

Conflict, Culture, and Complexity:
The Effects of Simple versus Complex Rules in Negotiation

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Abstract

The purpose of this research was to study how differing degrees of complexity in cultural rules for conflict engagement in a professional domain affect negotiation processes and outcomes. Three studies are presented, which hypothesized that more complex rules would result in more constructive conflict dynamics, while simpler rules would have the reverse effect. By eliciting the implicit rules for a negotiation simulation (Study 1), Studies 2 and 3 were able to empirically examine the relationships of high- and low-complexity rules to both subjective and objective negotiation processes and outcomes. Results supported predictions. Implications and next steps are discussed.

Keywords: conflict, culture, complexity, norm, rule, negotiation, game, Prisoner's Dilemma, multiple issues task.

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Let us consider three everyday scenes of human conflict. In our first, Anna and Scott get into their car and immediately begin to argue. Scott feels betrayed by Anna because, moments before at the dinner table, he had been debating intensely with his parents a subject that was very important to him, when Anna broke into the conversation to disagree with him and take his father's side in front of everyone, greatly embarrassing him. Anna usually supports him in arguments or avoids getting involved altogether, but she had thought that in this situation, he would want her to share her opinion, because they were with his family and were discussing a subject she knew a lot about.

In another scene, Maria is frustrated as she speaks to the staff at her new clinic. One of her patients had become upset about the available appointment times and the staff had accommodated him by adding a new slot into her schedule. This went against the policy Maria had asked everyone to follow, which clearly stated that all patient complaints, including those about appointments, should be referred to the medical center's patient advocacy office. This had worked very well in her old clinic in New York and helped make sure everything went smoothly. However, the staff in her new clinic in San Diego seems to be struggling to follow this very straight-forward procedure, saying that there are many times when it would be better for them to try and assist the patient themselves, even if it disrupted clinic flow.

In our final scene, Jeff is trying to help his mother, Sally, talk to the manager of a restaurant. Sally is upset because she felt that their server had been disrespectful to them and she believes he owes her an apology. However, the manager wants to discuss in more detail what

occurred and calls the server over to ask him for his point of view. This only upsets Sally further, as she now feels that the manager doesn't believe her and doesn't value her as a customer. Jeff can see both sides of the argument, but doesn't know how to help.

These three scenes tell stories of conflicts that share a common element. At the core of each story, there was a difference in beliefs about what the expected behavior was for the people in that situation, a difference in their social norms and their implicit rules for conflict. Scott, Maria, and Sally felt that the normative rules were straight-forward and simple: always support your partner, always follow procedure, and the customer is always right. In contrast, Anna, the clinic staff, and the restaurant manager felt that the normative rules were more varied and complex: it depends. This divergence in norm rules represents a group difference that may significantly impact conflict dynamics but one that has yet to be studied. This difference is *conflict rule complexity* and it offers us a novel approach in understanding conflicts and how they may be managed more effectively.

Social Norms & Culture

Social norms have long been recognized as central to human behavior and conflict dynamics are no exception. From the way a perceived role can overtake the behaviors of people in groups (Zimbardo, 1971) to how group habits can actually lead to poor decision-making and groupthink (Janis, 1989), norms have a powerful effect due to the implicit rules they provide people on for determining appropriate social interactions. What is less discussed in terms of norms is how these rules, in essence, describe the social systems inhabited by a group of people who share those norms. In other words, norms are a manifestation of culture and therefore norm characteristics and differences are cultural characteristics and differences. As Geert Hofstede said, "Culture is the collective programming of the mind, which distinguishes the members of

one group or category of people from another” (Hofstede, 1984, p. 51). Indeed, culture prescribes the acceptable rules for behaviors and attitudes and thus norms (Varnum, Grossmann, Kitayama, & Nisbett, 2010; Mervin, 2011). From the rules for what determines ethical business decisions (Vitell, Nwachukwu, & Barnes, 1993) to how group decisions may be made (Gaenslen, 1986) to when to compromise in market negotiations (Briley, Morris, & Simonson, 2000), culture has been shown to drive implicit rules. Culture’s influence on the most basic cognitive processes of negotiation at the individual level such as goal interdependence, social scripts, attribution, and communication practices (Bazerman & Neale, 1983; Triandis, 1989; Markus & Kitayama, 1991; Singelis et al, 1995; Gelfand & Christakopolou, 1999; Adair, Okumura, & Brett, 2001; Gelfand et al, 2013) and on the broadest differences in conceptions of justice at the societal level (Ting-Toomey et al, 1991; Aslani et al, 2013) have helped shed light on how different groups manage conflict.

These findings were possible through the endeavors of cross-cultural research and the development of value-orientation models (cf: Kluckhohn & Strodtbeck, 1961; Hofstede, 1984; Triandis, 1989; Markus & Kitayama, 1991). A recent alternative to the value-orientation approach has been in the study of meta-cultural differences, such as the dimension of tightness-looseness. Tightness-looseness (Gelfand et al., 2006) is the level of strength that social norms have in a given social system and the degree of control that occurs within the system to uphold and enforce those norms. Members of tighter groups have clear understandings of and agreement on cultural rules of conduct and adhere carefully to them. Members of looser groups, in contrast, have more varied and uncertain conceptions of the rules and adhere to them less stringently. This is a new way of understanding cultures as it helps to explain, not what values or priorities that a culture may hold, but what structures and processes are in place to support and

further those values. It helps to explain how cultural groups organize themselves to perceive, pursue, and reinforce their behavioral norms and cognitive orientations. Meta-cultural dimensions such as tightness-looseness explore the *how of cultures* to complement the *what of cultures* that value-orientation research provide. There is as yet little research examining the effects of meta-cultural differences in conflict dynamics and how they may be leveraged for successful negotiations.

One such meta-cultural difference brings us back to the study of normative rules and that is in the area of conflict behavior decision-making. In their review of the existing research, Weber and Hsee discuss the need for greater examination of the effect of culture on decision-making as the knowledge bases are “not just low, but are inadequate” (2000, p.34). While there may have been little research in this area in the field of psychology, other fields of study, have made it a focus of research and can provide tools for us to employ in our own efforts. Applied mathematics is one such field and they have long explored decision-making rule systems through the study of rule complexity. They have found this complexity to be a key characteristic of mathematical systems and their dynamics and the same may be true for social systems as well.

Rules & Complexity

Complexity, be it cognitive complexity in individuals or system complexity in groups, have been found to have significant impact on social systems and problem-solving. Psychology has taken on the task of studying the cognitive complexity by measuring the complexity of the cognitive rules that individuals use to process and analyze information (Harvey, et. al., 1961; Tetlock, 1985). This measurement has been a powerful predictor of distinct cognitive, affective, and behavioral patterns. Higher degrees of complexity have been associated with more positive self-reinforcing tendencies, from greater intellectual capacity (Perry, 1970), moral development

(Kohlberg, 1981), and psychological health (Suedfeld & Tetlock, 1977), to intercultural sensitivity (Bennet, 1993), and more constructive interactions in moral debates (Kugler, Coleman, & Fuchs, 2011). Higher complexity in situations of conflict has been associated with the likelihood of reaching mutually beneficial compromise agreements (Pruitt & Lewis, 1975), successful diplomatic communications (Suedfeld & Tetlock, 1977), and employing cooperative tactics during negotiations (Driver, 1965). A high level of political thinking (Rosenberg, 1988)—which correlates with cognitive complexity, integrative complexity, tolerance for ambiguity, and moral development—has been found to be associated with reduced vulnerability to the influence of emotions on destructive orientations toward conflict (Conway, et al., 2001; Golec & Federico, 2004). In contrast, a reduction in psychological complexity has been associated with conflict escalation. Factors such as stress, anxiety, and emotional intensity can impair cognitive processes, promoting a more simplistic and polarized view of otherwise complex and nuanced situations (Conway, Suedfeld, & Tetlock, 2001; Pruitt & Kim, 2004; Winter, 2007). Under heightened threat to one's safety, for example, people's cognitive processes tend to promote overly simplistic, rigid, black-and-white perceptions, thoughts, and judgments (Osgood, 1983).

A decrease of complexity within individuals, groups, or in perceptions of out-groups has been found to be associated with a variety of psycho-social factors including low-complexity structural arrangements (pyramidal-segmentary structures, Campbell & Levine, 1972; Varshnay, 2002), social networks (low versus high intergroup connectivity, Bui-Wrzosinska & Nowak, forthcoming), norms (tightness-looseness, Gelfand, et. al. 2006), various psychological factors (high need for closure, Webster & Kruglanski, 1994; low social-identity complexity, Roccas and Brewer, 2002; low integrative complexity, Tetlock, 1982, etc.), as well as cultural value orientations (high uncertainty avoidance, Hofstede, 1980). The prevalence of such conditions

across levels would likely increase the general propensity of a people for perceptive simplicity; viewing members of their own and other groups in more essentialized terms.

Applied mathematics lead the way in studying system complexity through the measurement of the complexity of its rules structure. Systems of logic where rules for decision-making include more clauses are considered to be more complex than systems that employ fewer clauses (Zadeh, 1965). Just as cognitive complexity has been associated with constructive conflict resolution, an analogous relationship also appears to exist between rule complexity and social dynamics. Fuzzy logic, which is particularly high in complexity, has been found to produce models that were more flexible and successful in responding to customer service needs than simple systems (Chen, 1996), more nuanced explanations and predictions of market fluctuations (Badredine, 2006), and more adaptive robot navigation programs (Yen & Pfluger, 1992).

Such methodologies suggest we may be able to assess the complexity of social systems, such as that of a group's implicit rules for conflict. Complexity is conceptualized as the size of the algorithm—the number and length of the rules and its clauses—needed to describe the system (Kolmogorov, 1968). This method may be applied to measure the social system complexity by using behavioral norms and rules in lieu of computational equations. In other words, are the group's logical rules—the IF x, THEN y equations—for conflict very simple and straight-forward (for example: “If someone is my partner, they will always support me in public” or “If the customer is unhappy with an employee, the customer is always right”)? Or are the rules more complex and nuanced (for example: “If someone is my partner, they will sometimes support me in front of others unless it is in front of people very close to us and if they have something critical to contribute” or “If the customer is unhappy with an employee, the customer

might be right or wrong, depending on what occurred with the employee and this must be investigated”)? Structural characteristics such as these distinguish rules of low complexity (more simple models of IF x, THEN y) from those of higher complexity (more nuanced models of IF x, THEN y, UNLESS a, b, or c).

The relationship between normative rules (or cultural) complexity and conflict should be consistent with previous findings on complexity and conflict. More complex cultural norms for conflict are expected to have positive effects, both on the subjective experiences of conflict negotiators and on the objective outcomes of their negotiations. Subjective experiences include satisfaction with the negotiation process, outcomes, and attitudes towards the other party as well as towards oneself (Curhan, Elfenbein, & Xu, 2006). Objective outcomes, such as the accumulation and distribution of valued resources—offer an additional and important measurement of the constructiveness in a conflict dynamic. Therefore, we posit the following hypotheses.

Hypothesis I: Higher degrees of conflict rule complexity will be positively associated with more constructive subjective experiences in conflict.

Hypothesis II: Higher degrees of conflict rule complexity will be positively associated with more constructive objective outcomes in conflict.

Thus, the purpose of this research is to investigate how cultural group differences in degrees of conflict rule complexity affect subjective and objective responses in a negotiation. Through this investigation of rules, we aim to offer a new lens for understanding the effects of culture on conflict negotiations, as an alternative to comparing value typologies. While value orientation research has addressed how the content of a culture’s focus and worldview effect conflict, the

process by which the culture enacts these values is not as well understood. The dimension of *cultural differences through conflict rule complexity* helps to fill this gap.

Conflict rule complexity is the degree to which social systems allow for simple or complex decision-making processes in pursuit of disputant's goals. Unlike value dimensions, conflict rule complexity is a meta-cultural dimension, a structural dimension, albeit internalized. In other words, low and high complexity rule sets establish qualitatively different structures within which conflicts are negotiated. A low degree of (IF x, THEN y) rule complexity results in more simple decision matrices and a high degree of rule complexity results in more complex decision matrices.

Overview of Studies

Three studies were conducted to explore the relationship between rule complexity and conflict dynamics. Study 1 was conducted to: (a) test the assumption that common rules exist that govern conflict interactions; (b) that these rules may vary in their degree of complexity through the measurement of clauses; and (c) elicit the implicit rules for negotiation associated with a specific negotiation simulation to be used in the studies to follow. In Study 2, the rules elicited in Study 1 were used to empirically test the effects of rule complexity on the subjective and objective responses in negotiation simulations. Study 3 was developed to better detect integrative behaviors for the objective responses, as well as to further support subjective response effects and to explore the moderating effect of individual differences in Need for Closure.

Study 1

The aim of the first study was to test our assumptions around rules of engagement for a negotiation: that there are rules with consistent themes that govern negotiations and that they may differ in their degrees of complexity. A qualitative interview process was used to elicit the rules and these were then assessed for their levels of complexity. A negotiation simulation, a Prisoner's Dilemma game iterated for five rounds, was used to provide a contextual framework for the interview, as well as to test and prepare a simulation for the studies to follow.

Method

Participants. Twenty-two participants were brought in as dyads (11 dyads) to take part in this study. The 22 participants were paired by availability, after ensuring that the individuals within each dyad were not familiar with each other. They were graduate students recruited through classroom advertisements at a large northeastern university in the United States and comprised of 18 women (81.8%) and 4 men (18.2%). Their ages ranged from 22 to 61 years old ($m=34.74$) and their ethnic representation were 54.5% European/White, 4.5% African/Black, 18.2% Hispanic/Latino, 9.1% Asian/Pacific Islander, and 13.6% other. Each dyad was compensated \$25 total, with distributions being either \$10.00/15.00 or \$12.50/12.50, depending on the outcome of their simulation experience.

Procedure. Participants arrived in dyads at the laboratory where they were provided with informed consents and an orientation to the simulation. Two research assistants facilitated the simulation, where the participants would play the role of divorce attorneys negotiating a settlement for their clients. To encourage engagement and investment in the negotiation process, the research assistants described the game outcomes in terms of achievement as well as competition, and also offered an additional \$5 for the winning participant or an additional \$2.50 for tied participants. After the negotiation was concluded and a winner announced, the

participants were brought into separate rooms where they were each interviewed by one of the research assistants. An interview protocol was used to delve into the participants' experience of the simulated conflict to identify what implicit rules they used to determine their responses to the other player. The protocol included asking the participants to explain why they chose to cooperate or compete at each decision point, why they held this reasoning, what would have altered the course of their reasoning, where these reasons came from, and what they thought and felt about them all, as well as identifying any contradictions and asking for further clarification. (The word "rule" was avoided to minimize demand characteristics.) The interviews lasted approximately 30 to 120 minutes, depending on the participant, following which they were debriefed and compensated.

Results. The participants' interview responses were recorded by hand, in verbatim, by the research assistant who conducted the interview. These were collected and catalogued for the following: the *themes* that the rules governed (such as those regarding what emotions to feel, when to trust, how to handle power, what would determine fairness); the *conditions* being attended to (or IF statements, such as "if what they did doesn't match what they said they would do", "if they seem pretty friendly", "if they don't make much eye contact", "if they raise their voice"); and finally the *consequences* directed by the conditions (or THEN statements, such as "then try to help", "then make the other person lose", "then try to preserve the relationship", "then don't trust the other person"). This process revealed that certain themes were critical to the participants and appeared in all the interviews: those of trust, justice/fairness, and interdependence/relationships. There was also agreement among the 22 participants of the directional relationship between specific condition-consequence pairings. For instance, the participants explained that IF the other person did not do what they said that they would do,

THEN they would trust them less by some amount than before; none of the participants said that they would trust the other person more. Many also explained that IF the other person was doing something they believed to be unfair, THEN they would feel more comfortable doing something unfair themselves. These patterns suggested that there were general rules of engagement which participants recognized as being both natural and vital in the context of our simulation, and therefore they could form the basis of our rule manipulation in the subsequent studies.

We then assessed the individual rules under the identified key themes—trust, justice, and interdependence—for their levels of rule complexity. This was done by looking at the number of conditions and consequences that were necessary to describe each rule and counting the segments that make up each part of the rule (see Table 1). For instance, a rule may have as little as one condition clause (IF x) and one consequence route (THEN y), which resulted in a rule complexity score of two. Alternatively, it may have four condition clauses (IF a and b or c unless d) and two consequence routes (THEN e or f), resulting in a score of six. This approach revealed variance within each theme, showing that the rules regarding the same theme could differ from each other in their levels of complexity (see Table 2).

To assist in the studies that follow, five condition-consequence pairings were identified that appeared frequently in the participant interviews and the most simple version of these pairings with complexity scores of two (IF x, THEN y) constituted our simple rules set, while more complex versions with complexity scores of five through seven (ie: IF x and a or b or c or d, THEN y) served as our complex rules set. The degree of complexity was loaded on the condition portion of the pairings, as this reflected the rules elicited from the participants. The language of the rules was standardized and formatted for ease of comprehension. For the complex set of rules, this became: IF x, THEN y, unless a or b or c or d; where “unless” acted as

a way to organize all additional condition clauses at the end of the rule. This allowed us to have two sets of rules which dealt with the same condition-consequence relationships and were very similar with each other, except for the differing levels of complexity due to the number of additional clauses in the high complexity set (see Table 3).

Study 2

This study marked the beginning of our quantitative research: the purpose was to empirically test the effects of cultural group differences in rule complexity on negotiation experiences and outcomes. Cultural research is often conducted by using national or racial demographics as analogs for cultural indices, however, we chose to adopt another methodology. We instead aimed to bring culture directly into the lab, to operationalize a component of culture (negotiation rule complexity), to manipulate it in a controlled design and thus study its effects in a carefully prepared environment. Therefore, cultural rule complexity was operationalized in this study in the form of rule sets that participants were asked to follow during their negotiation simulations. Cultural differences were represented by the differences in the rules between the low complexity and high complexity rules that were previously elicited for the negotiation simulation.

Participants were brought in as dyads to engage in the same negotiation simulation which was used in Study 1 to elicit the rule sets. The context of the game (two divorce attorneys representing their clients at a settlement negotiation) and the mechanics of the game (five-round, iterated Prisoner's Dilemma) remained the same. This continuity allowed for the rules elicited from the participants in Study 1 to have maximal relevance for the participants in Study 2. Investment in the simulation was assisted by descriptions of the simulation as a competitive game, as an achievement, and by announcing that the winner would receive an additional \$10 for

their compensation (this \$10 would be split equally between the participants in the case of a tie). A change in the study format from Study 1, however, was that the dyads were now assigned to one of two conditions: low degree of rule complexity or high degree of rule complexity. These two levels were manipulated by providing the dyads with either a set of low or a set of high complexity rules, which had been generated in Study 1 (see Table 3), and instructing them to follow them as closely as they could. To assess the participants' subjective experiences of the conflict processes, negotiated outcomes, relationship with the other negotiator, and their own selves as negotiators in the negotiation, the Subjective Value Inventory (SVI; Curhan, Elfenbein, & Xu, 2006) was utilized. The overall point totals from the Prisoner's Dilemma simulation, accrued as dyads, were also collected to assess if objective outcomes were affected.

Method

Participants. Eighty individuals (40 dyads) participated in Study 2, including 23 men (28.8%) and 57 women (71.2%), with ages ranging from 21 to 56 years old ($m=28.9$, $SD=7.2$). Their ethnic backgrounds were European/White (46.25%), African/Black (12.5%), Latin/Hispanic (11.25%), Asian/Pacific Islander (26.25%), and other (6.25%), with two participants reporting multiple backgrounds. Recruitment took place through classroom advertisements at the same large northeastern university as Study 1. The 80 participants were paired by availability, after ensuring that they did not know the other person in the dyad and also that they did not participate in Study 1. Each dyad received \$50 as compensation, with the distribution being \$20/30 or \$25/25. Of the 80 participants, four provided incomplete data on their surveys and were removed from analysis.

Rule Complexity. The degree of rule complexity was the independent variable of interest and there were two levels: low or high degree of complexity. This was manipulated using the

two corresponding sets of rules of engagement that were elicited during Study 1 and phrased for consistency and ease of understanding (see Table 2). Each low complexity rule had a corresponding high complexity rule, addressing the same theme and suggesting the same response, but the high complexity rule included many more conditions that must also be in place for the response to be invoked. Therefore, the low complexity set represented cultures that have simple and straightforward rules for behavior (for example: “eye for an eye”, “with us or against us”). The high complexity set represented cultures that have more complex and nuanced rules for behavior.

Subjective Measures. The Subjective Values Inventory (SVI) was used to measure the cognitive and emotional responses to the conflict simulation. A series of 7-point Likert scales, the SVI provided subscores for the participants’ reactions towards the processes ($\alpha=.853$), relationships ($\alpha=.899$), self ($\alpha=.696$), and outcomes ($\alpha=.782$) in the conflict and each of these subscores were included in the analysis of the subjective dependent variables.

Objective Measures. The final points of each participant in a dyad were added together to produce a total score for the dyad. These were collected as their dyadic game sums and included as the behavioral dependent variable.

Procedure. Each dyad was randomly assigned to one of two conditions: low or high level of complexity of rules of engagement. When they arrived at the laboratory, they were guided through the informed consent, introduced to each other, and instructed as to the mechanics of the simulation. They were provided the rules of engagement appropriate for their condition—low or high complexity—and asked to carefully follow the rules to the best of their ability. They then engaged in the simulation. After all five rounds were completed, they were asked to complete a

survey, which included the subjective measures and demographics. Finally, the participants were debriefed and compensated accordingly.

Results. A t-test between the results of the two conditions showed a positive correlation between level of rule complexity and participants' subjective experiences in all four subscore areas. Dyads in the high complexity condition reported more positive subjective responses than those in the low complexity condition for the negotiation processes, $t(74)=2.966$, $p<.004$; feelings about the relationships, $t(74)=2.567$, $p<.012$; feelings about themselves as negotiators, $t(74)=3.050$, $p<.003$; and outcomes, $t(74)=2.503$, $p<.015$ in their conflict simulation. Hypothesis I was supported.

Objective results in the form of point totals from the Prisoner's Dilemma were also compared between the two conditions. The range of dyadic game sums were -1200 to 3600 and the overall standard deviation was high at 1123. While the high complexity group ($m_{\text{complex}}=1381$, $SD_{\text{complex}}=1002$) reported a higher mean for the game sum than the low complexity group ($m_{\text{simple}}=1069$, $SD_{\text{simple}}=1233$), the difference was not significant and therefore inconclusive. Hypothesis II was therefore unsupported.

Study 3

Study 3 was developed to allow us to further investigate the objective, behavioral effects of the rules of engagement complexity. In study 2, the negotiation simulation utilized the Prisoner's Dilemma format and, therefore, there were only two behavioral response choices available to the participants: to cooperate or to compete. At each round, they could choose to cooperate with the other participant in hopes of working together and sharing in the points for that round or they could choose to compete with the other participant in hopes of receiving all the points in that round and preventing the other from gaining any points. As the participants

only had these two options to choose from, it may not have provided participants with adequate behavioral choices to be able to show differences between the conditions. The negotiation simulation was therefore adjusted to allow more opportunities for integrative bargaining, greater range of cooperation-competition, and higher number of responses to be collected. The contextual premise of the two divorce attorneys negotiating a settlement for the clients remained the same to ensure rule relevancy, but the Prisoner's Dilemma format was replaced with a multiple-issues task model (citation?). The simulation now consisted of 10 iterations of negotiations with four of the issues being a different priority for each negotiator. Of the four priority issues of each negotiator, three of them were independent and not shared by the other party, while one of them was dependent and was also a priority for the other party. The decision levels available to the participants did not allow for a 50-50 split between them, forcing one participant to come out ahead of the other for the round and thereby encouraging greater engagement in the decision-making process.

Method

Participants. Ninety participants (45 dyads) at a large north-eastern university in the U.S. contributed to Study 3. They included 73 women (81.1%) and 17 men (18.9%) and their ethnic backgrounds included European/White (41.6%), African/Black (9.0%), Latin/Hispanic (6.7%), and Asian/Pacific Islander (39.3%), with three people reporting multiple backgrounds (3.4%). Like previous studies, the 90 participants were paired and scheduled by availability and precautions were taken to ensure that they did not know each other nor participated in either of the earlier studies. Each participant was provided \$25 as compensation as well as entries to a drawing for \$250.

Rule Complexity. The manipulated variable of low and high complexity rules was the primary independent variable of interest. This was again manipulated using the two corresponding sets of rules of engagement that were elicited during Study 1 and phrased for consistency and ease of understanding

Subjective Measures. The subjective experiences of the participants were measured using the SVI, which provided four subscales for the participants' experiences in the negotiation and their satisfactions with the conflict processes ($\alpha=.832$), relationships with the other negotiator ($\alpha=.884$), feelings about themselves ($\alpha=.471$), and final outcomes ($\alpha=.673$).

Objective Measures. The points earned during the negotiation simulation provided the objective measures. The points for the non-priority issues were logged at the same value for that round. The points for the priority issues were multiplied by the weight associated with the issue and then logged in the new value. This allowed for four objective effects to be measured. First was the round sum, which was the total points earned for each round by the dyad together, with weight provided for the individual score on priority issues according to the level of priority. Next, the game sum was calculated by adding up the total individual points for the dyad. Then came the round difference, which was the difference between the two individual point scores within a dyad at each round, also with appropriate weights provided. Finally, the game difference was calculated by finding the difference between the two total individual points for the dyad.

Procedure. Dyads were randomly assigned to either the low or high complexity rules conditions. They were each asked to fill out a pre-survey online to assess their level of tightness-looseness. On the day of the laboratory portion of the study, the participants were greeted, offered informed consent, introduced to each other, and oriented to the simulation, including the

rules of engagement for their study condition. To enhance investment in the process and standardize the explanation of the now more intricate mechanics of the negotiation, videos were created where the two divorcing spouses explained the situation, their priorities in the negotiation, the reasons for their priorities, and a personal plea to advocate for them. Afterwards, they engaged in the 10 rounds of the simulation. Next, they were provided surveys, which included the subjective measures and demographics. Finally, they were debriefed and compensated for their time.

Results. Rule complexity had a significant effect on the subjective experience of the participants. A t-test revealed that dyads in the high complexity condition reported more positive responses than those in the low complexity condition in regards to conflict processes, $t(88)=2.769$, $p=.007$; relationship with the other party, $t(88)=3.378$, $p=.001$; and the self, $t(88)=2.236$, $p=.028$. One subjective subscore, that of satisfaction with the outcome, $t(88)=1.223$, $p=.224$, was not significant. Therefore, Hypothesis I was partially supported (see Table 5).

T-tests between the two conditions showed that the degree of rule complexity was positively correlated with the objective, behavioral outcomes as well, with high complexity rules leading to higher game sum scores, $t(43)=2.415$, $p=.018$, and lower game difference scores, $t(43)=2.711$, $p=.008$, than the low complexity rules. Profile analysis also indicated that high complexity dyads also finished the simulation with higher round sum scores, $F(1)=5.321$, $p=.023$, and higher round difference scores, $F(1)=7.976$, $p=.006$. Thus, Hypothesis II was well supported in this study (See Figures 1a, 1b, 2a, and 2b).

Discussion

This research revealed that differences between groups in their conflict norms may be measured for their degrees of rule complexity. These differences exhibited significant effects on our negotiation experiences and outcomes, both subjectively and objectively. While these rules represent culture-level systems, we did not study them through the traditional value orientation methodologies. Rather than manipulating the value content of the rules (such as making one rule set more collectivist than the other, or more long-term oriented than the other), we manipulated instead the structure of the rules. We found that higher complexity rules for negotiation led to generally more positive dynamics and outcomes. In Study 3, the high complexity group outperformed the low complexity group in points scored in each round and in total. On top of this, they also finished the simulation with lower game difference scores, which indicates that they completed the game with a more even distribution of the points than the low-complexity condition negotiators. This is made even more astonishing by the fact that the high complexity group also had greater differences in the points distributed in each round. These two results could only occur if the two participants took turns making large concessions to each other, and yet they were still able to finish the game with a more equal share of the total points. The low complexity group participants scored more similar number of points in each round, indicating smaller concessions, and ultimately ended the game with a more uneven distribution of their points.

These are greatly promising results for application. With more complex rules leading to such favorable results, negotiators would benefit from a reflection on their own implicit rules for conflict resolution. Are their decision rules simple and straightforward, but perhaps ill-equipped to address the complexities and nuances of different possibilities? Can new rules be developed or existing rules be refined that could tap into the constructive opportunities that may surface in a

conflict? In addition to raising awareness of negotiator's own rules, a sensitivity to the other party's rule structure can be of great utility to conflict professionals. Understanding that different groups will vary in their levels of rule complexity can assist negotiators and mediators in preparing for these encounters. Furthermore, the positive effects in our studies were produced with only the five rules used in the manipulation, suggesting that a positive impact could be gained through the adoption or adjustment of just a small number of basic rules.

There is, however, a curious relationship between complexity and subjective results in our research. Study 2 showed significant positive effects across all four subscores of the SVI, but Study 3 showed positive effects for three, leaving one: satisfaction with the outcome did not differ between the low and high complexity conditions. The inconsistency of the results may be due to chance only. However, it may also be due to a change in the negotiation simulation. Of particular note is this adjustment: in Study 2, participants were aware of their own score as well as the score of the other party, but in Study 3, participants were only aware of their own score. It may be that knowing the outcomes for both oneself and the other may be needed to enjoy the positive effects of rule complexity on outcome satisfaction. This is relevant to practice as knowledge of the other's outcome is not always available to negotiators and yet much attention is given to this one component of the negotiation experience.

Another interesting relationship found by comparing the studies is that subjective and objective responses may be orthogonal. In Study 2, the high complexity group reported greater satisfaction with the outcome than the low complexity group, even though their objective outcomes were not significantly different. In Study 3, the high complexity group recorded higher objective results, and yet they did not report greater satisfaction with the outcome than the low complexity group. How did this occur and what are the implications? One explanation may

be that in Study 2, the higher complexity rules, with the additional clauses that allowed for more kinds of behaviors to be acceptable, led to a greater perception of procedural justice than the low complexity rules, thereby increasing the sense of fairness in the experience (Lind, 1988; Leventhal, 1980; Leventhal et al., 1980). In Study 3, the simulation structure itself may have allowed for more process control and voicing of arguments in both conditions, thus providing adequate procedural justice for all participants. Colquitt et al.'s (2001) meta-analytic study of 183 justice studies corroborates this effect, finding that procedural justice was a stronger predictor of person-level outcome satisfaction than distributive justice, such that the significant differences in objective results may have been overshadowed by the procedural fairness experience's boost to outcome satisfaction. This result also suggests that only increasing objective gains may not necessarily affect one's subjective experience and satisfaction and, therefore, distribution of the desired resources alone should not be relied on to improve outcome satisfaction.

In addition to these interesting results, there is an important limitation to these studies to be considered. Studies 2 and 3, where the empirical research was conducted, placed participants within a dyad in the same rule complexity condition. Therefore, both participants in a dyad were given the same set of rules to follow. However, many conflict situations in practice do not have negotiators with the same level of rule complexity and such mismatches would be important to understand. Therefore, future studies are indicated where participants within a dyad are placed in different conditions and the results are studied to see how the conflict progresses: Will the high complexity negotiator raise the constructiveness level? Will the low complexity negotiator dampen down the positive effects?

At least in one case, the high complexity negotiator was able to raise the constructiveness level of a conflict where low complexity rules were in place. On June 15, 1994, unknown to the American public, President Clinton and his cabinet were considering plans for war with the Democratic People's Republic of Korea. For two years, the US government and the UN's IAEA had called on North Korea to follow international atomic energy treaties to the letter of the law while refusing to consider options outside of complete capitulation by North Korea. North Korea, meanwhile, insisted on maintaining their leverage of the nuclear program unless they were offered a certain level of energy aid. However, this went against US Policy, and the IAEA representative declared that "restrictions on the two facilities are not negotiable" (Sigal, 1999, p. 97). These are examples of low complexity rules. Each side was relying on simple, rigid rules that were directing them towards greater and greater escalation and it was leading the two countries to war. But while deliberations were underway in the Oval Office, a call came in from Former President Carter. He had travelled to North Korea as a non-governmental civilian with hopes of speaking with President Kim and convincing him to resume talks with the United States. This was not part of any established protocol or regulation. Carter had received information on the issues and permission to travel, but he had no authority to speak for the United States, nor did he agree to adhere to the administration's policies or positions. After meeting with Kim and conferring with Clinton, Carter arranged for negotiations to resume between the two countries and he spoke out publicly against actions taken by the United States, such as the threats of sanctions. By October 1994, the Agreed Framework (Sigal, 1999) was established, the key components of which were the abandoning of nuclear weapons program by North Korea in exchange for light-water reactors, the same proposal as the one first brought up at the start of the tensions. Carter's ability to intervene successfully was at least in part due to his

higher complexity rules for conflict which allowed him to consider more kinds of responses as acceptable and more kinds of solutions as possible. Had he approached Kim with the same degree of rigidity as the Clinton Administration or the IAEA, it is likely he would have fared as they did.

Many questions still remain in understanding how these rules for social interaction affect conflicts. One step in answering these questions is to compile these and future studies to generate a mathematical model of rule complexity in conflicts. Such a model would offer projections of complexity effects over time and greater number of parties may be included in its equations. This would help provide insights on a micro and macro level, as well as allowing for cross-level interactions. Certain patterns may be demonstrated in short-term effects, while other patterns may only emerge over longer periods of interactions. And as these rule systems and norms make up the mechanics of a group's culture, examining them provide us with a new understanding of cultures through the quality of their structures. The consideration and application of value orientations have vastly enriched our awareness of conflict and culture, and our application of complexity into this study is in hopes of advancing our understanding of this important intersection and expanding the ways in which we aim to study it.

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