00	0.77**	-0.22**	0.16*	0.23**
S 3	0.23**	-0.39**	0.23**	-0.05	0.64**	0.77**	1.00	-0.19**	0.13	0.16*
P1	-0.14	-0.11	0.21**	-0.03	-0.12	-0.22**	-0.19*	1.00	-0.55**	-0.33**
P2	0.15*	0.06	-0.16*	0.04	0.12	0.16*	0.13	-0.55**	1.00	0.33**
P3	0.08	0.05	-0.08	-0.07	0.19	0.23**	0.16*	-0.33**	0.33**	1.00

Note. SC = Self Concern, OC = Other Concern, SSC= Self-report Self Concern, SOC = Self-report Other Concern, ST1 = emphasizing self-concern, ST2 = emphasizing other-concern, ST3 = information seeking, ST4 = information sharing, ST5 = positive reaction, ST6 = negative reaction, ST7 = aggressive comments, ST8 = passive withdrawal, ST9 = integrative solution, GS1 = integration, GS2 = competition, GS3 = compromise, GS4 = accommodation, GS5 = avoidance, O1 = Integrative Solution, O2 = Distributive Solution, O3 = Compromise, O4 = no agreement, S1 = Outcome Satisfaction, S2 = Process Satisfaction, S3 = Relational Satisfaction, P1 = Dogmatism, P2 = Perspectivetaking, P3 = Need for Cognition. APPENDIX C Pre-negotiation documents, instructions, and negotiation props

Appendix C.1 Consent form

Negotiation behavior and its outcomes

The purpose of this study is to examine the negotiation behaviors. You will be given a scenario, and you are going to engage in a negotiation. The total time needed is approximately 30 minutes. You will be given the maximum of 15 minutes to negotiate, and then asked answer the brief surveys.

We would like to videotape your negotiation, if that is acceptable with you. You can choose to be or not to be tape-recorded. If you choose not to be videotaped, an alternative study for equal credits is available. All negotiation behaviors and answers to the surveys will be CONFIDENTIAL. We simply are interested in analyzing the negotiation behaviors, and data will only be analyzed in aggregate level by authorized researchers. We will keep your identity confidential, without disclosing any information, which might lead to reveal your identity. The videotapes will be erased, once the study is complete. Your privacy will be protected to the maximum extent allowable by law.

Participation in this study is completely voluntary and you may withdraw your consent to participate at any time with no penalty. There are no risks anticipated by participating in this study. While this study is not expected to yield any immediate benefit to the individual participants, it will contribute to our knowledge about human behavior.

If you have any questions or concerns regarding your rights as a human subject, please feel free to contact:

Ashir Kumar, M.D., University Committee on Research Involving Human Subjects (UCRIHS) Michigan State University, 246 Administration Bldg., East Lansing, MI 48823; 517-355-2180 / <u>ucrihs@msu.edu</u>

If you are interested in the results of the study or have any questions or concerns, please call or e-mail one of the following investigators. You have the right to receive an explanation of the study to your satisfaction.

Sachi M. Shearman: Tel:517-355-2165 / morinaga@msu.edu Timothy R. Levine: Tel: 517-432-1124 / levinet@msu.edu

................

I voluntarily agree to participate in this project by signing below.

I agree to have my interview video recorded. Yes No

Print your name

Negotiator ID

Your signature

Date

Appendix C.2 An instruction for the negotiator (Mash) in high self-concern, high other-concern, and equal power condition

Peruvian Prune Negotiator

Please read the following negotiation role very carefully.

You are a researcher at the Biomedical technology firm located in San Jose, California. You have been working to develop a new drug that can significantly reduce blood cholesterol levels and cholesterol buildup in their bodies. This new drug could treat high-cholesterol-risk Americans, who suffers high risk of heart attack as well as millions of people around the world, if you are successful in developing this product.

The substance for this drug can only be found in the Peruvian Prune, which grows on trees in certain parts of Peru. The trees are in a deserted and remote part of the country, making them highly inaccessible for harvesting. All efforts to transplant trees to the different regions of the world where production would be easier and cheaper have failed. There seems to be some combination of the trees themselves and the quality of the agricultural and weather conditions that only allow the trees to thrive in this area. Moreover, efforts expand the production in this area have been unsuccessful, since the climate and soil conditions appear to change just enough in neighboring regions to yield healthy trees but no fruit!!!

The process for obtaining the substance from the prunes requires picking them, washing them, and then extracting the pulp ("meat") from the prunes. This pulp "mash" is then biochmically treated through genetic engineering processes to develop a new treatment drug. It had been estimated that the mash extract of an entire harvest would be sufficient to produce enough compound to treat more than 50,000 high-cholesterol-risk people.

You have learned that a researcher in other department of your firm also wants to buy prunes. You have met the researcher before and you anticipate that you are going to interact with him for future research collaboration. You are going to have a meeting from now with him/her to negotiate at the same time in front of the Peruvian dealer.

You were assigned as a negotiator to obtain prunes for your research project and are accountable to your company for the result of the negotiation. You have been authorized by your firm to spend up to \$ 2 million to obtain the prunes. Naturally, of course, you do not want to spend all your money and want to have a good deal on prunes.

Please remember that it is very important for you to be concerned both with your own goals and with the goals of the other negotiator. After all, you both work for the same company. Negotiation should be problem solving between two parties. So, work cooperatively, but also be sure to get a good deal for your self.

Appendix C.3 An instruction for the negotiator (Pits) in high self-concern, high other-concern, and equal power condition

Peruvian Prune Negotiator

Please read the following negotiation role very carefully.

You are a researcher at the Biochemical technology firm located in San Jose, California. You have been working to develop methods to increase production of the world's food supply in fertile soil and drought areas. This new soil additive could help advance farmers efficiency in certain part of United States as well as to help millions of people around the world where they suffer malnutrition and starvation, if you are successful in developing this product.

This new substance can only be found in the Peruvian Prune, which grows on trees in certain parts of Peru. The trees are in a deserted and remote part of the country, making them highly inaccessible for harvesting. All efforts to transplant trees to the different regions of the world where production would be easier and cheaper have failed. There seems to be some combination of the trees themselves and the quality of the agricultural and weather conditions that only allow the trees to thrive in this area. Moreover, efforts expand the production in this area have been unsuccessful, since the climate and soil conditions appear to change just enough in neighboring regions to yield healthy trees but no fruit!!!

The process for obtaining the substance from the prunes requires picking them, washing them, and then extracting and grinding the pits of the prunes into a fine powder. This grounded prune pit power will be processed to develop the new soil additive. It had been estimated that the powder from the pits of an entire harvest would be sufficient to produce enough soil additive to reclaim the land that would support a population of 50,000 people.

You have learned that a researcher in the other department of your firm also wants to buy prunes. You have met the researcher before and you anticipate that you are going to interact with him for future research collaboration. You are going to have a meeting from now with him/her to negotiate at the same time in front of the Peruvian dealer.

You were assigned as a negotiator to obtain prunes for your research project and are accountable to your company for the result of the negotiation. You have been authorized by your firm to spend up to \$ 2 million to obtain the prunes. Naturally, of course, you do not want to spend all your money and want to have a good deal on Prunes.

Please remember that it is very important for you to be concerned both with your own goals and with the goals of the other negotiator. After all, you both work for the same company. Negotiation should be problem solving between two parties. So, work cooperatively, but also be sure to get a good deal for yourself.

Appendix C.4 Instruction for the confederate, Peruvian prune dealer

Peruvian Prune Dealer

Please read the following negotiation role very carefully.

You work for the World Peru Co., a major import/export company in Peru. Your company deals with the rare and precious Peruvian Prunes directly from farmers in a remote region of the Andes Mountains.

You have learned that two researchers are interested in buying the entire annual yield of Prunes for their research respectively. The two researchers are from leading Biochemical and Biomedical research firms (they could be from the different company or different department of the same company) in the United States.

Your goal is to sell the entire annual yields of Prunes for the maximum profits without influencing the negotiators in any way. Currently, there are two buyers who offered the best deal for you, minimum \$1million for 100% share of annual harvest of the Prunes. At this negotiation table, therefore, you can start selling at \$100,000 per 10% shares and \$1million for 100% share.

- You are given up to 15 minutes to reach an agreement on the amount of Prunes to sell and prices for the Prunes with both or one of the researchers. Please cut off and end their session, 15 minutes is passed after the negotiation is started!
- You are allowed to sell by 5% increments out of 100% annual harvest of Peruvian Prunes.
- You always have to take best offer. Often, best offer can be judged in terms of price, but you can consider lowering the price when they offer you the alternative creative offers (e.g., advertising Peruvian prunes, sharing the research information, etc.) that has some value for your company.
- When two people are competing for the Prunes, please let them discuss. You should NOT determine which side to take! You can only provide neutral response such as, "You both offer me the same amount of price," or "You guys both have a great cause too." It is entirely acceptable for them to not being able to reach an agreement within the given time.
- Do NOT influence the buyers in any way. Please be passive as much as possible. Do NOT "milk" buyers or try to up the prize.
- At the completion of the negotiation, you will be in charge of filling out the negotiation outcomes. Thank you very much for your cooperation.

Appendix C.5 Negotiation Props: Dollars





Appendix C.6 Negotiation Props: Prune Shares





APPENDIX D Post-negotiation documents

Appendix D.1 Post-negotiation Questionnaire for Negotiators

Negotiator ID

Post-negotiation Questionnaire

I. We would like to ask you some questions regarding the negotiation outcome and satisfaction. Please answer following questions about negotiation outcome by circling the number that fits you most.

		Not at all	Not so much	Neu- tral	Some- what	Very much so
1.	How satisfied are you with the outcome of the negotiation?	1	2	3	4	5
2.	How happy are you with the terms of the agreement?	1	2	3	4	5
3.	How satisfactory is your negotiation outcome in general?	1	2	3	4	5
4.	How satisfied are you with the process of negotiation?	1	2	3	4	5
5.	How content are you with how you reached an agreement?	1	2	3	4	5
6.	How happy are you with how you and your partner deal with the problem?	1	2	3	4	5
7.	The relationship between you and your partner in negotiation was extremely positive.	1	2	3	4	5
8.	You and your partner had a positive atmosphere throughout the negotiation.	1	2	3	4	5
9.	Overall, you and your partner had a good interaction in the negotiation.	1	2	3	4	5

II. We would like to ask you how you think YOU	J acted in negotiation setting. Please answer
following questions about negotiation outcome b	y circling the number that fits you most.

		Not at all	Not so much	Neu- tral	Some- what	Very much so
1.	How tough do you think you were in the negotiation?	1	2	3	4	5
2.	How competitive were you in the negotiation?	1	2	3	4	5
3.	How aggressive were you at the negotiation?	1	2	3	4	5
4.	How strongly did you pursue your own goals in the negotiation?	1	2	3	4	5

5.	How hard did you try to out bargain the other negotiator?	1	2	3	4	5
6.	How cooperative were you at the negotiation?	1	2	3	4	5
7.	How collaborative were you at the negotiation?	1	2	3	4	5
8.	How approachable were you at the negotiation?	1	2	3	4	5
9.	How accommodating were you at the negotiation?	1	2	3	4	5
10.	How obliging were you at the negotiation?	1	2	3	4	5

III. We would also like to ask you what you thought about YOUR PARTNER was acting at the negotiation. Please answer following questions about negotiation outcome by circling the number that fits you most.

		Not at all	Not so much	Neu- tral	Some- what	Very much so
1.	How tough did you think your partner was?	1	2	3	4	5
2.	How competitive did you think your partner was?	1	2	3	4	5
3.	How aggressive did you think your partner was?	1	2	3	4	5
4.	How strongly did you think your partner pursued his/her own goals in the negotiation?	1	2	3	4	5
5.	How hard did you did you think your partner try to out bargain the other negotiator?	1	2	3	4	5
6.	How cooperative did you think your partner was?	1	2	3	4	5
7.	How collaborative did you think your partner was?	1	2	3	4	5
8.	How approachable did you think your partner was?	1	2	3	4	5
9.	How accommodating did you think your partner was?	1	2	3	4	5
10.	How obliging did you think your partner was?	1	2	3	4	5

IV. Please answer the following questions regarding your communication style by using the scale below. Please circle the number that fits you best when 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly disagree.

		SD	D	N	Α	SA
1.	People who disagree with me are usually wrong.		2	3	4	5
2.	Having multiple perspectives on an issue is usually desirable.	1	2	3	4	5
3.	There is a single correct way to do most of things.	1	2	3	4	5
4.	Diversity of opinion and background is valuable in any group or organization.	1	2	3	4	5
5.	It is important to be open to different points of view.	1	2	3	4	5
6.	I am a "my way or the highway" type of person.	1	2	3	4	5
7.	There are often many different acceptable ways to solve a problem.	1	2	3	4	5
8.	I consider myself to be very open- minded.	1	2	3	4	5
9.	Different points of views should be encouraged.	1	2	3	4	5
10.	People who are very different from us can be dangerous.	1	2	3	4	5
11.	I am "set in my ways."	1	2	3	4	5
12.	Before I criticize somebody, I try to imagine how I would feel in their place.	1	2	3	4	5
13.	I sometimes try to understand my friends better by imagining how things look from their perspective.	1	2	3	4	5
14.	I believe that there are two sides to every question and try to look at them both.	1	2	3	4	5
15.	I try to look at everybody's side of a disagreement before I make a decision.	1	2	3	4	5
16.	When I'm upset at someone, I usually try to "put myself in his/her shoes" for a while.	1	2	3	4	5

		SD	D	N	A	SA
17.	Sometimes I find it difficult to see things from the other person's point of view.	1	2	3	4	5
18.	If I am sure I am right about something, I don't waste much time listening to other people's arguments.	1	2	3	4	5
19.	I would prefer complex to simple problems.	1	2	3	4	5
20.	I like to have the responsibility of handling a situation that requires a lot of thinking.	1	2	3	4	5
21.	Thinking is not my idea of fun.	1	2	3	4	5
22.	I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.	1	2	3	4	5
23.	I try to avoid situations where I will have to think in depth about something	1	2	3	4	5
24.	For the most part, I only think as hard as I have to.	1	2	3	4	5
25.	I prefer to think about short-term projects to long-term ones.	1	2	3	4	5
26.	I like tasks that require little thought once I've learned them.	1	2	3	4	5
27.	I really enjoy a task that involves coming up with new solutions to problems.	1	2	3	4	5
28.	Learning new ways to think doesn't excite me very much.	1	2	3	4	5
29.	I prefer my life to be filled with puzzles that I must solve.	1	2	3	4	5
30.	The notion of thinking abstractly is appealing to me.	1	2	3	4	5
31.	I would prefer a task that is intellectual to one that does not require much thought.	1	2	3	4	5
32.	I feel relief rather than satisfaction after completing a task that required a lot of mental effort.	1	2	3	4	5
33.	It's enough for me that something gets the job done; I don't care how or why it works.	1	2	3	4	5

V. Finally, we would like to ask you information about you.

Your gender: 1) Male 2) Female

Your age: _____ years old

Ethnicity:

1) Caucasian/White	4) Asian American	7) Asian
2) African American/Black	5) Native American	8) Mixed
3) Hispanic American	6) Pacific Islander	9) Other

Thank you very much for your participation!

If you have any comments regarding the negotiation or the survey, please feel free to write them down in the space below.

Appendix D.2 Post-negotiation Report for the confederate

Post-Negotiation Report

NEGOTIAT	DR ID#	&		
1. Did they r	each an agreement?		1. YES	2. NO
2. How long	did they take to reach a	n agreement?		_ Minutes
3. Could the	y find the integrative solu	ution?	1. YES	2. NO
4. How long	did they take to find that	their interests	are not incompa	atible?
				_ Minutes
5. How man	y times did negotiators o	ffer you?		_ Times
6. Please let specific and gained.	us know the agreement let us know what you ga Peruvian Prune Dealer	the two negoti ined and what	ators reached. your partner ne	Please be gotiator
		% Prunes Sold Dollars earned		
	Negotiator A:			
		% Prunes Ob Dollars Spen	tained t	
	Negotiator B:			
		% Prunes Ob Dollars Spent	tained t	
Specific Terr	ns besides what are act	nieved:		

Appendix D.3 Debriefing Statement

Negotiation behavior and its outcomes

This negotiation game was a part of research to examine the factors affecting information seeking behaviors, problem solving behaviors, and outcomes in negotiation when there is the full integrative potential.

Distributive negotiation refers to win-lose approach to the negotiation, where one party gains and the other party loses. Alternatively, the negotiation with the integrative potential refers to the negotiation where it is possible to have a mutually satisfying solution with both parties' interests being met. The negotiation game you just completed had complete integrative potential, because one of you wanted to have pits of prunes, while the other wanted to obtain mash of prunes. If you had engaged in information exchange as to which parts of the prunes each of you want, you would be able to find an integrative solution.

We wanted to examine factors that influence the information exchange behaviors, distributive strategies, integrative strategies, and outcomes in negotiation. Specifically, the scenarios were intended to induce different level of motivation and power level. This study, therefore, examines whether two motives (self-concern and other-concern) and power influence information seeking behaviors, problem-solving behaviors and the integrative agreement as posited in the Dual Concern Theory.

If you prefer your videotaped negotiation not to be used at this point, please let the experimenter or the research assistants know about it.

If you have any questions about your role and rights as a participant of research, please contact Dr. Ashir Kumar, University Committee on Research Involving Human Subjects (UCRIHS) at Michigan State University by calling 517-355-2180 or emailing <u>ucrihs@msu.edu</u>.

For any further questions, concerns, or comments, regarding this study, please feel free to contact Sachi Shearman at <u>morinaga@msu.edu</u> / 355-2165 (Office: 552 CAS), Dr. Tim Levine at <u>levinet@msu.edu</u> / (517) 432-1124 (Office: 482 CAS) or ask the experimenter in the lab.

Thank you very much for your participation!

Appendix E Coding sheet and coding schemes

Appendix E.1 Coding Sheet for Negotiation Strategies and Tactics

Negotiation Coding Sheet

 Coder's Name (Coder #)
 Tape #

Dyad ID _____ Condition _____ Negotiator: A or B Location: L or R

Specific Tactics: Please circle the one that describes the how much these following behaviors were present in each negotiation session, choosing the number from 1 to 5, when 1 = not at all present, 2 = somewhat present, 3 = moderately present, 4 = fairly present, and 5 = very much present.

		Not at all present	Some- what present	Moder- ately present	Fairly present	Very much present
1.	Concern for Self	1	2	3	4	5
2.	Concern for Other	1	2	3	4	5
3.	Information Seeking	1	2	3	4	5
4.	Information Sharing	1	2	3	4	5
5.	Positive Reaction	1	2	3	4	5
6.	Negative Reaction	1	2	3	4	5
7.	Aggressive Comments	1	2	3	4	5
8.	Passive Withdrawal	1	2	3	4	5
9.	Problem Solving Orientation	1	2	3	4	5
10.	Other (If any, please write):		• • • • •	*	A	

General Strategies: Please rate each one of the five categories based on how dominant or present each strategy was during the negotiation session, when 1 = not at all present, 2 = moderately present, and 3 = very much dominant.

		Not at all present	Moderately Present	Very much dominant
1.	Integration / Problem Solving	1	2	3
2.	Competition / Contending	1	2	3
3.	Compromise	1	2	3
4.	Accommodation / Yielding	1	2	3
5.	Avoidance / Withdrawing	1	2	3
6.	Other (If any, please write):		L	•
Coding Scheme: Definitions and Examples

Please be familiar with the definition for each strategy and tactic. Examples and definitions for each are provided. You will be coding one negotiator at a time, based on a negotiator's behavior toward the other negotiator during the negotiation session. Specific tactic coding is based on the frequency and intensity of a used tactic, while general strategy is based on the general presence and dominance of a strategy.

1. Concern for Self: High concern for self has two elements. 1) Wanting to have Prunes as much as possible. For example, attempting to obtain the entire Prune share (100%) would be demonstrating high self-concern, while wanting to have at least a quarter (25%) would be low self-concern. 2) Insisting strongly and persistently to obtain the Prunes. High concern for self would be expressed by emphasizing one's own interests, goals, and positions, or insisting that their needs should be met, and that it's more important than the other negotiator's need. Contrary, low concern for self would be characterized with the low aspiration or not insisting on and giving up what they want.

Examples:

Amount:	
High Self Concern Low Self Concern	 I need to have all of the Prunes for my research. How about 70-30? How about I get 75% and you get 25%. I would like to have at least half of the Prunes. I would be happy to have just half. Could I have 10% of the Prunes? You win. You can have them all if you like.

Emphasis on their needs:

High Self Concern	• I really believe that I should get all the prunes because I can save a lot more people than you can.
↑	• My research is more important than yours, as my research is proven to be successful.
↓ ↓	• Don't you think starvation is more important than the cholesterol?
Low Self Concern	• Maybe my issue is not as important as yours, because they (high cholesterol patients) should just exercise more.

2. Concern for Other: High concern for others has two elements. 1) Indicating that negotiators are a team and they are working together to achieve the same goal. 2) Showing recognition, understanding, and empathy on other negotiator's claims, needs, or positions. Contrary, low concern for other is characterized by the emphasis on competition, ignoring, or disregarding the claim or need of the other negotiator.

Examples:

"W	/e"	, ,	"us",	and	a	team	
	_	_					_

High Self	• We are working on the future, aren't we working for the same
Concern	company, right?
	• We are on the same team, the dealer is just trying to scam up.
	• I think we need to discuss before we talk to the dealer.
	• We will combine/collaborate our research in some way.
Low Self	• No, we are from different firms and we are against each other.
Concern	• You are saying "we," but we two different parties.

Showing understanding

	V
High Self	• I understand that your research is important.
Concern	• I see what you mean You are also helping people too?
	• I think you should have some prunes too.
	• My firm can do better job than you do.
	• There is no proof that your research works.
Low Self	• Ignoring the other, disregarding what's said.
Concern	

3. Information Seeking: High level of information seeking behavior is characterized by a negotiator asking for information about other's interest, position, research process, and anything related to the topic. Low level of information seeking is characterized with the negotiators who never ask questions, be rather quiet, or talk only limited issues of negotiation. Focus only on the information seeking to other negotiator (buyer) and not the information seeking to the dealer.

High	• What do you need the Prunes for? / What are you trying to do
↓ ↓	with it? / How much do you need it? / Do you need all of them? / How much would you like to spend? / Why do you need them? / What is your research for? / What processes are involved with using Prunes? / How many people can you save with your research?
Low	• Not asking any questions to the other negotiator.

4. Information Sharing: Providing information about your own interest, position, research process, and anything related to research. Low information sharing is characterized with rejection of answering to a question and dismissal to share their information.

High	• I need prunes, but all I really need is pits (or mashes) of prunes.
	• I need the prunes to make drugs. The cause of our research is to save people who have high cholesterol.
	• Well, I do have enough money, but don't want to spend all of it.
	• I don't think I am supposed to tell you that.
▼	• The information is confidential, so I cannot tell you.
Low	• Hey, don't try to look at what's in my pocket.

5. Positive reaction: Creating positive atmosphere (e.g., greeting, introducing themselves, shaking hands), showing positive affects (e.g., use of positive tone of voice, engaging in the task, smiling, joking), and indicating positive reactions to the other buyer, other's statements, ideas, or arguments. Contrary, the low level of positivity would be categorized as neutrality without showing much sign of positive reaction.

High	• Hi, I am Nick from a Biochemical firm in San Jose, CA. It is very
▲	nice to meet you. (Greetings with shaking hands, Smiling, etc.)
	• Listening to others carefully and rephrasing what other said.
	 Welcoming posture, smiling and laughs.
	• Prunes would give you diarrhea. (Joking)
↓	• You've got to trust me on this, like you would on Ebay. (Joking)
-	• Being neutral, indifferent to what others' are saying.
Low	

6. Negative Reaction: Creating negative atmosphere (e.g., interrupting other's statement, ignoring others' comments), showing negative affects (e.g., use of negative tone of voice, etc.), and indicating negative reactions to the other buyer, other's statements, ideas, or arguments. High level of negativity is characterized with many of the negative indicators, while low level of negativity is characterized with the neutrality without the negative reactions.

High	• You are lying!!! Don't listen to her. (To dealer)
1	• Excuse me? What did you say? (Ignoring what others said, and asking back impolitely.)
	• You are saying "we" but we are two different parties! (Using a negative tone of voice)
↓	• I don't think your drug will be safe. What about the side effect?
Low	• Using neutral expression and reaction to the other negotiator.

7. Aggressive comments: Threatening the other negotiator to appeal to the power, indicating the potential of using the power, or using personal attacks.

High	• Well, I don't care what you want, I am about to buy all of them.
≜	• I have more money than you do, so you know that I can out bit
	you. I CAN buy it all if I want to!! (Threatening the other.)
	• I will pay \$100,000 more than whatever he is paying. (Ignoring
	what others said.)
-	• "Assuming that your research works"!!! (implying that it doesn't)
Low	• Not appealing to the power or the personal attacks.

8. Passive withdrawal: Withdrawing physically or psychologically, walking away from the negotiation, or giving up to continue negotiation. Individuals who just accept what others suggested, followed whatever others are saying, and also not interested in pursuing their goal future.

High	• Being quiet for the whole time.
▲	• Since you have more money, I cannot do anything.
	• I cannot match your offer, so you win.
•	• Okay, that's fine. I don't really care what you do. (Just agreeing to what other buyer are suggesting.)
Low	• Actively involving in the negotiation.

9. Problem Solving Orientations: Dealing with negotiation as if it is a problem solving, attempting to find a mutually satisfactory solution in some way, being persistent in search for being creative. Not giving up on finding a way to "solve" the problem not to just "deal with" the problem.

Ligh	Could use do the collectore records in some more sound
riigii	• Could we do the collaboration research in some way so we could
T T	make some sort of contract on this together?
	• If you need pits, I need mash of the prunes, so can we work
	something out?
	• Why don't you take next year's harvest? Can we take turns?
	• We have to figure out the ways that we can work together to share
· ·	this Prunes. There should be a way so we both get some of them.
Low	• No indication of attempting to find a mutually satisfactory
	solution or a creative offer.

10. Possible other strategies: Any other strategies observed in the negotiation that are not clearly categorized as ones above.

General Strategy Categorization: There are five categories for general strategy: integration, compretition, compromising, accommodation, and avoidance. Please select a dominant strategy that is used by one negotiator. If the other strategies are present, or moderately used, please indicate such.

	General	Definition
	Strategy	
1	Integration / Problem-Solving Approach	This general strategy is characterized by the problem-solving attitude, attempting to deal with the issue hoping to find a mutually acceptable agreement. Negotiators would engage in information exchange behavior, create positive relationship with one another, and search for the possible options to solve the problem.
2	Competition / Contending	This general strategy is categorized by the competition against other negotiators, attempting to obtain what they want. They often insist on their needs and goals, not giving as much regards to other's needs and goals in negotiation. Negotiators would pursue their interests, by emphasizing self-interest, justify their positions, needs, and interests and ignoring those of other's.
3	Compromising	This general strategy is characterized by the compromising what they want in some way, while at the same time requesting the other to do the same. Negotiators would attempt to or suggest dividing the resources with each other and taking equal responsibility for the costs.
4	Accommodation / Yielding	This general strategy is characterized by neutral acceptance of the other's way of dealing with problem. Negotiators would quietly accept, concede, yield to, give in, or accommodate other's needs or interests, the other's suggestions, or other's argument, rather than focusing, proposing, or insisting on one's own.
5	Avoidance / Withdrawing	This general strategy is characterized by the passive, withdrawal behaviors by the negotiator. Negotiators would demonstrate passive moves, such as showing lack of interests, giving up on the negotiation, and withdrawing from the negotiation.

References

- Aboud, F. E. (1976). Social development aspects of language. *Papers in Linguistics*, 9, 15-37.
- Bacharach, S. B., & Lawler, E. J. (1981). *Bargaining, power, tactics, and outcomes.* San Francisco, CA: Jossey-Bass.
- Bacharach, S. B., & Lawler, E. J. (1981). Power and tactics in bargaining. Industrial and Labor Relations Review, 34, 219-233.
- Bazerman, M. H., Magliozzi, T., & Neale, M. A. (1985). Integrative bargaining in a competitive market. Organizational Behavior and Human Decision Processes, 35, 294-313.
- Bazerman, M. H., & Neale, M. A. (1983). Heuristics in negotiation: Limitations to effective dispute resolution. In M. Bazerman, & R. J. Lewicki. *Negotiating in organizations.* Beverly Hills, CA: Sage.
- Bazerman, M. H., & Neale, M. A. (1992). *Negotiating rationally*. New York: The Free Press.
- Ben-Yoav, O., & Pruitt, D. G. (1984). Resistance to yielding and expectation of cooperative future interaction in negotiation. *Journal of Experimental Social Psychology*, 2, 323-335
- Blake, R., & Mouton, J. S. (1964). The managerial grid: key orientations for achieving production through people. Houston, TX: Gulf.
- Blau, P. M. (1964). Exchange and power in social life. New York: Wiley.
- Blood, R. O., & Wolfe, D. M. (1960). *Husband and wives: The dynamics of married living*. New York: Free Press.

- Butler, J. K., Jr. (1994). Conflict styles and outcomes in negotiation with fullyintegrative potential. *International Journal of Conflict Management*, 5, 309-325.
- Burr, W. R. (1973). *Theory construction and the sociology of the family.* New York: Wiley.
- Burgoon, J. K., & Hale, J. L. (1984). The fundamental topoi of relational communication. *Communication Monographs*, *51*, 193-214.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, *4*2, 116-131.
- Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984). The efficient assessment of need for cognition. *Journal of Personality Assessment, 48*, 306-307.
- Carnevale, P. J., & Isen, A. (1986). The influence of positive affect and visual access on the discovery of integrative solutions in bilateral negotiation. *Organizational Behavior and Human Decision Processes*, 37, 1-13.
- Carnevale, P. J., & Pruitt, D. C., (1992). Negotiation and mediation. *Annual Review of Psychology, 43*, 531-582.
- Carnevale, P. J., & Isen, A. (1986). The influence of positive affect and visual access on the discovery of integrative solutions in bilateral negotiation. *Organizational Behavior and Human Decision Processes*, 37, 1-13.
- Coleman, P. T. (2000). Power and Conflict. In M. Deutsche & P. T., Coleman (Eds.) The Handbook of Conflict Resolution (pp. 108-130). San Francisco, CA: Jossey-Bass.
- Cosier, R. A., & Ruble, T. L. (1981). Research on conflict handling behavior: An experimental approach. *Academy of Management Journal,* 24, 816-831.
- Dallal, G. E. (2003). Randomization Plan Generator. Information retrieved May 2004, from <u>http://www.randomization.com</u>.

Darwin, C. (1859). The origin of species, New York: Penguin Books.

- Darwin, C. (1871). The descent of man, and selection in relation to sex. Princeton, NJ: Princeton University Press.
- Davis, M. H. (1980). A multi-dimensional approach to individual differences in empathy. JSAS Catalog of Selected Documents in Psychology, 10, 85.
- Davies, M. F. (1993). Dogmatism and the persistence of discredited beliefs. Personality and Social Psychology Bulletin, 19, 692-699.
- Davies, M. F. (1998). Dogmatism and belief formation: Output interference in the processing of supporting and contradictory cognitions. *Journal of Personality and Social Psychology*, *75(2)*, 456-466.

Dawkins, R. (1976). The selfish gene. New York: Oxford University Press.

- Dawkins, R. (1986). The blind watchmaker, New York: W. W. Norton and Co.
- DeDreu, C. K. W., Weingart, L. R., Kwon, S. (2000). Influence of social motives on integrative negotiation: A meta-analytic review and test of two theories. *Journal of Personality and Social Psychology*, *78*(5), 889-905.
- Deutsch, M. (1949a). A theory of cooperation and competition. *Human Relation*, 2, 199-231.
- Deutsch, M. (1949b). An experimental study of the effects of cooperation and competition upon group processes. Human Relations, 2, 199-231.
- Deutsch, M. (1958). Trust and suspicion. *Journal of Conflict Resolution*, 2, 265-279.
- Deutsch, M. (1973). *The resolution of conflict: Constructive and destructive processes*. New Haven, CT: Yale University Press.

- Deutsch, M. (2000). Cooperation and competition. In M. Deutsche & P. T., Coleman (Eds.) *The Handbook of Conflict Resolution (pp. 21-40).* San Francisco, CA: Jossey-Bass.
- Douglas, A. (1962). *Industrial peacemaking*. New York: Columbia University Press.
- Donohue, W. A. (2003). The promise of an Interaction-based approach to negotiation. *International Journal of Conflict Management, 14,* 167-176.
- Donohue, W. A., & Hoobler, G. D. (2002). Relational frames and their ethical implications in international negotiation: An analysis based on the Oslo II negotiations. *International Negotiation*, *7*, 143-167.
- Donohue, W. A., & Roberto, A. J. (1993). Relational development as Negotiated Order in Hostage Negotiation. *Human Communication Research, 20*, 175-198.
- Donohue, W. A., & Roberto, A. J. (1996). An empirical examination of three models of integrative and distributive bargaining, *International Journal of Conflict Management*, *7*, 209-229.
- Emerson, R. M. (1962). Power-dependence relations. American Sociological Review, 27, 31-41. Filley, A. C. (1975). Interpersonal conflict resolution. Glenview, IL: Scott, Foresman.
- Fisher, R., Ury, W., & Patton, B. (1981). *Getting to yes: Negotiating agreement without giving in.* Boston, MA: Houghton Mifflin.
- Fisher, R., Ury, W., & Patton, B. (1991). *Getting to yes: Negotiating agreement without giving in (2nd ed.)*. Boston, MA: Houghton Mifflin.
- Foa, U. G., Converse, J. Jr., Tornblom, K. Y., & Foa, E. B. (1993). *Resource theory: explorations and applications.* San Diego, CA: Academic Press.

- Foa, U. G., & Foa, E. B. (1974). Societal structures of the mind. Springfield, IL: Charles, C. Thomas.
- Follett, M. P. (1942). *Dynamic administration: The collected papers of Mary Parker Follett.* H. C. Metcalf & L. Urwick (Eds.). New York, NY: Harper & Brothers.
- Frantz, C. M. & Janoff-Bulman, R. (2000). Considering both sides: The limits of perspective taking. *Basic and Applied Social Psychology*, *22(1)*, 31-42.
- French, R. P. & Raven, B. (1959). The bases of social power. In D. Cartwright, & A. Zander (Eds.). *Group Dynamics (pp. 601-623.).* New York Harper & Row.

١.

Gamson, W. A. (1968). Power and discontent. Homewood, IL: Dorsey.

- Giles, H. (1973). Accent mobility: a model and some data. *Anthropological Linguistics*, *15*, 87-105.
- Giles, H., Coupland, J., & Coupland, N. (1991). Accommodation theory: Communication, context, and consequence. In H. Giles, J. Coupland, & N. Coupland. (Eds.). Contexts of accommodation: developments in applied sociolinguistics. (pp. 1-68.). Cambridge: Cambridge university press.
- Giles, H., Mulac, A., Bradac, J. J., & Johnson, P. (1987). Speech accommodation theory: The first decade and beyond. In M. L. McLaughin (Ed.), *Communication Yearbook, 10. (pp. 13-40)*. Beverly Hills, CA: Sage.
- Giles, H., & Smith, P. M. (1979). Accommodation theory: Optimal levels of convergence. In H. Giles & R. St. Clair (Eds.), *Language and social psychology*, (*pp.45-65*). Oxford: Blackwell.
- Goodstadt, B. E., & Hjelle, L. A. (1973). Power to the powerless: Locus of control and the use of power. *Journal of Personality and Social Psychology*, 27, 190-196.

- Gulliver, P. (1979). *Disputes and negotiations: A cross-cultural perspective.* New York: Academic Press.
- Holmes, M. (1992). Phase structures in negotiation. In L. Putnam, & M. Roloff (Eds.), *Communication and negotiation (pp. 83-105)*. Newbury Park, CA: Sage.
- Homans, G. G. (1961). *Social behavior: Its elementary forms*. New York: Harcourt, Brace & World.
- Horney, K. (1945). Our inner conflicts: A constructive theory of neurosis. New York: W. W. Norton & Co.
- Howard, J. A., Blumstein, P., & Swartz, P. (1986). Sex, power, and influence tactics in intimate relationships. *Journal of Personality and Social Psychology, 51*, 102-109.
- Hunter, J. E., & Hamilton, M. A. (1988). *CFA [Computer software].* East Lansing, MI: Michigan State University.
- Hunter, J. E., & Hamilton, M. A. (1995). *PATHE [Computer software].* East Lansing, MI: Michigan State University.
- Hunter, J. E., Hamilton, M. A., and Lim, T. S. (1987). *PACKAGE [Computer software]*. East Lansing, MI: Michigan State University.
- Johnson, D. W., & Johnson, R. T. (1989). Cooperation and competition: Theory and research. Edina, MN: Interaction.
- Jones, R. E., & Melcher, B. H. (1982). Personality and the preference for modes of conflict resolution. *Human Relations*, *35(8)*, 649-658.
- Kaplowitz, S. (1978). Toward a systematic theory of power attribution. Social Psychology Quarterly, 41, 131-148.

- Kasy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T. Reis & Judd (Eds.), *Handbook of research methods in social psychology*. Cambridge University Press.
- Kemp, K. E., & Smith, W. P. (1994). Information exchange, toughness, and integrative bargaining: The roles of explicit cues and perspective-taking. *International Journal of Conflict Management*, 5, 5-21.
- Kilmann, R. H., & Thomas, K. W. (1977). Developing a forced-choice measure of conflict-handling behavior: The "MODE" instrument. *Educational and Psychological Measurement*, 37, 309-325.
- Kipnis, D. (1972). Does power corrupt? Journal of Personality and Social Psychology, 24, 33-41.
- Kramer, R. M., Pommerenke, P., & Newton, E. (1993). The social context of negotiation. *Journal of Conflict Resolution*, *37*, 633-654.
- Krippendorff, K. (1980, 2003). Content Analysis: An introduction to its methodology. Thousand Oaks, CA: Sage.
- Lewicki, R. J., Saunders, D. M., & Milton, J W. (1999). *Instructor's manual to accompany Negotiation: readings, exercises, and cases. Third Edition.* Boston, MA: Irwin McGraw-Hill.
- Levine, R. T. & Boster, F. (2001). The effects of power and message variables on compliance. *Communication Monographs*, *68(1)*. 28-48.

Lewin, K. (1951). Field theory in social science. New York: Harper Brothers.

McGarth, J. E. (1984). *Groups: Interaction and performance*. Englewood Cliffs, NJ: Prentice-Hall.

- Muringhan, J. K., Babcock, L, Thomson, L., & Pillutula, M. (1999). The information dilemma in negotiations: Effects of experience, incentives, and integrative potential. *The International Journal of Conflict Management*, *10(4)*, 313-339.
- Neal, M. A. & Bazerman, M. H. (1991). *Cognition and rationality in negotiation*. New York: The Free Press.
- Neal, M. A., Huber, V. L., & Northcraft, G. B. (1987). The framing of negotiations: Contextual versus task frames. *Organizational Behavior and Human Decision Processes*, 39, 228-241.
- O'keef, D. J. (2003). Message properties, mediating states, and manipulation checks: Claims, evidence, and data analysis in experimental persuasive message effects research. Communication Theory, 13(3), 251-274.
- Palmer, D. L., & Klain, R. (1985). Dogmatic responses to belief dissimilarity in the "bogus stranger" paradigm. *Journal of Personality and Social Psychology*, *48*, 171-179.
- Park, H. S., Daiey, R. & Lemus, D. (2002). The use of Exploratory Factor Analysis and Principal Components Analysis in communication research. Human Communication Research, 28, 562-577.
- Pruitt, D. G. (1981). Negotiation behavior. New York: Academic Press.
- Pruitt, D. G., & Carnevale, P. J. (1993). *Negotiation in social conflict*. Pacific Grove, CA: Brooks-Cole.
- Pruitt, D. G. & Lewis, S. A. (1975). Development of integrative solutions in bilateral negotiation. *Journal of Personality and Social Psychology, 31*, 621-633.
- Pruitt, D. G., & Lewis, S. A. (1977). The psychology of integrative bargaining. In D. Druckman, *Negotiations: Social-psychological perspectives. (pp. 161-192).* Beverly Hills, CA: Sage.

- Pruitt, D. G., & Rubin, J. Z. (1986). Social conflict: Escalation, stalemate, and settlement. New York: Random House.
- Putnam, L. L. (1990). Reframing integrative and distributive bargaining: A process perspective. *Research on Negotiation in Organizations*, 2, 3-30.
- Putnam, L. L., & Jones, T. S. (1982a). Reciprocity in negotiations: An analysis of bargaining interaction. *Communication Monographs*, 49, 181-191.
- Putnam, L. L., & Jones, T. S. (1982b). The role of communication in bargaining. Human Communication Research, 8, 162-280.
- Putnam, L. L., Wilson, S., & Turner, D. (1990). The evolution of policy arguments in teachers' negotiations. *Argumentation*, *4*, 129-152.
- Putnam, L., & Wilson, C. E. (1982). Communicative strategies in organizational conflicts: Reliability and validity of a measurement scale. In M. Burgoon, (Ed.). Communication Yearbook 6. Newbury Park, CA: Sage.
- Putnam, L. L. & Wilson, S. R. (1989). Argumentation and bargaining strategies as discriminators of integrative outcomes. In M.A. Rahim (ed.), *Managing conflict: An interdisciplinary approach (pp.121-141)*. New York: Praeger.
- Quinn, J. B. (1991). Strategies for change. In H. Mintzberg, & J. B. Quinn (Eds.), The strategy process: Concepts, contexts, and cases (Second Edition, pp4-12). Englewood Cliff, NC: Prentice Hall.
- Rahim, M. A. (1983). A measure of styles of handling interpersonal conflict. Academy of Management Journal, 26, 368-376.
- Rahim, M. A. (1986). Referent role and styles of handling interpersonal conflict. Journal of Social Psychology, 126, 76-86.
- Rahim, M. A., & Manger, N. R. (1995). Confirmatory factor analysis of the styles of handling interpersonal conflict: First-order factor model and its invariance across groups. *Journal of Applied Psychology*, *80*, 122-132.

- Rhoades, J. & Carnevale, P. J. (1999). The behavioral context of strategic choice in negotiation: A test of the Dual Concern Model. *Journal of Applied Social Psychology, 29 (9)*, 1777-1802.
- Rodman, H. (1972). Marital power and the theory of resources in cultural context. *Journal of Comparative Family Studies*, 3, 50-69.
- Rokeach, M. (1960). The open and closed mind: investigations into the nature of belief systems and personality systems. New York, NY: Basic Books.
- Rubin, J. Z., & Brown, B. R. (1975). *The social psychology of bargaining and negotiation*. New York: Academic Press.
- Rubin, J. Z., Pruitt, D. G., & Kim, S. H. (1994). Social Conflict: Escalation, stalemate, and settlement. Second Edition. New York: McGraw-Hill.

Russell, B. (1937). Power: A new social analysis. New York: Norton.

- Shultz, W. C. (1958). *FIRO: A three dimensional theory of interpersonal behavior*. New York: Holt, Rinehart and Winston.
- Shehan, C. K. & Lee. G. R. (1990). Roles and power. In J. Touliatos, B. F., Perlmutter, & M. A. Straus (Eds.), *Handbook of family measurement techniques*. Newbury Park, CA: Sage.
- Shearman, S. M., & Levine, T. R. (2003). *The dogmatism updated: A scale revision and validation.* A paper accepted for presentation at the National Communication Association, Miami Beach, FL.
- Smith, D. L., Pruitt, D. G., & Carnevale, P. J. (1982). Matching and mismatching: The effects of own limit, other's toughness, and time pressure on concession rate in negotiation. *Journal of Personality and Social Psychology*, 42, 876-883.

- Snodgrass, S. E. (1985). Women's intuition: The effect of subordinate role on interpersonal sensitivity. *Journal of Personality and Social Psychology, 49*, 146-155.
- Thibaut, J. W., & Kelly, H. H. (1959). The social psychology of groups. New York: Wiley.
- Thibaut, J. W., & Kelly, H. H. (1991). The social psychology of groups. Burnswick, NJ: Transaction Publishers.
- Thomas, K. (1976). Conflict and conflict management. M. D. Dunnette, (Ed.), Handbook of Industrial and Organizational Psychology (pp. 889-935). Chicago, IL: Rand McNally.
- Thomas, K. (1992). Conflict and negotiation processes in organization. In M. Dunnette, & L. M. Hough, Handbook of Industrial and Organizational Psychology (2nd ed.). Volume 3. Palo Alto, CA: Consulting Psychologists Press.
- Thompson, L. L. (1990). Negotiation behavior and outcomes: Empirical evidence and theoretical issues. *Psychological Bulletin*, *108*, 515-532.
- Thompson, L. L. (1991). Information exchange in negotiation. *Journal of Experimental Social Psychology*, 27, 161-179.
- Thompson, L. L. & Hastie, R. (1990). Social perception in negotiation. Organizational Behavior and Human Decision Processes, 47, 98-123.
- Tjosvold, D., & Fabray, L. J. (1980). Motivation for perspective-taking: Effects of interdependence and dependence on interest in learning others' intentions. *Psychological Reports, 46*, 755-765.
- Tjosvold, D., Johnson, D. W., & Jonson, R. (1984). Influence strategy, perspective taking, and relationships between high- and low- power individuals in cooperative and competitive contexts. *The Journal of Psychology, 116*, 187-202.

- Thompson, L., Peterson, E., & Kray, L. (1995). Social context in negotiation: An information processing perspective. In Negotiation as a social process (pp. 5-36). R. Kramer & Messick, (Eds.), Beverly Hills, CA: Sage.
- Tjosvold, D., & Sagaria, S. D. (1978). Effects of relative power on cognitive perspective-taking. *Personality and Social Psychology Bulletin, 4*, 256-259.
- Van de Vliert, E. (1997). *Complex interpersonal conflict behavior*. London: Psychology Press.
- Van Lange, P. A. M. (1999). The pursuit of joint outcomes and equality in outcomes: An integrative model of social value orientations. *Journal of Personality and Social Psychology*, 77, 337-349.
- Van de Vliert, E., & Prein, H. C. M. (1989). The difference in the meaning of forcing in the conflict management of actors and observers. In M. A.
 Rahim (Ed.), Managing conflict: An interdisciplinary approach (pp. 51-63). New York: Praeger.
- Von Neumannn, J., & Morgenstern, O. (1947). Theory of games and economic behavior. Princeton, NJ: Princeton University Press.
- Walton, R. E., & McKersie, R. B. (1965). A behavioral theory of labor negotiations: An analysis of a social interaction system. New York, NY: McGraw-Hill.
- Weingart, L. R., Thompson, L. L., Bazerman, M. H., & Carroll, J. S. (1990). Tactical behavior and negotiation outcomes. *The International Journal of Conflict Management*, 1(1), 7-31.
- Wilson, S. R., & Putnam, L. L. (1990). Interaction goals in negotiation. In J. Anderson (Ed.), *Communication yearbook, Vol. 13.* (pp. 374-406). Newbury Park, CA: Sage.

- Wolfram, W. (1973). Sociolinguistic aspects of assimilation: Puerto Rican English in East Harlem. In R. W. Shuy & R. W. Fasold (Eds.), Language attitudes: Current trends and prospects. Washington, DC: Georgetown University Press.
- Wright, R. (1994). The moral animal: why we are the way we are. New York: Vintage Books.

