

Culture and getting to yes : The linguistic signature of creative agreements in the United States and Egypt

MICHELE JOY GELFAND^{1*}, LAURA SEVERANCE^{1,2}, TIANE LEE¹,
C. BAYAN BRUSS¹, JANETTA LUN¹, ABDEL-HAMID ABDEL-LATIF³,
ASMAA AHMED AL-MOGHAZY³ AND SALLY MOUSTAFA AHMED³

¹Department of Psychology, University of Maryland, College Park, Maryland, U.S.A.

²Fors Marsh Group, Arlington, Virginia, U.S.A.

³The Egyptian Research & Training Center, Cairo, Egypt

Summary

We complement the dominant rational model of negotiation found in the West with a new *honor model* of negotiation found in many Arabic-speaking populations and illustrate the linguistic processes that facilitate creativity in negotiation agreements in the United States and Egypt. Community samples ($N = 136$) were recruited in the United States and Egypt and negotiated an integrative bargaining task, *Discount Marketplace*. Analyses of categories of the Linguistic Inquiry and Word Count (LIWC) and our own newly developed honor dictionary illustrate that the same language that predicts integrative agreements in the United States, namely, that which is rational and logical (*cognitive mechanisms*, LIWC), actually backfires and hinders agreements in Egypt. Creativity in Egypt, by contrast, reflects an honor model of negotiating with language that promotes *honor gain* (i.e., moral integrity) and *honor protection* (i.e., image and strength). Theoretical and practical implications are discussed. Copyright © 2015 John Wiley & Sons, Ltd.

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“Separate the people from the problem” (Fisher & Ury, 1991)

“I would rather you respect me than feed me” (Arabic Proverb)

Negotiations, or situations in which individuals manage their interdependence (Walton & Mckersie, 1965), are omnipresent in organizational life. Whether it is over salary, promotions, division of tasks, or relations with customers, suppliers, and other external stakeholders, negotiations take place across a broad array of actors on a regular basis. In all of these contexts, negotiations fundamentally require *creativity*, or the invention of new options that satisfy both parties’ intangible and tangible interests. Like other creative decision-making tasks that are the subject of this special issue, the best negotiated agreements are those that redefine the problem in novel ways (Lewicki, Saunders, & Barry, 2014) in order to create useful and sustainable solutions. Indeed, many have argued that creativity is a key ingredient in value creation in negotiations (e.g., Carnevale, 2006; Goldenberg, Nir, & Maoz, 2006; Kurtzberg, 1998; Miles & LaSalle, 2009; Schei, 2013; Wilson & Thompson, 2014). In *The Art and Science of Negotiation*, Raiffa (1982) prescribes that negotiators should engage in “creative side-by-side joint problem solving” (p. 315), and Carnevale (2006) explains that integrative agreements—which meet the needs of all parties—inherently involve creative thinking. Toward this end, decades of research on negotiation provide wisdom into the strategies and tactics that facilitate creative agreements (Fisher & Ury, 1991; see Goldman & Shapiro, 2012; Thompson, Wang, & Gunia, 2010). Yet it is important to note that theory and research on creativity in negotiation has largely been a Western enterprise. Reviews illustrate that approximately 90 percent of the samples

*Correspondence to: Michele Joy Gelfand, Department of Psychology, University of Maryland, College Park, Maryland, U.S.A.
E-mail: mgelfand@umd.edu

on which we base our advice on creating win-win agreements are from the United States, Europe, and other English-speaking countries, with only 6% of samples from Asia, 2% from Israel, and an alarming 2% of the remaining samples from the Middle East, Latin America, and Africa (Gelfand, Severance, Fulmer, & Al Dabbagh, 2013). As a result, with some notable exceptions, we have very little insight into the cultural factors that affect creativity in negotiations.

In the spirit of this special issue, we move away from examining whether there are cultural differences in attaining creative agreements (e.g., main effect models of culture and negotiation; Gelfand et al., 2013) to assess the distinct linguistic pathways that enable negotiators to arrive at creative agreements in the U.S. and Arabic-speaking populations in the Middle East. Specifically, we use Pennebaker's Linguistic Inquiry and Word Count Software (LIWC; Pennebaker et al., 2007), coupled with our own newly created honor linguistic dictionary to examine how negotiators *get to yes* differently in the United States and Egypt. LIWC has been used to illustrate the linguistic features underlying numerous psychological processes, including leadership (Pennebaker & Lay, 2002; Pennebaker, Slatcher, & Chung, 2005; Slatcher, Chung, Pennebaker, & Stone, 2007), relationship quality (Cassidy, Sherman, & Jones, 2012; Ireland & Pennebaker, 2010), performance (Robinson, Navea, & Ickes, 2013), and health (Baddeley, Daniel, & Pennebaker, 2011; Fernandez-Cabana, García-Caballero, Alves-Pérez, García-García, & Mateos, 2013), and has been applied to study gender, personality, and age differences (Hirsh & Peterson, 2009; Lee, Kim, Seo, & Chung, 2007; Newman, Groom, Handelman, & Pennebaker, 2008; Pennebaker & Stone, 2003). To date, linguistic dictionaries have rarely been applied to understand creativity in negotiation processes (see Brett et al., 2007; Kern, Aytug, Lee, & Brett, 2012; Olekalns, Brett, & Donohue, 2010, for a few exceptions), particularly across cultures.

As we will show, the same language that helps to facilitate creative agreements in the United States—namely, that which is factual and logical and is consistent with *rational* models of negotiation—actually backfires and hinders agreements in Egypt. Creativity in Egypt, by contrast, reflects an *honor model* wherein parties who negotiate with language that promotes honor gain (i.e., moral integrity) and honor protection (i.e., prevention, public image, and strength) reach the most creative agreements. More generally, we contribute to the growing momentum to understand relational models of negotiation as a complement to rational models in negotiation science (cf. Barley, 1991; Gelfand, Smith, Raver, Nishii, & O'Brien, 2006; Gray, 1994; Kopelman, 2014; Ting-Toomey & Kurogi, 1998). In what follows, we first describe rational and honor models of negotiation and their implications for different routes to creativity in negotiation. We then present data from an experimental study among community samples in the United States and Egypt using the LIWC, along with our newly developed honor dictionary, to examine the linguistic processes that enable negotiators to *get to yes*. To our knowledge, this is the first empirical research that addresses how individuals differentially create value in negotiations in the United States and Middle East. Implications for the science and practice of creativity in negotiation are discussed.

Rational Models of Negotiation

In the United States, negotiation has long been conceptualized as a cognitive decision-making task wherein parties seek to gain economic capital through a process of logical exchange (Bazerman & Neale, 1992; Thompson, 1990). To effectively negotiate, parties are instructed to claim and create value to maximize both parties' interests (Lax & Sebenius, 1992) and to *negotiate rationally* (Bazerman & Neale, 1992; Neale & Bazerman, 1991). Negotiating rationally has several key elements. First, negotiators are urged to “separate the person from the task” and not allow relational concerns to impair their ability to focus on the instrumental task of maximizing economic value (Fisher & Ury, 1991). Second, negotiators are expected to follow a rational procedure wherein they appeal to facts and objective standards of fairness when evaluating options for mutual gain (Brett & Gelfand, 2006; Fisher & Ury, 1991). The rational negotiator is also to avoid cognitive biases that restrict the parties from finding Pareto efficient solutions. Indeed, one of the hallmarks of negotiation theory and research has been to show precisely how negotiators systematically depart from rationality in order to debias negotiators (Neale & Bazerman, 1991). This

perspective is institutionalized in the titles of classics in the field: Raiffa's (1982) *The Art and Science of Negotiation*; Bazerman and Neale's (1992) *Negotiating Rationally*; Zeckhauser, Keeney, and Sebenius' (1996) *Wise Choices: Decisions, Games, and Negotiations*; and Fisher and Ury's (1991) pioneering book *Getting to Yes*. The common theme across all of these seminal works is that negotiators should be more rational, and the assumption is that rationality pays off. As Bazerman and Neale (1992) so aptly explain, "Negotiating rationally means making the best decisions to maximize your interests" (p. 1).

A focus on rationality in negotiation is deeply embedded in Western thought where the science of negotiation has bloomed (Brett & Gelfand, 2006). In the United States, individuals are socialized to have an *analytic system of thought* (Nisbett, Peng, Choi, & Norenzayan, 2001) wherein objects are detached from their context and assigned to categories based on logical rules for the purpose of description, prediction, and explanation. Western societies, with their socio-cognitive foundations in Greek philosophy and adversarial debate, place a higher value on logic and rules as compared with non-Western cultures. Americans score higher on analytic thinking (Choi, Koo, & Choi, 2007), prefer formal, rule-based methods of cognitive reasoning (Norenzayan, Smith, Kim, & Nisbett, 2002), are more persuaded by logical arguments, and reject arguments that are illogical or subject to logical contradiction (Peng & Nisbett, 1999) as compared with non-Western samples, who, by contrast, are more holistic, intuitive, and experience based in their thought and reject logical consistency in favor of a tolerance for contradiction (Nisbett et al., 2001; Norenzayan et al., 2002; Peng & Nisbett, 1999).

In the context of negotiation, research has indeed shown that Western negotiators engage in sequences of rational persuasion, which rely on facts, logic, and reasoning more frequently than negotiators from non-Western cultures (Adair & Brett, 2005; Glenn, Witmeyer, & Stevenson, 1977). A focus on rational argumentation is also consistent with the ethos of individualism that is found in many Western cultures. As Brett and Gelfand (2006) explain, "Rationality is all about what I should and should not do in planning and executing negotiation, e.g., identify my BATNA (best alternative to a negotiated agreement), set a walkaway, identify a target, etc. Negotiating rationally only seems to take into consideration the perspective of the other party when advising about avoiding the bias of failing to identify the differential priorities between negotiators' preferences, and so leaving value on the table" (p. 177). Rational persuasion is also a mainstay of the low context communication (Hall, 1976) that is characteristic of Western negotiators. Low context communication is direct, linear, and factual and enables negotiators to "cut to the chase" and "not beat around the bush" in order to reach agreements quickly and efficiently, which is particularly important in the West where "time is money" (Gelfand & McCusker, 2002).

In all, the importance of rationality in negotiations abounds in scientific theory and prescriptions and is consistent with the values and assumptions of American culture in which this advice has been cultivated. Accordingly, we expected that in the United States, negotiators' use of rational language would be positively related to their ability to create win-win agreements (Hypothesis 1). We tested this hypothesis with Pennebaker's LIWC category of cognitive mechanisms (which includes words relating to cognitive processes associated with Western rational argumentation and causal thinking) and examined its impact on negotiated agreements in the United States.

Relational Models of Negotiation

Expanding on the rational model of negotiation in the United States, we argue that negotiations in the Arab Middle East are organized by a different logic wherein promoting honor gain and avoiding honor loss is critical for *getting to yes*. Indeed, as we suggest below, a focus on rationality, which is so useful in negotiations in the West, might actually backfire in Arabic-speaking Middle East cultures. A focus on *honor* in negotiation is part of a growing momentum to complement rational approaches in negotiation with additional "relational logics." Relational logics in negotiation have thus far focused on empathy and connection (Gelfand et al., 2006; Gray, 1994; Greenhalgh & Chapman, 1995; Kolb & Coolidge, 1991), mindfulness and emotions (Kopelman, 2014), and face maintenance

(Oetzel & Ting-Toomey, 2003; Ting-Toomey & Kurogi, 1988), among others. The honor model, as discussed below, is related to other relational models but is unique in its focus on moral integrity and protection in negotiation.

Honor model of negotiation

The study of honor cuts across culture and history (Horowitz, 1983; Stewart, 1994), yet it has rarely been examined in the context of negotiation (see Alon & Brett, 2007; Aslani, Ramirez-Marin, Semnani-Azad, Brett, & Tinsley, 2013; Beersma, Harinck, & Gerts, 2003; Harinck, Shafa, Ellemers, & Beersma, 2013, for notable exceptions). Honor has been conceptualized as a key commodity that signifies a person's self-worth in society; it is "the value of a person in his own eyes, but also in the eyes of his society. It is his estimation of his own worth, his claim to pride, but it is also the acknowledgment of that claim" (Pitt-Rivers, 1965, p. 21). Fundamentally, honor is experienced as "a right to respect" (Stewart, 1994). It is a core focal concern (Mesquita & Frijda, 1992) that pervades social interactions in many regions of the world, including the Middle East, Africa, and Latin America (Cross et al., 2014; Gelfand et al., 2012; Guerra, Giner-Sorolla, & Vasiljevic, 2013; Helkama et al., 2013; Lun et al., 2011; Uskul, Cross, Sunbay, Gercke-Swing, & Ataca, 2012). In these cultures, honor is to a person what air is to breathing. Without honor, a person cannot survive (Baroja, 1966; Hurst, 1990), and not surprisingly, people are often willing to fight and die rather than give up their honor (Atran & Axelrod, 2008).

The importance of honor is instantiated in many proverbs, including "Dignity before bread" (الكرامة اهم من الخبز), "I'd rather you respect me than feed me" (الافضل لي ان تحترمني على ان تطعمني) and "What is my need for money as it is plenty! If I didn't save my honor, whichever is plenty will not save it" (ما حاجتي لكثرة المال إذا لم احافظ على شرفي , فالمال لا يضمن لي ذلك). The common theme that cuts across these adages is that maintaining honor is more important than any economic value in social interactions. And as a commodity, honor must be negotiated continuously—it needs to be gained, maintained, and prevented from being lost or stolen in any social interaction. Accordingly, we suggest that in cultures where honor is a focal concern (Mesquita & Frijda, 1991), parties must successfully negotiate the honor of each party in order to provide the necessary context in which they can create high-quality economic agreements.

Drawing on extant theory (Cross et al., 2014; Lun et al., 2011; Nisbett & Cohen, 1996; Pitt-Rivers, 1965; Stewart, 1994), we suggest that honor in negotiation is achieved through two interrelated self-regulatory processes, including the following: (i) *the promotion of honorable behavior* (e.g., projecting an image of a virtuous self by measuring up to well-defined social norms and obligations) and (ii) *the prevention of dishonorable behavior* (e.g., protecting one's honor and projecting strength so as to not appear vulnerable; Lun et al., 2011). With respect to the former, we theorize that in order to gain the trust necessary to build high-quality agreements, negotiators in the Middle East need to signal that they are virtuous—that they have high integrity and moral commitment and will abide by codes of loyalty, honesty, and trustworthiness. Virtuous behavior and adherence to moral values are key mechanisms for having the right to respect and gaining respect in the eyes of others (Cross et al., 2014; Lun et al., 2011; Stewart, 1994). In the Middle East, the importance of the virtuous self—who is generous, trustworthy, loyal, and adhering to moral values—dates back to Bedouin culture where such traits were critical for survival in the harsh and unpredictable context of the desert. Failure to behave in an honorable way would, as Abou-Zeid (1966) explains, "bring shame and disgrace on the whole lineage" (p. 255). Indeed, in their recent analyses, Cross et al. (2014) found that moral behavior was one of the most central elements of mental models of honor in Turkey. Similarly, in over 200 interviews conducted across the Middle East region, Lun et al. (2011) found that honor is gained through an engagement of the virtuous self in everyday interactions. As discussed below, to complement Pennebaker's LIWC, we developed a new honor dictionary and predicted that language of *moral integrity* would be predictive of high-quality agreements in Egypt.

As honor is a commodity, in addition to promoting honor gain, negotiators need to have a key sensitivity to *protecting their honor* and the honor of others from being lost (Nisbett & Cohen, 1996). As much as honor can be earned through virtuous behavior, honor can also be given up and stolen if a person engages in or is accused of disreputable behavior. To protect one's honor, it is critical to guard one's *public image* and to signal that one

is cautious and vigilant against anything that can tarnish one's reputation. Protecting one's honor is also achieved through projecting images of *strength* so as to avoid being perceived as vulnerable and to deter others' honor attacks through insults, accusations, or aggression. That honor needs to be protected and carefully guarded from potential tarnish was one of the most frequent themes of Lun et al.'s (2011) interviews across the Middle East. And to gain the respect of others, it is important to signal that one is protective of one's partner's honor. Insulting others and communicating disrespect through demonstrations of arrogance that intimate that one is "better" than another would be seen as a severe affront and hinder negotiations in the Arab Middle East.

Based on the above discussion, we expected that language that signifies one is *virtuous* (i.e., that one has high moral integrity and is trustworthy, honest, and loyal) and language that indicates one is *protective* of one's honor (prevention, public image, and strength) would help people reach creative agreements in Egypt (Hypothesis 2). Through this language, individuals signal that they are abiding by honor codes to be virtuous and willing to defend and protect their honor, thereby gaining the necessary trust and respect of others, which is critical for the creation of value negotiation. This is particularly critical in Arabic-speaking countries where there is high betrayal aversion with strangers (Bohnet, Greig, Herrmann, & Zeckhauser, 2008; Bohnet, Herrmann, & Zeckhauser, 2006). In such contexts, individuals who do not use honor talk signal they have no concern for abiding by honor codes, which would engender even lower trust and respect and seriously inhibit the creation of value in negotiations. Our new honor dictionary, discussed below, captured each of these categories and was examined for its predictive power for high-quality negotiated agreements in Egypt.

We would note that these dimensions of *honor talk* were not expected to be as important for success in negotiations in the United States, which has generally been referred to as a dignity culture (Leung & Cohen, 2011). Dignity cultures, which are individualistic, subscribe to the conviction that "each individual at birth possesses an intrinsic value at least theoretically equal to that of every other person" (Ayers, 1984, p. 19). In these cultures, there is a universal and unwavering acknowledgement of an individual's right to self-worth and belief that dignity can never be lost (Kamir, 2002). In dignity cultures, internal (i.e., self-generated) evaluations are of the utmost importance, whereas external (i.e., other-generated) evaluations are secondary. As such, in dignity cultures, one does not need to gain worth in the eyes of others and also cannot have one's worth easily taken away. Ayers (1984) captured this notion well by explaining that "dignity might be likened to an internal skeleton, to a hard structure at the center of the self" (p. 20). Accordingly, the negotiation of honor is not as necessary in Western contexts, where swift trust and a focus on the substantive issues and economic capital loom large. This is consistent with Atran and Axelrod's (2008) speculation that while Western models of negotiation involve "rational actors" engaged in an exchange to maximize resource gain, Middle East negotiations involve "devoted actors" who are seeking to preserve their own honor first and foremost.¹

From this discussion, it should be clear that in contrast to the United States, where negotiations are construed as rational exchanges wherein people should "separate the person from the task," in Egypt and other honor cultures, the *person is the task*. In this respect, effectively negotiating honor gain and avoiding honor loss is a critical foundation for the task of negotiating the economic exchange, particularly in contexts of low trust and high betrayal aversion. Indeed, we would expect that too much of a focus on the instrumental and rational aspects of negotiation

¹It is useful to contrast both honor and dignity cultures with face cultures (e.g., Leung & Cohen, 2011; Oetzel & Ting-Toomey, 2003; Ting-Toomey & Kurogi, 1998). Face has been described as "the positive social value a person effectively claims for himself by his or her self-presentation" (Goffman, 1967, p. 5) or as "the respectability and/or deference which a person can claim for himself from others by virtue of [his or her] relative position in a hierarchy" (Ho, 1976, p. 883). These definitions convey that face cultures, like honor cultures and unlike dignity cultures, place an emphasis on social standing and external evaluations of the self. However, honor and face orientations differ in many other marked ways (Leung & Cohen, 2011). Most pertinent to our discussion, while the literature on honor explicitly examines morality and virtue as key components of honor (Cross et al., 2014; Lun et al., 2011; see also Dodd, 1973), morality and virtue are scarcely discussed in seminal pieces on face (e.g., Ho, 1976; Oetzel & Ting-Toomey, 2003; Ting-Toomey & Kurogi, 1988). There are other notable differences in the constructs. Status differences are generally in flux in honor cultures, and social standing can be gained or taken away through competition with others (Leung & Cohen, 2011). Accordingly, it is critical to demonstrate strength in order to cultivate a formidable reputation and prevent future attacks on one's honor (Nisbett & Cohen, 1996; Severance et al., 2013). Status is largely fixed in face cultures, and thus, harmony and humility are emphasized, and overt aggression is eschewed (Ohbuchi & Takahashi, 1994; Severance et al., 2013).

(e.g., cognitive mechanisms in the LIWC) can be seen as “cold hearted” (March, 1990) and viewed with skepticism in the Middle East. As Anderson (1989–1990) noted, “An Arab would view Americans insistence on a unitary perspective based on ‘objective facts’ as deliberately deceptive in neglecting the broader historical context behind the immediate issues” (p. 92). We therefore examined the possibility that language that focuses on cognitive mechanisms would impede the quality of negotiated agreements in Egypt (Hypothesis 3).

Method

Participants

Participants included community samples of individuals from the United States ($N=76$) and Egypt ($N=60$). The U.S. sample included 38 same-sex dyads (22 male and 16 female; $M_{Age}=33.60$). U.S. participants were recruited via an advertisement on Craigslist, and U.S. data collection was conducted at two large universities in the Mid-Atlantic. Three U.S. dyads were missing a large amount of negotiation dialogue due to a technical error, leaving a final sample size of $N=35$ U.S. dyads for linguistic analyses. The Egyptian sample included 30 same-sex dyads (15 male and 15 female, $M_{Age}=36.73$). Egyptian participants were recruited via posters and flyers at the American University of Cairo. One Egyptian dyad was excluded due to a large amount of missing data on both objective negotiation outcomes and negotiation dialogue, leaving a final sample size of $N=29$ Egyptian dyads.

Procedure

Upon arrival to the study, participants provided informed consent and were then provided with instructions regarding the negotiation task. Participants were then given 60 minutes to negotiate. All negotiations were recorded using audio-recording devices. After the negotiation, participants were asked to specify negotiation agreement in writing.

Task

Participants engaged in an adaptation of Bacow's (1991) *Discount Marketplace* integrative negotiation task. The task is a two-party business negotiation between a real estate developer (Hawkins Development) who plans to open a mall and a large retailer (Discount Marketplace) who is interested in opening an anchor store in the mall. The key negotiation issue pertained to how much flexibility Discount Marketing would have to sublet their space. Hawkins Development (referred to as Anis Corporation in Egypt) does not want to allow subletting because it would give Discount Marketplace complete freedom to use, assign, or sublet as it personally desires, which could deprive the mall of a true central store. It also could take away Hawkins' ability to maintain control over the future vendor mix and character of the mall and potentially cause competition with other retailers in the mall. However, Discount Marketplace (referred to as Hybar Corporation in Egypt) wants to sublet in order to protect itself against unforeseeable future events and financial hardship. In particular, Discount Marketplace wants to have the freedom to adapt to different market situations to avoid the risk of being tied to a single use that does not fit the future market.

Although the parties have different positions, the task presented ample opportunity for creative solutions that could meet the interests of both parties. In this respect, the Discount Marketplace task is integrative (as opposed to distributive) in nature (Lax & Sebenius, 1986; Neale & Bazerman, 1991; Raiffa, 1982). In order to reach an integrative agreement, negotiators need to look beyond the key position on which they disagree (i.e., subletting) and discover ways to meet each other's underlying interests (i.e., flexibility to adapt to market situations for

Discount Marketplace and having control over the character of the mall and maintaining an anchor store for Hawkins Development). The uncovering and subsequent integration of these novel issues into proposed agreements is a highly creative process. The parties could negotiate many elements of the issue, including who Discount Marketplace could sublet to, how much space they could sublet, the kinds of uses that might be restricted, how much involvement the real estate developer and other stores would have in the decision, and at what point in the future and under what circumstances the store could sublet (Barry & Friedman, 1998).

For example, many creative agreements reached allowed some degree of subletting but focused on placed restrictions on the types of vendors Discount Marketplace would be allowed to sublet to, with Hawkins Development having approval over sublettees in order to capture their fundamental interest of preserving the quality of the mall. Other dyads agreed to only sublet to vendors whose values and character align with those of other vendors in the mall and who have a good reputation in the retail industry or who only offer seasonal products so as to avoid competition with other retailers. Other agreements were contingent in nature such as specifying that if Discount Marketplace provides proof of financial hardship, they will have the option of subletting up to 30% of the space. Other creative agreements allowed subletting but involved both Discount Marketplace and Hawkins Development in the decision-making process. In some agreements, subletting was allowed provided that Discount Marketing assumed full responsibility for the sublettees and agreed to work with other retailers in the mall to effectively resolve any conflicts that arise with sublettees. What these agreements have in common is that negotiators were able to look beyond the key impasse issue (i.e., subletting) to identify each parties' key concerns and interests and then craft agreements that satisfied both parties. By contrast, agreements that were low on creativity were ones that failed to meet both parties' interests, such as Hawkins Development flat out refusing to allow Discount Marketplace to sublet. While these types of agreements benefitted one party, they fail to discover any joint gains that might be reaped with a more creative agreement. The agreements in which one party *dominates* thus show little creative thinking on the part of the negotiators.

The task was translated into Arabic (and back-translated into English to check for discrepancies) and was piloted in both the United States and Egypt to ensure it was motivating and realistic in both cultural contexts.

Measures

Objective outcome coding

If an agreement was reached, participants were asked to specify in writing the agreement they reached. In order to quantify these agreements, we developed a coding scheme (available from the second author) to assess the integrativeness and utility of agreements to both parties, modeled after Barry and Friedman (1998). Integrative agreements were defined as those that bridged the differences between the parties and creatively satisfied the interests of both parties. Specific issues included in the coding scheme were decision-making power, space restrictions, product restrictions, time delay, advertising, third-party involvement, and future reevaluation of terms, among others. When employing this coding scheme, coders were reminded to consider the overarching interests of each party in addition to the specific issues. Prior to coding agreements, two coders reviewed each transcript with the accompanying agreement form to ensure that all agreement terms were captured. All information identifying the country of participants was removed from agreement forms prior to coding.

Subsequently, two coders performed three separate ratings for each dyad: one for integrativeness, one for utility to Hawkins, and one for utility to Discount Marketplace. Coders rated agreements on a 1–7 scale with 7 representing values high on a given dimension (i.e., integrativeness or utility) and with 1 representing values low on a given dimension. Agreements that breached both parties' interests—for Hawkins Development, maintaining a true central store and control over the character of the mall, avoiding competition with smaller retailers, and making a profit, and for Discount Marketplace, flexibility to adapt to the changing market, and making a profit—in creative ways were rated highly on all three dimensions. Agreements that only met one party's interests, but not the other's, were given a low score for integrativeness and a high utility score for the party whose interests were met and a low utility

score for the party whose interests were not met. For example, an agreement in which Hawkins Development prohibited Discount Marketplace from subletting at all would receive a 1 for integrativeness, a 7 for utility to Hawkins Development, and a 1 for utility to Discount Marketplace. Agreements that met both parties' interests to some degree, but not fully, were rated anywhere from 2 to 6 on all three dimensions, depending on the extent to which each party's interests were met.

For each dimension, we assessed inter-rater agreement by examining inter-correlations between the values assigned by the coders, as per Barry and Friedman (1998). Levels of agreement on all three variables were high: $r(64) = .90$, $p < .001$ for integrativeness, $r(64) = .87$, $p < .001$ for utility to Hawkins, and $r(64) = .89$, $p < .001$ for utility to Discount Marketplace. Values from the two coders were then averaged, and we then created variables representing the extent to which the agreements (i) were integrative and (ii) had one party dominating the negotiation (calculated as the absolute value of the difference between Hawkins Development's and Discount Marketplace's utility scores, such that high domination values indicate that one party benefited significantly more than the other). Inter-correlations between outcome measures followed expected patterns. For example, integrativeness and domination should be negatively correlated, as one represents the extent to which the agreement benefits *both* parties and the other represents the extent to which the agreement benefits *one* party over the other. Consistent with this, these variables correlated at $r(64) = -.88$, $p < .001$. All dyads reached agreement.

Linguistic analyses

The audio recordings of the negotiation dialogues were transcribed from audio into text, and Egyptian transcripts were translated into English. Negotiation dialogues were analyzed using categories from the LIWC (Pennebaker et al., 2007), the new honor dictionary that we created, and the virtue dictionary from moralfoundations.org. For all linguistic dictionary categories, we calculated the percentage of words in the transcripts across the entire duration of the negotiations.

Linguistic Inquiry and Word Count's cognitive mechanisms category

The cognitive mechanisms category reflects inference, cause, effect, and order, which is indicative of a distinctly Western form of logical reasoning. It includes words such as rational, reason, analyze, logic, deduce, idea, infer, think, knowledge, statement, basis, believe, cause, consider, choice, change, solution, problem, complete, allow, because, issue, and intention, among others (Pennebaker et al., 2007).

Honor dictionary

We developed a new dictionary to assess honor talk and its predictive validity in negotiations in the United States and Egypt. The LIWC's internal dictionary is an excellent tool to assess constructs particularly relevant in the West, such as cognitive mechanisms, but it is ill-equipped to assess critical focal concerns in other cultures, such as the Middle East. Appendix A details the development and validation of the honor dictionary. The relevant subcategories of the dictionary for this research and sample words within each category include the following:

Honor moral integrity

This category includes words related to morals, values, and ethics. Sample words include honest, responsible, value, offer, help, right, approve, trust, commit, depend, credibility, obligatory, expect, and agree.

Honor protection

This category includes language related to the following: (i) public image, including words such as reputation, look, display, public, name, image, front, and appear; (ii) prevention (protection and safety) including words such as

prohibit, limit, boundary, forbid, protect, save, afraid, restrict, and avoid; and (iii) security and strength (e.g., strong, power, force, confident, and firm).

Supplemental linguistic analyses

We also examined the moral foundations dictionary (moralfoundations.org) as an additional predictor of negotiated agreements in the United States and Egypt. This dictionary includes concepts related to five foundations of morality: harm virtue (e.g., peace, protect, defend, and secure), fairness virtue (e.g., equal, balance, reasonable, and honest), in-group virtue (e.g., together, group, community, and joint), authority virtue (e.g., honor, respect, order, authority, status, legal, and permit), and purity virtue (e.g., clean and integrity). We explored both an overall virtue and these specific components in the analyses.

Results

Table 1 presents descriptive statistics of the linguistic processes and negotiated outcomes in the United States and Egypt. As can be seen, there was much more cognitive mechanisms language in U.S. negotiations ($M=22.67$, $SD=1.87$) as compared with Egypt ($M=15.79$, $SD=1.70$) ($t(62)=15.29$, $p<.01$). By contrast, there was more overall honor talk, as assessed by the new honor dictionary, in Egypt ($M=10.67$, $SD=1.13$) than the United States ($M=7.52$, $SD=1.27$) ($t(62)=-10.40$, $p<.01$). Egyptian negotiations also had a higher level of *honor moral integrity* talk ($M=1.72$, $SD=0.54$) and *overall virtue* talk ($M=1.32$, $SD=0.64$) as compared with the United States ($M=1.54$, $SD=0.46$ for honor moral integrity; $M=0.79$, $SD=0.27$ for overall virtue) ($t(62)=-1.73$; $p=.088$ for honor moral integrity; $t(62)=-4.38$, $p<.01$, for overall virtue). Of all of the virtue categories, there was a stronger emphasis on *in-group* and *authority virtue* in Egypt ($M=0.18$, $SD=0.37$ for in-group virtue and $M=0.24$, $SD=0.20$ for authority virtue), as compared with the United States ($M=0.05$, $SD=0.07$ for in-group virtue and $M=0.16$, $SD=0.12$ for authority virtue) ($t(62)=-1.97$, $p=.053$, in-group virtue; $t(62)=-1.90$, $p=.062$, authority virtue). *Harm virtue* was higher in Egypt ($M=0.27$, $SD=0.20$) than in the United States ($M=0.11$, $SD=0.12$).

Table 1. Means, standard deviations, and average mean differences between outcome and linguistic variables in the United States and Egypt.

	United States		Egypt		<i>t</i> -test
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Integrativeness	4.20	1.49	2.40	1.83	4.44***
Dominance	2.03	1.48	3.91	2.46	-3.89***
Cognitive mechanisms	22.67	1.87	15.79	1.70	15.29***
Honor dictionary	7.52	1.27	10.67	1.13	-10.40***
Honor moral integrity	1.50	0.46	1.72	0.54	-1.73*
Virtue (overall)	0.79	0.27	1.32	0.64	-4.38***
In-group virtue	0.05	0.07	0.18	0.37	-1.97*
Authority virtue	0.16	0.12	0.24	0.20	-1.90*
Purity virtue	0.01	0.02	0.003	0.11	1.96*
Fairness virtue	0.11	0.10	0.08	0.10	.98
Harm virtue	0.11	0.11	0.27	0.20	-3.88**
Honor protection	1.07	0.32	1.01	0.33	.73

Note: Degrees of freedom are 65 for outcome variables (integrativeness and dominance); degrees of freedom are 62 for linguistic variables.
* $p<.10$, ** $p<.05$, *** $p<.01$.

($t(62) = -3.88, p = .000$). In addition, Purity virtue was higher in the United States ($M = 0.01, SD = 0.02$) as compared with Egypt ($M = 0.003, SD = 0.11$) ($t(62) = 1.96, p = .054$).

U.S. negotiators achieved a higher level of integrativeness ($M = 4.20, SD = 1.49$) as compared with Egyptians ($M = 2.40, SD = 1.83$) ($t(65) = 4.44, p < .01$) and had lower levels of dominance ($M = 2.03, SD = 1.48$) than Egyptians ($M = 3.91, SD = 2.46$) ($t(65) = -3.89, p < .01$). Integrativeness was significantly higher and dominance was lower for Egyptian men ($M = 3.75, SD = 1.76$ for integrativeness; $M = 1.96, SD = 2.00$ for dominance) than Egyptian women ($M = 1.13, SD = 0.52$ for integrativeness; $M = 5.73, SD = 1.03$ for dominance) ($t(27) = 5.51, p < .01$, integrativeness; $t(27) = -6.43, p < .01$, dominance). There were no gender differences in outcomes in the United States ($t(36) = -1.42, p = .165$ for integrativeness; $t(36) = 1.44, p = .160$ for dominance).

Hypothesis testing

Our central question was not about cultural main effects on linguistic processes and negotiated outcomes, but rather whether linguistic processes differentially predicted the quality of agreements in the United States and Egypt. Because our main focus is dyadic creativity, which is inherently a group-level property in our task, All of our analyses are done at the dyadic level. To test our hypotheses, we first examined the correlations between the linguistic categories and creativity in negotiations (both integrativeness and dominance) and conducted z tests for the differences between the correlations in Egypt and the United States (Table 2) and then conducted hierarchical multiple regression analyses (Tables 3 and 4).

Cognitive mechanisms

We predicted that greater use of *cognitive mechanisms language* from the LIWC internal dictionary would be related to more creative agreements in the United States but would hinder such agreements in Egypt. In support of this, the correlation between cognitive mechanisms speech and integrativeness was $r = .38, p = .024$ in the United States whereas it was $r = -.37, p = .047$ in Egypt, and the difference between these correlations was significant ($z = 3.01, p = .003$). Similarly, cognitive mechanisms speech was negatively related to dominance in the United States ($r = -.33, p = .056$) and positively (but non-significantly) related to dominance in Egypt ($r = .26, p = .17$) ($z = -2.29, p = .022$). Accordingly, using “rational talk” was helpful for creative agreements in the United States but harmful in Egypt, supportive of Hypotheses 1 and 3.

Table 2. Correlations between outcome variables, integrativeness and dominance, and linguistic variables for the United States and Egypt.

	United States		Egypt	
	Integrativeness	Dominance	Integrativeness	Dominance
Cognitive mechanisms	.38**	-.33*	-.37**	.26
Honor moral integrity	.01	.18	.36*	-.35*
Virtue (overall)	.05	.05	.46**	-.47**
In-group virtue	-.06	.32*	.37**	-.32*
Authority virtue	-.14	.35**	.24	-.19
Fairness virtue	.29*	-.03	-.19	.20
Honor protection	-.27	.40**	.24	-.38**

* $p < .10$, ** $p < .05$, *** $p < .01$.

Table 3. Results of stepwise regression examining effects of country and linguistic variables on integrativeness.

Predictor	<i>B</i>	<i>SE B</i>	β	R^2	ΔR^2	ΔF	(<i>df</i>)
Step 1				0.26	0.26	5.19***	(4, 59)
Country	-1.86	0.94	-0.49				
Cognitive mechanisms	0.01	0.12	0.03				
Honor protection	0.07	0.67	0.01				
Honor moral integrity	0.65	0.43	0.17				
Step 2				0.46	0.20	7.09***	(3, 56)
Country	-2.42	0.87	-0.64***				
Cognitive mechanisms	0.35	0.14	0.72**				
Honor protection	-1.37	0.80	-0.24*				
Honor moral integrity	-0.56	0.58	-0.15				
Country * cognitive mechanisms	-0.80	0.23	-0.92***				
Country * honor protection	3.51	1.18	0.41***				
Country * honor moral integrity	1.59	0.79	0.30**				

* $p < .10$, ** $p < .05$, *** $p < .01$.

Table 4. Results of stepwise regression examining effects of country and linguistic variables on dominance.

Predictor	<i>B</i>	<i>SE B</i>	β	R^2	ΔR^2	ΔF	(<i>df</i>)
Step 1				0.21	0.21	3.86***	(4, 59)
Country	2.10	1.12	0.48*				
Cognitive mechanisms	0.02	0.14	0.03				
Honor protection	-0.47	0.80	-0.07				
Honor moral integrity	-0.61	0.52	-0.14				
Step 2				0.50	0.29	11.03***	(3, 56)
Country	2.59	0.97	0.59**				
Cognitive mechanisms	-0.34	0.16	-0.61**				
Honor protection	2.10	0.89	0.31**				
Honor moral integrity	1.20	0.64	0.28*				
Country * cognitive mechanisms	0.82	0.25	0.83***				
Country * honor protection	-5.84	1.32	-0.59***				
Country * honor moral integrity	-2.66	0.88	-0.44***				

* $p < .10$, ** $p < .05$, *** $p < .01$.

Moral integrity and virtue

Language related to honor moral integrity (e.g., honest, help, trust, and responsible) was positively related to integrativeness in Egypt ($r = .36$, $p = .06$) but unrelated to integrativeness in the United States ($r = .01$, $p = .994$) ($z = -1.42$, $p = .077$). Similarly, honor moral integrity language was negatively related to dominance in Egypt ($r = -.35$, $p = .066$) and unrelated to dominance in the United States ($r = .18$, $p = .30$) ($z = 2.12$, $p = .034$). Consistent with these findings, language related to overall virtue negatively predicted dominance in Egypt ($r = -.47$, $p = .010$) but was unrelated to dominance in the United States ($r = .05$, $p = .77$) ($z = 2.12$, $p = .034$). Likewise, overall virtue language positively predicted integrativeness in Egypt ($r = .46$, $p = .012$) but was unrelated to integrativeness in the United States ($r = .05$, $p = .79$) ($z = -1.72$, $p = .086$), all of which support Hypothesis 2.

Examining the subcomponents of the moral foundations dictionary revealed particularly strong effects for moral language related to in-group virtue (e.g., together, group, and community) in Egypt. In-group virtue language was significantly related to integrativeness in Egypt ($r = .37$, $p = .049$) and non-significantly related in the United States ($r = -.06$, $p = .72$) ($z = -1.71$, $p = .088$). In-group virtue language negatively predicted dominance in Egypt ($r = -.32$, $p = .096$) but positively predicted dominance in the United States ($r = .32$, $p = .061$) ($z = 2.49$, $p = .013$). Likewise,

moral language related to authority virtue (e.g., honor, order, and authority) backfired in the United States—it was positively related to dominance ($r = .35, p = .041$) but was unrelated in Egypt ($r = -.19, p = .324$) ($z = 2.10, p = .036$). Interestingly, *fairness virtue* (e.g., equal, balance, reasonable, and honest) was the only part of the dictionary that approached significance in predicting integrativeness in the United States ($r = .29, p = .09$), and this was negatively although non-significantly related to integrativeness in Egypt ($r = -.19, p = .317$) ($z = 1.88, p = .06$). Neither harm virtue nor purity virtue related to integrativeness or dominance in either culture. In all, moral integrity and virtue play an important role in facilitating agreements in Egypt and are either unrelated or negatively related in the United States, with the exception of fairness virtue.

Protection

Language related to honor protection (e.g., public image, prevention, and strength) from the honor dictionary was positively but non-significantly related to integrativeness in Egypt ($r = .24, p = .204$) and negatively but non-significantly related to integrativeness in the United States ($r = -.27, p = .122$) ($z = -1.97, p = .049$). Honor protection was negatively and significantly related to dominance in Egypt ($r = -.38, p = .041$) but positively and significantly related to dominance in the United States ($r = .40, p = .017$) ($z = 3.13, p = .002$). In sum, there was partial support for the Hypothesis 2 that honor protection is helpful for quality agreements in Egypt.

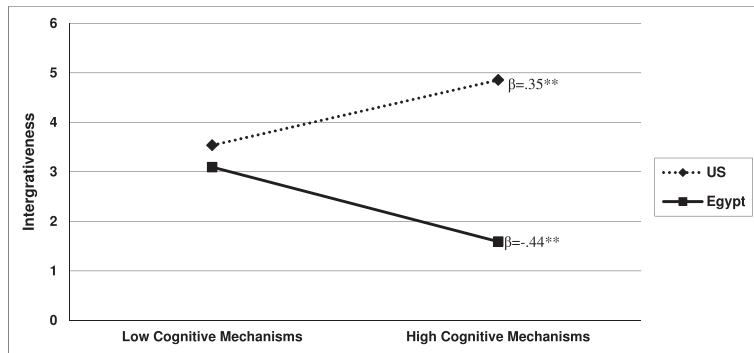
Multiple regression analyses

In addition to the within-group analyses and z score differences discussed above, we conducted hierarchical regression analyses to examine cultural differences in getting to creative agreements. In the analysis, we examined the main effects of country, cognitive mechanisms, honor protection, and honor moral integrity in the first step, followed by the interactions of country with the linguistic dictionaries in predicting integrativeness and dominance. Table 3 presents the results for integrativeness, which illustrate that these interactions were significant above and beyond the main effects for the interaction between country and cognitive mechanisms language ($\beta = -.92, p = .001$), country and honor protection language ($\beta = .41, p = .004$), and country and honor moral integrity language and ($\beta = .30, p = .048$). Table 4 presents the results for dominance, which also illustrate that these interactions were significant for the interaction between country and cognitive mechanisms language ($\beta = .83, p = .002$), country and honor protection language ($\beta = -.59, p < .001$), and country and honor moral integrity language ($\beta = -.44, p = .004$). Controlling for gender did not affect the results. Figures 1–6 illustrate the effects and simple slopes.

Discussion

This is of the first work to examine how linguistic processes differentially predict creative agreements in the United States and Middle East. We complemented the dominant *rational* model of negotiation found in the West with an honor model of negotiation found in the Arabic-speaking Middle East. In order to assess core focal concerns in each culture, we expanded upon the seminal LIWC internal dictionary that has been used extensively to understand psychological processes in the West to include a new dictionary that assesses *honor talk*. The results illustrated that the same language that predicts integrative agreements in United States, namely, that which is rational and logical, actually hinders agreements in Egypt. Creativity in Egypt, by contrast, reflects an honor model of negotiating with language that promotes honor gain (i.e., moral integrity) and honor protection (i.e., image, prevention, and strength).

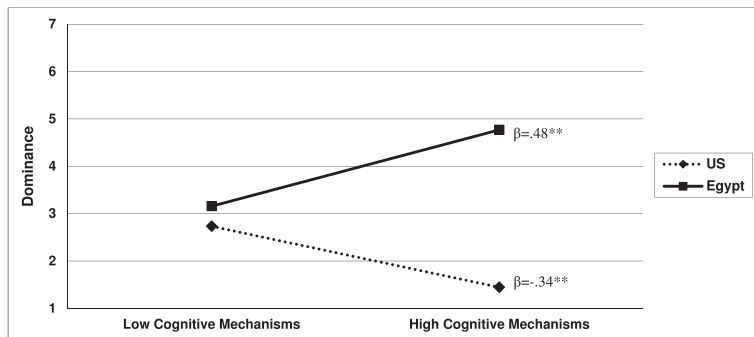
Interaction between country and cognitive mechanism language on integrativeness



* $p < .10$. ** $p < .05$. *** $p < .01$.

Figure 1. Interaction between country and cognitive mechanisms language on integrativeness

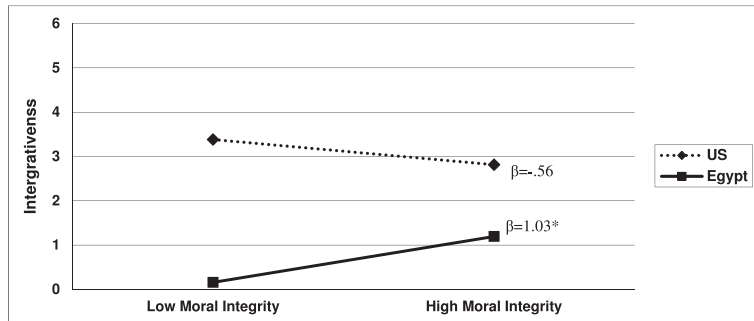
Interaction between country and cognitive mechanism language on dominance



* $p < .10$. ** $p < .05$. *** $p < .01$.

Figure 2. Interaction between country and cognitive mechanisms language on dominance

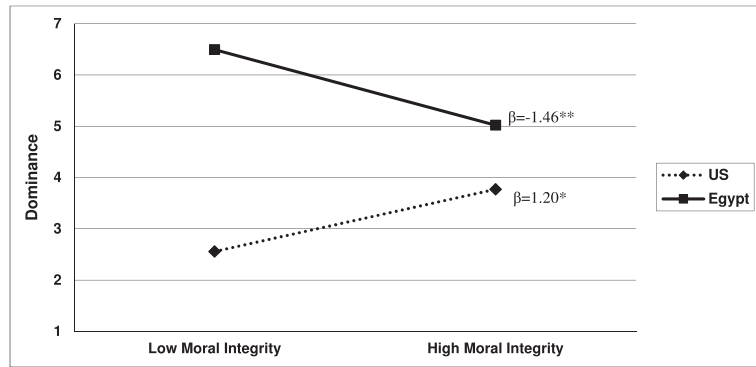
Interaction between country and honor-moral integrity language on integrativeness



* $p < .10$. ** $p < .05$. *** $p < .01$.

Figure 3. Interaction between country and honor moral integrity language on integrativeness

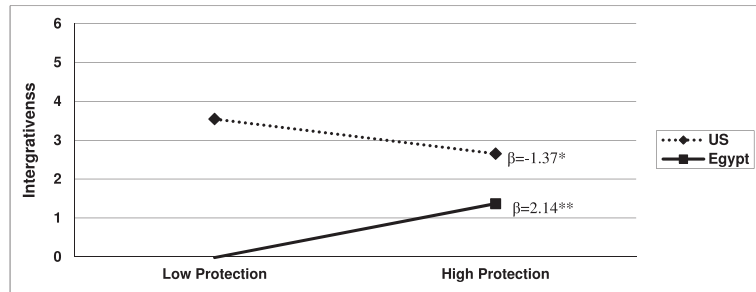
Interaction between country and honor-moral integrity language on dominance



* $p < .10$. ** $p < .05$. *** $p < .01$.

Figure 4. Interaction between country and honor moral integrity language on dominance

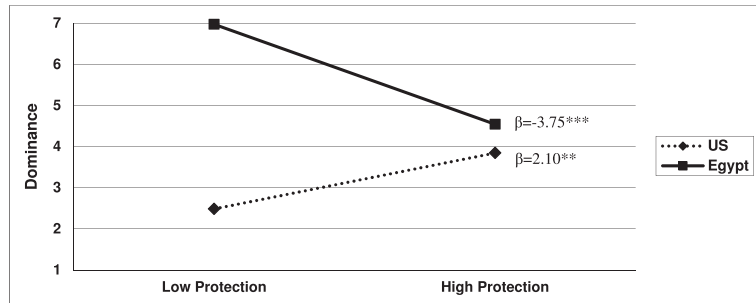
Interaction between country and honor-protection language on integrativeness



* $p < .10$. ** $p < .05$. *** $p < .01$.

Figure 5. Interaction between country and honor protection language on integrativeness

Interaction between country and honor-protection language on dominance



* $p < .10$. ** $p < .05$. *** $p < .01$.

Figure 6. Interaction between country and honor protection language on dominance

More specifically, consistent with rational models of negotiation, cognitive mechanisms-related speech positively predicted creative agreements in the United States. The focus on rationality in dignity cultures such as the United States is consistent with previous research demonstrating that Western negotiators employ rational negotiation tactics and rely on facts, logic, and reasoning (Adair & Brett, 2005; Glenn et al., 1977). In employing a rational

approach, negotiators are encouraged to separate the person from the task and to focus on the underlying interests of both parties in order to create win-win agreements for both parties (Fisher & Ury, 1991). Indeed, the results illustrated, as Bazerman and Neale (1992) suggest, that negotiating rationally pays—it translates into high joint gains—at least for U.S. subjects. The results also showed that focusing on *fairness* was helpful for creativity in the United States. This is consistent with advice from *Getting to Yes* (Fisher & Ury, 1991), which urges negotiators to focus on objective standards for fairness when evaluating options for mutual gain, and more generally with Western culture, which embraces swift trust and egalitarian and meritocratic ideals. In all, the results supported a rational-based model of negotiation in the United States where “rational actors” engage in an exchange to maximize resources (Atran & Axelrod, 2008).

The results illustrated a different road to getting to yes in Egypt where honor is a focal concern. We argued that in cultures where one’s self-worth is continually negotiated in the eyes of others—where it can be gained, lost, and stolen—parties must successfully negotiate honor in order to reach creative agreements. Consistent with an honor model of negotiation, the results showed that language that signifies one is virtuous (i.e., that one has high moral integrity and adheres to codes of loyalty, honesty, and trustworthiness) and one is committed to *moral values*, particularly related to the in-group, predicted creative agreements in Egypt. We also hypothesized that while it is crucial to promote honorable behavior, it is also important to protect one’s own honor to achieve successful negotiation outcomes. Continuously protecting one’s public image conveys that one is cautious and vigilant against threats that might compromise one’s reputation (Nisbett & Cohen, 1996). Consistent with this, results showed that honor talk related to protection (image, prevention, and strength) was helpful for achieving better-quality agreements in Egypt. Accordingly, honor talk—the promotion of honor gain and honor protection—pays in the context of Egypt. A focus on promoting honor, we believe, is particularly critical when dealing with strangers in Arabic-speaking countries that tend to have high betrayal aversion (Bohnet et al., 2006, 2008). Indeed, in this research, which was conducted with strangers, overall, Egyptians achieved lower outcomes than Americans. Most notably, however, those dyads that emphasized honor talk *were* able to achieve high-quality creative agreements.

Taken together, this research advances a culturally sensitive understanding of how negotiators get to yes and illustrates the different linguistic pathways that negotiators use to achieve success in the United States and Egypt. It moves beyond a largely Western definition of what successful negotiation strategies entail and shows that rational-based negotiation strategies that are so useful in the West can be ineffective in Middle Eastern contexts such as Egypt. It also shows the value of expanding our constructs in the science of negotiation to include honor. An honor-based approach, which has been largely ignored in the negotiation literature, predicted successful negotiation agreements in Egypt. Similarly, our research illustrates the need to develop and validate new tools such as the honor dictionary to complement tools that have been developed in the West.

From a practical point of view, the findings illustrate that best practice negotiation techniques are, in fact, moderated by the cultural context. The identification of culture as a critical moderator of the success of different negotiation strategies suggests that negotiators should be encouraged to match their language to the cultural context. In other words, there is no “one-size-fits-all” approach when it comes to negotiating cross-culturally. Rather, negotiators must first identify the focal concerns in their current cultural context (e.g., honor and dignity) and choose a language that communicates a consideration of these concerns. In honor cultures, this means communicating one’s moral integrity and protecting one’s honor. In dignity cultures, this means considerations of logic, facts, and fairness.

Limitations and future directions

While the current study makes an important contribution to our understanding of what predicts creative agreements in Western and Middle Eastern contexts, it also has limitations. The current study only examined two cultures, the United States and Egypt. Other dignity and honor cultures should be examined to assess whether our findings replicate in other nations that share these same cultural logics, as well as within cultures where there is variation on the constructs (e.g., the U.S. North and South). In addition, while we found that linguistic processes differentially

predicted creativity in agreements in the United States and Egypt, we did not examine the mechanisms through which this occurred. We theorized that virtuous and protection language would elicit trust and respect that enable the creation of value, yet future research needs to test this supposition. Furthermore, examining the linguistic correlates of getting to yes in countries with cultural logics other than dignity and honor (e.g., *face* cultures) is an important task for future research. As noted previously, honor cultures are related to but distinct from face cultures. While both share concerns for reputation, honor cultures focus on virtuous behavior and images of strength, whereas face cultures focus on harmony and avoidance of confrontation (Leung & Cohen, 2011). Future research should therefore examine the similarities and differences in linguistic processes that lead to creative agreements in face and honor cultures. More generally, given the increasing focus on relational logics in negotiation—whether it is related to face (Leung & Cohen, 2011; Oetzel & Ting-Toomey, 2003), mindfulness (Kopelman, 2014), empathy and connection (Gelfand et al., 2006; Gray, 1994; Kolb & Coolidge, 1991), and honor, it will be important to integrate these models in order to understand the core similarities and differences.

The current study was conducted in a laboratory setting and thus has limited realism and ecological validity. However, Anderson, Lindsay, and Bushman (1999) compared meta-analytic effect sizes across several constructs (e.g., leadership styles, helping behavior, aggression, social loafing, depression, and memory) and found substantial correspondence between lab and field studies. Nonetheless, participants in the current study had no previous relationship or any expectation of a future relationship with their negotiation partners. Future research would benefit from examining the role of honor and rational talk in actual negotiations, perhaps through the use of archival data. As well, future research would benefit from taking a *culture-by-context* approach and manipulate other features of negotiations (e.g., friends versus strangers, deals versus disputes, and power asymmetries) to examine if they moderate the current findings. Honor talk, for example, might be particularly important in negotiations involving strangers who have little history or connection through an existing *Wasta*.

Finally, this study focused on creativity in negotiations, an inherently mixed-motive context, which differs from the context of other individual-level and team-level studies of creativity. As such, it highlights the distinct processes that lead to the creation of novel and useful agreements in contexts where people have both a motive to compete and a motive to cooperate with others (Lewicki, Saunders, & Barry, 2014). To date, there has been very little integration of the negotiation and the individual and team creativity literatures (see Kurtzberg, 1998; Schei, 2013; Wilson & Thompson, 2014, for examples of notable exceptions), yet there are likely many promising synergies between them. Identifying the similarities and differences in the individual and contextual factors that foster versus inhibit creativity across different group tasks and across cultures is an exciting area for future research.

Conclusion

This research illustrates, as do other papers in this special issue, that culture affects the way that creative work is accomplished. It underscores the importance of examining the different pathways to creativity in negotiations across cultures and suggests that the same processes that may facilitate quality agreements in one culture might actually backfire in another. It also shows the value of developing new models of creativity in negotiations that address core cultural concerns, such as honor, and new tools to assess these constructs, to better predict the ways that negotiators get to yes in different cultures.

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Author biographies

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

Laura Severance received her PhD in Social, Decision, and Organizational Sciences from the University of Maryland. Her academic work focuses on cross-cultural negotiation and gender dynamics within organizations, and her applied work focuses on market research, organizational attraction, and recruiting. She is a Senior Research Associate at Fors Marsh Group.

Tiane Lee received a BA from Stanford University and a PhD from Princeton University and was a postdoctoral researcher at the University of Maryland. Her research interests include culture, diversity, group conflict, immigration, and technology use. She is currently a researcher in the Tech industry.

Bayan Brass is an Arabic Linguist and founder of Logawi, a data analytics firm helping organizations extract sentiment, emotions, language sophistication, and diversity from large quantities of unstructured data in multiple languages. Bayan received his BA from the University of Michigan and a master's degree from Johns Hopkins University.

Janetta Lun earned a PhD in Social Psychology from the University of Virginia with a research focus on cultural psychology and intergroup attitudes. She was a postdoc at the University of Maryland at College Park and an AAAS Science & Technology Policy Fellow at the U.S. Agency for International Development.

Abdel-Hamid Abdel-Latif is the Chairman of the Egyptian Research and Training Center. He graduated from the Ohio State University with a PhD in Sociology. He oversaw the National Science Foundation-funded Values Survey in Egypt in 2001/2002 and has been the Principal Investigator for Egypt in the Gallup World Polls since 2005 using representative samples of the Egyptian public.

Asmaa Ahmed Al-Moghazy is a Managing Director of the Egyptian Research and Training Center in Cairo. Asmaa graduated from the Girls College, Ain Shams University, with a BA in Sociology in 2000 and MA in Sociology in 2006. She is currently working toward her PhD degree.

Sally Moustafa Ahmed has been a Research Associate at the Egyptian Research and Training Center since 2005 and completed her MA degree in Media Sciences (2014) from the Girls College, Ain Shams University.

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Appendix A : Development and Validation of the Honor Dictionary

The honor dictionary was developed based on 158 structured interviews that we conducted among community samples in seven countries including Egypt, Iraq, Jordan, Lebanon, Pakistan, Turkey, and the United States. Our research team developed protocols to examine the words and expressions associated with honor, the means by which honor is gained and lost, and the consequences of that loss. Structured interviews were conducted across seven nations: Egypt, Iraq, Jordan, Lebanon, Pakistan, Turkey, and the United States. The interviews primarily took place in the following cities: Amman ($N=23$), Beirut ($N=23$), Baghdad ($N=22$), Cairo ($N=23$), Hyderabad ($N=25$), Istanbul ($N=19$), and Washington D.C. ($N=23$). In each city, data were gathered from community samples that varied in their age, gender, socioeconomic status, and rural–urban living experiences in each country.

Our research methodology was based on the seminal study on *The Analysis of Subjective Culture* (Triandis, 1972) and included word associations and antecedents and consequences of honor: participants were asked numerous questions about the psychology of honor, including the following: (1) what does honor [sharaf] mean to you?; (2) what words come to mind when we say honor [sharaf]?; (3) how does one demonstrate or prove one's honor in everyday contexts?; (4) can you give me some examples of ways in which one's honor can be insulted or threatened?; (5) what happens when one's honor is insulted or threatened?; (6) what kind of feelings do you or others experience in these situations?; (7) what do you or others do in response to insults or threats to honor?; and (8) whose honor is most important to you? The interviews were piloted extensively in each country prior to when they were implemented during the spring and fall of 2009.

All interviews, which took approximately 1.5–2 hours, were conducted in the local language (Arabic, Turkish, Urdu, and English) with locally trained researchers and were tape recorded for analysis. Interviews were then transcribed verbatim to text. We merged the Arabic responses into one document and then processed them with a software that counted the number of occurrences of each distinct word. From this initial list of words, we removed commonly used non-essential words such as pronouns (e.g. they, him, we, and you), prepositions (e.g. of, to, and in), and conjunctions (e.g. and, but, and or). Additionally, two Arabic-speaking researchers, trained in the theoretical framework of honor, acted as judges for selecting honor-related words. Each researcher independently removed the words they deemed unnecessary, and if there were disagreements, they were discussed and resolved. Next, the Arabic word list was translated into English. Word frequencies were counted for the responses from the United States and the translated responses from Turkey and Pakistan. In many cases, words from the United States, Turkey, and Pakistan matched those in the Arabic data. In some cases, if a new word was used in the United States, Turkey, and Pakistan, it would be included if it was of high frequency, relevant to the construct of honor, or has similarity to an existing word in the dictionary. Additionally, words in Arabic can have multiple English meanings. A single Arabic word can comprise a set of English synonyms. In order to be as inclusive as possible in the translation process, in all such instances, every possible synonym was included in the lexicon.

After the word lists had been finalized, we collapsed words across their various forms in a process called *stemming*. Stemming takes a derived word and clusters it with all other words that have the same stem. For example, a word such as respect* is a stem; when stemming, words such as respecting, respects, respected, and respectful all are clustered together with respect.

In the final step of the creation of the dictionary, we began to categorize the words in the lexicon into theoretical groups based on the prevailing literature on honor. The final categories included *moral integrity* (words related to integrity, morals, and commitment), *status* (words related to status gains, prestige, and social standing), *achievement* (words related to work and education), *protection* and avoiding negative circumstances (prevention, public image, and strength/bravery), *honor loss* (words related to harm, aggression, and wrongdoing), *faith* (words related to religion, beliefs, and faith), *sex/body*, and *etiquette* (appropriateness). Lastly, there were a number of words that are clustered together into various *contexts* in which honor is important, including social relations (neighbors, tribe, and country), gender, family, government/nationalism, military, business, ethnicity, and self.

The dictionary was validated with numerous sources. Based on the literature and established theories, we developed a number of theoretical datasets in which we hypothesized one group to use more honor talk more than another group. This included honor talk in U.S. North and South newspapers during both the Civil War and contemporary times, honor talk in constitutions around the globe, and honor talk in social media.

Honor Talk in North versus South Newspapers

The U.S. South has been characterized as an honor culture (Nisbett & Cohen, 1996). We expected that cultural differences in honor talk would be reflected in newspapers. We first examined this with historical data and then with contemporary newspapers. For the historical data, samples were collected from corpora of newspaper articles written by two newspapers for which there are available digitized data during the Civil War between 1860 and 1865: the *New York Times* ($N = 33.48$ million words) and the *Richmond Daily Gazette* ($N = 7.22$ million words). These corpora include all available articles published in these two newspapers over the course of those five years. For the analysis, the documents for each newspaper were truncated into 58 equal documents in each newspaper. When comparing two values where neither can be considered the “correct value” or the “reference value,” it is more appropriate to calculate the difference between two samples relative to the average of the two samples. This applies to analyzing language across cultures because neither culture can be considered the “reference” culture. Therefore, for this study, we used the following equation: $(\text{Sample 1} - \text{Sample 2}) / ((\text{Sample 1} + \text{Sample 2}) / 2)$ for purposes of “percent difference” (www.phy.ilstu.edu/slh/percent%20difference%20error.pdf). We indeed found that there was a significant

difference in the scores for honor in the North ($M=19.40$, $SD=0.27$) and the South ($M=23.60$, $SD=0.49$) during the Civil War; $t(55)=31.61$, $p<.001$.

We also analyzed contemporary newspapers in the North and South. We chose four cities, two small and two larger cities, and selected the main newspapers in those cities. Using the archives on their websites, we collected articles from the *Jackson Clarion-Ledger* ($N=57,545$ words) written in Jackson, Mississippi, articles from the *Worcester Telegram & Gazette* ($N=66,874$ words) written in Worcester Massachusetts, articles from the *Dallas Morning News* ($N=102,467$ words), and articles from the *Philadelphia Inquirer* ($N=174,232$ words). These articles were selected on a date ranging between January and March 2012. For the contemporary newspapers, the articles were not of standard length because some of the articles were letters to the editor and others were opinion pieces and editorials. For this reason, we combined all of the articles found in a newspaper into a single document and randomly segmented them into 10 groupings of equal length.

The results from the civil war were replicated in the contemporary context. There was a significant difference in the scores for honor use in the large cities in the North (Philadelphia, $M=13.50$, $SD=0.54$) and the South (Dallas, $M=14.77$, $SD=0.48$) ($t(19)=3.05$, $p=.01$). There was also a significant difference in the scores for honor in the small cities in the North (Worcester $M=13.67$, $SD=1.00$) and the South (Jackson $M=15.00$, $SD=1.09$) ($t(19)=2.72$, $p=.02$).

Honor Talk in Constitutions Worldwide

We also explored international differences in honor talk in countries' constitutions. Constitutions as founding documents embody the ideals and values of a culture. We expected that constitutions around the world will show marked difference in honor orientations, with Middle Eastern and African cultures, Asian cultures, and Mediterranean cultures extending from Southern Europe to their descendants in Latin America being higher on honor talk and countries in Northern and Western Europe as well as countries where the predominant population is of Northern and Western European descent being lower on honor talk.

We used the Constitution Finder provided by the University of Richmond School of Law and Online's World Constitutions Illustrated to access English translations of constitutions from the countries where we conducted our initial interviews (United States, Pakistan, Turkey, Egypt, UAE, Lebanon, Jordan, Iraq) as well as other countries from around the globe. By region, we acquired 79 constitutions from the Middle East/North Africa ($N=24$), Latin America ($N=10$), Northern Europe ($N=13$), Southern Europe ($N=5$), Non-European english-speaking countries (including the United States, Canada, Australia, and New Zealand) ($N=4$), Eastern Europe ($N=12$), sub-Saharan Africa ($N=6$), and East Asia ($N=5$).

As predicted, honor language in constitutions differed significantly across regions ($F(7, 71)=4.28$, $p=.001$). Globally, the average use of honor language is in constitutions 16.52%. The regions highest on honor language are East Asia (18.56%) and the Middle East and Africa (17.10%). The regions lowest with regard to the use of honor language are northern Europe (15.17%) and English-speaking countries outside of Europe (13.88%), including the United States, Canada, Australia, and New Zealand. Results for the remaining regions include Latin America (16.42%), Southern Europe (16.44%), Eastern Europe (16.72%), and sub-Saharan Africa (16.97%), which all roughly fall around the global honor baseline.

Honor Talk in the Bitter Lemons Website

Finally, we examined a data source that was standardized to test for predicted differences in honor talk in the Middle East. Bitter Lemons is a digital discussion space for Palestinians and Israelis to share their opinions on current events

in the Middle East. Each week, Yossi Alpher and Ghassan Khatib write an opinion piece on a topic and two guest writers, one Palestinian and one Israeli also write about the same topic. We took a sample from 1/3/2005 until 12/29/08 for a total of 182 weeks, with a total of 308,126 words in the Israeli data set and a total of 274,000 words in the Palestinian set. We expected that Palestinians would have higher levels of honor talk than Israelis. As expected, there was a significant difference in the use of honor language by the Palestinian writers ($M=13.54$, $SD=1.81$) and the Israelis writers ($M=12.98$, $SD=1.52$) ($t(181)=5.66$, $p<.001$).

In all, there is strong validity evidence for the honor dictionary. For the full dictionary, contact the first author.