ncmr negotiation and conflict management research

INTERNATIONAL ASSOCIATION IACM FOR CONFLICT MANAGEMENT

Negotiation and Conflict Management Research

Negotiation Strategy: A Cross-Cultural Meta-Analytic Evaluation of Theory and Measurement

Jeanne M. Brett[1], Jimena Ramirez-Marin[2, 3], and Chelsea Galoni[4]

1 Northwestern University, Evanston, Illinois, USA
2 IÉSEG School of Management, Lille, France
3 Lille Économie Management UMR 9221, Lille, France
4 University of Iowa, Iowa City, Iowa, USA

Keywords
negotiation strategy, methods, culture, meta-analysis

Correspondence
Jeanne M. Brett; email: jmbrett@kellogg.northwestern.edu

xx.xxxx/ncmr.xxxxx

Abstract

Negotiation theorists conceptualize negotiation strategy from a behavioral or a motivational perspective and negotiation researchers code transcripts or collect negotiators' self-reports to operationalize it. This meta-analysis evaluates the functional similarities and differences between these different theoretical perspectives and approaches to measuring negotiation strategy as it predicts joint gains. We analyzed 3,899 unique negotiations from 76 independent samples and 46 different papers. Our results reveal that motivational and behavioral theories and self-report and behavioral coding measurements yield similar predictions and are functionally equivalent, significant predictors of joint gains. On the other hand, our analysis testing culture (Western versus East Asian, South Asian and Middle Eastern samples) as moderator reveals that the current theories and methods of measuring negotiation strategy are only significant predictors of joint gains in Western culture samples.

Volume 14, Number 4, Pages 231-265

Negotiation is a social process by which two or more interdependent parties make decisions, allocate resources, or resolve disputes (Brett, 2014). Negotiation strategy represents the *way* that people negotiate—the goal-directed behaviors they use to reach agreement (Weingart et al., 1990). "Strategies embody middle-range goals that organize a negotiator's approach, such as 'identify opportunities for mutual gain'" (Weingart et al., 1999, p. 367). In contrast, tactics are the specific behaviors that negotiators use to implement their strategies. Strategies are middle-range goals that organize a negotiator's approach, such as identifying opportunities for mutual gain (Weingart et al., 1990, p. 4). Strategy is an important construct in negotiation because researchers use strategy as a mechanism to explain contextual effects and individual differences on negotiation outcomes. Joint gains, the total value created in a negotiation (Raiffa, 1982), is a particularly important outcome (Pruitt & Rubin, 1986), because negotiators receive more of their high priority interests, which implies that they should be satisfied with their individual outcomes and more likely to implement their agreements (Raiffa, 1982).

Although negotiation scholars agree that strategy is important for negotiation outcomes, how to conceptualize negotiation strategy divides scholars. Behavioral theorists (e.g., Walton & McKersie, 1965) focus on what negotiators do - how they use strategy to share information about interests and priorities to find tradeoffs to generate joint gains (i.e., integrative strategies), or to provide information about power, alternatives, and comparisons to try to influence concessions (i.e., distributive strategies). Motivational theorists (e.g., Deutsch, 1949a; 1973; Blake & Mouton, 1964; Pruitt & Rubin, 1986) focus on negotiators' goals – what they are trying to do, e.g., cooperate versus compete, contend versus problem solve. Deutsch (1949a) reviewed the conceptual literature on cooperation and competition concluding that the differences between the two concepts "lies in the difference in the nature of the two goal regions in the two social situations" (Deutsch, 1949a, p. 131). He went on to say that in the cooperative situation, an individual can enter into his/her goal region only if all other individuals "under consideration" can also enter into their respective goal regions. In contrast, in the competitive situation, an individual who enters into his/her goal region does so at some expense to the others in the social situation (Deutsch, 1949a, pp. 131-132). These conceptual differences between behavioral and motivational theories lead to our first research question: What are the theories' functional differences in predicting joint gains?

How to measure negotiation strategy also divides negotiation scholars and sets up our second research question. Researchers use three different methods: behavioral coding of negotiation transcripts (e.g., Weingart et al., 1990); self-reports collected after the negotiation (e.g., DeDreu et al., 2001); and electronic coding of transcripts (e.g., Friedman et al., 2004). Thus, our second research question concerned the functional differences among methods of measuring negotiation strategy.

Our third research question is whether culture matters to the strategy-joint gains relationship. Do the theories and methods developed and validated in Western cultures generalize to non-Western cultures? Negotiators in different cultures do use strategy differently (Brett et al., 2017) raising the question of whether the strategy-joint gains model may be Western culture bound. We assess these three research questions using meta-analysis.

Comparison of Behavioral and Motivational Negotiation Theory

Van de Vliert (1997) pointed out that conflict management strategy is about what people intend to do as well as what they actually do. This distinction captures the difference between behavioral and motivational theories of negotiation strategy. Both theoretical perspectives have important conceptual similarities. Both view strategy as goal-related behavior and ultimately

conceptualize two different types of strategy, but the theories differ in their emphasis on what negotiators intend to do – their motivation and what negotiators actually do – their behavior. Our research question is whether these conceptual differences matter for studying the negotiation strategy-joint gains relationship.

Behavioral theory conceptualizes two types of strategy in terms of what negotiators do during the negotiation. Most behavioral researchers rely on the theorizing of Walton and McKersie that conceptualizes distributive strategy as the tactics negotiators use to understand and modify their counterparts' utilities for outcomes, e.g.; threats, emotional tactics (putdowns, demands), appeals to logic, and persuasive arguments, and integrative strategy as the tactics negotiators use to define the problem and search for solutions that benefit both parties, or at least do not represent "equal sacrifices" (Walton & McKersie, 1965, p. 9). Negotiators using integrative strategy seek information about a counterpart's interests and priorities, e.g., by asking and answering questions, and then integrate those interests with the negotiator's own (Weingart et al., 1990).

Some behavioral researchers rely on the theorizing and research by Pennebaker (Pennebaker & Graybeal, 2001) (LIWC the Linguistic Inquiry Word Count) concerning categories of words that people use in social interaction, particularly categories of cognitive processes and mechanisms, such as causation, discrepancy, insight and categories of affect such as positive and negative emotion. (See also Elfenbein et al., 2010.)

Motivational theories, both competitive-cooperative theory (Deutsch, 1949a; 1973; Johnson & Johnson, 2005; 2011) and dual concern theory (Pruitt & Rubin, 1986; Rahim, 1983; Ruble & Thomas, 1976) conceptualize strategy in terms of negotiators' motives - what negotiators are trying to do, that is, cooperate or problem solve to try to reach a jointly beneficial agreement or compete or contend to reach an individually beneficial agreement. Dual concern theory identifies four distinct strategies, but empirical studies using this theoretical perspective frequently focus on just two: problem solving and contending, also labeled forcing (e.g., Beersma & De Dreu, 2005). Contending focuses on imposing one's will on others. It involves threats, bluffs, persuasive arguments, and positional commitments (DeDreu et al., 2001). Problem solving in contrast, is oriented toward "an agreement that satisfies own and others' aspirations as much as possible" (DeDreu et al., 2001, p 646).

To avoid confusion in referring to the two different types of strategy proposed by behavioral and motivational theories, we use the Lax and Sebenius' (1986) terms *value creation* to refer to integrative, cooperative or problem solving strategy, and *value claiming* to refer to distributive, competitive and contending strategy. Empirically, the relationship between strategy and outcome has not been tested in a meta analysis. Past work has focused on the relationship between trust and strategy (Kong et al., 2014) or on the relationship between strategy and individual outcomes (Hüffmeier et al., 2018). We propose that strategy has direct effects on joint gains in negotiation. Therefore:

> ***H1.*** Value creation strategy will have a positive relationship with joint gains and value claiming strategy will have a negative relationship with joint gains.

The underlying structure of joint gains may cause behavioral theory to be a stronger predictor of joint gains than motivational theory. To negotiate joint gains, negotiators need to develop relative insight (Pruitt, 1981; Thompson & Hastie, 1990); that is, they need to learn what issues are of higher priority to their counterparts than to themselves so that they can propose trade-offs (Pruitt, 1981). Sharing and reciprocating information about interests and priorities is a key strategy for gaining insight (Gunia et al., 2011; Kimmel et al., 1980). Behavioral theorists conceptualize (Walton & McKersie, 1965) and operationalize (Weingart et al., 1990) integrative strategy as the exchange of information

about interests and priorities. In contrast, motivational theorists conceptualize (Deutsch, 1949b; 1973; Pruitt & Rubin, 1986) and operationalize (De Dreu et al., 2001) problem solving strategy as the nature of the process of searching for an agreement that meets self and other's interests. That process may reveal issue priorities, but negotiators, in considering alternative solutions, may land on one that is satisfactory to both without understanding why. It is also possible that the motivational perspective is more vulnerable to satisficing (Raiffa, 1982) than the behavioral perspective, because the implication of a satisfactory outcome is that it meets a minimum threshold, not that it maximizes trade-offs. The empirical research documents positive and significant correlations between integrative strategy and joint gains (e.g. Kong et al., 2014) and between problem solving and joint gains (e.g., Beersma & DeDreu, 1999). Still, we hypothesize that value creation as conceptualized by behavioral theory will have a stronger relationship with joint gains than value creation as conceptualized by motivational theory.

> ***H2.*** Value creation as conceptualized by behavioral theory will have a stronger relationship with joint gains than value creation as conceptualized by motivational theory.

Measurement Methods of Strategy

Researchers primarily use two different methods to measure negotiation strategy. One is behavioral coding of transcripts of the negotiations either by trained coders (e.g., Weingart et al., 1990) or by computer programs (e.g., Kern et al., 2012). The other is self-reports collected immediately after the negotiation (e.g., DeDreu et al., 2001). Many books and articles discuss the strengths and weaknesses of different methods of measurement (e.g., Manusov, 2005). However, the negotiation measurement articles do not compare strengths, weaknesses, or expected outcomes across different types of measurement. Thus, our research question is whether self-report versus behavioral coding of strategy makes a difference in predicting joint gains.

Behavioral and Computer Coding

Researchers can measure strategy by coding negotiators' email, chat, audio or video exchanges. Typically, highly trained third parties who are not privy to the study's hypotheses, or the outcome of the negotiations they are coding, code transcriptions of these files (Weingart et al., 2005). Occasionally, coders categorize small slices of strategy (Curhan & Pentland, 2007) directly from audio or video recordings. There are several published behavioral coding schemes for negotiation strategy (e.g., Brett et al., 2018; Weingart et al., 2007; Weingart et al., 1990).

An alternative to having people do the coding is to have a computer program count words in predetermined categories. Some negotiation researchers (e.g., Elfenbein et al., 2010) use the categories of content (e.g., positive and negative emotions, cognitive mechanisms, such as cause, insight, discrepancy, negations, etc.) in the Linguistic Inquiry and Word Count (LIWC) (Pennebaker & Graybeal, 2001). Others use LIWC to develop content categories based on theory (e.g., Gelfand et al., 2015).

Because behavioral coding does not capture negotiators' perceptions, the social meaning of their behaviors, it may not predict interaction outcomes as well as self-report (Bakeman & Gottman, 1997). Still, behavioral coding, if done reliably, is relatively objective, allows for very rich data, can take into account timing and sequences (e.g., Weingart et al., 1999) and changes in behavior over time (Bakeman & Gottman, 1997).

Self-Report

Early examples of research using self-report to measure strategy are in Rahim (1983) and Pruitt & Carnevale (1993). Building on prior work by Van de Vliert (1997), De Dreu and colleagues (2001) developed the DUTCH questionnaire. A strength of self-reports is that they capture the social meaning underlying negotiators' behaviors. Self-reports measure what negotiators think of their own and the other party's behaviors during social interaction. Self-report data also is less expensive to collect and prepare for analysis than behaviorally coded data.

The primary critique of self-report measurement is that self-serving biases and inaccuracies in describing one's own behavior or the social interaction will affect reliability and validity (White & Sargent, 2005). Because of the post-negotiation timing of measurement, negotiators are likely to know their own outcomes prior to completing their individual questionnaires and they may craft their answers to justify their outcomes.

Measurement Comparison

Because behavioral coding and self-report vary with respect to the underlying nature of measurement, the two methods may have different predictive validity with respect to joint gains. Behavioral coding may not be as robust a predictor of joint gains as self-report if the motivational orientation of the negotiator is a stronger predictor of joint gains than the actual tactics that negotiators engage in. Self-report should be a more valid measure of the motivational orientation of the negotiator than behavioral coding. Behavioral coding, especially when done by computer, can count use of positive and negative affect words, but it cannot pick up the motivational meaning underlying the use of those words which self-report can. Behavioral coding also may not be as reliable a method of measuring strategy as self-report despite care in developing and maintaining intercoder reliability. Self-report measures typically use multiple items to measure each construct. These items are grounded in theory, but their measurement is developed using standard psychometric techniques that produce reliable and valid scales. See for example the development of the DUTCH measure of the dual concern model (DeDreu et al., 2001). In contrast, training people to code behavior reliably is a challenge, especially when code categories are narrow and coding is fine grained at the thought unit level within each speaking turn. See for example Weingart and colleagues' study (2007) in which a single person coded approximately 32,000 thought units contained within approximately 19,000 speaking turns. For reliability, which was .80 across all 33 categories, a second person coded a subset of approximately 500 units across different negotiations. The 33 codes were then reduced to six using correspondence analysis. In addition, self-reporting negotiators may tailor self-reports of their motivations to be consistent with their own outcomes. For reasons of capturing sematic meaning and motivational intention, reliability, and self-consistency, we predict that self-report measurement of negotiation strategy will outperform behavioral coding in predicting joint gains.

> ***H3.*** Self-report measurement of negotiation strategy will have a stronger relationship with joint gains than behavioral coding.

Culture: A Theoretical Moderator

Our third research question is whether culture matters to the strategy-joint gains relationship. Do the theories and methods developed and validated in Western cultures generalize to non-Western cultures? There is both theoretical and empirical evidence that negotiators in different cultures use

strategy differently (Brett et al., 2017) raising the question of whether the strategy-joint gains relationship may be limited to Western culture. In Western culture, use of value creation strategy is widespread and generally effective in generating joint gains (Kong et al., 2014). In East Asia, the Middle East and South Asia, value claiming appears to be more normative than value creating (Brett et al., 2017). Joint gains tend to be lower in non-Western than Western cultures, but not always significantly so (Aslani et al., 2016). Kong et al.'s (2014) meta-analysis reported a significant negative relationship between value claiming strategy and joint gains.

Culture and communication theory describes Western cultures as low context, because norms in those cultures emphasize direct communication. In contrast, East Asian cultures are labeled high context, because norms emphasize indirect communication (Gibson, 1998; Hall, 1976). Low-context communication is more explicit, with meaning clearly contained in the words or on the surface of a message. High-context communication is more implicit, with subtle meaning embedded behind and around the spoken or written words. Pruitt (1981) theorized that sharing information about interests and priorities in a give and take of questions and answers between negotiators (value creating strategy) is a direct means of gaining the knowledge about differences that negotiators need to understand to propose trade-offs. He also theorized that there is indirect information embedded in negotiators' influence attempts (that is, their use of value claiming strategy) that negotiators could use to acquire that same information. He pointed out that negotiators do not try to influence each other to make concessions on issues that are unimportant to them, although he conceded that drawing inferences about interests and priorities from influence attempts is indirect and may require second order processing. Adair and Brett (2005) contrasted the use of negotiation strategy by negotiators from high and low context cultures, concluding that high context culture negotiators were using influence and offers to negotiate joint gains indirectly whereas low context culture negotiators were exchanging information via questions and answers to negotiate joint gains directly.

Thus, there is both theory and empirical evidence suggesting that negotiators from Western and East Asian, or low and high context cultures may use value creating and value claiming strategy differently to negotiate joint gains. However, the patten of East-West differences may not extend to Middle Eastern (Aslani et al., 2016; Gelfand et al., 2015) and South Asian negotiators (Gunia et al., 2011). Studies from these cultures report that use of value claiming strategy is strongly and negatively related to joint gains, in contrast to studies from East Asia. In fact, Gelfand and colleagues (2015: 967) concluded, "the same language that predicts integrative agreements [joint gains] in the United States, namely, that which is rational and logical (cognitive mechanisms, LIWC), actually backfires and hinders agreements in Egypt."

H4a. The relationship between value creating strategy and joint gains will be more positive in Western than in non-Western cultures.

H4b. The relationship between value claiming strategy and joint gains will be more negative in Western than in non-Western cultures.

Method

Literature Search

To develop a database of studies, we searched PsychInfo, Google Scholar, ProQuest, and SCOPUS for keywords: negotiation, integrative strategy, integrative tactics, distributive strategy, distributive tactics, and DUTCH (DeDreu et al., 2001). We forward and backward searched the

references in several key papers (Hüffmeier et al., 2014; Kong et al., 2014; Weingart et al., 1990). A separate literature search using the same target keywords across ProQuest and Web of Science seeking dissertations identified 18 dissertations. Overall this search yielded 110 papers. We sought additional papers by trying to contact the 189 authors of the 110 papers. We could get no email addresses for 31; one was deceased; and we received no reply from 86 authors. We received 52 additional papers from authors who responded to our email.

Inclusion Criteria and Selection of Studies

Working together, two authors developed and applied the following inclusion criteria: 1) At least two parties from an undergraduate, MBA, executive, or mixed educational-level population completed a simulated multi-issue negotiation either in person or virtually. 2) Researchers measured value claiming and/or value creating strategy using behavioral coding, self-report, or computer coding. Pre-negotiation surveys indicating participants' intent to use strategies did not meet inclusion criteria. 3) Data were available to compute a correlation between value claiming and/or value creating strategy and joint gains. We sought correlational data from authors whose published papers did not report the correlations we required, but whose methods sections suggested that appropriate data existed. We received data from 14 authors. 4) The negotiation context was deal making, not dispute resolution. 5) The manuscript was in English.

Figure 1 and Table 1 in the supplemental materials summarize our search process and the results of our decisions on inclusion (46 papers) and exclusion (134 papers). Citations of the 134 excluded papers categorized by the reason for their exclusion are available from the authors.

Coding

Two authors, working separately, read each paper to categorize it by theory and measurement. We classified two theoretical perspectives as behavioral: those that followed the theoretical model in Walton and McKersie (1965) and those that followed the theoretical model in Pennebaker and Graybeal (2001). We classified three approaches to measurement as self-report, behavioral coding, computer coding. There were no disagreements between coders regarding the classification by theory or measurement.

To code the dependent variable, joint gains, two authors working separately identified the dependent variable used in the study. Joint gains and Pareto optimality are very highly correlated (Tripp & Sondak, 1992). The meta-analysis includes studies reporting one or the other outcome.

To code the independent variables, value creating and value claiming, we used the strategic classifications provided by the author of the paper. If a motivational theory paper measured multiple indicators, for example, multiple dimensions of the DUTCH measure, we followed the lead of DeDreu and colleagues (2001) coding problem solving as value creating and forcing as value claiming. If a behavioral theory paper measured multiple tactics and classified them into strategies, we used the paper's classification assigning tactics identified by the author as integrative to value creating and those identified by the author as distributive to value claiming. When a behavioral theory paper measured multiple tactics and did not classify the tactics into strategies (four papers), two coders working together followed the lead of two key behavioral papers (Weingart et al., 1990; Weingart et al., 2007) to assign tactics to strategies. For behavioral theory papers based on word count categories (Pennebaker & Graybill, 2001), we followed the lead of Elfenbein et al., (2010), because this paper used multiple measures of tactics - behavioral and computer coding, and self-report and assigned them to

strategies. Table 1 summarizes the decision rules for coding independent variables and notes the papers on which the decision rules were based.

Table 1
Variable Coding

Value Creating strategies	Value Claiming strategies
Information sharing and seeking, questions and answers about information and priorities (Weingart et al., 1990)	Emotional tactics, appeals to logic, influence tactics (putdowns, demands, threats) (Weingart et al., 1990)
Problem solving (DeDreu et al., 2001)	Punishment; contending, avoiding, forcing, contentious behavior, and concession making (DeDreu et al., 2001; Pruitt, 1981)
Collaborating and cooperating (Deutsch, 1973)	Competing and contending acts (Deutsch, 1973)
Discrepancy (Elfenbein et al., 2010)	Optimism (Elfenbein et al., 2010)

We recorded the reliability of each indicator of strategy. When a paper reported multiple tactics assigned to the same strategy, we averaged their correlations with joint gains – a procedure recommended by Hunter and Schmidt (2004) for multiple indicators. We also averaged the reliabilities of the tactics that were averaged.

Additional coding included recording of the national origin of each sample to operationalize culture as a moderator. We used World Bank's regions of economic activity (World Bank Annual Report, 2016) (e.g., Brett et al., 2017) to assign nations to regions: East Asia, Middle East and South Asia, and the West.

We recorded methodological moderators including publication status: published vs. unpublished; setting: field vs. laboratory; subject population: undergraduate, MBA, executive or mixed; negotiation method: one-on-one, team-on-team, or multi-party; percent of male participants; and average age of participants. We recorded four control variables: paper number ("paper"), the number of independent studies included in each paper (two papers had two studies each), number of negotiations in the study (sample size of dyadic, team-on-team or multiparty groups in the study), and number of methods used to measure strategy.

Meta-Analytic Procedures

We conducted all meta- and moderator analyses using the Metafor package (Viechtbauer, 2010) in R (R Core Team, 2016) with mixed effects models. Mixed effects models allowed us to meet the assumption of effect size statistical independence (Hunter & Schmidt, 2004), and to account for variability between effect sizes attributable to sampling error. To control for the dependence of observations when studies used multiple measurement methods or theories, we modeled paper effects, sample effects, study effects, and pair (an indicator of whether both value creating and value claiming coefficients were measured within the same negotiation) as random effects, and strategy, theory, measurement method, and additional moderators of interest as fixed effects. This approach partitioned variance explained by identifiable factors (controls and moderators) and by random, unidentifiable sources (Lipsey & Wilson, 2001).

We conducted the meta-analysis using Pearson's *r* as the effect size measure. Because *r* is not normally distributed, we transformed each *r* into Fisher's *z*, after correcting for measurement error. A Fisher's z transformation also controls for sample size. We used transformed Fisher's z values in all analyses. We computed confidence intervals around transformed Fisher's z using the Metaphor package. All tables report Pearson's *r* correlations that were un-transformed from the Fisher's z after the analysis. The full meta-analysis plan, explanations of correction techniques, power analysis, and publication bias are in the supplemental materials.

Results

The purpose of this meta-analysis was to evaluate hypotheses concerning the functional similarity and differences in predicting joint gains between theories for conceptualizing and methods for measuring negotiation strategy across Western and non–Western cultures. We analyzed 46 papers that produced 62 independent samples and 76 total observations.

Value Creating and Value Claiming Negotiation Strategy on Joint Gains

H1 tested the strategy only model against an intercept only model. The meta-analytic results reported in Table 2 show that value-creating strategy had a significant, positive relationship with joint gains; value-claiming strategy had a significant negative relationship with joint gains. A deviation test comparing the log likelihoods from the strategy model to the intercept only model shows that the strategy model fit the data better than the intercept only model (Model fit = ($\Delta G^2(1) = 44.07$, $p < .001$, $\Delta I^2 = 8.13\%$).

Table 2

Effects of Negotiation Strategy on Joint Gains

Joint Gains	**Full Model** (k = 133; 6,801 negotiations; 3,899 unique)					**Outliers Removed** (k = 125; 6,377 negotiations; 3,687 unique)				
	n	$\bar{r}$	*z*	*95% CI*	I^2	*n*	ρ	*z*	*95% CI*	I^2
Creating	70	.29	7.30***	[.22; .38]	78.55%	66	.25	7.06***	[.18; .32]	72.72%
Claiming	63	-.14	-3.20**	[-.22; -.05]		59	-.10	-2.70**	[-.18, -.03]	
Model Fit: $\Delta G^2(1) = 44.07$, $p < .001$, $\Delta I^2 = 8.13\%$ $QE(131) = 610.76$, $p < .001$ $QM(2) = 63.51$, $p < .001$						**Model Fit:** $\Delta G^2(1) = 38.11$, $p < .001$, $\Delta I^2 = 9.88\%$ $QE(123) = 450.85$, $p < .001$ $QM(2) = 57.23$, $p < .001$				

Note. *z* computed on corrected, and Fisher's *z* transformed correlations. $\bar{r}$ and ρ are reverted transformations from Fisher's *z*-values (and can be interpreted as correlations). Confidence intervals computed around transformed Fisher's z. Unique counts for observations that report both creating and claiming coefficients. Model fit statistics compared against intercept-only models. Heterogeneity analyses (I^2) were conducted on corrected effect sizes.

$p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

A Guide to Reading Results Tables

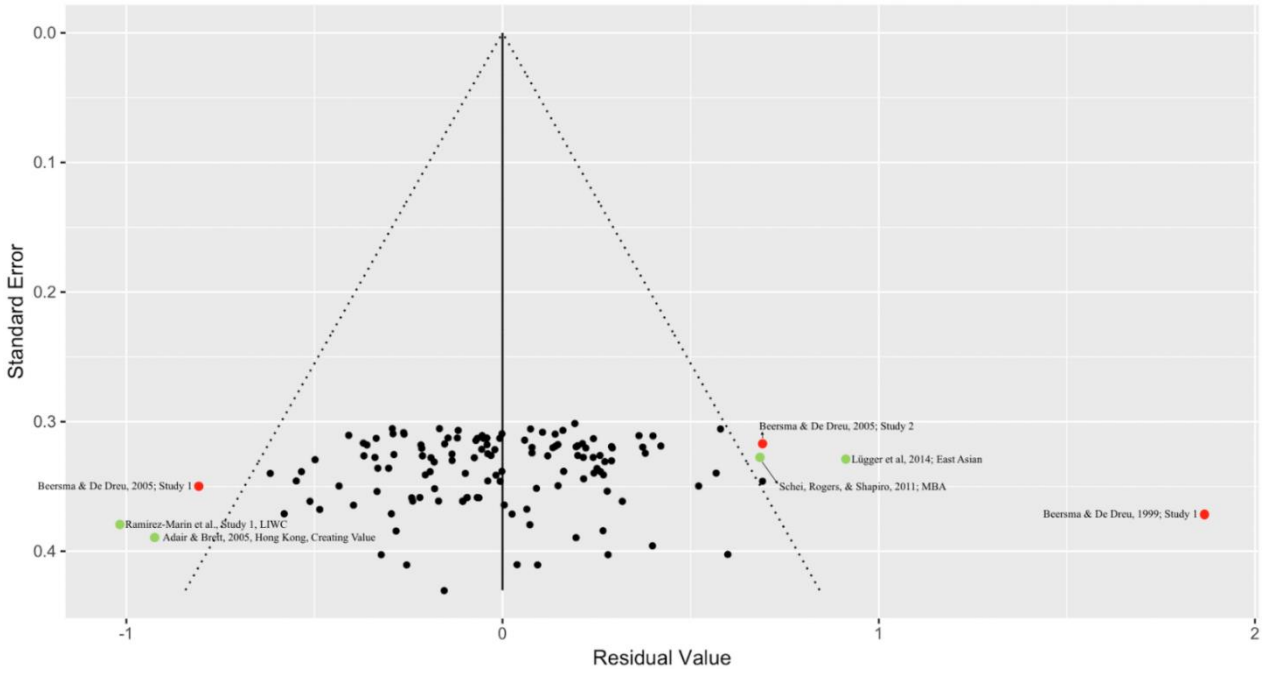
Observation is our meta-analysis unit of analysis. Within each observation, there were multiple negotiations. Most observations measured both value creating and value claiming strategies and reported the correlation between each strategy and joint gains. The meta-analysis treats each correlation between value creating and joint gains and value claiming and joint gains as a separate negotiation. Our tables report both this total number of negotiations on which an analysis was run, as well as, the number of those negotiations that were unique, that is value claiming and value creating were measured on the same negotiation. All analyses include a random effect of observation pair to control for the dependency due to measuring both value creating and value claiming strategy in the same negotiation. The column labeled *n* shows how many effect sizes were included in each analysis. We computed the *z* test-statistics on the Fisher's z transformed correlations used in the analysis; $\bar{r}$ and ρ values are correlation estimates untransformed from the Fisher's z used in the analysis for ease of interpretation. In Table 2 the $\bar{r}$, the estimated Pearson's r correlation between creating value and joint gains in the full model is .29, and ρ in the model excluding outliers is .25. The estimated Pearson's r correlation between creating value and satisfaction in the full model is .33, and in the model excluding outliers is .30. We computed the confidence interval around the transformed Fisher's z used in the meta-analysis. For this reason, confidence intervals may not appear symmetric around $\bar{r}$ and ρ, especially for estimates at extreme values of these coefficients, which is where the Fisher's z transformation makes the greatest difference. The reader who is interested in verifying whether the confidence interval is symmetric, can retransform the estimated correlation coefficient $\bar{r}$ or ρ into Fisher's z using the formula: .5(log((1+r)/(1-r))), the confidence interval will be symmetric around that transformed value. The model fit statistic (ΔG^2(df)) includes the observed change in fit given the differences in degrees of freedom. The *p*-value is computed from the deviation test of this value against the chi-square distribution. The change in I^2 in the strategy model is the percentage point difference between the I^2 of the intercept-only model and the strategy only model. In tables reporting results for theory and measurement models, the change in I^2 is the percentage difference between the I^2 of the strategy only model, and the model for which the results are being reported.

Testing for Outliers

Next, we tested for outliers using a funnel plot to examine each observation's studentized residuals in relation to its standard error. Our criterion was an absolute studentized residual higher than 1.96 (Viechtbauer & Cheung, 2010). The funnel plot in Figure 1 shows seven outliers. Three of the outliers (two from the same study) had a common profile: they were three-person negotiations, the theory was dual concern (motivational), but the measurement was not self-report of own use of strategy, but the average of the average of two negotiators' reports on the use of strategy by the third negotiator. Thus, there were substantive and theoretical reasons why these observations might be outliers. In subsequent analyses, we excluded these three empirical outliers, plus a fourth paper that used the same method: Beersma and DeDreu (1999); Beersma and DeDreu (2005, Study 1 and Study 2) and Beersma and DeDreu (2002). Results including outliers are available from the authors.

Figure 1

Funnel Plot for the Effect of Negotiation Strategy on Joint Gains with Outliers Labeled



Note. BC = Behavioral Coding; SR = Self-Report; LIWC = Linguistic Inquiry and Word Count is computer coded. z computed on corrected and Fisher's z transformed correlations. $\bar{r}$ and ρ are reverted transformations from Fisher's z-values (and can be interpreted as correlations). Confidence intervals computed around transformed Fisher's z. Unique negotiations account for studies that report both creating and claiming coefficients. Model fit statistics compared against strategy-only models. Heterogeneity analyses (I2) were conducted on corrected effect sizes.
$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

After removing outliers, the value creating-joint gains estimate was significant, positive, and above average in magnitude (estimate = .25); the value claiming-joint gains estimate was significant, negative, and below average in magnitude (estimate = -.10). These results support H1. We used Paterson and colleagues' (2016) average effect size of .278 based on 690 corrected effect sizes in micro-managerial meta-analytic research to interpret magnitude. The strategy model with outliers removed fit better than the intercept only model (Model fit = ($\Delta G^2(1) = 38.11$, $p < .001$, $\Delta I^2 = 9.88\%$). All subsequent analyses remove these four outliers.

Including Theory as a Predictor of Joint Gains

H2 predicted that value creation as conceptualized by behavioral theory would have a stronger relationship with joint gains than value creation as conceptualized by motivational theory. The results of testing H2 are reported in Table 3. These results indicate that for both creating and claiming value, behavioral ($\bar{r}$ = .26; $\bar{r}$ = -.08) and dual-concern ($\bar{r}$ = .31; $\bar{r}$ = -.26) theories replicated the result of the strategy only model prediction of joint gains. The estimate for competitive-cooperative theory was not significant for creating value ($\bar{r}$ = .17), but it was significant for claiming value ($\bar{r}$ = -.35).

The effect size estimates based on the LIWC conceptualization of behavioral theory were not significant.

To further test H2 we performed simple contrasts on the estimated coefficients using the pooled standard error calculated off the diagonal of the estimated variance-covariance matrix produced by the meta-analysis. Thus, all contrasts control for non-independence. There were no significant differences between the estimated effect sizes for value creating (motivational, dual concern (MDC)) = .31 vs. behavioral (B) = .26), $t(117) = .52$, $p = .60$ or for value claiming, (DC = -.26 vs. B = -.08), $t(117) = 1.33$, $p = .19$. However, note the low magnitude of the behavioral theory, value claiming effect sizes (behavioral = -.08; behavioral (LIWC) = -.02) relative to the higher magnitude of the motivational theories of dual concern (MDC = -.26) and competitive-cooperative (MCC = -.35) value claiming effect sizes.

The model fit statistic in Table 3 shows that the theory model fit the data as well, but no better than the strategy-only model (Model Fit: $\Delta G^2(6) = 5.86$, $p = .439$, $\Delta I^2 = .60\%$). Overall, these results suggest that despite theoretical differences, behavioral and motivational theories are not fully distinguishable when using strategy to predict joint gains. These results indicate that in contrast to the H2 prediction, motivational and behavioral theories converge on similar estimates of the relationships between value creating and value claiming strategy and joint gains. The results also suggest that more studies are needed to assess whether the behavioral theory use of LIWC conceptualization of value creating and value claiming is a valid indicator of negotiation strategy as it relates to joint gains.

Table 3

Effects of Strategy and Theory on Joint Gains

Joint Gains	**Outliers Removed** (k = 125; 6,377 negotiations; 3,687 unique)				
Creating	*n*	$\bar{r}$	*z*	*95% CI*	I^2
Behavioral	53	.26	6.74***	[.19; .34]	72.12%
Dual Concern	5	.31	2.85**	[.10; .55]	
Comp-coop	2	.17	.98	[-.17; .52]	
LIWC	6	.11	.83	[-.15; .36]	
Claiming					
Behavioral	49	-.08	-1.97*	[-.16; -.00]	
Dual Concern	4	-.26	-2.00***	[-.51; -.01]	
Comp-coop	2	-.35	-2.02*	[-.70; -.01]	
LIWC	4	-.02	-.11	[-.33; .29]	

Model Fit: $\Delta G^2(6) = 5.86$, $p < .439$, $\Delta I^2 = .60\%$

$QE(117) = 419.68$, $p < .001$

$QM(8) = 67.16$, $p < .001$

Note. Dual concern and comp-coop are motivational theories. LIWC = Linguistic Inquiry and Word Count is a behavioral theory. z computed on corrected and Fisher's z transformed correlations. $\bar{r}$ and ρ are reverted transformations from Fisher's z-values (and can be interpreted as correlations). Confidence intervals computed around transformed Fisher's z. Unique negotiations account for studies that report both creating and claiming coefficients. Model fit statistics compared against strategy-only models. Heterogeneity analyses (I^2) were conducted on corrected effect sizes. $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Including Measurement Method as a Predictor of Joint Gains

Table 4 reports the results of testing H3 that predicted that the self-report method of measuring negotiation strategy would have a stronger relationship with joint gains than behavioral coding. For value creating and value claiming, both behavioral coding ($\bar{r}$ = .25; $\bar{r}$ = -.09) and self-report measurement methods ($\bar{r}$ = .31; $\bar{r}$ = -.13) produced significant estimates of the strategy – joint gains relationship. The computer coding method, perhaps due to large heterogeneity across a very limited number of observations (*n*'s <= 8), produced no significant estimates of the relationship between value creating or value claiming strategy and joint gains.

The measurement-method model fit the data no better than the strategy only model (Model Fit: $\Delta G^2(4)= 5.12$, p =.28, ΔI^2 = .19%), indicating that different measurement methods were converging on similar estimates of relationships between negotiation strategy and joint gains. Simple contrasts, testing H3, were consistent with this interpretation. The self-report (SR) effect size estimate was not significantly greater than behavioral coding (BC) effect size estimate either for value creation (SR $\bar{r}$ = .31; BC $\bar{r}$ = .25) or for value claiming (SR $\bar{r}$ = -.13; BC $\bar{r}$ = -.09) (all *p*'s > .33). Both behavioral coding and self-report measurement methods converged on largely the same estimated effect size between strategy and joint gains.

Table 4

Effects of Strategy and Measurement Type on Joint Gains

Joint Gains	**Outliers Removed** (k = 125; 6,377 negotiations; 3,687 unique)				
	n	$\bar{r}$	*z*	*95% CI*	I^2
Creating					72.53%
BC	38	.25	5.28***	[.16; .34]	
SR	20	.31	5.37***	[.20; .44]	
LIWC	8	.04	.36	[-.18; .27]	
Claiming					
BC	38	-.09	-2.01*	[-.18; -.00]	
SR	17	-.13	-2.03*	[-.26; -.00]	
LIWC	4	-.02	-.11	[-.33; .30]	

Model Fit: $\Delta G^2(4)= 5.12$, p =.275, ΔI^2 = .19%
$QE(119) = 433.23$, $p < .001$
$QM(6) = 64.94$, $p < .001$

Theory, Measurement Method, and Strategy as Predictors of Joint Gains

The theory plus measurement model (results fully reported in supplemental materials) fit the data equally as well as the theory model (Model Fit_{Theory}: $\Delta G^2(2) = 4.12$, $p = .13$, $\Delta I^2 = .06\%$) and equally well as the measurement model (Model $Fit_{Measure}$: $\Delta G^2(4) = 4.86$, $p = .302$, $\Delta I^2 = .47\%$). There were no significant differences between estimates of the relationships between value creating and joint gains when conceptualized as motivational and measured via self-report: (MDC $\bar{r} = .31$) versus conceptualized as behavioral theory and measured via self-report (B $\bar{r} = .34$), t(115) =.16, $p = .88$. There also were no significant differences in the estimates of the relationship between value claiming and joint gains (MDC $\bar{r} = -.26$ vs. B $\bar{r} = -.03$), $t(115) = -1.49$, $p = .14$. The behavioral theory self-report estimated effect size ($\bar{r} = -.03$) was not significant and its magnitude was very small in contrast to the magnitude of both the motivational theories' self-reports estimated effect sizes for the relationship between value claiming and joint gains (MDC $\bar{r} = -.26$) and (MCC $\bar{r} = -.35$). Estimates for computer coding of value creating and value claiming were not significant.

Results of the analysis of the interaction between theory and method (reported in a bar chart in the supplemental materials) showed no significant differences for value creating between estimates of behavioral theory, behavioral coding ($\bar{r} = .25$) and behavioral theory, self-report ($\bar{r} = .34$) effect sizes ($t[115] = -1.12$, $p = .26$). There also were no significant differences for value claiming between estimates of behavioral theory, behavioral coding ($\bar{r} = -.09$) and the behavioral theory, self-report ($\bar{r} = -.03$) effect sizes ($t[115] = -.65$, $p = .52$). Overall, these results support the interpretation that all measurement types and theoretical perspectives provide functionally equivalent estimates of the relationship between negotiation strategy and joint gains.

Culture as a Theoretical Moderator

Culture was a significant moderator of the strategy-joint gains model. Supporting Hypotheses 4a and 4b, which predicted Western culture hegemony, results in Table 5 show that the effects of value creating and value claiming negotiation strategy on joint gains were only significant in Western culture samples: value creating effect size ($\bar{r} = .31$) and value claiming effect size ($\bar{r} = -.15$).[1] The simple contrast results reported in Table 6 show a significant difference between cultures for value creating ($t[117] = 3.17$, $p = .002$) and a marginal difference for value claiming ($t[117] = -1.98$, $p = .058$). There were no significant differences between East Asian, or Middle Eastern and South Asian cultures for value creating ($t[117] = -.29$, $p = .77$) or value claiming ($t[117] = .47$, $p = .64$). Designating the region of the observation in the model had a significant effect on model fit compared to the strategy only model (Model Fit**:** $\Delta G^2(4) = 13.52$, $p = .009$, $\Delta I^2 = 3.35\%$). These results suggest that the validity of using current theory and measurement of value creating and value claiming strategies to predict joint gains may be limited to Western cultures.

[1] Given that all analyses resulted in non-significant differences in model fit for all models of joint gains beyond the strategy-only model, for the sake of parsimony and ease of interpretation, we ran moderator analyses by adding the moderator to the strategy only model.

Table 5

Effects of Culture on the Relationship between Negotiation Strategy and Joint Gains

Joint Gains	Outliers Removed (k = 123; 6,305 negotiations; 3,651 unique)				
	n	$\bar{r}$	*z*	*95% CI*	I^2
Creating					69.69%
Western	45	.31	8.08***	[.24; .40]	
East Asian	11	.06	.74	[-.11; .24]	
Middle East & South Asian	9	.10	1.09	[-.08; .29]	
Claiming					
Western	40	-.15	-3.57***	[-.23; -.07]	
East Asian	10	.04	.39	[-.14; .21]	
Middle East & South Asian	8	-.03	-.28	[-.22; .16]	

Model Fit: $\Delta G^2(4) = 13.52$, $p = .009$, $\Delta I^2 = 3.35\%$
$QE(117) = 386.04$, $p < .001$
$QM(6) = 79.94$, $p < .001$

Note. z computed on corrected and Fisher's z transformed correlations. $\bar{r}$ and ρ are reverted transformations from Fisher's z-values (and can be interpreted as correlations). Confidence intervals computed around transformed Fisher's z. Unique negotiations account for studies that report both creating and claiming coefficients. Model fit statistics compared against strategy-only models. Heterogeneity analyses (I^2) were conducted on corrected effect sizes.

$p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Coefficient Comparisons Outliers Excluded:

Creating: Western vs. Non-Western: $t(117) = 3.17$, $p = .002$; East Asian vs. Middle East & South Asian: $t(117) = -.29$, $p = .77$
Claiming: Western vs. Non-Western: $t(117) = -1.98$, $p = .048$; East Asian vs. Middle East & South Asian: $t(117) = .47$, $p = .64$

Methodological Moderators[1]

The Supplemental Materials present detailed results of testing the effects of the methodological moderators. Here we summarize those results.

Publication

There were no significant differences in the effect sizes for published ($\rho = .28$) versus unpublished ($\rho = .16$) observations for the relationship between value creating and joint gains $t(121) = 1.33$, $p = .18$ or published ($\rho = -.09$) versus unpublished ($\rho = -.17$) observations for the relationship between value claiming and joint gains $t(121) = -.88$, $p = .38$. The model including publication status as a moderator did not fit the data significantly better than the strategy only model ($\Delta G^2[2] = 2.52$, $p = .28$).

The estimates for value creating in unpublished data were smaller in magnitude than the estimates for value claiming in unpublished data, but these differences were not significant. The funnel plot showed substantial symmetry with only a small gap in lower left where two published observations were outliers.

Setting

The setting of the observation, as an experiment or a non-experimental study, was a significant moderator of the relationship between strategy and joint gains. The model including setting fit the data significantly better than the model including strategy only ($\Delta G^2(2) = 12.81$, $p = .002$). Experiments consistently produced higher estimates of the relationship between strategy and joint gains. The difference was significant for value creating strategies (experiment (E) $\rho = .37$, non-experiment (NE) $\rho = .16$ ($t[121] = 3.28$, $p = .001$), but not for value claiming strategies (E $\rho = -.16$; NE $\rho = -.05$) ($t[121] = -1.66$, $p = .097$). The relationship between value claiming and joint gains was not significant in a non-experimental setting.

Negotiation Type

The moderator, negotiation type (one-on-one, team-on-team, multiparty), did not improve model fit over the strategy-only model ($\Delta G^2[4] = 2.36$, $p = .67$).

Population Type

Population type (undergraduate, MBA, executive, or mixed) was a not a significant moderator as demonstrated by the only marginally better fit over the model including strategy-only ($\Delta G^2(6) = 11.23$, $p = .08$). Although not significantly different from mixed population types ($\rho = .21$), the executive population ($\rho = .03$) produced significantly lower estimates of the relationship between value creating and joint gains than both MBA ($\rho = .24$), ($t[117] = -2.03$, $p = .04$) and undergraduate populations ($\rho = .33$) ($t[117] = -3.29$, $p < .001$).

Discussion

This meta-analysis addresses the functionality of different theoretical conceptualizations and methods of measuring negotiation strategy to predict joint gains with startling findings. First, given current data, negotiation strategy theory, whether behavioral or motivational, and negotiation strategy measurement, whether behavioral coding or self-report, are essentially functionally equivalent when predicting joint gains, with the caveat that LIWC computer behavioral coding, at least as it has been used to date, is not. Second, negotiation strategy theory is culturally bound to Western culture samples. The positive relationship between value creation and joint gains characteristic of Western cultures samples is not significant in non-Western culture samples. The negative relationship between value claiming and joint gains characteristic of Western culture samples is not significant in non-Western culture samples. As meta-analytic results reveal how to make negotiation strategy research easier to do – use self-reports, they also reveal that current theory is insufficient to address how to study the strategy-joint gains relationship in non-Western cultures.

Theoretical Implications

Three theoretical implications of this research reveal opportunities for future research: 1) the theory of negotiation strategy is Western-culture bound; 2) the differences between behavioral and

motivational perspectives, although conceptually distinct, are functionally equivalent, empirically; 3) what observers can describe of negotiators' behaviors and what negotiators self-report are functionally equivalent, empirically,

The theory of negotiation strategy predicting joint gains appears to be culture bound. But, because the meta-analysis does not reveal why, this research identifies an opportunity for future research to understand how non-Western culture negotiators are using negotiation strategy to negotiate joint gains. There is a hint in the meta-analytic results showing that value claiming is less negatively related to joint gains in non-Western than Western cultures that some non-Western culture negotiators may be using the information embedded in value claiming strategy to infer information needed to generate trade-offs and joint gains.

The fundamental difference between the motivational and behavioral perspectives on negotiation strategy is that motivational theories capture what the negotiators intended to do whereas behavioral approaches capture what negotiators actually did. Researchers from both theoretical traditions aim to predict negotiation outcomes from strategy and use strategy as an explanatory mechanism to account for the effects of independent variables on outcomes. Our meta-analysis shows that the behavioral and motivational theories generate functionally equivalent estimates predicting the relationship between strategy and joint gains. Still, the conceptualizations of these two theories are different. Motivational theory focuses on the importance of self-and-other's interests and information sharing, which we define broadly as interests and priorities for value creating and influence for value claiming. Behavioral theory, in contrast, focuses squarely on information sharing. However, our results indicate that in the context of understanding the relationship between negotiation strategy and joint gains, the two foci are highly interrelated. That the theory of cooperation and competition did not generate significant estimates for value creating strategy, suggests that the information-sharing element, which is part of both motivational and behavioral theory, may be a key component of negotiation strategy. However, we caution that we had few motivational theory, competition-cooperation observations. The implication for future researchers is that they should select their theoretical perspective based on the nature of their research questions.

Two of the three operationalizations of strategy in our meta-analysis (behavioral coding and self-report) provided functionally equivalent estimates of the relationship between negotiation strategy and joint gains. The implication for future researchers is that so long as they are studying value claiming and value creating strategy, self-report is as valid a method of measurement as behavioral coding and much more efficient. Thus, despite the strong differences in the methods of behavioral coding versus self-report, the meta-analysis results suggest that negotiators can report how they are using strategy in negotiation with validity that is similar to the validity of observers coding the use of negotiation strategy. These self-report measures captured the negotiator's own view of the use of strategy in the negotiation. The studies in which negotiators reported on their counterparts' behaviors were outliers in the meta-analysis. In future research using self-reports to measure use of strategy, researchers may wish to consider the differences between self-reports of own use of strategy versus of counterpart's use of strategy.

Computer coding using LIWC categories of social interaction words did not provide significant estimates for the strategy-joint gains relationship. We had few LIWC data sets and their estimates of the strategy-joint gains relationships were extremely heterogeneous. However, it is possible that the categories of social interaction that the LIWC system counts are too conceptually distant from the behaviors and motives of the value creating and value claiming strategies that are central to negotiation theory. This may indicate that we do not yet have appropriate categories for using computer coding to measure negotiation strategy. Alternatively, the results may indicate that counting

words in categories does not generate as much insight into latent semantic meaning as coding behavior in context or asking negotiators about their motives and behaviors. Future research using computer coding that is based on theoretically developed categories, such as reported by Gelfand and colleagues (2015) may generate more valid indicators.

Limitations and Opportunities for Future Research

As with all research, this meta-analysis has certain limitations. First, although we acquired some unpublished data sets and our publication bias analysis implied no publication bias, effects in data sets that we did access might be more robust than effects in the data sets we did not access. It is possible that our estimates are upwardly biased, because of our meta-analytic database. Second, we carefully followed authors own operationalizations of their measures into strategies of value creating and value claiming. Authors using behavioral coding operationalized strategy as the relative frequency of the content of the interaction; however, we note that some behavioral studies expand beyond the frequency of process and study reciprocity and or complementarity of content (Weingart et al., 2007). Future research may wish to take a comparative process approach to study the relationship between negotiation strategy and joint gains. Third, four studies required that we categorize multiple negotiation behaviors into value claiming and value creating strategy. We did so based on theory and papers that provided an empirical categorization for example using correspondence analysis (Weingart et al., 2007). However, we recognize that our categorization of behaviors into strategies may have introduced heterogeneity into the strategy effects.

Finally, we offer two cautions to readers who may be new to meta-analysis. First, one should not interpret non-significant or smaller effect sizes as less correct than larger or significant effect sizes. Our meta-analysis provided an accurate assessment of the true effect size for each measurement method and theory given the data available. Even though our meta-analysis revealed consistently significant effects of value creating and value claiming on joint gains, the relative size of the effect is not indicative of a "truer" estimate of the effect of negotiation strategy on joint gains. In other words, confidence in an estimate of an effect size should be based on the size of the standard error (where smaller is more confident) rather than the size of the effect. Second, the estimates reported in the meta-analysis are accurate to the data available to date. As scholars continue to study negotiation strategy, particularly across cultures, it is likely that a deeper understanding will emerge explaining why, given data available, theory and methods are functionally equivalent, but the strategy-joint gains relationship in Western culture does not generalize to non-Western culture.

Conclusion

Results of our meta-analysis showed that different theoretical perspectives and measurement methods were functionally equivalent in accounting for the relationship between creating and claiming value and joint gains. The effect of value creating on joint gains was positive and the effect of value claiming on joint gains was negative. However, these results only held in Western culture samples. We conclude that the theory of value creating and value claiming negotiation strategy as it relates to joint gains is Western culture bound.

References

*Aaldering, H., & Ten Velden, F. (2018). How representatives with a dovish constituency reach higher individual and joint outcomes in integrative negotiations. *Group Processes and Intergroup Relations*, *21*(1), 111-126. https://doi.org/10.1177/1368430216656470

*Adair, W. L., & Brett, J. M. (2005). The negotiation dance: Time, culture, and behavioral sequences in negotiation. *Organization Science, 16*(1), 33-51. https://doi.org/10.1287/orsc.1040.0102

*Aslani, S., Ramirez-Marin, J., Brett, J., Yao, J., Semnani-Azad, Z., Zhang, Z. X., & Adair, W. (2016). Dignity, face, and honor cultures: A study of negotiation strategy and outcomes in three cultures. *Journal of Organizational Behavior, 37*(8), 1178-1201. https://doi.org/10.1002/job.2095

Bakeman, R., & Gottman, J. M. (1997). *Observing interaction: An introduction to sequential analysis*. Cambridge University Press.

*Beersma, B., & De Dreu, C. K. W. (1999). Negotiation processes and outcomes in pro-socially and egoistically motivated groups. *International Journal of Conflict Management, 10*, 385-402. https://doi.org/10.1108/eb022831

*Beersma, B., & De Dreu, C. K. W. (2002). Integrative and distributive negotiation in small groups: Effects of task structure, decision rule and social motive. *Organizational Behavior and Human Decision Processes, 87*, 227-252. https://doi.org/10.1006/obhd.2001.2964

*Beersma, B., & De Dreu, C. K. W. (2005). Conflict's consequences: Effects of social motives on post-negotiation creative and convergent group functioning and performance. *Journal of Personality and Social Psychology, 89*, 358-374. http://dx.doi.org/10.1037/0022-3514.89.3.358

Blake, R. R., & Mouton, J. S. (1964). *The managerial grid.* Houston: Gulf Pub. Co.

Brett, J. M. (2014). *Negotiating globally*. Wiley.

Brett, J. M., Gunia, B. C., & Teucher, B. M. (2017). Culture and negotiation strategy: A framework for future research. *The Academy of Management Perspectives*, *31*(4), 288-308. https://doi.org/10.5465/amp.2015.0195

Brett, J. M., Yao, J. J., & Zhang, Z-X. (2108). Behaviorally coding indirect and direct information exchange in negotiations. In E. Brauner, M. Boos, & M. Kolb. *Cambridge Handbook of Group Interaction Analysis*. Cambridge University Press.

*Butt, A. N., Choi, J. N., & Jaeger, A. M. (2005). The effects of self-emotion, counterpart emotion, and counterpart behavior on negotiator behavior: A comparison of individual-level and dyad-level dynamics. *Journal of Organizational Behavior, 26*(6), 681-704. https://doi.org/10.1002/job.328

*Choi, D. W. (2003). *Lay theories of integration and distribution, convergent expectations, and motivation in bilateral negotiation*. (Unpublished doctoral dissertation). University of Illinois,

Curhan, J. R., & Pentland, A. (2007). Thin slices of negotiation: Predicting outcomes from conversational dynamics within the first 5 minutes. *Journal of Applied Psychology*, *92*(3), 802-811. https://doi.org/10.1037/0021-9010.92.3.802

*De Dreu, C. K. W., Beersma, B., Stroebe, K., & Euwema, M. C. (2006). Motivated information processing, strategic choice, and the quality of negotiated agreement. *Journal of Personality and Social Psychology, 90*, 927-943. https://doi.org/10.1037/0022-3514.90.6.927

De Dreu, C. K., Evers, A., Beersma, B., Kluwer, E. S., & Nauta, A. (2001). A theory-based measure of conflict management strategies in the workplace. *Journal of Organizational Behavior*, *22*(6), 645-668. https://doi.org/10.1002/job.107

*De Dreu, C. K. W., Giebels, E., & Van de Vliet, E. (1998). Social motives and trust in integrative negotiation: The disruptive effects of punitive capability. *Journal of Applied Psychology, 83*(3), 408- 422. https://doi.org/10.1037/0021-9010.83.3.408

Deutsch, M. (1949a). A theory of co-operation and competition. *Human Relations*, *2*(2), 129-152. https://doi.org/10.1177/001872674900200204

Deutsch, M. (1949b). An experimental study of the effects of co-operation and competition upon group process. *Human Relations*, *2*(3), 199-231. https://doi.org/10.1177/001872674900200301

Deutsch, M. (1973). Conflicts: Productive and destructive. *Conflict Resolution through Communication*, *25*, 155. https://doi.org/10.1111/j.1540-4560.1969.tb02576.x

*Elfenbein, H. A., Brown, A., Curhan, J., Eisenkraft, N., & Shivako, A. (2010). *Why are some negotiators better than others? Opening the black box of bargaining behaviors*. IACM Conference Paper.

Friedman, R., Anderson, C., Brett, J., Olekalns, M., Goates, N., & Lisco, C. C. (2004). The positive and negative effects of anger on dispute resolution: evidence from electronically mediated disputes. *Journal of Applied Psychology, 89(2), 369-376.* https://doi.org/10.1037/0021-9010.89.2.369

*Geiger, I. (2014). Media effects on the formation of negotiator satisfaction: The example of face-to-face and text based electronically mediated negotiations. *Group Decision and Negotiation, 23*, 735-763. https://doi.org/10.1007/s10726-012-9317-3

*Gelfand, M. J. (1996). *Attributes of individualism/collectivism and the behavior of representatives in intergroup negotiations*. (Unpublished doctoral dissertation). University of Illinois, Urbana-Champaign, Illinois.

Gelfand, M. J., Severance, L., Lee, T., Bruss, C. B., Lun, J., Abdel-Latif, A. H., & Moustafa Ahmed, S. (2015). Culture and getting to yes: The linguistic signature of creative agreements in the United States and Egypt. *Journal of Organizational Behavior*, *36*(7), 967-989. https://doi.org/10.1002/job.2026

Gibson, C. B. (1998). Do you hear what I hear? A framework for reconciling intercultural communication difficulties arising from cognitive styles and cultural values. P. C. Earley, M. Erez, eds. *New Perspectives on International Industrial/Organizational Psychology*. The New Lexington Press, San Francisco, CA (pp. 335-362).

*Gunia, B., Brett, J. Nandkeolyar, A., & Kamdar, D. (2011). Paying a price: Culture, trust, and negotiation consequences. *Journal of Applied Psychology, 96*(4): 774-789. http://dx.doi.org/10.1037/a0021986

Hall, E. T. (1976). *Beyond Culture*. Anchor, Garden City, NY.

*Han, I., Kwon, S., Bae, J., & Park, K. (2012). When are integrative tactics more effective? The moderating effects of moral identity and the use of distributive tactics. *International Journal of Conflict Management, 23*(2), 133-150. https://doi.org/10.1108/10444061211218258

*Harinck, F., & De Dreu, C.K.W., (2011). When does taking a break help in negotiation? The influence of breaks and social motivation on negotiation processes and outcomes *Negotiation and Conflict Management Research, 4*(1), 33-46. https://doi.org/10.1111/j.1750-4716.2010.00071.x

Hüffmeier, J., Freund, P. A., Zerres, A., Backhaus, K., & Hertel, G. (2014). Being tough or being nice? A meta-analysis on the impact of hard-and softline strategies in distributive negotiations. *Journal of Management*, *40*(3), 866-892. https://doi.org/10.1177/0149206311423788

Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: correcting errors and bias in research findings* (2nd ed.). Sage.

*Hyder, E. B., Prietula, M. J., & Weingart, L. R. (2000). Getting to best: Efficiency versus optimality in negotiation. *Cognitive Science 24*(2), 169-204. https://doi.org/10.1016/S0364-0213(00)00021-5

Johnson, D. W., & Johnson, R. T. (2005). New developments in social interdependence theory. *Genetic, Social, and General Psychology Monographs*, *131*(4), 285-358.

Johnson, D. W., & Johnson, R. T. (2011). Intellectual legacy: Cooperation and competition. In P. T. Coleman (Ed.), *Conflict, interdependence, and justice* (pp. 41-63). Springer.

*Kern, M., Lee, S., Aytug, Z., & Brett, J. M. (2012). Bridging social distance in inter-cultural negotiations: "you" and the bi-cultural negotiator. *International Journal of Conflict Management 23*(2) 173-191. https://doi.org/10.1108/10444061211218294

Kimmel, M. J., Pruitt, D. G., Magenau, J. M., Konar-Goldband, E., & Carnevale, P. J. (1980). Effects of trust, aspiration, and gender on negotiation tactics. *Journal of Personality and social Psychology, 38*(1), 9-22. https://doi.org/10.1037//0022-3514.38.1.9

Kong, D. T., Dirks, K. T., & Ferrin, D. L. (2014). Interpersonal trust within negotiations: Meta-analytic evidence, critical contingencies, and directions for future research. *Academy of Management Journal*, *57*(5), 1235-1255. https://doi.org/10.5465/amj.2012.0461

Lax, D. A., & Sebenius, J. K. (1986). *The manager as negotiator: Bargaining for cooperation and competitive gain*. Free Press.

Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis*. Sage.

*Liu, M. (2011). Cultural differences in goal-directed interaction patterns in negotiation. *Negotiation and Conflict Management Research, 4*, 178-199. https://doi.org/10.1111/j.1750-4716.2011.00079.x

*Lügger, K., Geiger, I., Neun, H., & Backhaus, K. (2015). When East meets West at the bargaining table: Adaptation, behavior and outcomes in intra-and intercultural German–Chinese business negotiations. *Journal of Business Economics, 85*(1), 15-43. https://doi.org/10.1007/s11573-013-0703-3

Manusov, V. L. (2006). Attribution theories: Assessing causal and responsibility judgments in families. In D. O. Braithwaite & L. A. Baxter (Eds.), *Engaging theories in family communication: Multiple perspectives* (pp. 181–196). Sage. https://doi.org/10.4135/9781452204420.n12

*Moore, D., Kurtzberg, T., Thompson, L., & Morris, M.W. (1999). Long and short routes to success in electronically mediated negotiations: Group affiliations and good vibrations. *Organizational Behavior and Human Decision Processes, 77*(1), 22-43. https://doi.org/10.1006/obhd.1998.2814

*Morris, M., Nadler, J., Kurtzberg, T., & Thompson, L. (2002). Schmooze or lose: Social friction and lubrication in e-mail negotiations. *Group Dynamics: Theory, Research, and Practice, 6*(1), 89-100. https://doi.org/10.1037//1089-2699.6.1.89

*Olekalns, M., & Smith, P. L. (2013). Dyadic power profiles: Power-contingent strategies for value creation in negotiation. *Human Communication Research, 39*, 3-20. https://doi.org/10.1111/j.1468-2958.2012.01440.x

*Olekalns, M., & Smith, P.L. (2000). Understanding optimal outcomes: The role of strategic sequences in competitive negotiations. *Human Communication Research, 26*, 527-557. https://doi.org/10.1111/j.1468-2958.2000.tb00768.x

*Olekalns, M., Horan, C., & Smith, P. (2014). Maybe it's right, maybe it's wrong: Structural and social determinants of deception in negotiation. *Journal of Business Ethics, 122*, 89-102. https://doi.org/10.1007/s10551-013-1754-7

*Olekalns, M., Kulik, C., & Chew, L. (2014). Sweet little lies: Social context and the use of deception in negotiation. *Journal of Business Ethics, 120*, 13-26. https://doi.org/10.1007/s10551-013-1645-y

Paterson, T. A., Harms, P, D., Steel, P., & Crede, M. (2016). An assessment of the magnitude of effect sizes: Evidence from 30 years of meta-analysis in management. *Journal of Leadership & Organizational Studies, 23*(1), 66-81. https://doi.org/10.1177/1548051815614321

Pennebaker, J. W., & Graybeal, A. (2001). Patterns of natural language use: Disclosure, personality, and social integration. *Current Directions in Psychological Science*, *10*(3), 90-93. https://doi.org/10.1111/1467-8721.00123

Pruitt, D. (1981) *Negotiation behavior*. Academic Press.

Pruitt, D. G., & Carnevale, P. J. (1993). *Negotiation in social conflict*. Thomson Brooks/Cole.

Pruitt, D. G., & Rubin, J. Z. (1986). *Social conflict: Escalation, impasse, and resolution*. Addison-Wesley.

R Core Team. (2016). R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Vienna, Austria. https://www.R-project.org/

Rahim, M. A. (1983). A measure of styles of handling interpersonal conflict. *Academy of Management Journal, 26,* 368-376

Raiffa, H. (1982). *The art and science of negotiation*. Harvard University Press.

*Ramirez-Marin, J., Brett, J. M., Aslani, S., Yao, J. J., & Semnani, Z. (2014), July 4-7). *Measuring negotiation strategy and predicting outcomes: Self-reports, behavioral codes, and linguistic cues*. [Paper Presentation]. International Association for Conflict Management. Annual Conference Leiden, the Netherlands.

*Rockmann, K. W., & Northcraft, G. B. (2010). Expecting the worst? The dynamic role of competitive expectations in team member satisfaction and team performance. *Small Group Research, 41*(3), 308-329. https://doi.org/10.1177/1046496410363744

Ruble, T. L., & Thomas, K. W. (1976). Support for a two-dimensional model of conflict behavior. *Organizational Behavior and Human Performance*, *16*(1), 143-155. https://doi.org/10.1016/0030-5073(76)90010-6

*Schei, V. (2013). Creative people create values: Creativity and positive arousal in negotiations. *Creativity Research Journal, 25*(4), 408-417. https://doi.org/10.1080/10400419.2013.843336

*Schei, V., & Rognes, J. K. (2003). Knowing me, knowing you: Own orientation and information about the opponent's orientation in negotiation. *International Journal of Conflict Management, 14*(1), 43-59. https://doi.org/10.1108/eb022890

*Schei, V., Rognes, J. K., & De Dreu, C .K. W. (2008). Are individualistic orientations collectively valuable in group negotiations? *Group Processes & Intergroup Relations, 11*(3), 371-385. https://doi.org/10.1177/1368430208090648

*Schei, V., Rognes, J. K., & Mykland, S. (2006). Thinking deeply may sometimes help: Cognitive motivation and role effects in negotiation. *Applied Psychology, 55*(1), 73-90. https://doi.org/10.1111/j.1464-0597.2006.00240.x

*Schei, V., Rognes, J. K., & Shapiro, D. L. (2011). Can individualists and cooperators play together? The effect of mixed social motives in negotiations. *Journal of Experimental Social Psychology, 47*(2), 371-377. https://doi.org/10.1016/j.jesp.2010.09.010

*Sinaceur, M. (2010). Suspending judgment to create value: Suspicion and trust in negotiation. *Journal of Experimental Social Psychology, 46*(3), 543-550. https://doi.org/10.1016/j.jesp.2009.11.002

*Ten Velden, F. S., Beersma, B., & De Dreu, C. K. W. (2007). Majority and minority influence in group negotiation: The moderating influence of social motivation and decision rules. *Journal of Applied Psychology, 92,* 259-268. https://doi.org/10.1037/0021-9010.92.1.259

*Ten Velden, F. S., Beersma, B., & De Dreu, C. K. W. (2010). It takes one to tango: The effects of epistemic motivation in negotiation. *Personality and Social Psychology Bulletin, 36*, 1454-1466. https://doi.org/10.1177/0146167210383698

Thompson, L., & Hastie., R. (1990). Social perception in negotiation. *Organizational Behavior and Human Decision Processes, 47*(1), 98-123. https://doi.org/10.1016/0749-5978(90)90048-e

*Tinsley, C., O'Connor, K. M., & Sullivan, B. A. (2002). Tough guys finish last: The perils of a distributive reputation. *Organizational Behavior and Human Decision Processes, 88*(2), 621-642. https://doi.org/10.1016/S0749-5978(02)00005-5

Tripp, T. M., & Sondak, H. (1992). An evaluation of dependent variables in experimental negotiation studies: Impasse rates and Pareto efficiency. *Organizational Behavior and Human Decision Processes, 51*(2), 273-295. https://doi.org/10.1016/0749-5978(92)90014-X

Van de Vliert, E. (1997). *Complex interpersonal conflict behavior*. Psychology Press.

Viechtbauer, W. (2010). Conducting meta-analyses in R with the metafor package. *Journal of Statistical Software*, *36*(3), 1-48. https://doi.org/10.18637/jss.v036.i03

Viechtbauer, W., & Cheung, M. W. L. (2010). Outlier and influence diagnostics for meta-analysis. *Research Synthesis Methods*, *1*(2), 112-125. https://doi.org/10.1002/jrsm.11

*Volkema, R., Fleck, D., & Hofmeister, A. (2010). Predicting competitive-unethical negotiating behavior and its consequences. *Negotiation Journal, 26*(3), 263-286. https://doi.org/10.1111/j.1571-9979.2010.00273.x

Walton, R. E., & McKersie, R. B. (1965). *A behavioral theory of labor negotiations: An analysis of a social interaction system*. Cornell University Press.

*Weingart, L. R, Thompson, L., Bazerman, M. H., & Carroll, J. S. (1990). Tactical behavior and negotiation outcomes. *International Journal of Conflict Management, 1*(1), 7-31. https://doi.org/10.1108/eb022670

*Weingart, L. R., Brett, J. M., Olekalns, M., & Smith, P. (2007). Conflicting social motives in negotiating groups. *Journal of Personality and Social Psychology, 93*(6), 994- 1010. https://doi.org/10.1037/0022-3514.93.6.994

*Weingart, L. R., Hyder, E. B., & Prietula, M. J. (1996). Knowledge matters: The effect of tactical descriptions on negotiation behavior and outcome. *Journal of Personality and Social Psychology, 70*(6), 1205. http://dx.doi.org/10.1037/0022-3514.70.6.1205

Weingart, L. R., Prietula, M. J., Hyder, E. B., & Genovese, C. R. (1999). Knowledge and the sequential processes of negotiation: A Markov chain analysis of response-in-kind. *Journal of Experimental Social Psychology, 35*(4), 366-393. https://doi.org/10.1006/jesp.1999.1378

Weingart, L. R., Olekalns, M., & Smith, P. (2005). Quantitative coding of negotiation behavior. *International Negotiation*, *9*(3), 441-456. https://doi.org/10.1006/jesp.1999.1378

White, C. H., & Sargent, J. (2005). Researcher choices and practices in the study of nonverbal communication. *The sourcebook of nonverbal measures: Going beyond words*, 3-24.

*Wilken, R., Jacob, F., & Prime, N. (2013). The ambiguous role of cultural moderators in intercultural business negotiations. *International Business Review, 22*, 736-753. https://doi.org/10.1016/j.ibusrev.2012.12.001

World Bank. (2021, July 31). Data. https://datahelpdesk.worldbank.org/knowledgebase/articles/378834-how-does-the-world-bank-classify-countries

*Yao, J. J., Zhang, Z-X., & Brett, J. M. (2017). Understanding trust development in negotiations: An interdependent approach. *Journal of Organizational Behavior, 38*(5), 712-729. https://doi.org/10.1002/job.2160

*Zerres, A., Hüffmeier, J., Freund, P. A., Backhaus, K., & Hertel, G. (2013). Does it take two to tango? Longitudinal effects of unilateral and bilateral integrative negotiation training. *Journal of Applied Psychology, 98*(3), 478-491. http://dx.doi.org/10.1037/a0032255

Author Note

The authors would like to thank Susanna Vogel for her work on an early phase of this project and the IESEG Center on Negotiation for supporting this research. We would also like to thank Joachim Hüffmeier and Tyree Mitchell who provided extremely helpful comments on the paper.

Author Bios

Jeanne Brett is the Dewitt W. Buchanan, Jr. Professor emerita of dispute Resolution and Organizations at Northwestern University. She is the author of several award winning books, including Getting Disputes Resolved and Negotiating Globally. She received the IACM career achievement award in 2009. She is known for her research on dispute resolution, negotiation strategy, and culture.

Jimena Ramirez is Associate Professor of International Negotiation at IESEG School of Management (France). Her main research goal is understanding the influence of culture on the expectations, the use of strategy, and negotiation outcomes. She is part of an international research team focusing particularly in honor culture. She is Academic Director of the Master in International Business at IESEG, and currently serves in the IACM board of directors.

Chelsea Galoni is an Assistant Professor of Marketing in the Tippie College of Business at the University of Iowa. Her research focuses on the impact of emotions on consumer decision making and has been published in top journals including the Journal of Consumer Research and the Journal of Consumer Psychology. Chelsea is passionate about using multiple methods – including archival data analysis, field and lab experiments, and meta-analysis – in her work.

Appendix
Supplemental Materials

Figure 1
Search Flow Diagram

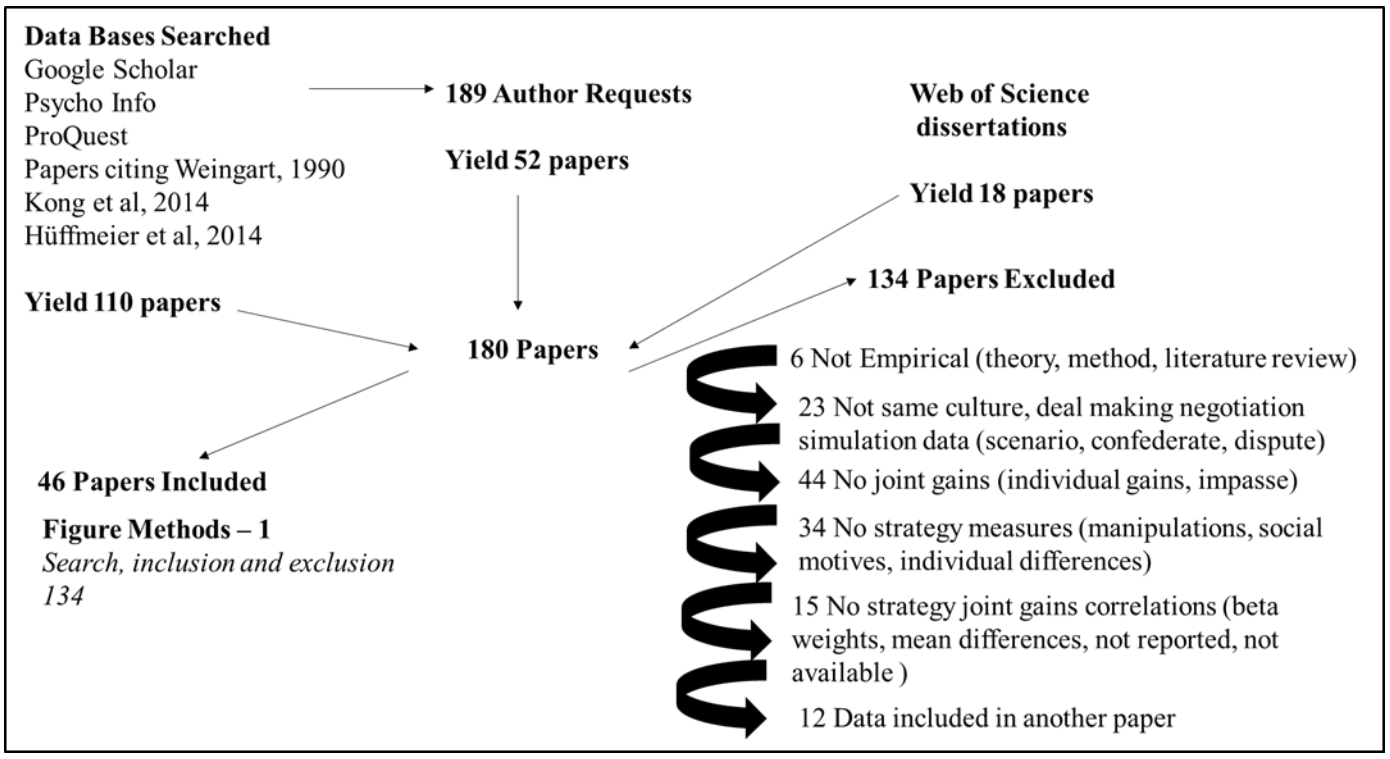


Table 1

Papers in the Meta-Analysis

No	Citation	P/U	#S	Method	Theory	Method x Theory	# Methods	IV	Culture	Region	# N	Parties	Age	% male	Pop Type	Exp vs Field
1	Ramirez-Marin et al., 2014.	U	2	BC & LIWC	B	BC-B; LIWC	2	Pair	M	W; SA&ME	37; 29	ONE	20; 21	32; 50	U	F
8	Beersma & De Dreu, 1999.	P	1	SR	DC	SR-DC	1	Pair	S	W	22	MULTI			U	E
9	Beersma & De Dreu, 2002.	P	1	SR	DC	SR -DC	1	Pair	S	W	91	MULTI			U	E
11	Beersma & De Dreu, 2005.	P	2	SR	DC	SR-DC	1	Pair	S	W	30;69	MULTI		41;31	U	E
22	De Dreu, et al., 2006.	P	1	SR	DC	SR-DC	1	Pair	S	W	50	ONE	20		U	E
27	Elfenbein, et al., 2010	U	1	BC; LIWC	B	BC-B; LIWC	2	Pair	S	W	26	ONE	30	70	MBA	F
39	Gunia, et al., 2011.	P	4	BC; SR	B	BC-B; SR-B	2	Pair	M	W; SA&ME	25;25;28;39	ONE	38;46; 41;38	77;92; 98;78	EXEC	F
40	Han, et al., 2012.	P	1	SR	B	SR-B	1	Pair	S	EA	53	ONE	20	64	U	E
46	Hyder, et al., 2000.	P	1	BC	B	BC-B	1	Pair	S	W	61	ONE		69	U	F
67	Lügger, et al., 2014.	P	2	BC	B	BC-B	1	Pair	M	EA; W	46;48	ONE		50;52	U	F
73	Moore, et al., 1999.	P	1	BC	B	BC-B	1	Pair	S	W	97	ONE			MBA	E
76	Morris, et al., 2002.	P	1	BC	B	BC-B	1	V Claim	S	W	39	ONE			MBA	E

84	Olekalns & Smith, 2013.	P	1	BC	B	BC-B	1	Pair	S	W	62	ONE	19	23	U	E
85	Olekalns, et al., 2014.	P	1	BC	B	BC-B	1	V Claim	S	W	60	ONE			MIXED	E
86	Olekalns & Smith, 2000.	P	1	BC	B	BC-B	1	Pair	S	W	64	ONE	22	50	U	F
103	Rockmann & Northcraft, 2010.	P	1	BC	B	BC-B	1	V Claim	S	W	32	MULTI			U	F
106	Schei & Rognes, 2003.	P	1	SR	B	SR-B	1	Pair	S	W	81	ONE	25	57	MBA	E
107	Schei et al., 2008.	P	1	SR	B	SR-B	1	Pair	S	W	76	MULTI	21	65	U	E
108	Schei et al., 2011.	P	1	BC	B	BC-B	1	Pair	S	W	48	ONE	25	63	MBA	E
109	Schei et al., 2006.	P	1	BC	B	BC-B	1	V Create	S	W	17	ONE	25	58	MBA	F
110	Schei, 2013.	P	1	SR	B; DC	SR-B; SR-DC	2	V Create	S	W	116	ONE	25	55	MBA	F
116	Sinaceur, 2010.	P	1	SR	B	SR-B	1	V Create	S	W	32	ONE			U	E
129	Ten Velden et al., 2007.	P	1	SR	DC	SR-DC	1	Pair	S	W	97	MULTI	21	26	U	E
130	Ten Velden et al., 2010.	P	1	BC	B	BC-B	1	V Create	S	W	83	ONE	21	56	U	E
133	Tinsley et al., 2002.	P	1	BC	B	BC-B	1	Pair	S	W	60	ONE	29	65	MBA	E
136	Volkema et al, 2010.	P	1	BC	B	BC-B	1	V Claim	S	W	33	ONE	26	61	MBA	F
137	Weingart et al., 1996.	P	1	BC	B	BC-B	1	Pair	S	W	90	ONE		63	U	E
138	Weingart et al., 2007.	P	1	BC	B	BC-B	1	Pair	S	W	36	MULTI		75	MBA	E
142	Weingart et al., 1990.	P	1	BC	B	BC-B	1	Pair	S	W	22	ONE			MBA	F

144	Wilken et al., 2013.	P	1	BC	B	BC	1	Pair	S	W	58	TEAM		46	MBA	E
150	Liu, 2011.	P	2	BC	B	BC-B	1	Pair	M	W; EA	32;35	ONE	20;26	50;48	MIXED	F
155	Butt, 2005.	P	1	SR	DC	SR-C&C	1	Pair	S	SA&ME	104	ONE	30	74	MIXED	E
156	Choi, 2003.	U	1	BC; SR	B; C&C	BC-B; SR-C&C	2	Pair	S	W	125	ONE	20	49	U	E
164	Gelfand, 1996.	U	1	SR	C&C	SR-C&C	1	Pair	S	W	82	TEAM		52	U	E
171	Zerres et al., 2013.	P	1	BC	B	BC-B	1	V Create	S	W	180	ONE	24	61	U	E
172	Geiger, 2014.	P	1	BC	B	BC-B	1	Pair	S	W	52	TEAM	25	63	MBA	E
176	Harinck & De Dreu, 2011.	P	1	SR	DC	SR-DC;	1	Pair	S	W	51	ONE	22	33	U	E
178	Yao et al., 2017.	P	1	BC; SR	B	BC-B; SR-B	2	Pair	S	EA	50	ONE	41	80	EXEC	F
179	Aaldering & Ten Velden, 2016.	P	1	BC; SR	B; DC	BC-B; SR-DC	2	Pair	S	W	82	ONE	23	28	U	E
180	Aslani et al., 2016.	P	3	SR	B	SR-B	1	Pair	M	EA; ME&SA; W	48;68; 63	ONE	19;21; 20	47;50; 32	U	F
181	Olekalns et al., 2014.	P	1	BC	B	BC-B	1	V Claim	S	W	35	ONE	19	34	U	E
182	Nandkeolyar & Brett, 2012.	U	1	LIWC; BC	B	LIWC BC-B	2	Pair	S	SA&ME	66	ONE	24	59	MBA	F
186	Ramirez-Marin & Brett, 2012.	U	2	SR; LIWC	B	SR-B; LIWC	2	Pair	M	W; W	44;37; 20;20	ONE	22;21	37; 28	U	F
187	Kern et al., 2012.	P	2	BC; LIWC	B	BC-B; LIWC	2	V Create	M	EA; W	15;16	ONE	24;20	38;34	Mixed	F
189	De Dreu et al., 1998.	P	1	BC	B	BC-B	1	Pair	S	W	45	ONE			U	E
5149	Adair & Brett, 2005.	P	8	BC	B	BC-B	1	Pair	M	W; EA; ME&SA	201	ONE	32	75	Mixed	F

Table 1 Notes: These abbreviations are used in the heading row of the table: PU – Published/Unpublished. #S - the number of the study in the paper. Method – B=Behavioral coding, SR= Self Report, LIWC = Linguistic Word Inquiry Count. Theory B = Behavioral, DC=Dual Concern, C&C = Cooperative & Competitive; Method xTheory – indicates which method was used to measure which theoretical perspective. #Methods – indicates the number of methods reported in the same sample. IV- refers to whether value claiming, value creating or both (indicated by term pair) variables were measured in the same sample. Culture indicates whether the sample was Single or Multi-cultural. Region – W=West; EA=East Asia, ME&SA=Middle East and South Asia. #N indicates the number of negotiations in the sample; multiple numbers here refer to separate intra-cultural samples in this study. Parties – ONE – one on one negotiation, MULTI – multiparty negotiation, TEAM – team on team negotiation; Age – average age reported. % male – percent of the sample reported as male. Pop type: type of sample: MBA, U-undergrad, EXEC – executive education, MIXED – a mixture of populations. Exp vs Field – an experimental study or a non-experimental study.

Correction Techniques

We followed Hunter and Schmidt's (2004) approach to correct correlations between joint gains and value creating and value claiming for measurement error by dividing all effect sizes by the square root of the reliability estimates of the correlated variables. In the absence of a reliability coefficient, we used the average reliability of that variable (value creating, value claiming) in the data set. We replaced 5/70 missing reliability coefficients for value creating (α = .76). We replaced 10/63 missing reliability coefficients for value claiming (α = .77). We assigned joint gains a reliability coefficient of 1.00. (See De Wit, Greer, & Jehn, 2012; Greer, de Jong, Schouten, & Dannals, 2018, for precedent.)

Power Analysis

Given that the meta-analyses reported in this paper are mixed-effect multivariate meta-analyses and that the studies used for the meta-analysis represent, to the best of our knowledge, the entire body of work to date, a priori power analyses were inappropriate (McShane & Böckenholt, 2016). Instead, we computed post-hoc, power-calibrated effect size estimates for each correlation estimate in all of our models. We provide the sample size required for 80% power should a researcher be interested in detecting the effect in a future single-sample study. (See table providing Power Analysis Details below.)

Table 2

Details of the Power Analysis

Outliers Removed	Value Creating		Value Claiming	
	$\bar{r}$ (v^2)	N_{v^2}	$\bar{r}$(v^2)	N_{v^2}
Overall	.25 (.001)	133	-.10 (.001)	1,057
Measurement Type				
Behavioral Coding	.25 (.002)	144	-.09 (.002)	1,614
Self-Report	.31 (.004)	87	-.13 (.004)	800
Computer Coding	.04 (.013)	-	-.02 (.025)	-
Theory				
Behavioral Theory	.26 (.002)	124	-.08 (.002)	2,311

Dual Concern	.31 (.013)	103	-.26 (.017)	214
Cooperation-Competition	.17 (.031)	6.827	-.35 (.031)	112
Computer Coding	.11 (.017)	-	-.02 (.025)	-
Theory x Measurement				
Behavioral Theory BC	.25 (.002)	142	-.09 (.002)	1,578
Behavioral Theory SR	.34 (.006)	77	-.03 (.007)	-
Dual Concern SR	.31 (.013)	102	-.26 (.016)	211
Cooperation-Competition SR	.17 (.030)	5,580	-.35 (.030)	110
Computer Coding	.04 (.013)	-	-.02 (.024)	-
Moderators – Outliers Removed	**Value Creating**		**Value Claiming**	
	$\bar{r}$ (v^2)	N_{v^2}	$\bar{r}$(v^2)	N_{v^2}
Culture				
Western	.31 (.002)	65	-.15 (.002)	324
East Asian	.06 (.008)	-	.04 (.008)	-
Middle Eastern	.10 (.009)	5,394	-.03 (.009)	-
Publication				
Published	.28 (.001)	87	-.09 (.002)	1,416
Unpublished	.16 (.006)	360	-.17 (.007)	378
Setting				
Experiment	.37 (.003)	47	-.16 (.003)	276
Field	.16 (.002)	283	-.05 (.002)	36,602
Type				
Team-on-Team	.13 (.024)	-	-.22 (.024)	414
One-on-One	.27 (.001)	95	-.09 (.002)	1,323
Multi-Party	.15 (.024)	8,797	-.19 (.019)	523
Population				
Undergraduates	.33 (.002)	58	-.10 (.003)	1,088
MBA	.24 (.005)	126	-.14 (.005)	614
Executive	.03 (.007)	-	-.10 (.007)	4,355
Mixes	.21 (.013)	286	-.02 (.014)	-

Table 2 Notes:

1. Prospective power-calibrated sample requirements given meta-analytic estimates of effect size, and heterogeneity within- and across- estimates (one-sided a = .05, power = .80).

2. The sample size values represent the number of participants required to detect a particular effect if the correlation and variance uncovered in the meta-analysis were the true effect size and variance in the population. For each correlation, we provide a sample size estimate (N_{v^2}) that represents the sample size required to detect an effect (at power = .80 and one-sided alpha = .05) after correcting for the variance in the effect size estimate for the particular correlation. We computed the power-calibrated effect sizes using procedures described in McShane and Böckenholt (2016). We used the diagonal of the variance-covariance matrix from the meta-analysis as the value for v^2. Although we used custom code on unrounded values, our results can be replicated approximately using the online calculator available at https://blakemcshane.shinyapps.io/pces/. Researchers should select Type of Test = "Test of a Correlation Coefficient," power = .80, alpha = .05 (one-sided), $\rho = \bar{r}$ from the tables, $v^2 = v^2$ from the tables.

Meta-Analysis Plan

We first calculated the mean effect sizes for the association between creating and claiming value with joint gains across theory and across measurement method. We used deviance tests based on log likelihoods to compare the fit of these strategy only models to intercept-only models. To check for outliers, we used a funnel plot to examine each observation's studentized residuals in relation to its standard errors. Kepes, Bushman and Anderson (2017) suggest a set of analyses to evaluate publication bias, all of which we used. We calculated the mean effect sizes for the association between creating and claiming value strategy with joint gains by the theory and measurement method interaction. We compared the fit of this model to the strategy only and measurement method only models. All models controlled for whether an observation used multiple methods of measurement, and whether the same observation reported both value creating and value claiming.

We calculated I^2 to compare heterogeneity accounted for in each model. I^2 describes the variation across observations attributable to heterogeneity between observations rather than chance. We were not interested in the absolute values of I^2, because we presumed there would be a high degree of heterogeneity between observations in the data set. Instead, we compared the difference in I^2 between models to evaluate whether theory or measurement method or their interaction explained a significantly greater portion of heterogeneity in results (Higgins & Thompson, 2002).

Moderator analyses used multivariate meta-regression to evaluate the implication of study characteristics and theoretical moderators on effect sizes (c.f., Greer et al., 2018).

Publication Bias

The publication bias analyses suggested that publication bias may have led to an underestimate of the magnitude of the effects of value creating, and perhaps value claiming, on joint gains. The Trim & Fill results (Duval & Tweedie, 2000) showed the effect size for value creation as positive and significant and perhaps an underestimate with the number of missing studies estimated by the Egger's test as 13 on the right (positive estimates missing). The effect size for value claiming was negative and significant with no missing studies. The cumulative value CMA of the top five most precise estimates (Kepes, Banks, McDaniel, & Whetzel, 2012) results were stronger than both our meta analytic results and the Trim & Fill results for value creation (meta =.25; T&F = .34; CMA = .44) and value claiming (meta -.10; T&F = -.10; CMA -.26). The Selection analysis (Vevea & Hedges, 1995) which weighs the observation by its contribution to the estimate (a probability of observing its p-value in the data set) estimates the value creation effect (.31) and the value claiming effect (-.08). The Fail-Safe N results (Rosenberg, 2005) estimating the number of additional null effect file drawer studies that would need to exist to nullify our estimates are 6861 for value creation and 1050 for value claiming. These results provide no evidence that publication bias led to an overestimate of effect sizes; if anything, the value-creation effect size may be an underestimate.

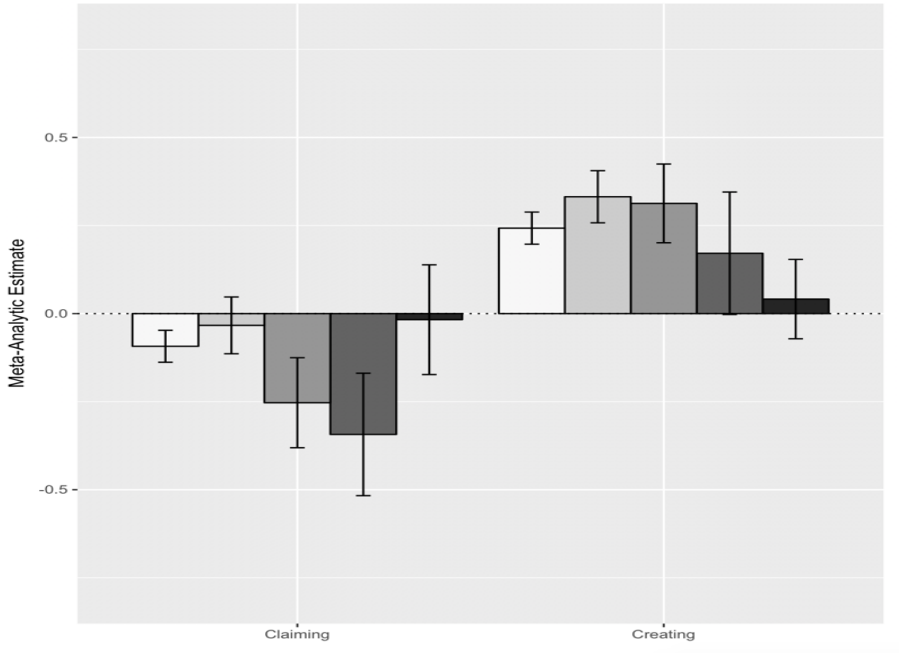
Outlier Analysis

To test for outliers, we used a funnel plot to examine each observation's studentized residuals in relation to its standard error. Our criterion was an absolute studentized residual higher than 1.96 (Viechtbauer & Cheung, 2010). The funnel plot (in Figure 2 in the paper) identified seven outliers. Three of the outliers (two from the same study) had a common profile: they were three-person negotiations, the theory was dual concern, but the measurement was not self-report of own use of strategy, but

the average of two negotiators' reports on the use of strategy by the third negotiator. Thus, there are substantive and theoretical reasons why these observations might be outliers. In subsequent analyses, we excluded these three empirically identified outliers, plus a fourth paper that used the same methods: Beersma & DeDreu (1999); Beersma & DeDreu (2005, Study 1 and Study 2) and Beersma & DeDreu (2002). Results including outliers are available from the authors.

Figure 2

Meta-analytic Coefficients Regressing Joint Gains on Theory and Measurement Type by Strategy



Dual Concern SR = Behavioral SR:
Claiming: $t(115) = -1.49$, $p = .136$
Creating: $t(115) = .16$, $p = .875$
Behavioral BC = Behavioral SR:
Claiming: $t(115) = -.65$, $p = .519$
Creating: $t(115) = -1.12$, $p = .264$

Table 3

Effects of Strategy, Theory and Measurement Type on Joint Gains

Joint Gains	**Outliers Removed** (k = 125; 6,377 negotiations; 3,687 unique)				
	n	$\bar{r}$	*z*	*95% CI*	I^2
Creating					
Behavioral BC	38	.25	5.43***	[.14; .34]	72.06%
Behavioral SR	13	.34	4.66***	[.20; .49]	
Dual Concern SR	5	.31	2.90***	[.11; .54]	
Comp-coop SR	2	.17	1.00	[-.17; .51]	
LIWC CC	8	.04	.37	[-.18; .26]	
Claiming					
Behavioral BC	38	-.09	-2.05*	[-.18; -.00]	
Behavioral SR	11	-.03	-.42	[-.19; .13]	
Dual concern SR	4	-.26	-2.02*	[-.51; -.01]	
Comp-coop SR	2	-.35	-2.06*.	[-.70;-.02]	
LIWC CC	4	-.02	-.11	[-.32; .29]	

Model Fit$_{Measure}$: $\Delta G^2(4) = 4.86$, $p = .302$, $\Delta I^2 = .47\%$

Model Fit$_{Theory}$: $\Delta G^2(2) = 4.12$, $p = .127$, $\Delta I^2 = .06\%$

Note. BC = Behavioral Coding; SR = Self-Report; CC = Computer Coding. z computed on corrected and Fisher's z transformed correlations. $\bar{r}$ and ρ are reverted transformations from Fisher's z-values (and can be interpreted as correlations). Confidence intervals computed around transformed Fisher's z. Unique negotiations account for studies that report both creating and claiming coefficients. Model fit statistics compared against strategy-only models. Heterogeneity analyses (I^2) were conducted on corrected effect sizes.

$p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Effects of Moderators on the Relationship between Strategy and Joint Gains

Outliers Removed	Creating				Claiming						
	n	*ρ*	*Z*	*95% CI*	*n*	*ρ*	*z*	*95% CI*	I^2	*Fit*	*Bonferroni*
Publication											
Published	51	.28	6.93***	[.20; .36]	48	-.09	-2.06*	[-.17; -.01]	72.61%	$\Delta G^2(2)$ = 2.52 p = .283	p = 1.00
Not Published	15	.16	2.19*	[.02; .31]	11	-.17	-2.00*	[-.33; -.00]			
Setting											
Experiment	23	.37	7.34***	[.28; .49]	23	-.16	-3.15**	[-.27; -.06]	69.92%	$\Delta G^2(2)$ = 12.81 p = .002	p = .016
Field	43	.16	3.65***	[.08; .25]	36	-.05	-1.03	[-.14; .04]			
Type											
Team-on-Team	3	.13	.83	[-.18; .43]	3	-.22	-1.41	[-.52; .09]	72.80%	$\Delta G^2(4)$ = 2.36 p = .669	p = 1.00
One-on-One	60	.27	7.13***	[.19; .34]	52	-.09	-2.17*	[-.16; -.01]			
Multi-Party	3	.15	.96	[-.16; .45]	4	-.19	1.41	[-.46; .08]			
Population											
Undergraduate	30	.33	7.09***	[.25; .44]	25	-.10	-1.93.	[-.20; .00]	71.05%	$\Delta G^2(6)$ = 11.23 p = .082	p = .656
MBA	16	.24	3.61***	[.11; .38]	15	-.14	-1.92.	[-.27; .00]			
Executive	13	.03	.31	[-.14; .19]	13	-.10	-1.16	[-.26; .07]			
Mixed	7	.21	1.77.	[-.02; .44]	6	-.02	-.18	[-.25; .21]			

Note. z computed on corrected and Fisher's z transformed correlations. Model fit statistics compared against strategy-only models. Heterogeneity analyses (I^2) were conducted on corrected effect sizes. Bonferroni corrections run to account for the 8 additional post-hoc analyses on the data. p < .1, * p < .05, ** p < .01, *** p < .001

References for Supplemental Materials

Beersma, B., & De Dreu, C. K. W. (1999). Negotiation processes and outcomes in pro-socially and egoistically motivated groups. *International Journal of Conflict Management, 10*, 385-402. https://doi.org/10.1108/eb022831

Beersma, B., & De Dreu, C. K. W. (2002). Integrative and distributive negotiation in small groups: Effects of task structure, decision rule and social motive. *Organizational Behavior and Human Decision Processes, 87*, 227-252. https://doi.org/10.1006/obhd.2001.2964

Beersma, B., & De Dreu, C. K. W. (2005). Conflict's consequences: Effects of social motives on post-negotiation creative and convergent group functioning and performance. *Journal of Personality and Social Psychology, 89*, 358-374. http://dx.doi.org/10.1037/0022-3514.89.3.358

De Wit, F. R., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology*, *97*(2), 360-390.

Greer, L. L., de Jong, B. A., Schouten, M. E., & Dannals, J. E. (2018). Why and when hierarchy impacts team effectiveness: A meta-analytic integration. *Journal of Applied Psychology, 103*(6), 591-613. http://dx.doi.org/10.1037/apl0000291

Higgins, J., & Thompson, S. G. (2002). Quantifying heterogeneity in a meta-analysis. *Statistics in Medicine*, *21*(11), 1539-1558. https://doi.org/10.1002/sim.1186

Duval, S & Tweedie, R. (2000). A nonparametric "Trim and Fill" method of accounting for publication bias in meta-analysis. Journal of the American Statistical Association, *95*, 89-98. https://doi.org/10.1080/01621459.2000.10473905

Hüffmeier, J., Freund, P. A., Zerres, A., Backhaus, K., & Hertel, G. (2014). Being tough or being nice? A meta-analysis on the impact of hard-and softline strategies in distributive negotiations. *Journal of Management*, *40*(3), 866-892. https://doi.org/10.1177/0149206311423788

Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: correcting errors and bias in research findings*. (2nd ed) Thousand Oaks CA: Sage.

Kepes, S., Bushman, B. J., & Anderson, C. A. (2017). Violent video game effects remain a societal concern: Reply to Hilgard, Engelhardt, and Rouder 2017. *Psychological Bulletin, 143,* 775–782. https://doi.org/10.1037/bul0000112

Kepes, S., Banks, G. C., McDaniel, M. & Whetzel, D. L. (2012). Publication bias in the organizational sciences. *Organizational Research Methods, 15,* 624-662. https://doi.org/10.1177/1094428112452760

Kong, D. T., Dirks, K. T., & Ferrin, D. L. (2014). Interpersonal trust within negotiations: Meta-analytic evidence, critical contingencies, and directions for future research. *Academy of Management Journal*, *57*(5), 1235-1255. https://doi.org/10.5465/amj.2012.0461

McShane, B. B. and Böckenholt, U. (2016). Planning sample sizes when effect sizes are uncertain: The power-calibrated effect size approach. *Psychological Methods*, 21(1), 47-60. https://doi.org/10.1037/met0000036

Rosenberg, M. S. (2005). The file-drawer problem revisited: A general weighted method for calculating fail-safe numbers in meta-analysis. *Evolution, 59,* 464-468. https://doi.org/10.1111/j.0014-3820.2005.tb01004.x

Vevea, J. L., & Hedges, L. V. (1995). A general linear model for estimating effect size in the presence of publication bias. *Psychometrika, 60,* 419-435. https://doi.org/10.1007/BF02294384

Viechtbauer, W., & Cheung, M. W. L. (2010). Outlier and influence diagnostics for meta-analysis. *Research Synthesis Methods*, *1*(2), 112-125. https://doi.org/10.1002/jrsm.11

Weingart, L. R, Thompson, L., Bazerman, M. H., & Carroll, J. S. (1990). Tactical behavior and negotiation outcomes. *International Journal of Conflict Management, 1*(1), 7-31. https://doi.org/10.1108/eb022670