Cultural contingencies of mediation: Effectiveness of mediator styles in intercultural disputes

ELIZABETH D. SALMON1*, MICHELE J. GELFAND1, AYŞE BETÜL ÇELİK2, SARIT KRAUS3,5, JONATHAN WILKENFELD4 AND MOLLY INMAN4

1Department of Psychology, University of Maryland, College Park, MD, U.S.A.
2Conflict Analysis and Resolution Program, Sabancı University, Istanbul, Turkey
3Department of Computer Science, Bar-Ilan University, Ramat Gan, Israel
4Department of Government and Politics, University of Maryland, College Park, MD, U.S.A.
5Department of Computer Science, University of Maryland, College Park, MD, U.S.A.

Summary

The difficulties of intercultural negotiations are well established, yet few studies have examined the factors that facilitate the successful resolution of these disputes. This research took a dynamic approach and examined the types of mediation tactics that are most effective in intercultural disputes given specific disputant characteristics. One hundred and ten participants from the United States and Turkey negotiated a community-based dispute in real time from their respective countries using a newly developed virtual lab. Dyads were randomly assigned to negotiate with a formulative computer mediator, a manipulative computer mediator, or in an unmediated control condition. As predicted, the results showed a significant interaction between manipulative mediation and markers of disputant difficulty on Pareto efficiency. Manipulative mediation produced agreements of higher Pareto efficiency in intercultural dyads with more difficult disputants (low openness to mediation, low motivational cultural intelligence (CQ), low trust, and low willingness to concede) but lower Pareto efficiency in dyads with more favorable disputant factors (high openness to mediation, high motivational CQ, high trust, and high willingness to concede). The results for subjective value also partially supported the hypotheses. Theoretical and practical implications for the study of intercultural disputes are discussed.

Keywords: intercultural disputes; culture; conflict; mediation

In a world of increasing globalization, individuals are thrust into situations in which they must communicate and solve problems with people from a variety of cultures. Globalization has increased contact between individuals from diverse cultural backgrounds in diplomatic, military, business, organizational, and community settings, bringing with it a heightened occurrence of intercultural conflicts and disputes. Although the issues at stake in these conflicts may be no different from those that occur between individuals from the same culture, intercultural disputes are plagued by additional difficulties stemming from cultural differences in values (Hofstede, 1980; Schwartz, 1994), norms for communication (Hall, 1976; Hammer, 2005; Ting-Toomey, 1988), and stereotypes (Adair, Taylor, & Tinsley, 2009; Ting-Toomey & Oetzel, 2001). Although theories and research enumerating the difficulties associated with intercultural disputes abound (e.g., Brett, 2001; Gelfand & Brett, 2004; Kimmel, 2000), to our knowledge, there are few studies that have examined the specific factors that help facilitate the resolution of these disputes.

In this article, we examine the types of mediation tactics that are most effective in intercultural disputes. While theory and research on conflict and negotiation have expanded to explore the role of culture (e.g., Gal, Kraus, Gelfand, Khashan, & Salmon, 2011; Gelfand & Brett, 2004; Ting-Toomey & Oetzel, 2001), it has rarely examined the role of mediators in intercultural contexts. And although research on mediation has shown the promise of this technique for improving settlement rates (Druckman, Druckman, & Arai, 2004; Wall & Dunne, 2012;
Wilkenfeld, Young, Asal, & Quinn, 2003), increasing disputant satisfaction (Depner, Cannata, & Ricci, 1994; Druckman et al., 2004; Wall & Dunne, 2012; Wilkenfeld et al., 2003), and creating more durable settlements (Elleman, 1997; Landsman, Thompson, & Barber, 2003), the field of mediation has generally ignored the role of culture (see Bercovitch & Foulkes, 2012; Callister & Wall, 2004; Cohen, 1996; Wall, Arunachalam, & Callister, 2008; Wall, Beriker, & Wu, 2010; Wall & Callister, 1999, for exceptions).

This research is among the first attempts to examine mediation style effectiveness in intercultural disputes and the disputant factors that make certain styles more or less effective. As discussed later, research has cataloged mediation tactics into different styles (Beardsley, Quinn, Biswas, & Wilkenfeld, 2006; Carnevale & Pegnetter, 1985; Kressel & Pruitt, 1985), including **formulative styles** (i.e., making substantive contributions to the dispute by suggesting settlements) and **manipulative styles** (i.e., pressing the disputants to come to an agreement through threats and rewards). On the basis of research showing that manipulative mediation produces better outcomes in difficult disputes (Bercovitch, 1997; Hiltrop, 1985, 1989; Kleiboer, 1996; Lim & Carnevale, 1990; Rubin, 1980; Wilkenfeld et al., 2003), we propose that manipulative mediation will be most effective in intercultural disputes, which are marked by a number of unique challenges. However, we take a dynamic approach and argue that not all intercultural disputes are alike. In other words, there is no “one-size-fits-all” mediation strategy to manage intercultural disputes, and mediation tactics need to match the characteristics of the disputants.

Specifically, participants in intercultural disputes vary on a number of dimensions that affect the dispute manageability or tractability. These dimensions may include characteristics directly related to the dispute, including openness to mediation, willingness to concede, and trust in the other party, as well as more general individual differences such as cultural intelligence (CQ). We hypothesize that although manipulative mediation is much more effective in intercultural disputes with more difficult participants (i.e., those with low openness to mediation, low CQ, low trust, and low willingness to concede), this style is actually counterproductive in intercultural disputes with less difficult participants (i.e., those characterized by high openness, high CQ, high trust, and high willingness to concede). In this research, we emphasize the importance of gathering information on disputant characteristics from the disputants themselves; previous mediation research has frequently relied solely on mediator perceptions of the dispute or archival sources and has not directly assessed the disputants’ characteristics or perceptions (see Hiltrop, 1989; Thoennes & Pearson, 1985; Zubek, Pruitt, Peirce, McGillicuddy, & Syna, 1992, for exceptions).

In what follows, we review the literature on typologies of mediation tactics and the formulative and manipulative mediation styles in particular. We then discuss the implications of the intercultural context for mediation style effectiveness and introduce our dynamic approach, which considers the impact of the interaction between mediation styles and disputant difficulty markers for objective and subjective outcomes in intercultural disputes. We advance specific hypotheses regarding the role of manipulative mediation in different disputant contingencies and present an intercultural disputing experiment conducted through a new intercultural virtual lab with American and Turkish participants in their respective countries. We discuss theoretical and practical implications of the research for intercultural disputing in an increasingly globalized world.

**Dimensions of Mediation Tactics**

**Mediation** has been defined as

>A process of conflict management where disputants seek the assistance of, or accept an offer of help from, an individual, group, state, or organization to settle their conflict or resolve their differences without resorting to physical force or invoking the authority of the law (Bercovitch, Anagnoson, & Wille, 1991, p. 8).

A number of tactics and styles used by mediators help facilitate the resolution of disputes (e.g., Carnevale & Pegnetter, 1985; Kressel, 1979; Kressel & Pruitt, 1985; Touval & Zartman, 1985; Wall, 1981; Wall & Rude, 1985; Wilkenfeld et al., 2003). We examined two mediation styles in the current research. The first is the **formulative mediation style**, which refers to interventions employed to move a party onto a new position by making specific,
substantive contributions to the negotiations (Beardsley et al., 2006; Touval & Zartman, 1985; Wilkenfeld et al., 2003) and includes tactics such as identifying areas of compromise, suggesting solutions, and helping the disputants evaluate potential agreements.

The second cluster of tactics is the *manipulative* mediation style (aka “pressing” mediation; Wall, Chan-Serafin, & Dunne, 2012), which is used to move a party off a previously held position or push the parties toward settlement (Beardsley et al., 2006; Touval & Zartman, 1985; Wilkenfeld et al., 2003) by using power, position, or influence to change the appeal of a given solution (Wilkenfeld et al., 2003). The manipulator makes suggestions to the disputants and uses threats, rewards, and punishments, called “carrot-and-stick” measures, to push for a solution (Wilkenfeld et al., 2003).

These two styles have been widely examined in the mediation literature across multiple disciplines, including psychology and political science (e.g., Lim & Carnevale, 1990; McLaughlin, Carnevale, & Lim, 1991; Touval & Zartman, 1985; Wilkenfeld et al., 2003). Moreover, although the aforementioned literature is largely derived from western samples, it is noteworthy that the formulative and manipulative mediation styles have been found in other cultures. Mediators involved in disputes in Malaysia (Wall & Callister, 1999), Thailand (Callister & Wall, 2004), China (Wall & Blum, 1991), Japan (Callister & Wall, 1997), South Korea (Kim, Wall, Sohn, & Kim, 1993), Turkey (Kozan & Piter, 1994; Wall et al., 2010), India (Wall et al., 2008), and Gambia (Davidheiser, 2005) reported using a formulative mediation strategy (i.e., proposing solutions to disputants) as well as a manipulative strategy (i.e., pushing disputants hard to agreement). On the basis of their theoretical support, empirical stability, and cultural ubiquity, the current research will focus on the effectiveness of the formulative and manipulative styles.1

The Mediation of Intercultural Disputes

Previous studies have explored the effectiveness of formulative and manipulative mediation in intracultural disputes, but to date, there have been few studies investigating which of these styles is the most effective in intercultural disputes. We next consider the implications of the general context of intercultural disputes for the effectiveness of particular mediation styles and then discuss how an analysis of disputant characteristics in intercultural negotiations is critical for predicting tactic effectiveness.

The Intercultural Context of Disputes

Although all conflicts have their difficulties, disputes between parties from different cultures are prone to unique complications that may impact the effectiveness of mediator interventions. Previous research has shown that culture fundamentally shapes negotiator interests, priorities, and strategies (e.g., Adair et al., 2004; Brett et al., 1998; Gal et al., 2011; Gelfand & Christakopoulou, 1999; Gelfand et al., 2002). Disputants from different cultures often do not share the expectations, norms (Ekman & Friesen, 1969; Hammer, 2005; Koopmann-Holm & Matsumoto, 2011), and communication styles (Hall, 1976; Hammer, 2005; Ting-Toomey, 1988) that guide behavior in conflict situations (Kimmel, 2000). Cultural differences complicate effective negotiator coordination (Brett & Okumura, 1998; Gelfand & McCusker, 2002) and may lead to negative attributional processes that further damage the disputant relationship. Moreover, stereotypes amplify the potential for negative outcomes in intercultural dyads (Adair et al., 2009; Brett, 2001; Ting-Toomey & Oetzel, 2001). All of these

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1Research has also uncovered other mediation styles that were not the topic of investigation in this study, such as the reflexive and contextual mediator interventions (Kressel & Pruitt, 1985). Reflexive interventions include the tactics mediators use “to orient themselves to the dispute and to establish the groundwork upon which their later activities will be built” (Kressel & Pruitt, 1985, p. 188). Contextual interventions are those that “alter the climate and conditions prevailing between the parties so as to facilitate mutual problem solving” (p. 191) and include tactics such as dealing with disputants’ anger and structuring the agenda. In the political science literature, the mediator as facilitator or communicator corresponds with both the reflexive and contextual styles (Touval & Zartman, 1985; Wilkenfeld et al., 2003). Given that it was not feasible to explore all possible styles, we selected the formulative and manipulative styles because of their theoretical relevance to the current topic.
factors add additional complications to the negotiation, escalating the dispute intensity and decreasing the desire to reach a settlement.

Given the unique challenges of the intercultural disputing context—which arguably make it a more difficult context for conflict resolution—we theorize that manipulative mediation will generally work best to resolve disputes in this context as compared with formulative or no mediation. Indeed, in support of this notion, manipulative mediation has been found to be more effective in difficult conditions across numerous studies (e.g., Bercovitch, 1997; Lim & Carnevale, 1990; Hiltrop, 1985, 1989; Kleiboer, 1996; Rubin, 1980; Wilkenfeld et al., 2003). In contrast, manipulative tactics are ineffective in low-intensity disputes that are not as difficult (Bercovitch & Houston, 2000; Carnevale & Pegnetter, 1985; Hiltrop, 1985; Lim & Carnevale, 1990), as disputants resent the attempts to control the negotiation (Donahue, 1989; Rubin, 1980).

However, we go beyond the main effects to understand how the specific characteristics of the disputants impact mediation style effectiveness in intercultural disputes. Put differently, we suggest that not all intercultural disputes or disputants are alike; disputant characteristics in some intercultural disputes may make these disputes ripe for settlement, whereas other disputant characteristics make these conflicts even more difficult to resolve. We explore four characteristics of disputant difficulty. The first disputant factor we examine is attitudes toward the third party, specifically disputant receptivity or openness to mediation. Second, we suggest that the disputants’ motivation, specifically their motivational CQ, may play a crucial role in facilitating resolution in intercultural disputes. CQ is an individual’s capacity to function and manage in culturally diverse situations (Earley & Ang, 2003), and motivational CQ refers to an individual’s drive to learn about and function in situations with culturally diverse people (Ang & Van Dyne, 2008). Imai and Gelfand (2010) found that motivational CQ predicted integrative information sequences in intercultural negotiations, which in turn positively predicted joint outcomes, suggesting that disputant CQ, particularly motivational CQ, may help to ameliorate the difficulties of intercultural disputes. The third factor we explore is disputant trust in their negotiation counterpart, an affective component of the negotiation representing the “[acceptance of] vulnerability based on positive expectations of the intentions or behaviour of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395). Trust has been associated with economic outcomes (Olekalns, Lau, & Smith, 2007), contract implementation (Mislin, Campagna, & Bottom, 2011), and reduced rates of deception (Olekalns & Smith, 2009) in negotiations. Finally, we examine the behavioral intentions of the negotiators and in particular how tough they are in terms of their willingness to concede prior to the negotiation. To our knowledge, few studies have examined disputant characteristics from the perspective of the disputants themselves, which was a goal of this research.

On the basis of previous research testing contingencies in mediation, we expect that these measures of disputant difficulty will impact the effectiveness of the manipulative mediation style in intercultural disputes, in terms of both objective economic outcomes and subjective satisfaction. Manipulative mediation should facilitate the successful resolution of intercultural disputes with difficult disputants but should inhibit successful resolution when disputants are less difficult. The experimental design of the study provides an opportunity to examine the impact of these characteristics and their interaction with mediation style while holding constant other aspects of the situation, including the issues under dispute and the parties’ interests. We specifically predict the following:

**Hypothesis 1**: There will be a significant interaction between manipulative mediation and disputant characteristics in intercultural disputes. Manipulative mediation will produce higher economic outcomes (e.g., Pareto efficiency) in disputes with difficult participants (i.e., those with low openness to mediation, motivational CQ, trust, and willingness to concede) but will produce lower economic outcomes in disputes with easier participants (i.e., those with high openness to mediation, motivational CQ, trust, and willingness to concede).

**Hypothesis 2**: There will be a significant interaction between manipulative mediation and disputant characteristics in intercultural disputes. Manipulative mediation will produce higher subjective outcomes (e.g., satisfaction) in disputes with difficult participants (i.e., those with low openness to mediation, motivational CQ, trust, and willingness to concede) but will produce lower subjective outcomes in disputes with easier participants (i.e., those with high openness to mediation, motivational CQ, trust, and willingness to concede).
In this study, we also explored the role of formulative mediation in intercultural disputes. Mediators using a formulative style try to move the disputants on to a new position by suggesting offers. Unlike manipulative mediation, this style tends to perform differently depending on the specific difficulty marker used, and research on this style is inconsistent (Lim & Carnevale, 1990). Thus, we do not put forward specific hypotheses but explore the interactions between it and the disputant difficulty markers.

Study Overview
The study used samples of American and Turkish students located in their respective countries and paired into intercultural dyads. Participants were connected through a virtual laboratory, which combined video conferencing software with a specially designed offer exchange interface that allowed the participants to discuss the dispute in real time. The United States and Turkey differ on a number of cultural value metrics that may impact disputing, including collectivism, power distance, and uncertainty avoidance (Hofstede, 1980), the GLOBE dimensions of assertiveness (den Hartog, 2004) and institutional collectivism (Gelfand, Bhawuk, Nishii, & Bechtold, 2004), cultural tightness (Gelfand et al., 2011), and honor versus dignity orientations (Uskul, Cross, Sunbay, Gercek-Swing, & Ataca, 2011). To date, much of the research on intercultural negotiation has focused on disputes occurring between negotiators from the West and East Asia, and accordingly, the use of the American and Turkish samples broadens the literature to focus on disputes between negotiators in the United States and the Middle East, a region that is both theoretically and practically important.

Unlike field research where mediation styles are measured and correlated with dispute outcomes and characteristics, we used random assignment to place disputing dyads in a formulative mediation, manipulative mediation, or no-mediation condition. Random assignment was necessary to ensure that any differences in outcomes were due to the effects of mediation style. Further, the study also standardized the mediation styles in the mediated conditions by employing a computer agent. Computer agents have been used successfully as mediators in computer science (Chalamish & Kraus, 2007; Lin, Gev, & Kraus, 2011) as well as in traditional conflict resolution studies (e.g., Druckman et al., 2004; Wittmer, Carnevale, & Walker, 1991). The agent was able to react contingently to the disputants’ offer behavior while reliably maintaining a standardized mediation style. As discussed later, our pilot studies ensured that participants believed that the mediator was a real person and that the social presence of the mediator was sufficient to impact the negotiations. We also used measures of disputant difficulty collected directly from the participants. Collecting the difficulty markers and subjective outcome data from the disputants rather than from the mediator avoids potential biases in the measurement of these variables.

Finally, we created a new community-based disputing case entitled Conflict in Oakland Apartments for use in the study. The case was created in collaboration with American and Turkish researchers and was based on in-depth interviews on conflict and negotiation in the two cultures that were conducted by our research team. As discussed later, the case went through an iterative process of pilot testing and revisions designed to ensure that the case was equivalent across both cultures, realistic, clear, and motivating. All case materials are available from the first author.

Methods

Participants

A total of 110 individuals participated in this study (n = 55 American students from a large mid-Atlantic public university and n = 55 Turkish students from a small private university in Istanbul, Turkey). Power analyses revealed that approximately 51 dyads would provide 85 percent power to detect large effects with the reported experimental design and planned regression analyses. Participants were recruited through classroom
announcements, on-campus flyers, and announcements on the universities’ internal Web pages. Experimenters also approached students in public locations on the campuses. Participants received US$20 (or the equivalent) for their participation and were awarded tickets to lottery for US$200 (or the equivalent) on the basis of their score in the negotiation.

The American sample included 25 male and 30 female participants between the ages of 18 and 45 years ($M = 21.2, SD = 4.2$). The majority of the participants identified themselves as European American (61.8 percent, $n = 34$), followed by Asian (20.0 percent, $n = 11$), African-American (7.3 percent, $n = 4$), and biracial or multiracial (3.6 percent, $n = 2$). Four participants (7.3 percent) did not indicate their ethnicity. The majority of the sample described their socioeconomic status as middle class (72.7 percent, $n = 40$), followed by upper class (14.5 percent, $n = 8$) and lower class (9.1 percent, $n = 5$). Two participants (3.6 percent) did not indicate their socioeconomic status.

The Turkish sample included 25 male and 30 female participants between the ages of 18 and 30 years ($M = 21.5, SD = 2.5$). On the basis of collaborator feedback, the ethnicity question was removed from the Turkish demographics questionnaire because of its potential to cause participants discomfort. The majority of the sample described their socioeconomic status as middle class (60.0 percent, $n = 33$), followed by lower class (32.7 percent, $n = 18$) and upper class (7.3 percent, $n = 4$).

**Design and procedure**

The study employed a three-condition (manipulative mediation, formulative mediation, and no mediation) between-subjects experimental design. Subjects were paired into same-gender intercultural dyads, and each dyad was randomly assigned to a mediation condition. Eighteen dyads completed the simulation with a formulative mediator, 19 dyads completed the simulation with a manipulative mediator, and 18 dyads completed the simulation with no mediator. All materials were in English, and the dyads negotiated in English.

The study was conducted in two parts. In Part I, the participants completed an online survey in which they read the disputing scenario, responded to a scale measuring CQ, and completed a demographics questionnaire. The participants completed Part II of the study in laboratory spaces on the two university campuses. Participants were given time to review the disputing scenario at the beginning of Part II. They then completed a prenegotiation questionnaire, which included items measuring openness to mediation, trust, and willingness to concede during the negotiation. After completing the prenegotiation questionnaire, participants reviewed a PowerPoint tutorial that explained how to use the virtual laboratory (discussed later). The participants were instructed by the experimenter to sit at the computer, put on their headsets, and begin their discussion with the other player. The participants were given 28 minutes to negotiate a solution to the disputing scenario; the time limit was set according to pilot results indicating that 28 minutes was a sufficient amount of time to negotiate. When the participants had reached a solution or the time limit expired, they completed a postnegotiation questionnaire, which included a modified version of the Subjective Value Inventory (SVI, Curhan, Elfenbein, & Xu, 2006). Participants in the mediated conditions also responded to manipulation checks about the mediator.

**Disputing case**

The scenario used in the study was a new mixed-motive community disputing case entitled *Conflict in Oakland Apartments*. The case described a dispute between two tenants in a company-owned apartment building. There were five issues under dispute in the case, and each issue was associated with five potential solutions with assigned point values. If the participants agreed on the same solution options for all five issues, they received the number of points associated with each solution option. The case was constructed so that two of the issues were distributive (garbage and noise), two of the issues were integrative (basketball court use and patio use), and one issue represented compatible interests (parking lot access). Thus, the case had integrative potential, in that if disputants shared information on their differing priorities and compatible interests, they could enhance their joint outcome. Figure 1
presents the combined issue chart. The case also included a best alternative to the negotiated agreement (BATNA); if the participants did not come to an agreement in the allotted time or chose to end the negotiations without a full agreement, each player would be automatically assigned a point value equal to that of the least valuable agreement possible (i.e., 280 points for each player). Five disputing dyads received the BATNA because they did not reach an agreement in the allotted time.

In addition to the basic scenario for the disputing case and the issue chart, additional passages were included for the formulative and manipulative mediation conditions. These passages informed the parties that an expert mediator playing the role of the building manager had stepped in to help the disputants come to an agreement. The passage stated:

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<table>
<thead>
<tr>
<th>Garbage:</th>
<th>Player 1</th>
<th>Player 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Player 1 agrees to always put his trash out at 8:00 pm or later.</td>
<td>0</td>
<td>200</td>
</tr>
<tr>
<td>2. Player 1 agrees to pay the doorman to make another trip to pick up his trash when he gets home.</td>
<td>50</td>
<td>150</td>
</tr>
<tr>
<td>3. Player 1 agrees to put his trash out at 8:00 pm or later.</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>4. Player 1 agrees to buy a special can for his trash so it doesn’t smell.</td>
<td>150</td>
<td>50</td>
</tr>
<tr>
<td>5. Player 1 continues to put his trash in the stairwell in the morning.</td>
<td>200</td>
<td>0</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Basketball Court Use:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Player 1 agrees not to use the court to practice on Saturday afternoons.</td>
<td>0</td>
<td>400</td>
</tr>
<tr>
<td>2. Player 1 agrees to leave the court when you and your friends want to use it.</td>
<td>20</td>
<td>300</td>
</tr>
<tr>
<td>3. Player 1 agrees to use the court for only one hour on Saturday afternoons.</td>
<td>40</td>
<td>200</td>
</tr>
<tr>
<td>4. Player 1 agrees to use the court for only two hours on Saturday afternoons.</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>5. Player 1 continues to use the court for as long as he wants on Saturday afternoons.</td>
<td>80</td>
<td>0</td>
</tr>
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<table>
<thead>
<tr>
<th>Noise:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Player 2 continues to be loud late into the morning on weeknights.</td>
<td>0</td>
<td>200</td>
</tr>
<tr>
<td>2. Player 2 agrees to quiet down if Player 1 calls and asks for less noise.</td>
<td>50</td>
<td>150</td>
</tr>
<tr>
<td>3. Player 2 agrees to be quiet after 12:00 am.</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>4. Player 2 agrees to be quiet after 11:30 pm.</td>
<td>150</td>
<td>50</td>
</tr>
<tr>
<td>5. Player 2 agrees to be quiet after 11:00 pm.</td>
<td>200</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patio Use:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Player 2 continues to relax on the patio when he wants.</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td>2. Player 2 agrees to only use the patio for two hours per night.</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>3. Player 2 agrees to only use the patio for one hour per night.</td>
<td>200</td>
<td>40</td>
</tr>
<tr>
<td>4. Player 2 agrees to only use the patio for one hour every other night.</td>
<td>300</td>
<td>20</td>
</tr>
<tr>
<td>5. Player 2 agrees to sit on his terrace and not use the patio at all.</td>
<td>400</td>
<td>0</td>
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<table>
<thead>
<tr>
<th>Parking Lot Access (identical information for both players)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Player 2 (1) agrees that you and other residents can call the local police department to ticket or tow any car blocking the entrance.</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>2. You both agree to recruit other residents to help you move the car out of the entrance.</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>3. You both agree to donate some money to install &quot;no parking&quot; signs at the entrance of the parking area.</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>4. You both agree to go to the building manager and owner to complain about being blocked in.</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>5. Player 2 (1) does nothing.</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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Because the dispute has been impossible to resolve up to this point, a mediator has stepped in to help you and your partner come to a solution. It is very common for mediators to try to help people in difficult conflicts such as the one you will read about. In this study, a trained mediator with extensive experience will try to help you and your partner find the best solution. The mediator will watch as you and your partner exchange offers during the negotiation. When he thinks of an offer that might interest you and your partner, he will send it to you. Even if you and your partner think you may have come to an agreement, the mediator might send you another offer if he thinks that you could improve your agreement. The mediator will likely contact you every 3–4 minutes during your negotiation. Though the mediator is here to help you, you are under no obligation to accept his offers. The mediator cannot force you to accept a final agreement.

Participants in the manipulative mediation condition read a second additional passage, which included a description of the manipulative mediator and explained that he had several means for pressing the disputing tenants to resolve their conflicts. The passage stated:

The conflict with Alex has continued for several weeks. Since the two of you cannot seem to resolve your differences and your arguments have been negatively affecting other tenants at Oakland Apartments, the building manager, Jordan Smith, has stepped in to try to help solve the conflict. In the past, Jordan has tried to treat disputing tenants fairly while also trying to find an appropriate solution. However, he does have some power over the tenants because of his close relationship with the owners of the apartments, the Oakland Company. In the past he has had to use several methods to encourage disputing tenants to settle their arguments. The following options are available to Jordan as he tries to help you and Alex resolve your disagreements. If Jordan chooses to use any of these methods, which he can do at any time, points will be taken away from the points you or Alex earn during the negotiation. To show the cost of each of Jordan’s actions, we have created a points system.

The passage listed three potential punishments that the mediator could use or threaten to use during the dispute. The punishments included both social and financial costs to the participants. If the mediator put a disputant on probation, the penalty was 60 points; if the mediator reported a dispute to the tenant’s workplace, the penalty was 90 points; and if the mediator advised the disputant’s company to evict them, the penalty was 120 points.

The names used in the case reflected the player role assignments and culture of the participants. The general information portion of the case included a brief description of both disputants (e.g., “Alex, a young man from the United States”); this description was altered to reflect the national origin of the participants (i.e., “from the United States” or “from Turkey”) in the player roles and dyad gender (“a young man” or “a young woman”).

The virtual laboratory
The study developed and utilized a “virtual laboratory.” During the negotiation session, participants communicated using the ooVoo video conferencing software (www.oovoo.com), which allowed them to both see and hear their partner in real time. Participants also interacted through a Web-based negotiation interface, which they used to send their formal offers. The interface communicated real-time information about the participants’ negotiation to the agent mediator. The interface allowed participants to send and receive proposals from the other negotiator and the mediator, as well as to accept and reject offers. Participants were able to make partial offers (i.e., they did not have to send proposals with solutions for all five issues). When the dyad reached an agreement on all five issues, both disputants had to enter the terms of their agreement. The agreements were not binding until a final agreement was submitted. The interface recorded the offers and responses, the final agreement if one was reached, and the number of rounds taken to reach resolution.

Agent mediator
The mediator was played by a computer agent programmed to mediate using either a formulative or manipulative mediation style. All mediator proposals and messages were sent as text messages that appeared in the center of
the negotiation interface window, and participants had to manually close each mediator message to continue using the interface. In both mediated conditions, the mediator sent an introductory message to the participants that explained his role in the dispute and, in the manipulative mediation condition, that he could enact punishments against the participants. See Table 1 for the mediator introductions and sample offer, threat, and punishment messages.

The mediator in the study was based on AutoMed (Chalamish & Kraus, 2012), an automated mediator shown to produce better settlement rates, faster settlements, and greater negotiator satisfaction than unmediated negotiations; the AutoMed mediator was then adapted to program the manipulative mediator used in the current study (see details of the agent design in Lin et al., 2011). The agent mediator in both conditions was programmed to maximize the social welfare of the participants’ agreement. The agent was programmed with information about how the players ranked each issue in terms of importance, which was based on the point value of the issues, but the agent did not have complete information of the players’ issue charts. The agent considered proposing a solution to the participants each time a proposal was made or accepted by one of the participants. From the players’ proposals, the agent identified the issue or issues relevant to the players’ current discussion. The agent then used the players’ proposals to calculate a set of potential solutions, which were ordered according to the estimated joint rankings and consequent estimated social welfare. The agent discarded any solutions with a lower estimated social welfare ranking than the players’ last offer or any solutions that were estimated to be non-Pareto-optimal. Usually, the agent made offers only if it estimated that they would improve the utility of both sides. However, if the proposals of the sides were very far from one another, it considered proposals that might improve the utility of only one of the negotiators. Once it determined an acceptable solution, the mediator determined whether to send it to the participants. It did not send an offer if the offer had already been proposed in the mediator’s last two messages. Furthermore, if an offer had been proposed by the negotiators in the previous 1.5 minutes, the mediator did not repeat the proposal. The agent sent the proposed solutions to the

Table 1. Sample mediator messages.

<table>
<thead>
<tr>
<th>Mediator intervention</th>
<th>Sample message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulative mediator introduction</td>
<td>Hello, my name is Jordan. I understand that the two of you have been having a conflict and have been unable to resolve it. I am the building manager and will try to help facilitate an agreement between the two of you today. Please go ahead and begin discussing the situation. I will send suggestions throughout your discussion.</td>
</tr>
<tr>
<td>Manipulative mediator introduction</td>
<td>Formulative mediator introduction + If I think that one or both of you are not cooperating, I have several options to push you to come to an agreement. I can put you on probation, tell my friends at the Oakland Company that you are a troublemaker, or advise the Oakland Company to evict you from the Oakland Apartments. If I decide to use any of these tactics, points will be taken away from your final score. I hope there will be no need for me to impose these sanctions.</td>
</tr>
<tr>
<td>Proposal message</td>
<td>I believe you could achieve a high score on the patio issue, if you would be willing to compromise on the basketball court issue. Please look at the following solution: Noise: Patio: Deniz will not use the patio. Garbage: Basketball: Alex will not use the court on Saturday. Parking:</td>
</tr>
<tr>
<td>Manipulative mediator threat message</td>
<td>You are not cooperative. You made too many bad offers. I can put you on probation, so that if you cause more problems, you’ll be kicked out of the complex. This would embarrass you in front of your friends in the complex, since I would have to let everyone living in the apartments know that you are on probation and that they should report you if you cause any problems. Points: −60</td>
</tr>
<tr>
<td>Manipulative mediator punishment message</td>
<td>You are not cooperative. You made too many bad offers. Your penalty is −60</td>
</tr>
</tbody>
</table>
players throughout the negotiation session, and each proposal message was sent to both players. There was also an upgrade phase; if a full agreement was reached, the mediator determined whether the final agreement could be improved, and if so, it sent an improved full-agreement proposal to the negotiators.

The manipulative mediator was programmed to send predefined threat and punishment messages to the players. These messages were triggered by several negotiator behaviors: failing to make offers, making bad offers (i.e., offers that were highly unfavorable to the other player), and rejecting good offers (i.e., offers that were favorable to both players). If a participant engaged in any of these behaviors, the mediator first sent him or her a threat message indicating why the player was being threatened and that the mediator would take away points if the player did not change his or her behavior. If the player corrected his or her bad behavior, the mediator cleared the threat, and the player was no longer at risk for losing points. If the player did not correct his or her behavior, the mediator sent a punishment message that included the number of points to be subtracted from the final score.

**Pilot studies**

Because of the importance of creating a negotiating task and experimental context that was equivalent in both cultures, the disputing case, virtual lab, and agent mediator were calibrated using multiple pilot studies. The disputing case was submitted to several rounds of pilot testing, in which the background, issues, and solution options were selected and revised to ensure relevance in both the United States and Turkey. Pilot participants also provided qualitative feedback on the clarity and realism of the case. The design of the virtual lab and the agent mediator were also piloted extensively to ensure that the interface was easy to use and that the mediator was believable. The interface design was adjusted on the basis of participant feedback collected in the United States and Turkey, as well as samples from Israel collected by our research team.

**Measures**

We assessed disputant difficulty along four different dimensions. *Openness to mediation* was operationalized using a one-item measure (“I want the mediator to get involved in this dispute,” with 1 = strongly disagree and 7 = strongly agree) in the prenegotiation questionnaire. CQ was assessed with three items from the motivation subscale of the Ang et al. (2007) CQ scale (“I am confident that I can socialize with locals in a culture that is unfamiliar to me,” “I am sure I can deal with the stresses of adjusting to a culture that is new to me,” and “I enjoy living in cultures that are unfamiliar to me”; overall α = .82; Turkish sample α = .71; American sample α = .87).2 *Disputant trust* was measured using a one-item measure (“I feel that I can depend on my partner to have my best interests at heart during this negotiation,” with 1 = strongly disagree and 7 = strongly agree) in the prenegotiation questionnaire. *Willingness to concede* was operationalized using a semantic differential item about the negotiator’s planned behavior for the negotiation session (“I plan to be . . . during the negotiation,” with 1 = unwilling to make concessions and 7 = willing to make concessions) measured in the prenegotiation questionnaire.

All disputant difficulty markers were aggregated to the dyad level. These measures follow an additive composition model (Chan, 1998), in which the aggregated construct is an average of the individual units without consideration of the variance at the individual level. Because these measures were assessed before any interaction occurred between the participants in each dyad, there is little reason to expect within-dyad consensus on these items, and aggregation is not predicated on agreement between participants within the dyads.

The *quality of the joint outcome* was assessed using the Pareto efficiency of the final agreement. Pareto efficiency is a dyadic-level measure of the joint economic efficiency of the agreement. An agreement is Pareto optimal if it maximizes joint gain (Tripp & Sondak, 1992), in that there is no other agreement that is better for both parties or

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2We also collected measures of the additional three components of CQ using the CQ scale; none of these components yielded significant effects and are not discussed further.
that could enhance the outcome of one disputant without hurting the outcome of the other disputant. Given that there is a finite number of potential agreements in the disputing task, for any given agreement, it is possible to quantify the number of possible Pareto superior agreements (i.e., those agreements that could either enhance the outcome of both parties or enhance the outcome of one party without hurting the other party) and possible Pareto inferior agreements. In the current study, the Pareto efficiency of an agreement is calculated as $1000[1 − (the\ number\ of\ possible\ Pareto\ superior\ agreements/\ the\ sum\ of\ the\ possible\ Pareto\ superior\ agreements\ and\ the\ possible\ Pareto\ inferior\ agreements)]$ (Tripp & Sondak, 1992).

Tripp and Sondak (1992) suggested that Pareto efficiency is superior to measures of economic outcomes based on joint score, as Pareto efficiency captures more than the simple sum of scores. Whereas Pareto efficiency is related to the joint score, the use of a simple summation of individual scores does not provide information on the balance or joint optimality of the agreement; for example, two dyads may achieve similar joint scores, but this metric does not provide information on whether the scores were reached because one disputant dominated the other or because the disputants were able to craft a mutually beneficial agreement. Using Pareto efficiency rather than the sum of the player scores provides a measure of more than just the separate ability of the disputants to claim value but also their ability to work together to create value. Because of the integrative potential in the disputing scenario, it was possible for participants to logroll or trade off on low-priority issues to gain value in higher-priority issues (Froman & Cohen, 1970). The more effectively the participants logrolled, the more efficient is their agreement. The current study used the Okhuysen and Pounds version 1.23 (2005) spreadsheet to calculate the Pareto efficiency of the agreements.

We measured subjective value with a modified version of the SVI (Curhan et al., 2006). The SVI was designed to assess the social psychological outcomes of a negotiation and includes 16 items to assess four components of subjective value: feelings about the instrumental outcome, feelings about the self, feelings about the process, and feelings about the relationship. These subscales can be averaged to create a global subjective value score. In the current study, 15 items from the original SVI were used; one item (“did you behave according to your own principles and values?”) was removed because pilot participants found it confusing. We also added items to assess the impact of the negotiations on the participant honor and reputation (“did this game positively or negatively impact your honor?” and “did this game positively or negative impact your reputation?”) and perceptions of cooperation (“how cooperative do you think you were during the game?”).

An exploratory factor analysis of the combined sample using maximum likelihood extraction and varimax rotation\(^3\) produced a four-factor solution for the SVI. The first factor included three of the original SVI items measuring feelings about the instrumental outcome (e.g., “how satisfied are you with your own outcome—i.e., the extent to which the terms of your exchanges (or lack of exchanges) benefit you?”), as well as one item measuring feelings about the negotiation process (“how satisfied are you with the ease (or difficulty) of reaching an agreement?”). This subscale is labeled satisfaction with the outcome (overall $\alpha = .89$; Turkish sample $\alpha = .91$; American sample $\alpha = .88$). The second factor included two of the original SVI items measuring feelings about the self (e.g., “did this game positively or negatively impact how competent you feel as a negotiator?”), as well as the added measure of impact on reputation. This subscale is labeled feelings about self (overall $\alpha = .79$; Turkish sample $\alpha = .80$; American sample $\alpha = .79$). The third factor included two of the original SVI items measuring feelings about process (e.g., “do you think the other participant understood your concerns?”) and one of the original SVI items measuring feelings about the relationship (“did the game make you trust the other participant?”). This subscale is labeled rapport (Curhan et al., 2006; overall $\alpha = .86$; Turkish sample $\alpha = .83$; American sample $\alpha = .87$). The fourth factor, however, was not theoretically meaningful, and the Cronbach’s alpha for the subscale fell below an acceptable level ($\alpha = .66$). As with the original SVI, a global subjective value score, labeled overall satisfaction, was computed across the first three subscales. The Cronbach’s alpha for the overall satisfaction scale was .88 (Turkish sample $\alpha = .87$; American sample $\alpha = .90$).

\(^3\)The item correlations for the SVI were inspected, and four problematic items were deleted from the scale prior to analysis.
The Procrustes factor analysis was used to assess the factor structure and structural equivalence of the SVI across the American and Turkish samples. The Orthosim-2 program (Barrett, 2006) computes the Procrustes analyses for factor loading matrices produced by an exploratory factor analysis. The two samples’ SVI factor matrices reached an overall solution congruence of 0.91, and the congruence coefficients exceeded 0.80 except for one coefficient that equaled 0.70.

The subjective satisfaction measures were aggregated to the dyad level, as the disputants had interacted with their partners and their responses to the SVI were expected to be interdependent due to the shared negotiation experience. The ICCs, ICC(1) and ICC(2), were used to assess whether aggregation was appropriate (Bliese, 2000). The ICC(1) values for satisfaction with outcome, rapport, and overall satisfaction were greater than 0.3, and the ICC(2) values were greater than 0.5, warranting aggregation to the dyad level. The intraclass correlation for the feelings about self subscale did not meet the standards for aggregation and so was not analyzed at the dyad level.

We also included a number of manipulation checks. Participants were asked to rate the extent to which the mediator suggested offers, pushed the players to accept proposals, and threatened to punish the players (1 = not at all and 5 = very much). Participants also rated their perceptions of the mediator’s fairness (1 = not at all and 7 = extremely). The mediator fairness ratings were examined to ensure that the American and Turkish participants did not perceive the mediator differently; the analysis indicated that there were no differences between the samples, (t(60) = 0.89, p = .38). In addition, at the end of the postnegotiation questionnaire, all participants completed funnel debriefing questions designed to assess suspicion about the mediator and the study. Any participants who indicated that they believed that the mediator was not a real person were excluded from the analyses. Of the 55 dyads, 53 (96.3 percent) did not indicate suspicion about the mediator; only two participants were suspicious of the mediator, and the data from these two dyads were excluded from the analyses. The final sample consisted of 24 male and 29 female intercultural dyads.

**Results**

Means, standard deviations, and the bivariate correlations between all the measures at the dyad level are listed in Table 2.

**Manipulation checks**

Of the 35 dyads in the mediated conditions, 32 correctly responded that a mediator intervened in their dispute; the remaining three dyads came to a solution before the mediator could intervene.4 Analyses of the manipulation check items indicated that, as expected, the two mediated conditions did not differ in their reports of the extent to which the mediator suggested offers (t(30) = −0.37, p = .71) or pushed them to accept its proposals (t(30) = 0.19, p = .85). As expected, dyads in the manipulative mediation condition (M = 2.09, SD = 1.48) reported that the mediator threatened them more than dyads in the formulative mediation condition (M = 1.07, SD = 0.18, t(30) = 2.65, p = .01). Taken together, the results for the three manipulation check items suggest that the only perceived difference in the mediator’s basic behaviors during the dispute was in the very forceful and threatening behavior.

In addition, a review of the mediator’s behavior during the negotiations indicated that the number of mediator offers sent to the dyads ranged from 0 to 14, with a mean of 6.23 offers and a standard deviation of 4.54 offers. There was a significant positive correlation between the number of mediator offers and length of the negotiation (r = .44, p = .01) and a significant negative correlation between length and Pareto efficiency (r = −.31, p = .03). In addition, the number of mediator offers sent to the dyad was negatively correlated with Pareto efficiency (r = −.50, p < .01). When controlling for gender and length of the negotiation, the

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4The data were analyzed with and without the three dyads that were in a mediated condition but came to an agreement before the mediator could intervene; the results did not change when the three dyads were excluded from the sample, and the analyses presented include the entire sample.
relationship between mediator offers and Pareto efficiency became nonsignificant ($B = -20.11$, $p = .19$). The correlations between the number of mediator offers and the disputant difficult markers were nonsignificant, as were the correlations between the number of mediator offers and the subjective value outcomes. An analysis of the mediator behavior indicated that there were no differences in the number of proposals the mediator sent to the dyads in the two conditions ($t(33) = 0.14$, $p = .89$). Within the manipulative condition, the mediator sent a total of 11 threat messages to 8 of the 18 dyads in the manipulative mediation condition and enacted punishment in one dyad.

**Hypothesis testing**

A series of hierarchical regressions were used to assess the interaction between manipulation condition and disputant difficulty markers. For each disputant difficulty marker, separate three-step hierarchical regressions were conducted for the Pareto efficiency and subjective value outcomes. In the first step, gender was entered as a covariate; previous meta-analyses have uncovered significant gender differences in negotiation outcomes (Stuhlmacher & Walters, 1999) and analyses indicated that there were indeed significant gender differences in the Pareto efficiency outcome with male dyads ($M = 863.38$, $SD = 277.12$) achieving more efficient solutions than female dyads ($M = 670.26$, $SD = 366.41$, $t(51) = 2.25$, $p = .03$). In the second step, the terms for mediation condition and the focal difficulty marker were entered. Two effects-coded variables were used for mediation condition; effects coding was used to facilitate the interpretation of any potential main effects of mediation style as well as the interactions between mediation style and difficulty measures. The first variable was the effects-coded variable for formulative mediation and was coded as follows: $-1 = \text{no mediation}$, $1 = \text{formulative}$, and $0 = \text{manipulative}$. The second variable was the effects-coded variable for manipulative mediation and was coded as follows: $-1 = \text{no mediation}$, $0 = \text{formulative mediation}$, and $1 = \text{manipulative mediation}$. In the third step, two terms were entered to assess the interaction of mediation condition and the focal disputant difficulty marker; the interaction terms were created by multiplying the disputant difficulty marker with each of the effects-coded mediation variables. There were no significant main effects or significant interactions between formulative mediation and the disputant difficulty markers; as such, we only present the results relating to the interaction between manipulative mediation and the difficulty markers in the following analyses.

Hypothesis 1 stated that there would be a significant interaction between manipulative mediation and disputant difficulty in predicting economic outcomes, such that manipulative mediation would produce superior outcomes in disputes with more difficult participants but would impair outcomes when disputant characteristics point to an easier path to successful resolution. This hypothesis was generally supported (Table 3). First, the
Table 3. Hierarchical multiple regression analyses predicting Pareto efficiency of agreements from mediation condition and disputant characteristics.

<table>
<thead>
<tr>
<th></th>
<th>Openness to mediation</th>
<th>Motivational cultural intelligence</th>
<th>Trust</th>
<th>Willingness to concede</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>β</td>
<td>B</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>96.56*</td>
<td>42.92</td>
<td>.30</td>
<td>96.56*</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>88.84†</td>
<td>44.36</td>
<td>.28</td>
<td>95.64*</td>
</tr>
<tr>
<td>FM</td>
<td>56.90</td>
<td>61.79</td>
<td>.17</td>
<td>63.76</td>
</tr>
<tr>
<td>MM</td>
<td>13.39</td>
<td>61.93</td>
<td>.04</td>
<td>5.64</td>
</tr>
<tr>
<td>Disputant Characteristic</td>
<td>-31.74</td>
<td>45.51</td>
<td>-.10</td>
<td>-1.35</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>92.09*</td>
<td>42.45</td>
<td>.29</td>
<td>92.50*</td>
</tr>
<tr>
<td>FM</td>
<td>8.75</td>
<td>255.71</td>
<td>.02</td>
<td>58.41</td>
</tr>
<tr>
<td>MM</td>
<td>627.57†</td>
<td>263.11</td>
<td>1.62</td>
<td>826.53†</td>
</tr>
<tr>
<td>Disputant Characteristic</td>
<td>-12.91</td>
<td>44.61</td>
<td>-.04</td>
<td>43.18</td>
</tr>
<tr>
<td>Disputant Characteristic × FM</td>
<td>6.13</td>
<td>58.66</td>
<td>.07</td>
<td>3.00</td>
</tr>
<tr>
<td>Disputant Characteristic × MM</td>
<td>-143.99*</td>
<td>59.28</td>
<td>-1.59</td>
<td>-160.60†</td>
</tr>
<tr>
<td><strong>Step 3 model fit statistics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.24</td>
<td>.19</td>
<td>.28</td>
<td>.26</td>
</tr>
<tr>
<td>$R^2_{adj}$</td>
<td>.14</td>
<td>.08</td>
<td>.19</td>
<td>.16</td>
</tr>
<tr>
<td>$R^2$ change</td>
<td>.11*</td>
<td>.07</td>
<td>.15*</td>
<td>.12*</td>
</tr>
<tr>
<td>Overall $F$</td>
<td>2.39*</td>
<td>1.79</td>
<td>3.03*</td>
<td>2.64*</td>
</tr>
<tr>
<td>df</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
</tbody>
</table>

Note: Formulative mediation (FM) is coded as follows: $-1 = \text{no mediation}$, $1 = \text{formulative}$, and $0 = \text{manipulative}$. Manipulative mediation (MM) is coded as follows: $-1 = \text{no mediation}$, $0 = \text{formulative}$, and $1 = \text{manipulative}$.

$^p < .10$; $^* p < .05$; $^{**} p < .01$.  

interaction between the variable for manipulative mediation and openness to mediation was significant in the full model ($B = -143.99$, $p = .02$). Consistent with Hypothesis 1, dyads that reported low openness to mediation reached solutions with higher Pareto efficiency than dyads that reported being more open to mediation in the manipulative condition, as compared with the average. The results also suggested support for Hypothesis 1 with regard to motivational CQ ($B = -160.60$, $p = .06$). Dyads with lower motivational CQ reached agreements with higher Pareto efficiency than dyads with higher motivational CQ in the manipulative mediation condition. The interaction between manipulative mediation and trust was also significant in the full model ($B = -156.79$, $p < .01$). Consistent with Hypothesis 1, as compared with the overall average, dyads that reported low trust in their counterparts reached solutions with higher Pareto efficiency than dyads that reported higher trust in the manipulative condition. Finally, the interaction between manipulative mediation and willingness to concede was nonsignificant but was trending in the expected direction ($B = -168.53$, $p = .07$). Dyads that were unwilling to concede achieved solutions with higher Pareto efficiency than dyads who reported being more willing to concede in the manipulative condition. These results show that manipulative mediation produced much more efficient economic outcomes in negotiating contexts characterized by difficult disputants, but when disputants were less difficult, manipulative mediation hindered the achievement of economic outcomes.\(^5\)\(^6\) Figures 2 and 3 illustrate the interactions between manipulative mediation and openness to mediation and CQ, respectively; the interactions between manipulative mediation and the other disputant difficulty markers for Pareto efficiency and joint score follow a similar pattern but are not included because of space limitations.\(^7\)

Hypothesis 2 stated that manipulative mediation would produce better subjective outcomes in difficult disputes, but worse subject outcomes in disputes with more favorable conditions. For the subjective value analyses, Pareto efficiency was entered in the first step of the regression along with dyad gender. The overall satisfaction outcome was not predicted by the interaction between manipulative mediation and disputant difficulty markers. However, there was a significant interaction between manipulative mediation and negotiator willingness to concede for the satisfaction with outcome subscale ($B = -0.54$, $p = .04$). The $R^2$ change for the third step of the multiple regression, however, did not reach significance at traditional levels, $R^2$ change $= 0.05$, $p = .10$, overall model $F(7, 45) = 6.51$, $p < .01$. Dyads that reported low willingness to concede reported higher satisfaction with the outcome than dyads that reported being more willing to concede in the manipulative condition, as compared with the overall average. The nature of this interaction was very similar to those reported in Figures 2 and 3. Accordingly, as predicted, manipulative mediation tends to be more successful at producing satisfied negotiators when there are disputant factors that inhibit resolution; when the same disputant factors facilitate resolution, manipulative mediation actually produces less satisfied outcomes.

\(^5\)Although previous perspectives have suggested that Pareto efficiency is a better measure of the quality of the agreement (Tripp & Sondak, 1992), we also conducted the analyses using the sum of the participants’ scores as an outcome, and the results were very similar. The interaction between the effects-coded variable for manipulative mediation and openness to mediation was $B = -96.30$, $p = .06$, $R^2$ change for Step 3 $= 0.06$, $p = .16$, overall model $F(6, 46) = 2.79$, $p = .02$. The interaction between the variable for manipulative mediation and motivational CQ was $B = -119.35$, $p = .09$, $R^2$ change for Step 3 $= 0.05$, $p = .24$, overall model $F(6, 46) = 2.52$, $p = .03$. The interaction between the variable for manipulative mediation and trust was $B = -135.72$, $p < .01$, $R^2$ change for Step 3 $= 0.15$, $p < .01$, overall model $F(6, 46) = 4.30$, $p < .01$. The interaction between the effects-coded variable for manipulative mediation and willingness to concede was $B = -137.66$, $p = .07$, $R^2$ change for Step 3 $= 0.11$, $p = .03$, overall model $F(6, 46) = 3.50$, $p < .01$. The full results for the joint score outcome are available from the first author.

\(^6\)Whereas previous mediation research has typically analyzed the impact of dispute characteristics individually (Carnevale & Pegnettter, 1985; Carnevale, Lim, & McLaughlin, 1989; Hiltrop, 1985, 1989; Lim & Carnevale, 1990; Thoennes & Pearson, 1985; Zubek et al., 1992), we conducted additional analyses to test whether our effects would remain consistent in larger multiple regression models that included the main effects for gender, mediation style and disputant difficulty measures, and all two-way interactions between mediation style and the disputant difficult measures. For the Pareto efficiency outcome, the overall model was significant, $F(15, 37) = 3.35$, $p < .01$, $R^2 = 0.58$. Providing additional support for our hypotheses, the two-way interaction terms between manipulative mediation and openness to mediation ($B = -139.07$, $p = .01$), motivational cultural intelligence ($B = -203.61$, $p = .01$), and trust ($B = -115.95$, $p = .03$) were all significant. The interaction between manipulative mediation and willingness to concede was nonsignificant, but trending in the theoretical direction ($B = -126.22$, $p = .12$).

\(^7\)Figures of all reported effects are available from the first author.
negotiators. There was no significant interaction between mediation style and openness to mediation, motivational CQ, and trust with regard to the subjective value subscales.\textsuperscript{8}

**Discussion**

In an era of increasing global interdependence, intercultural disputes occur in a wide range of contexts, from international to organizational to interpersonal. Yet very little research has explored the factors affecting the resolution of intercultural disputes. The current study is, to our knowledge, the first to examine which mediation styles are most effective in

\textsuperscript{8}For the large-model multiple regression analyses on the overall satisfaction scale, which controlled for Pareto efficiency in addition to gender, the overall model was significant, $F(16, 36) = 2.40, p = .02, R^2 = 0.52$. None of the two-way interaction terms between the effects-coded variable for manipulative mediation and disputant difficulty were significant, but the interaction between manipulative mediation and willingness to concede was trending in the expected theoretical direction ($B = -0.39, p = .06$). For the analyses on the satisfaction with outcome subscale, the model was significant, $F(16, 36) = 2.83, p < .01, R^2 = 0.56$. The interaction term between the effects-coded variable for manipulative mediation and willingness to concede was significant ($B = -0.65, p = .03$). None of the other two-way interaction terms between the effects-coded variable for manipulative mediation and disputant difficulty were significant for the satisfaction with outcome scale. There were no significant effects for the rapport subscale.
managing intercultural disputes in an experimental setting. We argued that there is no “one-size-fits-all” mediation style in intercultural disputes and examined how disputant difficulty characteristics impact mediation style effectiveness. We expected that the more forceful manipulative mediation style would produce better outcomes when disputants were less open to mediation, lower in motivational CQ, had less trust, and were less willing to concede but would be less effective in disputes with disputants who were higher on all of these characteristics.

Our study of Turkish and American intercultural disputes using a new virtual laboratory to connect participants from their respective countries largely supported our hypotheses. We found that the effectiveness of the manipulative mediation style was contingent on disputant difficulty markers as reported by the disputants themselves. Manipulative mediation was particularly effective in disputes with more difficult participants, producing better outcomes when disputing dyads reported lower openness to mediation, motivational CQ, trust, and willingness to concede. In contrast, the manipulative mediation style was particularly maladaptive with easier disputants, producing worse outcomes when disputing dyads reported higher openness to mediation, motivational CQ, trust, and willingness to concede.

Contributions to theory and research

This research provided a dynamic approach to mediation effectiveness in intercultural disputes. Our results highlight the fact that intercultural disputes are not monolithic; these conflicts vary on a number of factors, including relationships with the third party and disputants’ motivation, affect, and behavioral intentions. These factors have a dynamic impact on the effectiveness of third-party intervention strategies. Although the manipulative mediation style enhanced economic and subjective outcomes in disputes with difficult participants, it produced lower economic and subjective outcomes in disputes with participants who had characteristics more amenable to a resolution of the dispute.

Our findings contribute to previous research on mediation style effectiveness. Notably, this study is among the first to examine mediation in intercultural disputes using disputant reports of their characteristics, including individual differences, and experimentally manipulated and standardized mediation styles. Research relying on mediator reports of disputant characteristics assumes that mediators can accurately judge various indicators of disputant difficulty and satisfaction. By moving away from a reliance on mediator reports of disputant characteristics, style usage, and outcomes, this study avoids the potential for common-source bias. Further, by testing the interaction of disputant characteristics with experimentally manipulated and standardized mediation styles, we address potential concerns that mediators may create a self-fulfilling prophecy in the conflict situation; for example, if a mediator inaccurately judges a dyad to be very difficult, he or she may use more manipulative tactics, which may in turn increase the difficulty of the dispute beyond its original difficulty level.

In addition to examining the dynamics of intercultural disputes, this study also created a virtual lab that can be used with participants living in different parts of the world, providing a new method for researchers interested in studying real-time intercultural interactions. Accordingly, the virtual lab frees researchers interested in intercultural interactions from relying on expatriate samples and potential selection biases. The development of the agent mediator and a new disputing case also provides new tools for the exploration of intercultural mediation. The agent mediator not only standardized the mediator behavior in the current study but also displayed the ability to create a mediator that is appropriate for deployment in multiple cultures. The disputing case provided a standardized context for a community-based conflict that was realistic, relevant, and motivating for participants from different cultures. This case may serve as the basis for future explorations in intercultural disputing and mediation in community settings.

Contributions to practice

The current study has several implications for mediators. This research suggests that mediators should be aware of the unique difficulties of intercultural disputes, especially disputants’ motivation to interact with people from other cultures, when selecting tactics. Further, the current study suggests that not all intercultural disputants are alike and
their specific characteristics should be assessed. When disputants are very difficult, as defined by resistance to mediation, low CQ, low trust, and low willingness to concede or compromise, mediators will likely facilitate the best outcomes by using manipulative tactics. However, such tactics may actually inhibit the achievement of high objective and subjective outcomes when the disputant characteristics are more favorable, as is the case when disputants are open to mediation and possess high CQ, trust, and willingness to concede. Finally, this research suggests that mediators should be aware not only of disputant factors directly related to conflict, such as openness to mediation, willingness to concede, and trust, but that it is also important to take stock of more distal individual differences such as motivational CQ.

Limitations and Future Directions

As in all studies, the methods used produced some possible limitations, as well as several interesting directions for future research. The current study utilized a negotiation simulation based on a hypothetical dispute and a laboratory setting. This strategy allowed for the control of a number of extraneous variables, including the issues under dispute, the prior disputing history between the parties, access to mediation, and many more that may have confounded a test of the contingent effectiveness of mediation tactics. Nevertheless, as in all laboratory experiments, our method triggers some questions of generality and potential boundary conditions (Carnevale & De Dreu, 2005). Although the case used in the current study was pretested to ensure that it was engaging, realistic, and produced intense disputes in student samples, it nevertheless is a hypothetical scenario that may not adequately reflect all of the realities of actual community disputes. At the same time, given that previous field research has supported the contingency approach using other metrics of dispute difficulty, we expect that the present results will likely generalize to actual disputes. In addition, the sample in the current data collection relies on young, educated student samples. However, because the disputing scenario was designed to be realistic to the student participants—who have likely experienced conflict within their living arrangements—this limitation should not necessarily impact the generalizability of the findings. Nevertheless, future research is necessary to explore how mediation styles function in intercultural disputes using community samples.

Another potential strength, yet also limitation, is the use of standardized “pure” forms of mediation. By standardizing the strategies, the mediator behavior may not be reflective of how mediators mediate in real disputes. Real mediators adjust their styles to both the dispute context (Lim & Carnevale, 1990) and the temporal stage of the negotiation (Pruitt, 2006). At the same time, it would be interesting to compare the effectiveness of human mediators with that of computer agents in intercultural disputes. It is possible that computer agents may be able to outperform human mediators in intercultural contexts, as has been shown in other work in computer science on agent versus human negotiators (e.g., Gal et al., 2011).

There are additional questions raised by the programming of the mediator. For example, the current study does not address whether the effects of the manipulator were caused by the potential to threaten and punish the disputants or by the actual punishments. As noted, the mediator sent threat messages to eight of the 18 dyads in the manipulative condition and only punished in one dyad. However, all dyads in the manipulative mediation condition were informed that the mediator could threaten and punish them. Future studies could explore whether mediators actually need to punish disputants to achieve better outcomes, or whether it is enough that the disputants know that the mediator has the potential or power to punish them.

Future research should also continue to explore the role of other mediation tactics in intercultural disputes. For example, although our results did not show any main effects or interactions for the formulative mediation strategy, it is possible that formulative mediation that goes beyond suggesting settlements would have displayed different effects. Perhaps the success of other tactics included in the broad formulative style, such as taking responsibility for concessions (Lim & Carnevale, 1990) or pointing out more general areas of compromise or trade-offs, may be more sensitive to disputant characteristics. Further, other mediation styles may provide more consistent prediction of subjective outcomes in intercultural disputes. The results for the
subjective outcomes were mixed in the current study, and although there were some significant effects, these effects were not as consistent as those for Pareto efficiency. As such, further exploration into other mediation styles that may foster better subjective outcomes is needed. For example, although the manipulative style used in the current study may be particularly successful at producing settlements of higher economic value in intercultural disputes with difficult disputants, perhaps other styles that focus on issues of procedural justice (cf. Shapiro & Brett, 1993) or manage relational and intangible interests such as the disputants’ honor and dignity will consistently lead to higher subjective outcomes. Finally, additional research is needed to investigate the role of disputant characteristics in the mediation of intercultural disputes. The current study was limited in that it focused on only four disputant characteristics and measured three of those characteristics with single-item measures. Future research may provide a more complete understanding of the impact of disputant characteristics, such as individual differences or conflict framing (Pinkley & Northcraft, 1994), using measures with multiple items.

Conclusion

Globalization has increased contact between members of different cultures in political, military, social, organizational, and community contexts. The development of culturally sensitive means of conflict resolution is thus of great importance, and the current study begins to contribute to this goal by exploring the role of mediation in intercultural disputes. This study extends previous research on culture and negotiation by examining mediation as a way to resolve intercultural disputes. It also expands the literature on mediation by including the cultural context and individual differences as potentially important factors affecting mediation style effectiveness. Above all, in a world of increasing global opportunities and global threats, it illustrates the importance of mediation as an important mechanism to foster intercultural cooperation.

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Author biographies

Elizabeth D. Salmon is a PhD candidate in the Social, Decision, and Organizational Sciences program at the University of Maryland. Her research investigates the impact of culture on organizational processes, including conflict resolution and error management.

Michele J. Gelfand is a Professor of Psychology and Distinguished University Scholar Teacher at the University of Maryland, College Park. She received her PhD in Social/Organizational Psychology from the University of Illinois. Dr Gelfand’s work explores cultural influences on conflict, negotiation, justice, and revenge; workplace diversity and discrimination; and theory and methods in cross-cultural psychology.

Ayşe Betül Çelik is an Associate Professor at Sabanci University in Istanbul, Turkey, where she teaches political science and conflict resolution. Her research areas include ethnicity, civil society, forced migration, Kurdish Issue in Turkey, and role of culture in conflict resolution.
Sarit Kraus (PhD Computer Science, Hebrew University, 1989) is a Professor of Computer Science at Bar-Ilan University and an Adjunct Professor at the Institute for Advanced Computer Studies, University of Maryland. Her research is focused on intelligent agents and multi-agent systems (including people).

Jonathan Wilkenfeld is Professor of Government and Politics and Director of the ICONS Simulation Program at the University of Maryland. His current research interests include foreign policy decision making, international conflict and crisis, and interstate and intrastate conflict mediation.

Molly Inman is a PhD candidate in international relations and comparative politics in the Department or Government and Politics at the University of Maryland. Her dissertation employs mixed methods and examines the impact of intraethnic political competition on the likelihood of violent conflict in decentralized countries.

References


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CULTURAL CONTINGENCIES OF MEDIATION


