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# Being Tough or Being Nice? A Meta-Analysis on the Impact of Hard- and Softline Strategies in Distributive Negotiations

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*A meta-analysis (34 studies) is reported on the impact of hard- and softline bargaining strategies on economic (135 effect sizes) and socioemotional negotiation outcomes (30 effect sizes) in distributive negotiations. As expected, hardline strategies lead to higher economic outcomes, whereas softline strategies lead to higher socioemotional outcomes. Moreover, moderator variables are derived from the graduated reciprocation in tension-reduction model and the level of aspiration theory that are expected to qualify the relation of bargaining strategies and achieved economic outcomes. In accordance with this theoretical background, moderator analyses reveal that hardline negotiators gain the highest economic outcomes when visual contact is possible, when the opposing party is male, when negotiators are instructed to maximize individual outcomes, and when they know the bargaining zone. Also in line with the theoretical assumptions, softline negotiators gain the highest economic outcomes when they accurately reciprocate the opposing party's concessionary behavior. Contrary to the predictions, softline bargaining does, however, not prevail when the risk and cost of impasses are high. Based on the reported findings, needs for future research and theory building are identified and discussed.*

**Keywords:** *distributive negotiation; hardline bargaining; softline bargaining; economic outcomes; socioemotional outcomes; meta-analysis*

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In the domain of distributive negotiations, two theoretical approaches coexist that directly contradict each other when it comes to recommendations on how to negotiate most successfully: Although level of aspiration theory (e.g., Siegel & Fouraker, 1960) recommends a rather strict bargaining style to minimize own losses, the graduated reciprocation in tension-reduction model (e.g., Osgood, 1962) recommends installing a cooperative atmosphere with unilateral concessions in the beginning of a negotiation. This controversy is also evident in the empirical literature on distributive negotiations: Although part of the empirical evidence suggests that a combination of extreme offers and infrequent and/or minor concessions provides optimal individual outcomes (e.g., Huang, Lin, & Yuan, 2006; Yukl, 1974a), the other—though smaller—part advocates unilateral concessions to elicit more concessions from the opposing party (e.g., Hamner, 1974; Hamner & Baird, 1978). To complicate matters further, economic and socioemotional negotiation outcomes, such as the rapport among the negotiating parties, often seem to diverge in negotiations (e.g., Curhan, Elfenbein, & Eisenkraft, 2010). Although it is conceivable that hardline bargaining secures good individual outcomes, it is less evident how such a strategy may contribute to a positive relationship between negotiators.

Understanding the factors that determine negotiation outcomes seems crucial not only to support practitioners in trying to master negotiations successfully but also to advance negotiation theory. The negotiator's bargaining strategy, that is, what the first offer looks like, and how the negotiator diverges from her or his initial position in the course of the negotiation (e.g., Yukl, 1974a), is conceived as a main driver of the dynamic and interdependent negotiation process (Lewicki & Litterer, 1985; Rubin & Brown, 1975). We expand the knowledge of bargaining strategies in general, and of concession making as one of the most prominent strategies in distributive negotiations in particular (Pruitt & Carnevale, 1993), by conducting a meta-analysis on the impact of hardline and softline bargaining strategies on both economic and socioemotional outcomes in distributive negotiations.[1] Hardline bargaining is defined as making extreme first offers and minimizing own concessions (e.g., Druckman, 1994; Fellner, 1949; Yukl, 1974a), whereas softline strategies intend to elicit concessions from the other party by employing own concessions (e.g., Harnett, Cummings, & Hamner, 1973; Osgood, 1962). A prominent example of softline bargaining has been given by the former Soviet leader Mikhail Gorbachev, who initially conceded in the negotiations with the then–American president Ronald Reagan about the destruction of nuclear arms (cf. Matlock, 2005).

About 20 years ago, Allen, Donohue, and Stewart (1990) made a first attempt to quantitatively synthesize the available empirical data on hardline and softline bargaining in distributive negotiations. They found that hardline bargaining overall lead to higher economic outcomes for negotiators who used these strategies. However, the authors' analysis could not account for the seemingly inconsistent results of the included primary studies with some studies, showing hardline bargaining to be more effective than softline bargaining (e.g., Yukl, 1974b) and some the opposite pattern (e.g., Hamner, 1974). In addition to revisiting these early results with a much larger sample that includes also more recent studies (i.e., 135 as compared to 34 effect sizes in the Allen et al. study), we go beyond Allen et al.'s pioneering work in two further important ways: First, we identify several moderators related to level of aspiration theory (Siegel & Fouraker, 1960), such as knowledge of the bargaining zone or visual contact among the negotiators, that can explain

why hardline bargaining varies in its effectiveness across different situations. Moreover, we theoretically derive additional moderators from the "graduated reciprocation in tension-reduction" framework, such as the looming danger of impasses or the contingency of employed bargaining strategies (cf. Osgood, 1962). On this basis, we hypothesize that under specific circumstances, softline bargaining can produce better results than hardline bargaining. The resulting moderator analysis enables us to explain why the respective primary studies seem to provide contradictory results at first glance. Note that Allen et al. did not report systematic moderator analyses because of the smaller sample size.

As a second extension of Allen et al. (1990), we include socioemotional outcomes (i.e., the opposing parties' perception of a hard-/softline negotiator) in our meta-analysis and investigate how these outcomes are affected by the type of bargaining strategies.[2] It has been shown that socioemotional outcomes can have a stronger impact on future relationships among negotiators and related negotiation opportunities than "mere" economic outcomes (Curhan, Elfenbein, & Xu, 2006). Analyzing this issue meta-analytically seems all the more important because initial evidence suggests that dissociations of the two types of negotiation outcomes often occur (e.g., Curhan et al., 2006; Galinsky, Seiden, Kim, & Medvec, 2002).

### *Effects of Hard- and Softline Bargaining on Economic Outcomes*

A negotiation is commonly understood as a communication between parties with perceived divergent interests to reach agreements on the distribution of scarce resources (e.g., Pruitt, 1998). It thus involves protagonists who depend on one another for achieving outcomes they cannot reach on their own. However, these protagonists also tend to be motivated to maximize their individual outcomes. Therefore, in distributive negotiations, they typically face a conflict between cooperating with the other party (e.g., concede to not endanger an agreement) and competing with the other party (e.g., be reluctant to concede to maximize individual benefits). This basic conflict between cooperation and competition has been termed the negotiator's dilemma (see, e.g., Lax & Sebenius, 1986).

In distributive negotiations, where the protagonists negotiate only one issue (e.g., price of an item in a buyer–seller negotiation), each concession is automatically a loss for the conceding party and an equivalent gain for the receiving party. As negotiation parties have divergent interests, they normally start from opposing positions, and at least one party has to concede once or several times to make an agreement possible (Pruitt & Carnevale, 1993). It could thus be argued that negotiators face a concession dilemma because they do not want to give up too much value by conceding unilaterally, but at the same time they have to sufficiently concede to realize an agreement that secures more value than they can achieve single-handedly. To secure optimal individual outcomes in this situation, two different types of strategies have been recommended: hardline (e.g., Chertkoff & Esser, 1976; Donohue, 1981) and softline bargaining strategies (e.g., Hamner, 1974; McGillicuddy, Pruitt, & Syna, 1984).

We define a hardline bargaining strategy as making extreme first offers and/or minimizing one's own concessions (cf. Druckman, 1994; Yukl, 1974a). Softline bargaining, on the other hand, is defined as employing one's own concessions to induce more concessions from the other party in a negotiation. Softline strategies are aimed at creating a cooperative context

by using one's own concessions as a means of demonstrating responsiveness to the other party's interests (e.g., Allen et al., 1990; Druckman, 1994). At the extreme, softline bargaining may involve even initial unilateral concessions to reduce tension and establish norms of cooperation and reciprocity (Osgood, 1962). Our operational definition of hardline bargaining entails any element or combination of aggressive first offers, a minimum number of concessions, a minimum size of concessions, and gradually increasing rather than decreasing concessions.[3] Our operational definition of softline bargaining encompasses strategies entailing any element or combination of moderate first offers, frequent concessions, substantive concessions, and gradually decreasing concessions.

Conventionally, the expected advantages of hardline compared to softline bargaining strategies are theoretically derived from level of aspiration theory (Siegel & Fouraker, 1960). Level of aspiration theory argues that negotiators enter a negotiation with a certain level of aspiration (i.e., an aspired level of individual utility), which can be based on different considerations (e.g., financial need, knowledge or assumptions on the total amount of payoff, etc.). The initial level of aspiration is adjusted in the course of the negotiation by experiences of success and failure. According to level of aspiration theory, receiving an aggressive first offer and/or rare or insignificant concessions should be experienced as failure considering the viability of one's own initial aspiration level. This failure experience should lead to a reduction in the initial aspiration level. In other words, level of aspiration theory suggests that an aggressive initial offer and minimal concessions communicate a focal negotiator's intention to make a massive profit and not to give up any more value than necessary. When she or he follows such a strategy and leaves no doubt about her or his intention, the opposing party's level of aspiration should diminish. Consequentially, the opposing party should be more likely to concede to obtain an agreement (Siegel & Fouraker, 1960). Usually, negotiators value agreements over nonagreements because the former provide outcomes that cannot be achieved without an agreement. The theory further predicts that success experiences such as receiving unilateral, frequent, or substantial concessions should lead to the perception that the conceding party still has leeway before reaching her or his limit, which should in turn elevate the receiving party's initial aspiration level.

It is, however, important to note that even proponents of hardline bargaining strategies recommend concessions under certain conditions. Not offering any concession can create the impression that a focal negotiator does not act "in good faith," which in turn can result in deadlocks, and eventually in impasses (e.g., Benton, Kelley, & Liebling, 1972; Hamner, 1974). Negotiators pursuing a hardline strategy are rather recommended to walk the fine line of showing a firm resolve and appearing to be fair at the same time by offering few and small, but timely, concessions (i.e., when a deadlock looms; cf. Allen et al., 1990).

The rationale of softline bargaining strategies can be theoretically derived from the graduated reciprocation in tension-reduction model (Osgood, 1962). This model stresses the importance of unilateral concessions to instigate a "give-and-take" among the negotiating parties. According to the model, it is, however, important that the opposing party does not attribute received concessions to weakness. To the contrary, concessions should be clearly communicated as reflecting the focal negotiator's cooperative intentions to initiate a circle of mutual concessions based on reciprocity. In the resulting atmosphere of mutual trust, both parties avoid the costs of lengthy and competitive zero-sum bargaining, in which each

concession is typically perceived as a substantial loss. Instead, the perception of the negotiation is transformed into a problem-solving situation, in which both parties work toward a solution in the spirit of "splitting the difference" from their initial positions (cf. Osgood, 1962).

The above descriptions clearly illustrate the different ultimate goals of hard- and softline strategies: securing as much individual profit as possible with minimal and rare concessions versus equally distributing potential gains or losses among the negotiating parties. Obviously, hard- as compared to softline strategies should be more successful in securing optimal economic outcomes for a focal negotiator because softline strategies' maximum success consists in eliciting reciprocity at the price of own initiating concessions. Thus, in contrast to hardline strategies, a softline strategy can overall not be expected to elicit more frequent or substantive concessions than it employs.

*Hypothesis 1:* Hardline bargaining should be associated with more favorable individual economic outcomes than softline bargaining.

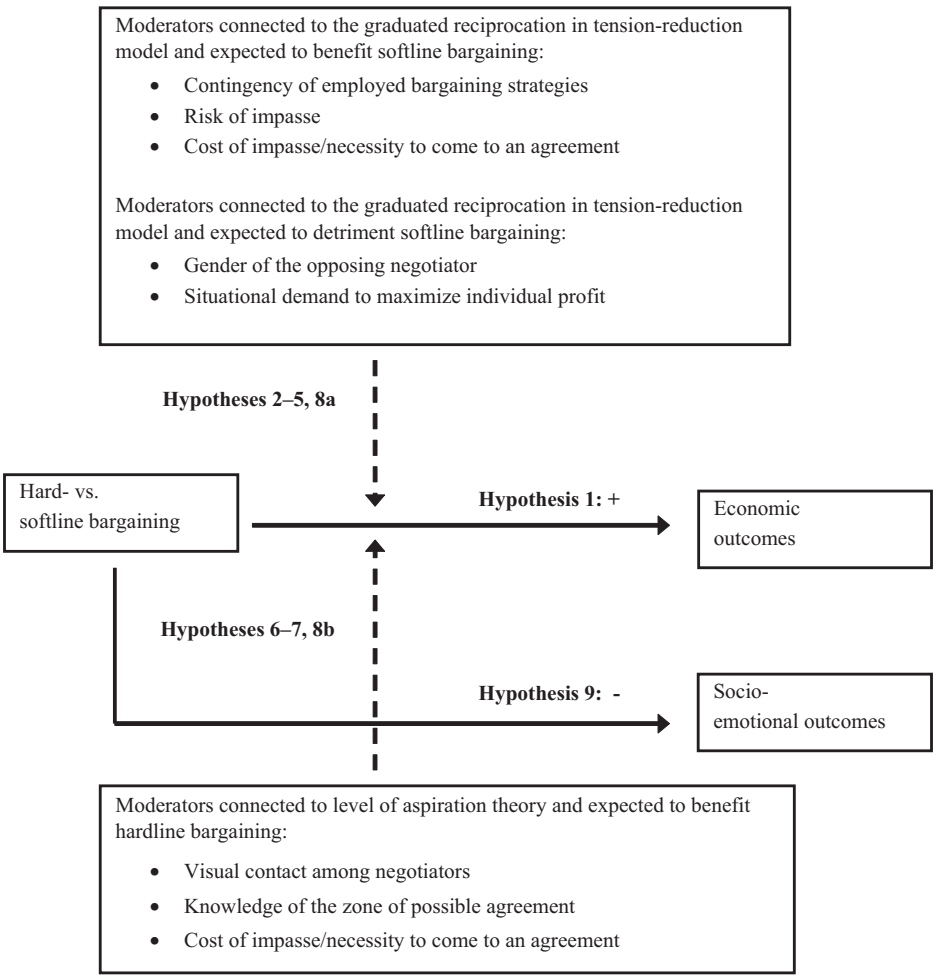
## *Potential Moderators of Bargaining Strategies' Effects on Economic Outcomes*

In addition to the assumed general difference in terms of economic outcomes, we derive seven moderators of the strategy–outcome relation, four of them related to the graduated reciprocation in tension-reduction model (Osgood, 1962), that is, contingency of employed bargaining strategies, risk of impasse, gender of opposing party, and situational demand to maximize own outcomes; two of them derived from the level of aspiration theory framework (Siegel & Fouraker, 1960), that is, visual contact among negotiators and knowledge of the bargaining zone; and the last moderator related to both frameworks (necessity to come to an agreement/cost of impasse; see Figure 1 for an overview). We explain the rationale of these expectations below in more detail.

### *Moderators Derived from the Graduated Reciprocation in Tension-Reduction Model*

*Contingency of bargaining strategies*. Bargaining strategies can be applied either independently of the opposing party's behavior (e.g., concessions and nonconcessions are made independently of the opposing party's behavior) or contingent on the other party's behavior (i.e., the other party's concessionary behavior is reciprocated with corresponding behavior; Esser & Komorita, 1975; cf. Gouldner, 1960). Reciprocity is an important element of the graduated reciprocation in tension-reduction model because an important advantage of contingent as compared to noncontingent strategies is their intelligibility and transparency (e.g., Axelrod, 1984; Osgood, 1959, 1962). It could even be argued that distributive negotiations are transformed into an iterated dilemma type of situation with a discrete choice between cooperation and competition when one negotiator employs a strictly contingent strategy. Moreover, reciprocity concerns may be a strong motivational force, as receiving a benefit might spur a tendency to answer with a benefit in return (Blau, 1964; Gouldner,

**Figure 1**
**Overview of the Investigated Moderators and the Related Hypotheses**




1960). Concerning the consequences of denied reciprocity, it has been argued that not reciprocating benefits (i.e., concessions) may well be followed by penalties or sanctions such as a reduction or cessation of further concessions (Esser & Komorita, 1975).

In studies applying contingent strategies, hardline strategies imply that received concessions are answered with less than perfect reciprocity (i.e., counterconcessions of less than the same frequency or size). In contrast, softline strategies are typically operationalized via perfect reciprocity. In such transparent negotiations, softline strategies are expected to

thrive because opposing parties are quick to recognize and punish less than perfect reciprocity, as it is perceived as unfair (e.g., Komorita & Esser, 1975). The punishment may consist in the reduction, slowdown, or complete cessation of further concessions by the opposing party, resulting in poorer outcomes for hardline bargaining strategies (i.e., longer negotiations, worse individual outcomes, and possibly more impasses; cf. Blau, 1964; Gouldner, 1960). In contrast, softline strategies applying perfect reciprocity are expected to be rewarded with equivalent concessions.

*Hypothesis 2:* Contingent strategies should moderate the relation between strategy and economic outcomes such that softline bargaining leads to higher individual economic outcomes than hardline bargaining when a focal negotiator acts contingently on the opposing party's behavior.

*Risk of impasse*. The graduated reciprocation in tension-reduction model is designed for the successful mastering of conflicts associated with a significant danger of impasse (Osgood, 1962). This situation is typically characterized by substantial tensions and low trust between the conflicting parties (Boyle & Lawler, 1991; Lawler, Ford, & Large, 1999), which in turn prevent the necessary mutual concessions to approach an agreement. The graduated reciprocation in tension-reduction model argues that conflicting parties can eventually overcome these (initial) tensions by engaging in carefully designed, small, and—if necessary, even repeated—unilateral concessions, which signal one's own readiness for joint conflict resolution, thereby increasing trust and instigating the necessary "give-and-take" of mutual concessions (cf. Boyle & Lawler, 1991; Osgood, 1962). It can thus be expected that softline bargaining should be especially successful when an impasse represents a realistic outcome and the other party is correspondingly unwilling to concede (cf. Hamner, 1974; Osgood, 1962). Hardline bargaining, in contrast, should be much less capable of eliciting concessions from an uncooperative and mistrustful counterpart.

*Hypothesis 3:* When negotiations entail a risk of impasse, the relation between strategy and economic outcomes should be moderated such that softline bargaining leads to higher individual economic outcomes than hardline bargaining.

*Gender of the opposing party*. Men and women tend to differ with respect to their competitiveness and cooperativeness, with women being—on average—less assertive, less competitive, and less dominant (Barron, 2003; Small, Gelfand, Babcock, & Gettman, 2007; Walters, Stuhlmacher, & Meyer, 1998) but more cooperative and supportive (Holt & DeVore, 2005; Weber & Hertel, 2007) and more willing to reciprocate than men (see Croson & Gneezy, 2009, for an overview). Given that reciprocity is a crucial precondition for softline bargaining according to the graduated reciprocation in tension-reduction model, softline bargaining should be economically more successful with female as compared to male counterparts because female counterparts are more likely to reciprocate cooperative strategies. Male counterparts, on the other hand, are more likely to refrain from reciprocation of concessions and initiate competitive behavior. This moderation effect should amplify the predicted difference between hard- and softline bargaining more strongly for men.

*Hypothesis 4:* The relation between strategy and economic outcomes should be moderated such that the predicted general difference between hard- and softline strategies is amplified when facing a male as compared to a female opposing party.

*Situational demand to maximize own outcomes*. Negotiations are strongly influenced by salient norms (e.g., Adam, Shirako, & Maddux, 2010) that define contextually appropriate behaviors. Negotiators' social motivations represent crucial normative influences as they determine which tactics, strategies, and goals negotiators approve (De Dreu & Boles, 1998) and choose (De Dreu, Weingart, & Kwon, 2000). Explicitly instructing negotiators to maximize their personal outcomes (e.g., Pietroni, Van Kleef, & De Dreu, 2008, Exp. 1) should accordingly be followed by different consequences than when no goals are specified and decision contexts are rather a matter of spontaneous interpretation by and preference of the participants (e.g., Huang et al., 2006). Although the latter participants are expected to bring various social motivations to the table, negotiators explicitly instructed to maximize their individual outcomes are expected to pursue more uniformly a proself motivation and are therefore particularly prone to engage in distributive negotiation tactics such as positional commitment, threats, and deception (De Dreu et al., 2000). Such negotiators are expected to exploit softline strategies because they feel it is justified to do so and thereby prevent the installation of reciprocal concessionary behaviors that is suggested by the graduated reciprocation in tension-reduction model (e.g., Osgood, 1962). The experienced justification is thus expected to further amplify the difference between hard- and softline strategies in achieved economic outcomes.

*Hypothesis 5:* When opposing negotiators are explicitly instructed to maximize their personal outcomes, softline as compared to hardline bargaining should be particularly ineffective with respect to individual economic outcomes.

## *Moderators derived from the Level of Aspiration Theory Framework*

*Visual contact among negotiators*. Specific circumstances of negotiations such as given visual contact between negotiators may facilitate the successful management of the counterpart's level of aspiration. Under these circumstances, hardline negotiators' competitive messages can be communicated unambiguously so that their impact should be maximal. Previous research showed that visual contact among negotiators can in fact highlight competitive intentions in negotiations (e.g., Carnevale, Pruitt, & Seilheimer, 1981; also see Dennis, Kinney, & Hung, 1999). Visual contact should thus strengthen hardline negotiators' message that they are intending to make high individual profit in the negotiation, which should lead to a reduction in their counterpart's level of aspiration and consequentially trigger more concessionary behavior on her or his part according to level of aspiration theory (Siegel & Fouraker, 1960).

*Hypothesis 6:* When negotiators can see each other, hardline bargaining as compared to softline bargaining should prevail even more in terms of individual economic outcomes than when visual contact is not possible.

*Knowledge of the zone of possible agreements*. Negotiators usually cannot determine the zone of possible agreements (i.e., the space between the two parties' limits, which is also termed the bargaining zone) because they do not possess full knowledge of their opponent's limit (e.g., Kray, Thompson, & Galinsky, 2001; Raiffa, 1982). Therefore, they cannot unambiguously ascertain whether the opposing party is trying to work toward an agreement or whether she or he exclusively pursues her or his own interests and tries to maximize individual gains. This uncertainty is a hallmark of most negotiations, and it can contribute to the relative success of hard- over softline strategies. However, when negotiators have full knowledge of the zone of possible agreements, the adoption of a hardline strategy may be especially advantageous. When both parties know the bargaining zone, a negotiator sends a particularly strong message that she or he is willing to make high individual profit in the negotiation when she or he adopts a hardline strategy, even though a compromise agreement is salient as the most obvious solution in these situations of full information (e.g., Schelling, 1963; Siegel & Fouraker, 1960). Such a prediction is in line with empirical findings showing that negotiators who face a counterpart with very competitive reputation act with reduced competition (e.g., Diekmann, Tenbrunsel, & Galinsky, 2003) because they seem to appraise even a low-value agreement (O'Connor & Arnold, 2001).

*Hypothesis 7:* Knowledge of the zone of possible agreements should moderate the relation between strategy and economic outcomes such that hardline bargaining leads to especially high individual economic outcomes as compared to softline bargaining when negotiators know the bargaining zone.

### *Moderator Related to Both Frameworks: Cost of Impasse/Necessity to Come to an Agreement*

Outside of the research laboratory, it may be of varying importance for negotiators to come to an agreement in a specific negotiation depending on several factors that are external to the negotiation. For instance, negotiators may feel obliged to ultimately find an agreement with their counterpart because their constituents expect such an agreement. In laboratory studies, this basic situation is operationalized by explicit instructions to participants before the negotiation starts. Negotiators for instance learn that they can win money only if an agreement is reached in the negotiation (e.g., Komorita & Brenner, 1968). Such an instruction makes the negative implications of impasses (i.e., costs) even more salient. Importantly, two alternative hypotheses can be derived for the related moderator variable from the two theoretical frameworks applied in this research. From the perspective of the graduated reciprocation in tension-reduction model (Osgood, 1962), advantages of softline strategies would be expected. When an impasse is a realistic and *costly* result of a conflict, involved parties should answer particularly favorably to unilateral cooperative initiatives. Under these conditions of a potential, costly impasse, softline bargaining would thus be expected to yield better economic outcomes than hardline bargaining.

Alternatively, the level of aspiration perspective (Siegel & Fouraker, 1960) would predict that hardline bargaining should prevail especially when negotiators feel urged to ultimately come to an agreement—for instance, through monetary incentives. When facing a potential

and costly impasse, the impact of hardline strategies on opposing parties should be particularly intensified. The opposing parties experiencing hardline bargaining may feel an even higher need to secure the agreement and possible benefits, and may thus be more likely to give in to the hardline bargainer's pressure (Siegel & Fouraker, 1960; also see Diekmann et al., 2003).

*Hypothesis 8a:* Cost of impasse should moderate the relation between strategy and economic outcomes such that softline bargaining leads to higher economic outcomes than hardline bargaining when an impasse is costly.

*Hypothesis 8b:* The necessity to reach an agreement should moderate the relation between strategy and economic outcomes such that hardline bargaining leads to especially high individual economic outcomes when an agreement is necessary as compared to no such necessity.

### *Effects of Hard- and Softline Bargaining on Socioemotional Outcomes*

Socioemotional outcomes of negotiations can include three basic aspects: perceptions of the bargaining situation, the other party, and oneself (Thompson, 1990). Recent research has demonstrated that socioemotional outcomes, although often neglected in negotiation research, can have a stronger impact on future relationships among negotiators than mere economic results (Curhan et al., 2006; Curhan et al., 2010). This finding seems to be especially relevant when comparing hardline and softline bargaining strategies because one of the goals of softline strategies is to build or maintain a good relationship between the negotiating parties. Moreover, higher economic outcomes resulting from hardline strategies may prove costly. Being confronted with enduring pressures to concede might in fact result in making concessions. Simultaneously, the perceptions of the hardline negotiator can be expected to deteriorate when feeling constantly forced to concede. The emerging unfavorable attitude toward a hardline negotiator may in fact be the long-term price this negotiator has to pay for her or his (short-term) economic success.

*Hypothesis 9:* Hardline as compared to softline bargaining should lead to inferior socioemotional outcomes.

## Method

### *Analytical Strategy*

If multiple primary studies on a specific topic have been conducted, the results of these studies can be integrated and used to meta-analytically compute an overall effect size (e.g., Glass, 1976; van den Noortgate & Onghena, 2003). The main advantages of using meta-analysis are an increase in the precision of the estimates of interest and the possibility to systematically investigate how moderator variables influence the effect sizes. Hierarchical linear modeling, also often termed multilevel modeling, can be used to conduct meta-analyses.

As the sampling error for every single effect size and its variance are directly related to sample size, this information can be integrated into the statistical model. Meta-analytic models can therefore be formulated as multilevel models where the variance is known (so-called variance-known multilevel models; cf., Raudenbush & Bryk, 2002).

At Level 1, the observed effect sizes $d_j$ are the sum of the true effect sizes $\delta_j$ and their measurement errors $e_j$ (Novick, 1966; Raudenbush & Bryk, 2002):

$$d_j = \delta_j + e_j. \tag{1}$$

The error term $e_j$ is assumed to be normally distributed ($e_j \sim N(0, \sigma_j^2)$). Its variance, which is known from the primary studies, is heterogeneous, since it varies across the observed measurements (heteroscedasticity). Not taking into account heteroscedasticity in error variance across observations, for example, by using ordinary least squares estimation techniques, usually yields inefficient estimators and relatively low power (Goldstein, 2003). Effect sizes can be modeled as a linear function of an overall effect size and a set of moderator variables (van den Noortgate & Onghena, 2003). The model without any moderators is an "empty," or unconditional, model, whereas the model including moderators is termed a conditional model.

Moderators are specified at Level 2. Here, the true effect sizes $\delta_j$ are explained by the scores on $k = 1, \ldots K$ moderator variables, which are denoted as $x_{k,j}$,

$$\delta_j = \beta_0 + \sum_{k=1}^{K} \beta_k x_{k,j} + u_j, \tag{2}$$

where $\beta_0$ is a constant and $u_j$ represents random error, which is distributed as $u_j \sim N(0, \tau^2)$. $\tau^2$ is just the estimated variance of the effect sizes.

Combining the models at Level 1 and Level 2 leads to the general hierarchical model for meta-analysis:

$$d_j = \beta_0 + \sum_{k=1}^{K} \beta_k x_{k,j} + e_j + u_j. \tag{3}$$

This model relates the observed measurements of the effect size to the specified moderator variables and their respective error components. The total error is therefore decomposed into a sampling error $e_j$, of which the variance is known, and an error $u_j$, for which the variance $\tau^2$ is estimated from the data. Compared to the unconditional model, $\tau^2$ is smaller in the conditional model because the conditional variance in $d$ is controlled for. Thus, the unconditional model is called a random-effects model, and the conditional model is technically a mixed-effects model because the moderator effects are included as fixed effects, whereas the random component captures the remaining variation between effect sizes that is not the result of sampling error (cf. Cheung, 2008; Lipsey & Wilson, 2001). Van den Noortgate and Onghena (2003), and Raudenbush and Bryk (2002) show in detail how such analyses can be conducted.

### *Study Collection and Coding of Study Characteristics*

We searched for studies published until 2010 on effects of both hard- and softline strategies on economic outcomes (individual gain) and socioemotional outcomes (the opposing parties' perception of a hard-/softline negotiator) in distributive negotiations. Our search strategy was manifold: First, where appropriate, we used the studies analyzed in the meta-analysis by Allen et al. (1990). Second, we conducted an electronic literature search in databases, for example, Academic Search Premier, Business Source Premier, PsycARTICLES, and PsycINFO, using several combinations of a total of 47 keywords.[4] Third, we used the same set of keywords for a search in Google Scholar. Fourth, to find more and especially unpublished research, we posted requests for literature on a number of forums and mailing lists in the field (CMDNET—newsgroup of the Conflict Management Division of the Academy of Management; mailing list of the International Association for Conflict Management; forums and mailing lists of the Social Psychology Network). Finally, we did a cited reference search (via Web of Science) of every acquired study to find more recent studies related to the topic.

We included only experimental studies that had investigated distributive bargaining situations (i.e., without possibilities for integrative agreements), had a clear operationalization and measurement of both parties' economic and/or socioemotional outcome, and provided a clear interpretation of the manipulation or measurement of the bargaining strategies (hard- vs. softline). Particularly, strategies were coded as hardline bargaining when they employed any element or combination of demanding first offers, a minimum number of concessions, a minimum size of concessions, and gradually increasing concessions. Strategies were, in contrast, coded as softline when they employed any element or combination of moderate first offers, frequent concessions, substantive concessions, and/or gradually decreasing concessions. The coding of the bargaining strategies was relatively straightforward for the most part, as conventional studies in the domain of distributive negotiation directly compare two clearly identifiable conditions.[5] The total number of possibly eligible studies yielded by our search was 60. Of these studies, 34 were commensurate with our inclusion criteria and were thus included in the analysis. In all, 31 studies featuring 135 effect sizes investigated economic outcomes, and 8 studies featuring 33 effect sizes investigated perceptions of the hard-/softline negotiator. The total sample size related to the effect sizes in our meta-analysis was $N = 7{,}167$.[6]

The following characteristics were coded for every effect size:

- Whether the strategy was based on the behavior of the opposing party (0 = *noncontingent strategy*, $k = 60$, $n = 3{,}354$; 1 = *contingent strategy*, $k = 75$, $n = 2{,}211$)
- Risk of impasse (0 = *no impasses/impasses excluded from economic outcomes in primary study*, $k = 108$, $n = 5{,}127$; 1 = *occurred impasses were included in economic outcomes*; $k = 27$, $n = 638$)
- Opposing party's gender (pure) (0 = *female sample of individual counterparts as targets of the applied strategies*, $k = 9$, $n = 1{,}078$; 1 = *male sample of individual counterparts as targets*, $k = 64$, $n = 2{,}120$)
- Opposing party's gender (mixed) (0 = *female sample of individual counterparts as targets*, $k = 9$, $n = 1{,}078$; 1 = *mixed sample of individual counterparts as targets* [gender ratio not specified in primary studies], $k = 62$, $n = 2{,}567$)[7]

- Situational demand to maximize own economic gain (0 = *no*, *k* = 94, *n* = 3,343; 1 = *yes*, *k* = 41, *n* = 2,422)
- Cost of impasse/necessity to come to an agreement in order to obtain a reward (0 = *no*, *k* = 49, *n* = 2,528; 1 = *yes*, *k* = 86; *n* = 3,237)
- Visual contact among negotiators (0 = *no*, *k* = 116, *n* = 4,206; 1 = *yes*, *k* = 19; *n* = 1,559)
- Knowledge of the zone of possible agreements (0 = *subjects did not know the zone of possible agreements*, *k* = 83, *n* = 4,397; 1 = *subjects knew the zone of possible agreements*, *k* = 52, *n* = 1,368)

Half the studies were coded by one of the authors and by another person who is not among the authors. The average interrater reliability was satisfying (κ = .81). All differences were resolved by thorough discussions until consensus was reached. After this calibration of the coding scheme, the remaining studies were coded by one coder only.

### *Computation of Effect Sizes*

We computed standardized mean differences between the hard- and softline strategy. The effect size we used was Hedges's *g*, which is basically the same as the well-known Cohen's *d*, but with a correction factor designed to remove bias in the estimation of *d* with small samples (Borenstein, 2009; Borenstein, Hedges, & Rothstein, 2009): $g = \frac{\alpha_1 - \alpha_2}{s_{within}} \times (1 - \frac{3}{4df - 1})$, where the *df* are the degrees of freedom used to estimate $S_{within}$, which is the within-group standard deviation, pooled across the groups. If no means and standard deviations were reported, *g* was computed from correlations, *t* statistics, or *F* statistics using the formulas listed in Borenstein et al. (2009). To estimate correlations from beta coefficients, we used a formula recommended by Peterson and Brown (2005).

The variance of a single effect size is $Var_g^2 = \frac{n_1 + n_2}{n_1 n_2} + \frac{d^2}{2(n_1 + n_2)} \times (1 - \frac{3}{4df - 1})^2$, where $n_1$ and $n_2$ are the size of the two groups under investigation and *d* is the estimate of Cohen's *d*. For every effect size, $Var_g^2$ was computed accordingly.

## Results

### *Main Effect: Influence of Bargaining Strategy on Individual Gain*

We expected that negotiators employing a hardline bargaining strategy should achieve higher economic outcomes relative to negotiators who used a softline bargaining strategy (Hypothesis 1). To test this hypothesis, we estimated the unconditional model, which is a two-level hierarchical linear model without any moderators. The dependent variable was the observed value of Hedges's *g*. A negative sign of *g* indicates a better performance of hardline strategies (compared to softline strategies).

The final data set for economic outcomes concerning individual gain consisted of 135 effect sizes. Ninety-five (68%) of those effect sizes were negative, indicating first support for Hypothesis 1. In all analyses that follow, we used a restricted maximum likelihood estimator with robust standard errors. The intercept in the unconditional model (see Table 1)

**Table 1**
**Results of Mixed-Effects Meta-Analysis Predicting Individual Gain (unconditional model)**

| Fixed Effect | Coeff. | *SE* | 95% CI | *t* Ratio | *p* |
|---|---|---|---|---|---|
| Intercept (mean) | –0.47 | 0.09 | –0.65, –0.30 | –5.35 | .00** |
| Random Effect | $\tau^2$ | $\tau$ | $\chi^2$ | *df* | |
| Intercept | 0.88 | 0.94 | 841.17 | 134 | .00** |

*Note:* **$p < .01$.

was –0.47, with a standard error of 0.09 ($p < .01$), also reflecting a significant advantage of hardline over softline strategies. The 95% confidence interval for this effect ranged from –0.65 to –0.30. According to the classification of Cohen (1988), this indicates a medium effect size.

### *Assessment of Heterogeneity of Effect Sizes*

The variance component, $\tau^2$, in the unconditional (random-effects) model was estimated at 0.88 ($p < .01$). This corresponds to a standard deviation, $\tau$, of 0.94, which indicates that important variability existed in the true effect sizes (Raudenbush & Bryk, 2002). We also used the $I^2$ index to assess heterogeneity. The $I^2$ index is based on the $Q$ statistic. It is obtained by dividing the difference between the result of the $Q$ test and its degrees of freedom, $k - 1$, by the $Q$ value itself. This coefficient is multiplied by 100, so that its range is between 0% and 100%. This facilitates interpretation as a percentage of variability between effect sizes because of true heterogeneity (cf. Higgins, Thompson, Deeks, & Altman, 2003; Huedo-Medina, Sánchez-Meca, Botella, & Marín-Martínez, 2006). In the present meta-analysis, $I^2$ was estimated at 83.94%. This is a relatively large degree of heterogeneity according to the rules of thumb suggested by Higgins et al. (2003). The variability among the effect sizes was therefore much larger than expected from sampling variance alone (Lipsey & Wilson, 2001). Adding moderator variables to the model should thus reduce heterogeneity among the effect sizes by explaining possible sources of variation.

### *Assessment of Multicollinearity*

Before estimating the model including the moderator variables (the conditional, mixed-effects, model), we checked for potential multicollinearity among the moderator variables. Since our moderators were all dichotomous, we used PRINCALS, a principal component analysis for categorical variables (cf. Bijmolt, van Heerde, & Pieters, 2005), to investigate possible confounds among them. In total, we found three correlations (out of 28, a proportion of 10.7%) that exceeded an absolute value of .50, two of them only slightly (–.88, .52, –.52). The most substantial correlation of –.88 was between the two gender-related moderators (see Table 2), which obviously share "true" overlap with regard to content. Thus, a substantial correlation was to be expected a priori. Furthermore, the correlation between the moderator

**Table 2**
**Correlations Between Optimally Scaled Variables (moderator variables)**

| | 1. Contingent Strategies | 2. Risk of Impasse | 3. Opposing Party's Gender (Pure) | 4. Opposing Party's Gender (Mixed) | 5. Situational Demand to Maximize Individual Profit | 6. Cost of Impasse/ Necessity to Come to an Agreement | 7. Visual Contact among Negotiators | 8. Knowledge of the Zone of Possible Agreements |
|---|---|---|---|---|---|---|---|---|
| 1. | — | | | | | | | |
| 2. | .37 | — | | | | | | |
| 3. | .13 | –.07 | — | | | | | |
| 4. | –.16 | .13 | –.88 | — | | | | |
| 5. | –.35 | –.17 | .21 | –.32 | — | | | |
| 6. | .35 | .22 | –.15 | .05 | –.14 | — | | |
| 7. | –.41 | –.15 | –.30 | .35 | –.13 | –.27 | — | |
| 8. | .52 | .21 | –.26 | .28 | –.52 | .25 | –.28 | — |

variables knowledge of the bargaining zone and contingent strategies, and the correlation between the moderator variables knowledge of the bargaining zone and situational demand to maximize own outcomes also exceeded .50. We tested the stability of the moderator analysis results by omitting these moderator variables one at a time. The parameter estimates for the moderators remaining in the reduced models were highly similar to those from the full model including all moderator variables. We thus concluded that in the present meta-analysis, there was no problem with multicollinearity among the coded moderator variables and used all moderator variables to prevent potential omitted variable bias.

## *Moderator Analysis: Exploration of Study Characteristics*

To test the moderator effects outlined in Hypotheses 2 to 7, we estimated the full conditional (two-level *v*-known hierarchical) model. In Table 3, we present the estimation results for this model. We report the parameter estimates, standard errors, the 95% confidence intervals, *t* values, and *p* values for each moderator. The frequencies of effect sizes are also reported.

*Contingent strategies*. Consistent with Hypothesis 2, we found a significant moderator effect of contingent strategies (which were applied in 75 cases, a proportion of 55.5%) on the advantage of hardline over softline strategies: The coefficient of 0.62 ($p < .01$) indicates a medium-size positive effect, which implies that hardline strategies are significantly less successful than softline strategies when the bargaining strategies are contingent on the opposing party's concessionary behavior.

*Risk of impasse*. The moderator analysis related to risk of impasses revealed a descriptively positive but statistically nonsignificant effect (coefficient: 0.23, $p = .14$). Occurred impasses were included in the economic outcomes only in 27, or 20%, of the effect sizes.

**Table 3**
**Results of Mixed-Effects Meta-Analysis Predicting Individual Gain (moderator model)**

| Fixed Effects | *k* | Coeff. | *SE* | 95% CI | *t* Ratio | *p* |
|---|---|---|---|---|---|---|
| Intercept (mean) | | –0.01 | 0.33 | –0.67, 0.65 | –0.04 | .97 |
| Contingent strategies | 75 | 0.62 | 0.16 | 0.30, 0.94 | 3.91 | .00* |
| Risk of impasse | 27 | 0.23 | 0.21 | –0.19, 0.65 | 1.08 | .14* |
| Opposing party's gender (pure) | 64 | –0.64 | 0.24 | 0.16, 1.12 | –2.65 | .01* |
| Opposing party's gender (mixed) | 62 | 0.08 | 0.26 | –0.44, 0.60 | 0.33 | .74 |
| Situational demand to maximize individual profit | 41 | –0.71 | 0.17 | –1.05, –0.37 | –4.07 | .00 |
| Visual contact among negotiators | 19 | –1.44 | 0.36 | –2.16, –0.72 | –4.02 | .00* |
| Knowledge of the zone of possible agreements | 52 | –0.59 | 0.25 | –1.09, –0.09 | –2.38 | .01* |
| Cost of impasse/necessity to come to an agreement | 86 | 0.11 | 0.15 | –0.19, 0.41 | 0.77 | .23* |
| Random Effect | | $\tau^2$ | $\tau$ | $\chi^2$ | *df* | |
| Intercept | | 0.42 | 0.65 | 502.97 | 126 | .00* |

*Note:* **p* values halved because of directed hypothesis.

*Gender of the opposing party*. Of the effect sizes, 64 (47.4%) were estimated with exclusively male opponents. Consistent with Hypothesis 4, the medium-size effect of –0.64 ($p = .01$) for the comparison of female and male opposing parties indicates that hard- as compared to softline strategies lead to particularly high individual gains when facing male opposing parties. Concerning the studies with unclear gender distributions (62 cases or 45.9%), a nonsignificant effect of 0.08 ($p = .74$) emerged for the mixed-gender moderator variable. However, this result is difficult to interpret because the exact information on gender ratios was missing in the primary studies.

*Situational demand to maximize individual profit*. Consistent with Hypothesis 5, the success of the hardline bargaining strategies was moderated by the explicit instruction to maximize one's own gains. The coefficient of this moderator is based on 41, or 30.4%, of the effect sizes. Its negative sign (–0.71, $p < .01$) indicates that hardline strategies prevail especially in situations where maximization of own gains is requested.

*Visual contact among negotiators*. Consistent with Hypothesis 6, we found a large moderator effect of visual contact on the effect of hardline bargaining on individual gain (coefficient: –1.44, $p < .01$). In negotiations where the opponents can see each other, the advantage of hardline strategies compared to softline strategies is even more pronounced than in negotiations without visual contact. However, visual contact was featured in only 19, or 14.1%, of the studies included in this analysis.

*Knowledge of the zone of possible agreements*. Consistent with Hypothesis 7, we found that knowledge of the bargaining zone moderates the general advantage of hard- versus

softline bargaining strategies. The medium sized coefficient of –0.59 ($p < .01$) indicates that hardline bargaining leads to superior economic outcomes when negotiators know the bargaining zone (which was a feature for 52, or 38.5%, of the studies) compared to situations when the bargaining zone is unknown to the negotiators.

*Cost of impasse/necessity to come to an agreement*. The moderator analysis related to the explicit instruction to reach an agreement to gain money revealed no significant effect (coefficient: 0.11, $p = .23$). Note that in most studies (86, or 63.7%), parties were required to reach an agreement, so that this effect has a relatively small standard error. We thus found support neither for Hypothesis 8a nor for Hypothesis 8b.

Moreover, we compared the fit of the unconditional model to the fit of the conditional model including the moderators. For this comparison we used the difference in deviance for the two nested models. This difference is chi-square distributed with the difference in the number of estimated parameters as degrees of freedom. The results indicate that the model with moderators fits the data significantly better than the null model, $\chi^2(df = 8) = 69.93$, $p < .001$. Including the moderators also helped to significantly decrease $\tau^2$, which was estimated at 0.42 (a standard deviation, $\tau$, of 0.65). The value for $I^2$ dropped from 83.94% to 74.11%. Our model explained about 52% of the variance (adjusted $R^2 = 52.17\%$).

### *Main Effect: Bargaining Strategy on Socioemotional Outcomes*

To explore the effects of the two bargaining strategies on socioemotional outcomes, we focused on how the focal hard-/softline negotiator was perceived by the opposing party. Because we only found 33 effect sizes ($n = 1{,}402$), we restricted our analysis to the estimation of the main effect of bargaining style on the perception of the focal negotiator (see Table 4). The intercept of the two-level analysis was 0.40 (CI: 0.16, 0.63, $p < .01$). This is a small to medium effect size (Cohen, 1988), indicating that the opposite party perceives the focal negotiator as less reasonable and less cooperative when the focal negotiator employs a hardline as compared to a softline strategy. The variance component $\tau^2$ was estimated at 0.33 ($\tau = 0.58$, $p < .01$), and $I^2$ was estimated at 77.01%, suggesting that the true variation in effect sizes was again relatively large.

## Discussion

The current meta-analysis extends our knowledge about the impact of hard- versus softline bargaining strategies on economic and socioemotional negotiation outcomes in different ways. First of all, the findings mostly confirmed our hypotheses. In addition to demonstrating an overall advantage of hard- versus softline bargaining with regard to individual economic outcomes (replicating and extending prior work of Allen et al., 1990), we found strong empirical evidence for all but two of the predicted moderator effects. Moreover, we also found that softline strategies overall lead to better socioemotional outcomes than hardline strategies. As expected, hardline bargaining is especially successful

**Table 4**
**Results of Mixed-Effects Meta-Analysis Predicting Perception of the Hardline/ Softline Negotiator (socioemotional outcomes)**

| Fixed Effect | Coeff. | *SE* | 95% CI | *t* Ratio | *p* |
|---|---|---|---|---|---|
| Intercept (mean) | 0.40 | 0.12 | 0.16, 0.63 | 3.40 | .01** |
| Random Effect | $\tau^2$ | $\tau$ | $\chi^2$ | *df* | |
| Intercept | 0.33 | 0.58 | 139.39 | 32 | .00** |

**$p < .01$.

in terms of economic outcomes when visual contact is possible among the negotiators, when the opposing party of a hardline negotiator is exclusively male, when negotiators are instructed to maximize their outcomes, and when negotiators are aware of the zone of possible agreements. In contrast, softline bargaining is more successful when the employed bargaining strategies directly reciprocate the opposing party's concessionary behavior. Contrary to our expectations, however, we neither found that softline bargaining is especially successful when there is a risk of impasse (cf. Hypothesis 3), nor that softline and hardline bargaining are differentially successful when the costs of impasses are high (cf. Hypotheses 8a and 8b).

The first moderator derived from the graduated reciprocation in tension-reduction model, contingency of bargaining strategies, explains why multiple primary studies have demonstrated an advantage for hardline strategies (e.g., Yukl, 1974a), whereas in other studies softline bargaining has prevailed (e.g., Komorita & Esser, 1975). When one negotiation party directly reciprocates the other party's concessionary behavior, the negotiation is transformed into a rather transparent interaction pattern and thereby affords intelligibility and predictability (e.g., Axelrod, 1984). The resulting give-and-take renders reciprocity concerns more salient than when a bargaining strategy is not directly based on the counterpart's behavior and, thus, is more difficult to decode. In turn, deviations from the reciprocity norm—such as less than perfect reciprocity in terms of concession frequency or size in the case of hardline bargaining—are bound to be easily detected and perceived as unfair by the opposing party (e.g., Esser & Komorita, 1975). Hardline bargaining may then well be met with equal measures by the opposing parties, which can even result in a spiral of mutual competition and inferior economic outcomes.

The gender of the opposing party constitutes another crucial moderator that also reflects a central assumption of the graduated reciprocation in tension-reduction model. Given that men are in general less likely to reciprocate cooperative approaches (e.g., Croson & Gneezy, 2009) and more competitive than women (e.g., Walters et al., 1998), softline strategies that heavily rely on reciprocity have more disadvantages when facing a male as compared to a female opposing party. Note, however, that various primary studies did not report gender ratios. The results may therefore be overall less clear than reported and require a cautious interpretation.

The third moderator that is related to the graduated reciprocation in tension-reduction model, the situational demand to maximize one's own individual gains, also differentially benefits hardline bargaining. Evoked by the related experimental instruction, negotiators

most likely felt they had a justification to exploit softline negotiators by not reciprocating concessions. As most social motivation research focuses on integrative negotiations (e.g., De Dreu & Carnevale, 2003; De Dreu et al., 2000), our finding represents an important supplement to existing evidence by suggesting that softline bargaining should be capable of both instigating cooperation and preventing exploitation in distributive negotiations with proself counterparts (cf. Axelrod, 1984).

Turning to the moderation hypotheses derived from the level of aspiration framework, the demonstrated moderation by visual contact nicely complements existing findings, as most studies in this regard deal with visual contact in integrative rather than distributive negotiations (e.g., Carnevale et al., 1981). Evidence from both integrative and distributive negotiations thus now supports the notion that visual contact among negotiators may highlight their competitive intentions and either contribute to better individual outcomes in distributive negotiations or deteriorate joint outcomes in integrative negotiations (e.g., Carnevale et al., 1981). Recent research (Swaab & Swaab, 2009), however, implies a caveat when drawing conclusions about the role of visual contact in negotiations. Swaab and Swaab showed that gender moderates the relation of visual contact and outcomes in integrative negotiations. Although female negotiators seem to employ visual contact to establish an understanding of each other's needs and consequently achieve integrative outcomes, male negotiators tend to use visual contact to stress their competitive intentions and fail to achieve mutually satisfying outcomes. Thus, rather than just increasing the effect of a certain general goal or motive, visual contact seems to enable multiple goals. Because of a lack of primary studies with all-female samples, we could not investigate this question in our meta-analysis in distributive negotiations, and the amplification of competitive intentions may have been especially predominant as the majority of our primary studies were conducted with male samples.

Finally, knowledge of the bargaining zone also moderates the relation of bargaining strategies and economic outcomes. Negotiators' pronounced appreciation of—sometimes even detrimental—agreements over impasses (O'Connor & Arnold, 2001) may be at the heart of this finding as negotiators were willing to concede even though a compromise solution was salient as the most obvious solution (Schelling, 1963). This argument was also invoked to explain why negotiators who anticipate competitive counterparts do not respond with an equal measure of competition in negotiations (Diekmann et al., 2003). It is important to note that this moderator is not only of theoretical interest, although in negotiations outside the research laboratory full knowledge of the bargaining zone may be rare. Especially in standard buying situations, when professional buyers and the corresponding salespeople repeatedly negotiate on the same objects, maybe even with the same partner, both parties may well have a fairly good appreciation of the bargaining zone. However, a potential confinement of this effect should be considered: We assume that laboratory research generally tends to overestimate the agreement rate in negotiations because of a lack of far-reaching economic or social consequences. Negotiators might thus have less success outside the laboratory when they employ hardline strategies while facing opposing parties who know the bargaining zone.

Contrary to our hypotheses, we did not find that softline bargaining is significantly more successful than hardline bargaining when there is a risk of impasses (cf. Hypothesis 3). It is,

however, important to note that softline and hardline bargaining seem to be at least equally successful under these circumstances. There are both theoretical and empirical explanations for these unexpected findings. Theoretically, it could be argued that most of the relevant primary studies did not consider an important precondition included in the graduated reciprocation of tension-reduction model (cf. Osgood, 1959, 1962). Osgood argued that unilateral cooperative initiatives should be especially effective when initiated from a party that seems committed to joint action without giving the impression of being weak. This specific precondition is, however, rarely manipulated or empirically investigated in bargaining studies. In contrast, as communication between the parties in the typical bargaining studies tends to be restricted, it was seldom possible to actively frame unilateral concessions as offers intended to instigate a give-and-take. This lack in existing research clearly marks an avenue for future work. For instance, it is not yet well understood how the targets of softline bargaining react to objectively equal but differently framed concessions, and how these concessions are perceived. Similarly, studies on power in negotiations showed that the assumed relationship between a strong position of a softline bargainer and the achieved results is much more complex (e.g., Lawler et al., 1999) than could have been assumed on the basis of the graduated reciprocation of tension-reduction model. These findings point to interactive rather than simple relationships between the variables of interest (i.e., looming impasses, unilateral concessions, perception of strength, etc.). Similarly, at least part of existing primary research failed to show differences between negotiations with and without the danger of impasses (e.g., Lawler & MacMurray, 1980), which again points to the need for more precise and encompassing theorizing.

Based on the existing empirical evidence, it has to be noted that this moderator composed only 27 effect sizes either because many primary studies did not observe impasses at all or because impasses were excluded from the analysis of negotiation outcomes. The included effect sizes indeed reflect the expected superiority of softline bargaining descriptively, although the effect was not statistically significant ($p = .14$, one-tailed test). It thus seems possible that both the lack of primary studies that precisely operationalize Osgood's postulates and more intricate relationships between the relevant variables may have prevented the expected results in our analysis.

Moreover, we did not find differences between soft- and hardline bargaining when an agreement in a negotiation is explicitly necessary to obtain a financial incentive (i.e., when an impasse is costly). We thus did not find confirming evidence for either of our alternative hypotheses. There are primarily theoretical and procedural explanations for the absence of the expected moderation in our analysis that supplement each other. From a theoretical perspective, it seems possible that the two postulated effects might have reduced each other: Some of the participants may have answered favorably to softline bargaining when an impasse was costly (i.e., with own concessions). Others may have reacted more strongly to the pressure of hardline bargaining when the costs of an impasse were salient. From a procedural perspective, the monetary incentives were possibly not attractive enough to increase the willingness of all opposing parties to reciprocate received concessions from softline bargainers or to concede beyond their "regular level" (i.e., when facing hardline negotiators without the prospect of winning any money). Finally, participants in the "no agreement required" condition may have implicitly assumed that an agreement is the result

of the negotiation they were supposed to achieve. This argument is supported by the relatively low number of impasses in the primary studies (also see the discussion of risk of impasse above).

Importantly, the effect of hard- vs. softline bargaining on socioemotional outcomes does not parallel the effect on economic outcomes, as softline strategies yield more favorable socioemotional outcomes. Softline negotiators are perceived as significantly more reasonable and cooperative than hardline negotiators by the opposing parties. Recent research has clearly demonstrated the importance and far-reaching consequences of this and related findings. Socioemotional outcomes have been shown to predict important short- and long-term consequences such as the willingness to negotiate again with the same partner (Curhan et al., 2006; Curhan et al., 2010) and intentions to stay with an organization (Curhan, Elfenbein, & Kilduff, 2009), whereas economic outcomes were not related to any of these consequences. Accordingly, hardline bargaining may indeed enhance the economic gain in the short run, but it may also yield a reluctance of future negotiations with the hardline negotiator. In the long-run, this may result in overall worse economic outcomes for hardline negotiators (cf. Curhan et al., 2010; Hilty & Carnevale, 1993). In fact, the anticipation of these consequences might be exactly the reason why a considerable percentage of people spontaneously choose softline bargaining because this might be the more rational decision not only in terms of having a good interpersonal atmosphere with the other party ("being liked") but also in terms of economic benefits in the long run.

From the perspective of negotiation theory, our findings imply that new efforts in theory testing and building should be made. In this respect, future studies are desirable that precisely operationalize Osgood's original propositions. Such research would not only generate important insight into the most favorable ways to master difficult distributive negotiations but also contribute to the generation of much needed knowledge on the role of impasses in negotiations (e.g., Tripp & Sondak, 1992; Trötschel, Hüffmeier, Loschelder, Schwartz, & Gollwitzer, in press). Theory building should incorporate elements of both applied theoretical frameworks as both approaches have their—complementary—merits. Although level of aspiration theory may contribute to an explanation for the general short-term advantage of hardline strategies, the graduated reciprocation in tension-reduction model may help to master negotiations with looming impasses and establish more long-time relationships between negotiating parties. Future models could thus consider the core elements of both approaches such as the general advantage of hardline strategies derived from level of aspiration theory and the contingency of bargaining strategies as a meaningful boundary condition, which accords with the graduated reciprocation in tension-reduction model. However, both frameworks have clear limits that future theories could well address. For instance, level of aspiration theory seems to be too simplistic in terms of its assumed failure and success experiences because a received concession—as, for example, resulting from contingent concessionary behavior—does not seem to necessarily represent a success experience that leads to an increase in one's level of aspiration. The graduated reciprocation in tension-reduction model, on the other hand, does not explicitly account for specific factors that may well limit the possibilities of reciprocity (e.g., gender of the opposing party or specific salient norms to maximize individual outcomes). In addition, as illustrated above, it does not seem to lay out all the necessary and more intricate relationships between the

variables of interest (e.g., looming impasses, unilateral concessions, the perception of strength, etc.).

From our point of view, the need for new and more encompassing theoretical frameworks is clearly illustrated by our meta-analysis along with the included primary studies. Our findings as well as our above considerations concerning impasses indicate that future theories are desirable that (a) incorporate well-established elements of existing frameworks, (b) incorporate moderators that were empirically demonstrated in this and other studies, (c) also include theoretically plausible moderators (e.g., laboratory vs. field settings), (d) focus on different dependent variables (e.g., economic and socioemotional outcomes), (e) consider simple as well as intricate and interactive relationships among variables, and (f) consider enduring relationships between the negotiators.

The results of our meta-analysis are restricted in several ways because the existing primary studies on hard- versus softline bargaining allow for only some examinations, whereas others cannot currently be conducted as they require future research. First, although there are sufficient studies to meta-analytically investigate the impact of hard- and softline bargaining strategies in *distributive* negotiations, there is a lack of respective primary studies for *integrative* negotiations. Moreover, our conclusions are limited to relatively simple relations (the impact of a particular bargaining strategy on a negotiator who is not following a specific strategy) because primary studies that simultaneously investigate the bargaining strategies of both negotiators are currently lacking. Furthermore, most primary studies in our analysis had all-male or mixed-gender samples. Our conclusions are also restricted to one-time negotiations as our primary studies focused on this type of negotiations. As many—if not most—negotiations take place in long-standing social or business relationships, this perspective urgently needs to be complemented by studies of existing relationships among the negotiating parties, including the consequences of hard- and softline strategies on future decisions and negotiations. It is, for instance, conceivable that pronounced short-term gains resulting from a hardline strategy may come at the price of worse long-term economic outcomes in subsequent negotiations for the hardline negotiator or even for both parties involved (e.g., Curhan et al., 2009; Curhan et al., 2010).

The relatively small number of primary studies capturing socioemotional outcomes restricts the conclusions that can be drawn in this domain and reveals the need for future research. Research that identifies negotiation strategies which are successful in terms of maximizing economic as well as socioemotional outcomes is highly desirable. Appropriate and contingent softline strategies (e.g., Esser & Komorita, 1975) or a combination of hard- and softline elements—such as extreme first offers and a subsequent contingent concession strategy—may, for example, be capable of maximizing both economic and socioemotional outcomes (cf. Galinsky et al., 2002; Hilty & Carnevale, 1993; Pruitt, 1981).

Finally, as most studies in our sample were conducted in Western cultures, our results may be restricted in terms of culture in several respects. The meaning of eye contact, for instance, depends very much on the respective cultural background and might thus be specific to Western cultures (e.g., Andersen, 2008; Yuki, Maddux, & Masuda, 2007). Research that investigates the generalizability of our results by testing how hard- and softline strategies fare in diverse cultural backgrounds would hence be very timely.

Our work has obvious implications for applied issues. When negotiators seek short-term economic success and do not care about the relationship with the opposing party, they can

employ hardline bargaining. This recommendation applies all the more when the negotiators know that the opposing party values an agreement, when one-time negotiations with male opposing parties are concerned and face-to-face contact among the negotiators is possible. When negotiators, however, prefer making the impression to be responsive to the counterpart's needs, they should either employ a contingent strategy with perfect reciprocity in terms of concessions and nonconcessions or possibly combine extreme first offers with a perfectly contingent softline strategy (e.g., Galinsky et al., 2002; Pruitt, 1981). Such a strategy possesses more potential than pure hardline strategies to secure optimal economic and socioemotional outcomes both in the short- and long-term and thereby helps to build and maintain long-term relationships.

To summarize, we observed that hardline bargaining strategies yield better economic outcomes, whereas they simultaneously lead to worse socioemotional outcomes than softline bargaining. Moreover, we dissolved existing inconsistencies in the literature by identifying the contingency of employed bargaining strategies as a key moderator variable: Under the transparent conditions of contingency, deviations from reciprocity induced by hardline bargaining are punished by opposing parties with a reduction in own concessions and softline bargaining prevails, whereas in most other conditions hardline strategies prove to be superior. Hardline, as compared to softline, negotiators are particularly successful in achieving economic outcomes when the opposing party is male, when negotiators feel obliged to maximize own outcomes, when visual contact is possible among the negotiators, and when they know the bargaining zone. Future research is desirable that extends distributive negotiation theories by closely operationalizing Osgood's (1962) original postulates in distributive negotiations, analyzing negotiations in ongoing relationships, addressing the divergence of economic and socioemotional outcomes demonstrated in the current research, and identifying bargaining strategies that simultaneously maximize both economic and socioemotional outcomes.

## Notes

1. The current research focuses on *distributive* negotiations (i.e., negotiations where the gain of one party is tantamount with an equivalent loss for the other party) as the marginal number of available primary studies on the impact of hard- and softline bargaining strategies in *integrative* negotiations (i.e., negotiations with the possibility of joint gains) does not allow for a meta-analytical investigation.

2. Although previous research (e.g., Curhan, Elfenbein, & Xu, 2006; Thompson, 1990) uses the terms *social-psychological outcomes* and *subjective value*, we prefer the term *socioemotional outcomes* when referring to noneconomic negotiation outcomes such as a negotiator's perceptions of her or his counterpart. This terminology is predominantly used in other research and thus tends to be more intuitively understandable.

3. We include gradually increasing concessions as an element of hardline bargaining because this tactic communicates toughness when the majority of the difference between the parties' first offers is typically bridged by the first concessions (cf. Druckman, 1994).

4. The list of keywords can be obtained from the corresponding author.

5. Many studies even provided a direct rationale for coding. For example, with respect to the coding of first offers as demanding versus moderate, Chertkoff and Conley (1967) first pretested which first offers are typically made in their negotiation task. In their main study, they termed the average first offer from the pretest "moderate," whereas the most extreme first offer made in the pretest was called "extreme." Concerning the coding of concession size as minimum or substantive, Lawler, Ford and Large (1999) for instance differentiated between "small" and "large initiatives." In their study, concessions in the small initiatives condition were half as valuable as in the large initiatives condition.

6. The overall sample consisted mostly of students ($n$ = 4,649 or 80.64% of the negotiators; $k$ = 122 or 90.37% of the effect sizes) and of relatively few professionals or nonstudents ($n$ = 1,116 or 19.36% of the negotiators; $k$ = 13 or 9.63% of the effect sizes). We checked whether the respective variable (students vs. professionals or nonstudents) exerted an influence on the overall effect in an additional model. The coefficient for this moderator was –0.11, $p$ = .63, and the coefficients for all other moderator variables remained virtually the same. Since we lack a substantive hypothesis for this moderator effect, we decided not to include it in the main metaregression model.

7. Please note that various studies did not report the exact gender ratio within their samples. Excluding these studies would have reduced the overall number of effect sizes from 135 to 73. To include the maximum number of suitable studies, we decided to include the studies without clear information on gender ratios, and we report the respective moderator analysis.

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