
4. Shared cognition and identity in negotiation

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The U.S.–China relationship was of crucial importance, said [Chinese diplomat] Dai. China would do its best to cooperate with the United States wherever possible. “If we expand the pie for the common interest, the pie will be larger and more delicious.” Together, the two sides should work collaboratively for the good of the world, especially since the two countries were “passengers in the same boat”. Dai urged careful management of the relationship and respect for each other’s core interests and concerns.
Wikileaks, 18 (S)

The above quote shows how a Chinese diplomat understands Sino–American relationships and hopes for the understanding and metaphors to be shared by both parties. A shared mental model, or a common understanding of some situation or phenomenon among a dyad of individuals, has been an important goal for negotiators to pursue. Negotiation is a social exchange where individuals perceive themselves as having opposing interests regarding scarce resources (Bazerman et al., 2000). To be effective, each negotiation party needs to seek to claim as much of the resources as possible. At the same time, they need to establish agreements on not leaving resources on the bargaining table (Swaab et al., 2007). Thus, a key challenge for most negotiators is to align individual and group interests, which requires individual negotiators to recognize some overarching commonalities leading them to pursue outcomes that benefit themselves as well as others (Swaab et al., 2007). This is precisely what a shared mental model and identity may offer: They positively influence each other and group outcomes because they give rise to an understanding of underlying interests as well as a willingness to make trade-offs. Our purpose in this chapter is to propose an integrative input-output framework that organizes current literature and future directions on the study of shared cognition and identity in negotiation. We maintain that the input factors reflect negotiators’ perceptions of various antecedents to a dynamic process that cultivates shared cognition and identity. The output factors convey the expressed manifestation or outcomes of such dynamic processes.

SHARED MENTAL MODELS IN NEGOTIATIONS

With few exceptions (Liu et al., 2012a; Olekalns and Smith, 2005; Van Boven and Thompson, 2003), previous works about shared mental models are concerned overwhelmingly with the domain of teamwork. Researchers who study teamwork generally define shared mental models as the commonality and similarity of individually held mental models, or the consensus with which team members interpret and categorize strategic issues such as team task and team relationship (Mathieu et al., 2000; Mohammed and Dumville, 2001). Scholars of team mental models also acknowledge the formation process of shared mental models as being dynamic and ongoing as team members share more experiences.

From the perspective of social interaction, negotiation can be regarded as a type of teamwork. Like members of a team, negotiators share a common goal of reaching an agreement. During the process of achieving the common goal, both team members and negotiators are interdependent. But negotiation differs from teamwork by the open recognition of the different preferences held by the negotiation parties. In the process of reaching shared mental models, multiparty negotiations differ from typical teamwork. In negotiation, the differences held by each party are generally made explicit, whereas in teamwork, while each member may interpret the common goal differently, the difference may or may not be explicitly acknowledged. The open acknowledgement of differences makes the mental model sharing process in negotiation unique from that among team members. In definition, “a shared mental model can be described as the extent to which a dyad of individuals possesses a similar cognitive representation of some situation or phenomenon” while “the notion of team mental model is distinct from that of a shared mental model in that it refers to shared cognition in a team as a collectivity, not shared cognition among dyads of individuals” (Langan-Fox et al., 2001, p. 99).

SHARED IDENTITIES IN NEGOTIATIONS

In a separate literature, individuals may also construct a sense of shared identity in negotiation when they readily interact and observe each other's actions and reconcile differences to establish interpersonal relations (Postmes et al., 2005a; Postmes et al., 2005b). Social identity theory (Doosje et al., 1999) suggests that people's reaction to group memberships and their willingness to engage group norms depend upon the salience of the group membership and the relative importance they attach to

such membership. For example, group members who identify strongly with the group will support collective improvements even at the expense of their own personal interests (Ellemers et al., 1993; Ellemers et al., 1997). In the same situation, group members who do not identify with the group will focus on personal risks and benefits (Smith et al., 2003). Social identity researchers have concluded that group activities are more productive to the extent that individuals identify with their group (Tajfel and Turner, 1979; Turner et al., 1987). Further, empirical evidence shows that group identification affects work motivation (Ellemers and Rink, in press; Ouwerkerk et al., 2000) and performance (Van Leeuwen et al., 2003). The impact of inductively formed identities is significant to groups in a variety of decision-making settings, ranging from collaborative decision making (Postmes et al., 2001) to negotiations and dispute resolution (Swaab et al., 2002) and social dilemmas. The overall conclusion from this research is that shared identity positively affects groups because it promotes pro-social behavior, trust, and commitment (De Dreu and Carnevale, 2003).

SHARED MENTAL MODELS AND IDENTITIES IN NEGOTIATIONS

In this chapter, we seek to integrate these literatures by introducing a theoretical framework about shared mental models and shared identity in negotiation, by examining antecedents and the interactive process of cultivating shared cognition and identity, by explaining relationships between shared mental models and group identification, and by depicting consequences of shared mental models and shared identities, including learning, satisfaction, and economic gains on both individual and collective levels. Figure 4.1 illustrates our integrative input-output framework that organizes the antecedents, interactive processes, consequences, and moderating factors of shared mental models and shared identity in negotiation. In this figure, we delineate the individual, collective, and contextual levels of analysis as well as the affective, informational, and relational factors in the content of negotiator mental models. In order to focus on the dynamic interactions in the process of cultivating shared cognition and identity, we structure the following text first by using the category of affective, informational, and relational variables, and then discuss the moderating effects of contextual variables.

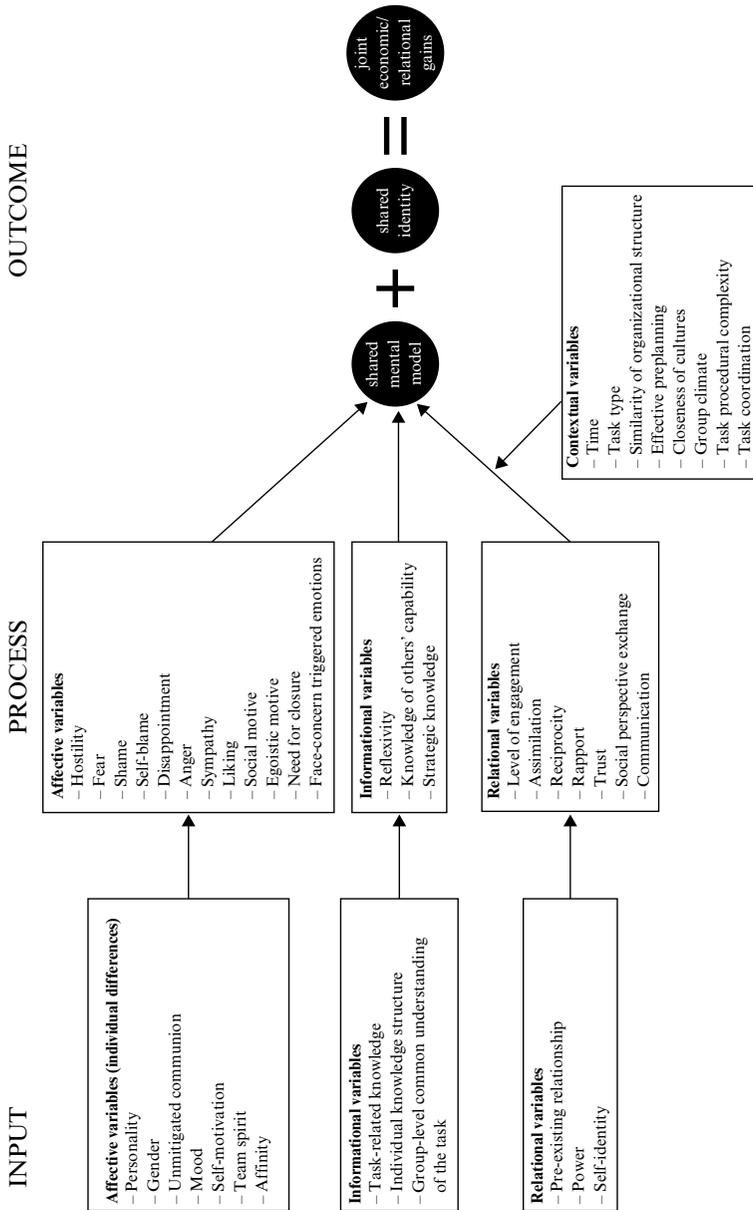


Figure 4.1 Conceptual model on shared cognition and identity in negotiation

AN INTEGRATIVE FRAMEWORK OF SHARED MENTAL MODELS

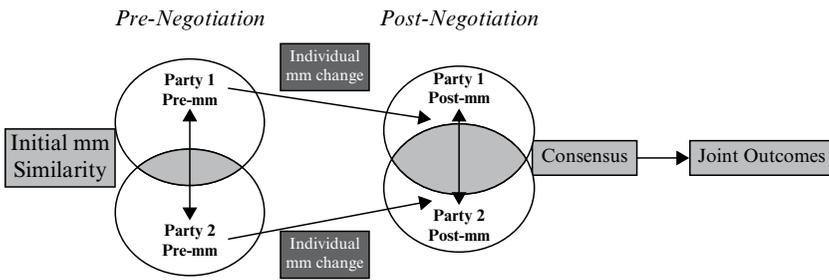
Negotiations have been characterized as a three-stage process (Neale and Bazerman, 1991): pre-negotiation planning (e.g., preferred position); negotiations (e.g., strategies used); and outcomes (e.g., final resolution, commitment). In the process of cultivating shared cognition and identity, we identify categorical input, dynamic process, critical triggers, and consequences. Based on previous research that has concentrated on three types of variables influencing negotiation behavior and outcome (Beersma and De Dreu, 1999; Liu et al., 2012a; Mannix et al., 1989; Polzer et al., 1998; Thompson et al., 1988; Weingart et al., 1993; Weingart and Brett, 1998), we propose a negotiator's mental model is more than a collection of independent processes operating in a modular cognitive system (Barsalou et al., 2007). Instead, we propose that a negotiator's mental model is a network comprised of interrelated affective, informational, and relational components of knowledge that allows an individual negotiator to make sense of specific situations, and to predict future states (Gentner, 2002).

There are four common characteristics of mental models in social interaction. First, mental models are affective. Affective mechanisms play central roles in cognition, and optimal cognitive performance occurs when affective information is included in decision-making. In other words, cognition divorced from affect is not rational, and a full understanding of cognition without taking affective factors into account is impossible. For instance, emotion, reward, and motivation tightly intertwine with each and with the cognitive system (Barrett, 1995; Barrett et al., 2007). Furthermore, when negotiators recognize the similarities among important elements of individuals' mental models, it creates a pro-social climate, which is a strong precursor to mutually satisfactory negotiation and decision-making (Swaab et al., 2002). Second, mental models are informational. A negotiator's mental model stands for pre-existing knowledge structures people use to understand the task and situation, anticipate counterparties' actions and coordinate their own behaviors especially when there is a time constraint or special circumstance (Marks et al., 2000). Third, mental models are relational. A mental model shares common features but can be distinguished from other cognitive structures such as cognitive maps (Axelrod, 1976), scripts, schemas (Fiske and Taylor, 1991), frames (Minsky, 1975), and belief or knowledge structures (Fiske and Taylor, 1991) because it yields an integrated network of relations among perceived elements at a given point in time (Liu et al., 2012a) and considers the interrelationship of different elements in a situation. As information is accumulated through interactions in negotiations, a mental model reflects

a holistic and specific cognitive experience, and a shared mental model or identity is thought to converge over time (Johnson-Laird, 1989; Klimoski and Mohammed, 1994; Mathieu et al., 2005). Finally, mental models are situation specific and contextual. Shared mental models are not the simple sum of individual mental models but include the synergistic effect of the communication process between individual models. In other words, in social interaction, people's individual mental models influence and are influenced by the social context, the people they communicate with, and the type of communication experienced (Liu and Dale, 2009).

In this chapter, we adopted Ren and Argote's method (2011) and searched for research articles in the Web of Science database with the keywords "shared mental model", "shared identity", and "negotiation" in the title in three citation databases: Science Citation Index Expanded, Social Sciences Citation Index, and Arts and Humanities Citation Index. We found 52 papers that were published between January 2000 and October 2012. We included papers with a primary focus on the relationship between variables and shared mental models or identities. To inform our review, we also reviewed all stage papers on shared mental models and identities in the literature. Only one paper is a review on the relationship between shared mental models and identities, published by Swaab et al. (2007) while other papers focus on investigating the impact of individual variables on negotiation outcomes (e.g., Gunia, et al., 2011) emphasize the effects that shared mental models (Cannon-Bowers et al., 1993; Choi, 2010; Thompson and Fine, 1999) or shared identities have on integrative negotiations (De Dreu and Carnevale, 2003; Postmes et al., 2001), or explain why the same processes that predict joint gains in negotiation should also predict shared mental models and shared identity. For instance, drawing on previous research on mental models and joint gains in negotiation (e.g., Olekalns and Smith, 2005; Van Boven and Thompson, 2003), Liu and colleagues (Liu, et al., 2012a) created the following figure (see Figure 4.2) supporting the argument that humans are unusual in establishing joint attention and good at representing other minds (Barsalou et al., 2007), particularly to illustrate how two negotiation parties reach an integrative agreement and maximize joint gains because of mental model convergence.

Although individual factors concerning negotiation consequences and the impact of shared mental models and shared identity on negotiation are well-documented, few works present a comprehensive framework to explain the development of shared mental models and identities in negotiations. Below we elucidate how previous research found each category of variables were related to integrative outcomes in negotiations with the purpose of developing a framework to examine how shared mental models and identities come into play and lead to consensus (Liu et al., 2012a). We



Note: mm refers to mental model.

Figure 4.2 Relationship of mental models and outcomes in negotiation in Liu et al. (2012a)

also propose potential relationships between shared mental models and identities.

ANTECEDENTS TO THE DEVELOPMENT OF SHARED MENTAL MODELS AND IDENTITIES

Individual Differences

A shared mental model is a construct derived from individual mental models. Individual differences in characteristics and motivations are influential for the development of a shared mental model and identity, especially at the beginning of a negotiation (Yang et al., 2008). A dominant assumption is that similarities in individual differences are the foundation for a shared mental model and group identification. Individuals identify with groups on the basis of shared characteristics such as skin color, gender, personality or attitudes. The more within-group similarities there are, the higher possibility shared mental models will form or the stronger the social identity will be (Jans et al., 2011). The results of previous studies consistently indicate that individual characteristics such as agreeableness (Yang et al., 2008) and extraversion (Barry and Friedman, 1998; Wood and Bell, 2008) can be a potent cause of integrative outcomes. In general, gender similarity can make a significant influence on the development of shared mental models and identities. The presence and proportion of women at the negotiation table may facilitate the development of shared cognition and identity. Female negotiators are more concerned about relationships (Gelfand et al., 2006; Kray and Gelfand, 2009), have less assertive negotiation styles (Amanatullah, 2007), lack propensity to initiate

negotiations (Bowles et al., 2007; Babcock and Laschever, 2003; Small et al., 2007), and more frequently adopt an accommodating style (Kray and Thompson, 2005). As a result women may be more open and accommodating to new ideas and perspectives from the other parties than men, though they are not perceived as effective negotiators (Kray et al., 2001). While these findings suggest gender similarity should aid the formation of shared mental models, there is other mixed evidence for the idea that individual differences explain the degree to which negotiators develop a shared mental model and group identification.

Recent research suggests that the outcomes of similarities in negotiators' individual differences are mixed and can be negative. Indeed, Amanatullah and colleagues (2008) find that joint economic gain in an integrative negotiation is reduced when individuals on both sides of the bargaining table score high on Unmitigated Communion (UC) although there may exist a high relational satisfaction (Curhan et al., 2008). Scholars (Jans et al., 2011; Savelkoul et al., 2011) argue that diversity does not necessarily undermine the formation of a shared mental model or social identity.

Proposition 1: Composition patterns and the match among negotiators in gender, personality, and unmitigated communion, and individual capabilities will significantly influence the dynamic process of cultivating shared mental models and identity in negotiation, but the influence is complex.

Informational Input

A shared mental model among multiple-party negotiators is achieved when negotiators have group-wide consensus on the payoff structure and the same understanding of task related information (Cooke et al., 2003; Lewis, 2004; Rentsch and Woehr, 2004). In this sense a shared mental model refers to the network in which negotiation parties process and use information (He et al., 2007; MacMillan et al., 2004). During negotiation, shared information such as shared understanding of task-related knowledge, relationships, and emotions can guide behavior and decision-making and thus enhance the quality of performance in negotiations (Cooke et al., 2003; Fiore et al., 2001; Liu et al., 2012a). In other words, negotiation, a process of communicative exchange, would proceed more smoothly and yield more positive outcomes when negotiators share a common understanding of tasks (Tindale and Kameda, 2000).

When negotiators engage in an integrative negotiation, they are likely to have a more accurate understanding of their negotiation task and of the possibility for trade-offs that lead to mutual gain (Van Boven and Thompson, 2003). When team members share similar views of the

collective task and how to coordinate, they are likely to perform better (Kerr and Tindale, 2004; Mathieu et al., 2000; Swaab et al., 2007; Tindale and Kameda, 2000). For instance, Mathieu et al. (2000) found that similarity among team members' knowledge of an F-16 flight simulation and function was positively associated with increased performance. When negotiators are given opportunities to think or discuss among themselves how they would conduct a negotiation, a shared understanding of the negotiation task among the negotiators is more likely to emerge, and it is more likely to lead to a successful negotiation involving maximized mutual gains (Bouas and Komorita, 1996; Swaab et al., 2007; Liu et al., 2012a; Van Boven and Thompson, 2003). Therefore we propose that the degree and extent of common knowledge among negotiators will be impactful to the development of shared cognition and identity.

Proposition 2: The degree of common understanding of the negotiation task among negotiators will positively influence the dynamic process of cultivating a shared mental model and identity in negotiation.

Relational Input

Negotiation is an inherently relational activity, and "so an individual negotiator's performance is affected not only by his or her own aspirations, motivations, and behaviors, but also by those of his or her opponent" (Chen et al., 2003, p. 1). Burnham and colleagues (2000) find that referring to another party as a "partner" rather than an "opponent" seriously improves trust and trustworthiness behavior. An amicable relationship encourages cooperation and triggers a more integrative approach to the problem solving aspect of negotiation, although sometimes by avoiding conflict (Lewicki et al., 2003; Thompson, 2005). We therefore expect that congenial relationships will enhance the likelihood of developing shared cognition and identity in negotiation.

Proposition 3: Amicable relationships among negotiators will positively influence the dynamic process of cultivating shared cognition and identity in negotiation.

In this section, we described individual, informational, and relational factors that are input antecedents for the dynamic process of developing shared cognition and identity, and we proposed potential questions to be tested in future research. Empirically, we note that individual characters, cognitive information, and perceptions of relationships can be studied at both the individual and collective levels, as well as being tested in

moderating interactions. Next, we turn to the dynamic process of developing shared cognition and identity and explicate the affective and motivational, informational, and relational processes that contribute to a later stage of shared cognition and identity in negotiation.

THE DYNAMIC PROCESS OF THE DEVELOPMENT OF SHARED MENTAL MODELS AND IDENTITIES

Affective and Motivational Processes

A negotiation is a concentration of human emotions. Most conflicts in negotiation occur because emotions are not well controlled. Affect regulation and motivation play substantial roles in human activities (Barsalou et al., 2007), and cognition divorced from affect is not rational (Damasio, 1994). We review and propose affective and motivational factors that can significantly influence the process of developing shared cognition and identity in negotiation.

Emotion. To develop a negotiated agreement, people need to have a good control of their emotions (Boonstra, 1998). Scholars (e.g., Bell and Song, 2005) have proved that emotions influence the conflict process by motivating or predisposing a person towards specific behaviors. Indeed, emotions are critical elements of conflict that can influence an individual's subjective experience and response to the conflict situation (Forgas and George, 2001). In general, positive relational emotions such as sympathy, respect and liking for the other party are usually associated with pro-social cognition and behavior, cooperative or integrative strategies, and thus lead to cooperation (Batson and Moran, 1999), integrating or compromising strategies. Negative relational emotions such as anger, anxiety, and frustration are related to aggressive thoughts and impulses (Harmon-Jones, 2003; Roseman et al., 1994), which may impede the development of shared cognition and identities. Self-conscious emotions including shame, guilt, embarrassment and humiliation are more likely to be associated with compliant behaviors (Barrett, et al., 2007; Fischer and Tangney, 1995), which will predict an obliging strategy, and thus lead to agreements. Other-focused emotions such as withdrawal or fear are related to a readiness to avoid, avert or protect, which will predict an avoiding strategy.

However, if negotiators are self-concerned, negative affect such as fear, hostility, disappointment, frustration, or anger may occur due to an anticipation of personal loss. Therefore, it is difficult to offer clear-cut predictions. Different from self-concern, other-concern is always associated with empathy or feelings of affection, which will predict positive relational

emotions. In particular, we predict that the shared mental models of negotiators who reach optimal settlements (thereby solving the negotiation problem) would be more likely to display (1) positive relational emotions; (2) self-conscious emotions; and (3) other-concern emotions.

Proposition 4: The relationships between emotions and expressed behaviors during negotiations are divergent and complex. Positive relational, self-conscious, and other-concern emotions are usually associated with integrative or problem-solving strategies, which lead to the development of shared cognition and identity in negotiation.

Motivation. In the negotiation context, motivational orientation has been defined as a negotiator's preference for a particular outcome distribution between him/herself and his/her opponent in a given situation (De Dreu et al., 2000). Negotiation research typically distinguishes between a pro-social motive, aimed at seeking optimal outcomes for oneself as well as for others, and an egoistic motive, aimed at maximizing outcomes for oneself only (De Dreu et al., 2000). In a negotiation, both types of motives necessarily exist (Pruitt and Carnevale, 1993), but they vary in salience due to individual differences, situational variations, or both (De Dreu and Van Lange, 1995). Negotiators with an egoistic motive try to maximize their own outcome with no regard for their opponents' outcome. In contrast, negotiators with a pro-social motive try to maximize their own as well as others' outcome (Zhang and Han, 2007). In the literature, a key theoretical assumption is that there is a positive relationship between a pro-social motive and joint gains in negotiations. Indeed, scholars (De Dreu et al., 1998; Weingart et al., 1993) have verified that pro-social groups engage in more problem-solving and less contentious behaviors and achieve higher joint outcomes than egoistic negotiators. This finding is important, but incomplete. It leaves the impression that if negotiators are from relationally focused cultures such as China, Japan or India, being more concerned about others will lead to harmonious interactions and joint gains in negotiations. Yet there is evidence showing that negotiators from pro-social cultures may not achieve optimal outcomes from negotiation because they place too much emphasis on relationships (Amanatullah et al., 2008; Curhan et al., 2008). Indeed, negotiators from Asian cultures are cooperative only when their counter party has similar social motives (Liu et al., 2012b). For instance, Chen and Li (2005) reported that Chinese are more likely to cooperate with in-group members than with out-group members. Thus, we predict that when there is a similarity between negotiators' social motives, a shared mental model and identity is more likely to take place.

Among these motivations, researchers have found that two specific motivations, Need for Closure (Fu et al., 2007; Liu et al., 2012a) and Concern for Face (Liu et al., 2012a), are particularly relevant to the development of shared cognition, especially in cross-cultural negotiations. Findings from Fu et al. (2007) and Liu et al. (2012a) show that Need for Closure can be detrimental to building shared cognition while Concern for Face can facilitate shared cognition, especially during intercultural interactions. Their reasoning is that while the Need for Closure leads to close-mindedness (De Dreu et al., 2000; De Grada et al., 1999), Concern for Face reflects a pro-social orientation (Cheung et al., 1996; Oetzel and Ting-Toomey, 2003; Ting-Toomey, 2005).

Besides emotions and motivations at the individual level, we believe such factors at the collective level, such as an uplifting team spirit and rapport among negotiators, could provide cumulative support for developing shared cognition and identity. Therefore, emotions and motivations can have a complicated impact on the dynamic process leading to shared cognition and identity, with some emotions and motivations being constructive (such as higher need for closure) and others being counterproductive (such as anger and face threat). Future research needs to further investigate such mechanisms. In particular, we predict that it is less likely to have a shared mental model and identity when negotiators feel (1) higher need for closure or (2) face threat in a negotiation. This is particularly true with pro-social negotiators.

Proposition 5: When there is similarity between negotiators' social motives, shared mental models and identity are most likely to develop. However, motivational processes during negotiations can have divergent and complex influences on the development of shared mental models and identity in negotiation.

Informational Processes

Shared mental models have been described as “knowledge structures held by members of a team that enable them to form accurate explanations and expectations of the task” (Cannon-Bowers et al., 1993, p.288). For negotiation tasks, performance and outcomes not only depend on whether or not negotiators actually share the information, but it also depends on the extent to which good strategies are developed and implemented (Salas et al., 2005). If negotiators “overtly reflect upon the negotiation objectives, strategies, and processes and adapt them to current or anticipated endogenous or environmental circumstances” (West, 1996, p.559), high performance or shared cognition is most likely. This link between

reflexivity and group performance has been replicated in some recent studies (Schippers et al., 2003). In other words, if negotiators have difficulties developing task adaptive strategies, and rethinking and revising strategies adopted earlier, they are less likely to build similarities of individual mental models (Gurtner et al., 2007).

Reflexivity can be conceived as a group discussion, which has an advantage of leading to more cooperation and less contention. It is a trend towards taking the opponent's perspectives and thus brings a higher degree of satisfaction for negotiators. Although reflexivity did not directly affect joint gains in some studies, greater post-negotiation judgment accuracy regarding the opponent's point values was found to significantly correlate with greater joint gains and with greater rates of information exchange, which are both important for successful integrative negotiation (e.g., De Dreu et al., 2000). Therefore, we predict that reflexivity should enable negotiators to revise and develop effective strategies that facilitate offer trading, and promote coordination. As a result, we expect negotiators with more degrees of reflexivity to engage in more cooperative and problem-solving processes that ultimately lead to a larger extent of shared cognition and identity.

Proposition 6: Reflexivity in the dynamic negotiation process positively promotes the development of shared mental models and identity in negotiation.

Relational Processes

Interpersonal relationships

Negotiation scholars have acknowledged that establishing interpersonal relationships and appreciating mutual differences facilitate the development of shared mental models and identities. For example, Loewenstein and colleagues show that negotiators who were attracted to the other party displayed more pro-social behavior and chose mutually beneficial alternatives (Loewenstein et al., 1989). In a study on multiparty negotiations, Swaab et al. (2008) note that researchers (Gillespie et al., 2000) believe that interpersonal relations between group members significantly predict whether a shared mental model and identity will be developed. Recent studies (Gaertner et al., 2006; Rognes and Schei, 2010) confirm that good interpersonal relations among all group members can create the conditions under which they are willing to assimilate behaviorally, and thus facilitate the integrative solution of complex tasks. In other words, negotiators without such relationships will have to exert more efforts to act integratively towards each other in order to build shared mental models and shared identities.

Trust

Economic outcomes are best advanced through accommodating behavior such as liking, trust and reputation (Kulik and Olekalns, 2012). Trust leads to constructive dialogues and compromises in negotiations because trusting negotiators usually behave more cooperatively (Rubin and Brown 1975), less competitively, and use less inappropriate information gathering (Elahee et al., 2002). Butler (1995) has shown that trusting negotiators feel confident that their counterpart will not use shared information to take advantage of the situation, and those with high trust propensity are more likely to share information and less likely to behave competitively (Mintu-Wimsatt et al., 2005). Thus trust could facilitate cooperative behaviors during negotiations and help negotiators build shared cognition and identity, as well as achieve better outcomes.

Perspective exchange and good communication skills

When people occupy different social positions within a cooperative task they experience discrepant role and situation demands and they have divergent perspectives (Gillespie and Richardson, 2011). Experiments have shown that even getting participants to imagine the perspective of the other, and how the other might react to one's own actions, can reduce intergroup competition (Wolf et al., 2009). This is called perspective or social position exchange. Researchers (Gillespie and Richardson, 2011) have become increasingly convinced that perspective exchange within a cooperative task can help negotiators move out of their own social situation and into the social situation of the other, thus overcoming divergences of perspective and experiencing the situation of the other directly. In negotiations, effective negotiators have the ability to use their unusually good communication skills that allow them to coordinate shared mental states and cooperation to resolve complex tasks and reach optimal settlements (Barsalou et al., 2007). Both perspective exchange and good communication skills function as vehicles through which group members' interpersonal differences, commonalities, and relations flow, which can facilitate shared cognition and identity formation. For example, Postmes et al. (2000) found that email messages among group members converged in both content and form over time so that intra-group interaction facilitated the emergence of unique attributes of the group. Gillespie and Richardson (2011) show that position exchange increased the likelihood of dyads solving a communication conflict based on discrepant perspectives. Postmes and colleagues (Postmes et al., 2005a; 2005b) describe pathways to the emergence shared identity and especially address the role that communicative exchange plays in the process. These findings indicate that negotiators are more likely to

“create value” by working with one another to exchange information and maximize joint gains than others if they are willing to exchange their social positions or have good communication skills (Van Boven and Thompson, 2003).

Power

Power is defined as the capacity that one group has to influence the behavior of another (Smith et al., 2003). It is linked to the extent that the group controls important, scarce, or non-substitutable resources (Greenberg and Baron, 2000). Pozzebon and Pinsonneault (2012) suggest that individuals or groups base power and knowledge on resources that can be owned or controlled, which are relational in nature and intertwined in action. In three case studies to investigate the dynamics of client-consultant relationships, Pozzebon and Pinsonneault (2012) demonstrate how knowing and powering mechanisms can reinforce or change implementation trajectories, which, in turn, can affect performance outcomes. Giebels et al. (2000) found that in a group decision-making task, imbalances in the power positions of group members led them to focus on their individual outcomes instead of on group outcomes, because it is more likely for a group with power to form a coalition, and engage in more distributive and less integrative behavior in order to claim a large part of the negotiation pie for themselves (Beersma and De Dreu, 2002). This behavior is viewed as defection at the group level, which will ultimately prevent negotiators from reaching higher joint outcomes. Hence we expect the existence of asymmetrical power would be detrimental to the development of shared cognition and identity.

Reciprocation wariness

Negotiation is a process of interpersonal interaction in which two or more parties attempt to reach an agreement and produce consensus in perceptions through reciprocation (Carnevale and Pruitt, 1992). In the context of negotiation, reciprocation wariness refers to a general belief of caution in offering and rewarding help to avoid exploitation in interpersonal interactions (Eisenberger et al., 1987). Reciprocation wariness is modestly related to actual reciprocal behavior (Perugini et al. 2003). In other words, a negotiator's reciprocation wariness could influence negotiators' actual reciprocation behavior in negotiations. Zhang and Han (2007) note that reciprocation wariness may also influence the information sharing between negotiators. High-wary negotiators fear that their opponents would take advantage of them and expect the opponents will not return truthful information when they disclose truthful information first. Put differently, high-wary negotiators are more likely to see information sharing

as a risk instead of an opportunity to find trade-offs. Consequently they tend to refuse information reciprocity and behave uncooperatively, which is detrimental to the construction of shared cognition. In contrast, negotiators with low reciprocation wariness believe their opponents will reciprocate with truthful information as long as they disclose information about themselves; they regard the opponents' such behaviors as cooperative and are more likely to build trust between each other and reach agreement in negotiation. But overall, reciprocation wariness inhibits the development of trust among negotiators and reduces negotiators' cooperative orientation and behavior, and is detrimental to building shared cognition among negotiators.

To summarize, the relational processes in building shared cognition and identity can be complex. It would be helpful for negotiators to have amicable relationships, high levels of trust, and effective communication, but lower levels of power asymmetry and reciprocity wariness.

Proposition 7: Among the relational processes in negotiation, interpersonal relationships, trust, and communication are constructive, while power and reciprocity wariness can be detrimental to building shared cognition and identity among negotiators.

Contextual Factors

Whether and how much negotiators act communally also depends on contextual factors such as task complexity (Akgun et al., 2005), task structure (Beersma and Dreu, 2002), past negotiation relationship (Gibbins et al., 2001), time pressure, differences along negotiators' occupational lines (Gelfand et al., 2006), relative bargaining power (Gruder, 1971; Kahan, 1968; Savage et al., 1989) and expectations from negotiations (Ng and Tan, 2003) and cultural differences in negotiation strategy (Gunia et al., 2011). In other words, the processes leading to shared mental models, shared identities and high joint gain are context dependent (Olekals and Smith, 2003).

Task structure

Studies (e.g., Beersma and De Dreu, 2002) show the importance of symmetric task structure or conversely the detrimental effects of asymmetric task structure of shared mental models and group identities. In a three-party negotiation, if two parties (the majority) share identical preferences while the remaining party (the minority) has opposite preferences, this asymmetrical task structure will lead majority parties to join forces and focus on their individual outcomes instead of on group outcomes,

thus excluding the minority. To answer the question whether asymmetry of the task structure influences the likelihood of the group reaching high joint outcomes, Beersma and De Dreu (2001) directly compared symmetrical with asymmetrical task structures and found that groups in an asymmetrical task structure engaged in more distributive and less integrative behavior, reached lower joint outcomes, and experienced a less positive group climate especially when they had an egoistic rather than pro-social motivation and applied unanimity rather than majority rules.

Cultural difference in behavior and strategies

Socially shared knowledge of history, concepts of identity, values and norms, stereotypes and prejudices, and behavior are usually formed in long socialization processes and become part of a cultural memory (Erll and Nünning, 2008). In a same-culture encounter, negotiators have been socialized to communicate in similar behavioral patterns naturally (Adair, 2003), which may facilitate the development of shared cognition and identity. Conversely, negotiators from different cultural backgrounds may exhibit different behaviors and expectations, which may delay shared cognition and identity formation. Particularly, the influence of cultural difference in negotiation behavior or strategy becomes stronger in situations that do not provide specific guidance or explicit rules on how to deal with cultural differences, as well as those that require close collaboration among people, such as mixed motive and multi-issue negotiations (Gibson et al., 2008). Numerous studies have shown that negotiators sharing cultural values and native languages are more likely to match each other's behaviors (Patterson, 1983), and generate joint gains (Olekalns and Smith, 2000).

To summarize, the configuration of the negotiation task, the relationship, power structure, and cultural compositions among the negotiators could influence directly or indirectly, independently or simultaneously, the degree of sharedness in cognition that they build during the negotiation process. Besides these factors, external factors such as time pressure or location could also have such effects. For example, individuals under time pressure are less likely to revise inaccurate preexisting cognitive structures during negotiation and consequently reach agreements of lower quality (De Dreu, 2003), which are hallmarks of less shared cognition. Therefore we propose:

Proposition 8: Contextual factors during the process of developing shared cognition among negotiators can have main effects or moderating effects on the degree of sharedness in shared cognition at the end of the negotiation.

OUTCOMES OF SHARED COGNITION IN NEGOTIATION

The theoretical model in Figure 4.1 ends with the consequences of shared cognition in negotiation. Compared with the antecedents to shared cognition, findings are much more consistent about the impact of shared mental models and shared cognition on outcomes in social interactions such as teamwork and negotiation. Numerous empirical studies have shown that shared mental models increase coordination and thus have a positive impact on group performance (e.g., Marks et al., 2002; Mathieu et al., 2000). In negotiation, Van Boven and Thompson (2003) and Liu et al. (2012a) found a positive association between the quality of negotiated agreements and the extent to which negotiators had similar conceptualizations of their tasks in both intra- and intercultural negotiation. Moreover, Swaab and colleagues (2002) demonstrated a causal link by showing that the presence of shared mental models about a problem facilitated settlement in a subsequent phase of dispute resolution. Similar to these findings showing the beneficial effects of shared mental models on collaborative performance and negotiation (Mathieu, et al., 2000; Swaab et al., 2007; Van Boven and Thompson, 2003), shared mental models seem to be beneficial in increasing cooperation in ultimatum bargaining (Schelling, 1960).

According to Thompson (1990), the outcomes of negotiation can be classified into two categories: economic and social-psychological measures. While economic measures focus on the gains that negotiators get from the negotiation, including joint gains, social-psychological measures are negotiators' perceptions of the negotiation situation, the self, and the other party (Thompson, 1990), including shared identity, satisfaction of economic gains and process, and expectation of future relationship. Negotiation is a joint decision-making process, and the goal is the allocation of resources under conditions in which the negotiators have different preferences and utilities for the resources (Neal and Northcraft, 1991).

Chronologically, the end state of shared mental models and joint economic gains might emerge concurrently. However, as mentioned earlier, the process of mental model sharing continues during the whole negotiation, starting from the beginning of the interpersonal interaction. Therefore, shared mental models are formed throughout the whole negotiation process. In other words, shared mental models establish the social psychological foundation for joint economic gains, as well as social psychological outcomes such as subjective values (Curhan et al., 2006) and shared identity. Social identity-based group goal setting brings into play additional processes of social influence, cooperation and organic coordination, which also helps us understand why shared mental model

and identity can lead to even more positive outcomes. At the same time, researchers point to the fact that goals do not have a universal, context-independent impact. Instead their impact is mediated by engagement of the self. Depending on the nature of the negotiation, including duration, consequences, and contingencies as a result of the negotiation, negotiators may bond and develop shared identity as a result. For instance, in cross-border merger and acquisition cases, the participants of those negotiations become colleagues as a result of the merger or acquisition, therefore fostering shared identity.

The process of cultivating shared cognition and shared identity can increase the likelihood of joint economic gains. This process has several advantages: increase the resources each party can claim, produce satisfaction and strengthen long-term relationships, decrease the possibility that future conflicts will arise, and benefit the larger community of which the negotiating group is a part, such as the overall organization (Brett, 1991; De Dreu et al., 2000; Mannix, 1993). A well-documented relationship would be: opportunities for joint gains arise when negotiators have a more accurate insight into the opponent's point values and developed a similarity between individual mental models (Brett and Okumura, 1998; Olekalns and Smith, 2003). The process of mental model and identity sharing would aid negotiators to see each other's perspective better. The higher the sharedness in shared cognition, the more smoothly negotiators reach consensus. The process of mental model sharing requires coordination, accurate interpretation of each other's messages, and a thorough sharing of important issues during the decision-making to achieve the optimal outcome for all parties. We acknowledge the possibility of generating joint gains as an important objective in negotiation (Brett, 2007; Requejo and Graham, 2008), can also facilitate the development of shared cognition and identity. Therefore the process of developing shared cognition is embedded in the whole exchange process of negotiating, directly or indirectly influencing the both social psychological and economic outcomes at the individual, collective, and contextual levels.

Proposition 9: Shared cognition developed throughout the negotiation process can have a positive impact on both social psychological and economic outcomes at the individual and collective levels.

DISCUSSION

In this chapter, we proposed a multilevel framework of shared cognition and identity in negotiation that integrates input antecedents, the dynamic

development process, and output consequences from affective, informational, and relational factors. The variables we review and discuss here are by no means exclusive; we do however hope this framework might stimulate more comprehensive inquiries on these topics. We believe negotiation can provide a dynamic context to study shared cognition and identity. With few exceptions (Van Boven and Thompson, 2003; Olekalns and Smith, 2005; Liu et al., 2012a), we still know little about the comprehensive process of developing shared cognition in a multicultural world. Swaab et al. (2008) believed that social identity theorists have largely ignored processes of emergent shared mental models, and the relationship between shared mental models and group identification. They pointed out that negotiation provides an ideal context to examine the interactive process by which shared mental and group identities develop and subsequently influence negotiation outcome.

Although a few studies have examined the effects of integration on more than one outcome measures (e.g., De Dreu et al., 2000; Liu et al., 2012a), existing research typically only includes one economic outcome and some subjective outcomes (Curhan et al., 2006), without assessing a broader spectrum of outcome dimensions. Galinsky et al. (2002) show that objective and subjective outcome measures do not always converge. We believe that the shared cognition and identity developed during the process of negotiation influence both outcome quality and different aspects of perceptions (Rognes and Schei, 2010). Further empirical research could investigate the complex process and interactive patterns on the antecedents, development, and consequences of shared cognition and identity in various negotiation settings.

We feel an important direction for future research is to explore the dynamic interactive processes involving shared cognition and identity with multiple methods and sources of data. Qualitative research methods such as observations, journals, event recordings and concept maps could offer rich data and insights into how people construct and adjust their cognitive representations and identities. Such studies could shed light on the direct and immediate experience and perspectives of individual and groups of negotiators. Converging results from multiple theoretical perspectives and empirical methods will also help clarify relationships among the negotiators, the context, and the interactive processes.

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