

# GOAL SETTING IN DISTRIBUTIVE AND INTEGRATIVE NEGOTIATIONS: A META-ANALYSIS

Richard Hossiep<sup>a</sup>, Klaus Harnack<sup>b</sup>, Paul Christian Bürkner<sup>c</sup>

## Abstract

Goal setting has been shown to be a strong predictor of attaining a negotiation outcome. However, neither the type of negotiation nor the outcome level, dyadic versus individual outcomes, has been systematically analyzed. Using multilevel meta-analysis, we investigate the effects of a) goal difficulty, b) goal specificity and c) scenario integrativeness on negotiation outcomes. We find that for individual outcomes, regardless of the negotiation setting, there is support for the effect of goal difficulty, but we do not find an effect of goal specificity in any setting. For integrative negotiations, we find an effect for the integrativeness of the scenario on joint outcomes: If the negotiation is rather integrative, more of the integrative potential is realized. Additional moderators such as goal symmetry are examined, and recommendations for more research on integrativeness and its impact in negotiations are made.

Keywords: negotiation, meta-analysis, goal setting, regulatory focus, integrativeness

<sup>a</sup>*Corresponding author.* University of Muenster, Research Training Group “Trust and Communication in a Digitized World”, Domplatz 6, 48143 Münster, Germany. Tel: +49 251 83-22806. E-mail: Richard.Hossiep@wiwi.uni-muenster.de

<sup>b</sup>University of Muenster, Institute for Psychology, Fliednerstraße 21, 48149 Münster, Germany. E-mail: klaus.harnack@uni-muenster.de.

<sup>c</sup>University of Muenster Münster, Institute for Psychology, Fliednerstraße 21, 48149 Münster, Germany. E-mail: paul.buerkner@uni-muenster.de.

## Introduction

Negotiations have been traditionally defined as either integrative or distributive (Neale & Northcraft, 1991). This distinction refers to the degree to which a possible result will deviate from a simple division of resources. For example, in distributive negotiations, there is simply a distribution of resources; the gains of the first partner are the losses of the second (zero-sum game). In integrative negotiations, however, there are solutions that allow both players to be better off. But the mere dichotomization of integrative vs distributive negotiations is an oversimplification: Depending on the payoff matrix, the scenarios differ in what we call their degree of *integrativeness*. *Integrativeness* as we define it refers to the share of the overall profit that can be achieved on integrative rather than distributive dimensions: How much of the payoff is achieved on the integrative dimensions relative to the overall outcome? In other words, how much does cooperation (integrativeness) benefit me compared to bare confrontation (distributiveness)? In such a situation, the amount that it actually “pays to be nice” surely matters. In addition to the what-it-pays-to-be-nice value, one’s negotiation goals also heavily influence negotiation performance (Zetik & Stuhlmacher, 2002). As Lewicki, Saunders and Barry (2011) describe that goal setting in negotiations is “(t)he first step in developing and executing a negotiation strategy” (p. 89), it becomes obvious that goals play an essential role in negotiations. In fact, there is no negotiation without goals. However, very little research so far has analyzed the specific features that make some goals superior to others: Which goals enable negotiators to gain better outcomes?

In this paper we investigate goal difficulty, goal specificity and integrativeness as determinants of negotiation outcomes.

## Negotiations

Different academic disciplines, such as business administration, economics, psychology and sociology, have approached negotiations using different paradigms (e.g., Güth, Schmittberger & Schwarze, 2005). As a result, negotiations have been extensively researched,

increasingly so since the mid-1970s, exemplified by the considerable number of publications in that period of time (e.g. Druckmann, 1977; Hamner & Harnett, 1974; 1975; Holmes, Throop, & Strickland, 1971; Raiffa, 1982; Rubin, 1983). In the nearly five decades of research, numerous factors have been examined with regard to their impact on negotiation. For example, researchers have investigated the effects of power (Schweinsberg, Ku, Wang & Pillutla, 2012), topic and culture (Gunia, Swaab, Sivanathan & Galinsky, 2013), first offers (Kristensen & Gärling, 1997; Van Poucke & Buelens, 2002), time pressure (Pruitt & Drews, 1969), personality (Sharma, Bottom, & Elfenbein, 2013) and gender (Mazei, et al., 2015).

As mentioned above, negotiations are most commonly classified as distributive or integrative; but, in more recent research, a third type of classification has arisen, called compatible dimensions (Neale, 1997). This classification refers to a negotiation in which the parties' payoff matrixes are aligned, in that both parties want the same outcome. For example, both parties might want the delivery of goods to be fast, as the seller wants to remove the goods from their stock and the buyer wants to get them as soon as possible for sale. The difficulty in the negotiation then is not about agreeing on this dimension but about discovering that there is actually no disagreement.

A further element of negotiation classification is the level of outcomes. Results can refer to either outcomes for the individual bargainer (individual outcomes) or outcomes for the dyad (joint outcomes). Importantly, these results can actually differ substantially. For example, in integrative negotiations, it might be interesting to see whether the dyad was able to maximize the profit for both bargainers by fully exploiting the integrative potential, even though one player might be able to claim considerably more benefit than the other. The interaction of outcome level and type of negotiation is portrayed in Table 1.

Table 1

*Interaction between outcome level and type of negotiation*

type of negotiation	outcome level	
	individual	joint
distributive	individual-distributive (ID)	joint-distributive (JD)
integrative	individual-integrative (II)	joint-integrative (JI)

In negotiation research, the main scenario is a negotiation with multiple dimensions, for example a job contract negotiation with different dimensions regarding pay etc. (Neale, 1997). Usually, different dimensions within one negotiation are used to reflect integrative vs distributive types of issues, where, for example, one issue is distributive and two are integrative (Bazerman, Magliozzi, & Neale, 1985). An issue is characterized as integrative when it has different increments or overall payoffs for the two partners (as illustrated in Table 2 in the Appendix). In this scenario, the seller values the third dimension higher than the buyer, who in turns values the first dimension higher than the seller (one and three are the integrative dimensions). Both value the second dimension equally (the second dimension is distributive).

The differences between integrative and distributive negotiations have many implications for negotiation research. In distributive negotiations the aim is to maximize your profit, or – to view it from a different angle – to minimize the opponent's outcome. Conversely, in integrative negotiations it is important that you maximize the benefit you seek, but keep in mind that there might be opportunities for both you and the other party to be better off. Thus, in integrative negotiations, both partners are even more interdependent than they are in distributive ones (De Dreu, 2011).

### **Goal setting**

Goals can be defined as “what an individual is trying to accomplish; it is the object or aim of an action” (Locke, Shaw, Saari, & Latham, 1981, p. 126). Since the pivotal work of

Locke and Latham (1990), goals have been of enormous interest in the academic and practice oriented community. They have been applied in a variety of different fields and contexts; applications reach from sports and exercise (e.g., Locke & Latham, 1985) to psychotherapy (e.g., Wollburg, & Braukhaus, 2010) to education and learning (e.g., Schunk, 1990). The main reason for the widespread application of goal setting is its reliably found strong effect on outcomes. Mento, Steel and Karren (1987) meta-analytically report a strong ( $d = 0.44$ ) impact of specific and difficult goals on task performance.

Goals play such an important role in many different settings because they guide behavior and thereby are independent of the setting in nearly every human action (Lewicki, Saunders, & Barry, 2011). Gollwitzer (1993) distinguishes between goal intentions (“I intend to achieve X”) and implementation intentions (“I intend to perform goal-directed behavior Y when I encounter situation Z”). While goal intentions enhance commitment to the desired outcome (i.e., the goal), implementation intentions link certain behaviors to possible future situations and thereby increase commitment to the specific goal-directed behavior (Gollwitzer & Brandstätter, 1997). The effect of implementation intentions has been meta-analytically shown to be substantial, with  $d = 0.65$  on goal attainment (Gollwitzer & Sheeran, 2006).

### **Goals in negotiations**

As the characteristics of negotiations have been thoroughly researched, as mentioned above, it seems as if goals also have an impact on negotiations. In 2002, Zetik and Stuhlmacher conducted a meta-analysis to examine these effects systematically. They were able to provide convincing evidence that goals in general (vs. no goals) had a positive impact on negotiation outcomes ( $d = 0.62$ ). Further, they showed that goal difficulty moderated the influence of goal setting on negotiation outcomes, such that more difficult goals lead to better outcomes. However, the authors found that goal setting has a stronger effect in distributive compared to integrative settings. This is particularly relevant, as goals for negotiations are almost purely distribution oriented: classic goals in negotiations would be to “achieve a

certain price” or “reach a settlement where costs are not under x dollars per unit”. With these goals, it becomes apparent why they fit a distributive setting, but what about integrative settings? As almost every real-world negotiation is integrative—meaning that there is potential for a solution that benefits all parties—this question is highly relevant. For example, at the core of negotiations is interdependence with other parties, but traditional applications of goal setting, such as self-motivation, are not necessarily characterized by interdependence (e.g. Yukl & Latham, 1978). Furthermore, the type of negotiation (integrative vs. distributive) may have an impact, as well (see above). And finally, as negotiations are not static, it is possible that the importance of goals that were set at the beginning of the negotiation declines as the negotiation proceeds (Polzer & Neale, 1995).

### **Regulatory focus**

Research has focused on investigating specific goals (vs no goals). But there are non-specific goals, too. To understand and predict the effects of unspecific goals in negotiations, we build on the regulatory focus literature. Introduced by Tory Higgins (Higgins, 1997), regulatory focus (RF) theory has received a lot of attention in academic psychology. Regulatory focus can be described as a motivational theory that focuses on individuals’ perceptions of situations (Higgins, 1998). We include regulatory focus literature here as it is a specific variant of a goal-setting theory: It focuses on the mindset of the goal-setting process (e.g., Cesario, Higgins & Scholer, 2008; Freitas, Liberman, Salovey, & Higgins, 2002). According to RF theory, individuals can achieve their goals by applying one of two mutually exclusive strategies: They can either focus on what they can accomplish (so called promotion focus) and gain, or they can focus on security and the avoidance of losses (prevention focus). Each person, either promotion or prevention focused, seeks to maximize individual profit and minimize losses. But they choose different strategies to achieve that goal. For example, buying a lottery ticket might be mainly influenced by promotion focus, while buying a building savings contract might be mainly influenced by prevention focus.

In their study that applied RF to negotiation research, Galinsky, Leonardelli, Okhuysen, and Mussweiler (2005) showed that individuals with a promotion focus achieved better results than those with a prevention focus. The authors concluded that this was partly due to the focus on their own ideal outcome, partly due to higher first offers and partly due to better understanding of their own and their partner's preferences. Although a small number of studies (e.g., Appelt, Zou, Arora, & Higgins, 2009; Werth, Mayer, & Mussweiler, 2006) have examined the effects of regulatory focus in negotiations, there is yet no systematic review of the results.

### **The present work**

In our meta-analysis we focus on dyadic negotiations and seek to extend earlier results in three main ways. First, we want to extend previous findings on the impact of goal difficulty in negotiations. While previous analyses have focused on *reported* goal difficulty, we think this approach has several drawbacks. Therefore, here we attempt to deal with some of the methodological fuzziness of assessing goal difficulty.

Second, we want to extend current research by examining the effect of goal specificity in negotiations, as this effect has yet to be addressed in goal-setting research in the context of negotiations (Huber & Neale, 1987; Locke, Chah, Harrison, & Lustgarten, 1989; Zetik & Stuhlmacher, 2002). To do so, we expand the scope of goal setting in negotiations by incorporating results of regulatory focus theory (Higgins, 1997).

Third, besides assessing the main effect of goal setting on negotiation outcomes, we want to examine the effect of the integrativeness of the negotiation setting. Integrativeness is a subject that has gained more attention in recent years, as several studies have started to examine its antecedents (e.g., Brett & Thompson, 2016; Mazei et al., 2015; Peng, Dunn & Conlon, 2015; Rothman, & Northcraft, 2015).

Additionally, we use an advanced method to compare effects not only between virtually identical empirical settings but also between multiple negotiation settings, allowing us to

draw broader conclusions. Finally, we differentiate between individual and joint outcomes, i.e. between outcomes for the individual negotiator and outcomes of the dyad. We believe that this differentiation is methodologically necessary and crucial. With these theoretical extensions as well as methodological refinements, we are convinced that our findings add considerable value to negotiation research.

### **Hypotheses**

Convincing evidence supports the idea that people with challenging goals achieve better outcomes in both integrative as well as distributive negotiations when compared to people without challenging goals (Zetik & Stuhlmacher, 2002). For example, Neale and Bazermann (1985a) found that the more difficult a goal is, the higher its positive impact on negotiation outcomes. Further, Miles and Clenney (2012) validated this view by showing that negotiators holding very difficult goals outperform negotiators with difficult, moderate, easy or no goals (see also Hamner & Harnett, 1975; Pruitt, 1998 for similar results). In another study, Lai, Bowles and Babcock (2013) found that individuals with high goals achieved lower (i.e., better) costs for themselves, showing that goals are, to some extent, independent of the negotiation setting and therefore are a good predictor of negotiation success. Taken together, these studies indicate that the effect of goal setting can also be applied to the field of negotiation. This is particularly strong in distributive negotiations, as most goals are distributive. Hence, we hypothesize:

*Hypothesis 1. Individuals who set goals achieve better negotiation outcomes compared to individuals who do not set goals.*

When interpreting this effect, one needs to keep in mind the type of negotiation, integrative vs distributive. In fact, the results may differ substantially: When one party acts very aggressively and thereby is able to claim a lot of value, the amount of possible



integrative potential might not be fully realized (Liu, 2011). For example, the participants in the negotiation may value some aspects of the negotiation differently. Consequently, challenging but not too difficult of goals can be a suitable way to achieve good individual outcomes while still considering the other's needs (Ordóñez, Schweitzer, Galinsky, & Bazerman, 2009). Therefore, we hypothesize:

*Hypothesis 2. The effect of goal setting is higher in distributive negotiations compared to integrative negotiations.*

In their analysis, Zetik and Stuhlmacher (2002) presented evidence that goal difficulty moderated the influence of goal setting on negotiation outcomes. They found that difficult goals ( $d = 0.83$ ) had a more positive impact on outcomes compared to both easy and moderately challenging goals ( $d = 0.51$ ), and that moderately challenging goals had a more positive impact compared to easy goals ( $d = 0.14$ ).

To investigate these results, it is important to keep in mind how goal difficulty is assessed. There are considerable differences in the literature with regard to this question. Goal difficulty is relatively simple to determine when only two difficulties are compared; it may be why this artificial dichotomization is used in nearly all studies (e.g., Brett, Pinkley, & Jackofsky, 1996; Contini, 1968; Lai et al., 2013). However, even when using the same scenario (Bazerman et al., 1985), there is no consensus on how to assess goal difficulty (see Huber and Neale, 1986; 1987 and Northcraft, Neale and Early, 1994 or Pruitt, Carnevale, Ben-Yoav, Nochajski, and Van Slyck, 1983 for different interpretations for the exact same numeric result). In our opinion, a 50/50 split constitutes a medium-difficult goal. We believe that challenging yet attainable goals still activate and guide the selection of strategy (Locke & Latham, 1990). As such, we think moderately difficult goals will have a larger impact on negotiation outcomes than easy goals.

*Hypothesis 3. There is a monotonic effect of goal difficulty on negotiation outcomes:*

*The more difficult the goal, the better the negotiation outcome.*

Besides goal difficulty, one other major aspect of goal-setting theory is goal specificity. Goal specificity describes the degree of explicitness of a goal (Locke et al., 1981). Following goal-setting theory, specific goals should enhance performance more than unspecific goals do (Locke & Latham, 1990), as they give clearer guidance and therefore cause less interpretation variance (Zetik & Stuhlmacher, 2002). At least this should hold true for distributive negotiations; in a clear win-lose setting, being focused on one's goal shall enhance one's outcomes. Yet, goal specificity has been largely neglected in negotiation research. In fact, Huber and Neale (1987) noted rightly that there has been great confusion about the difference between difficulty and specificity. They even go so far as to note that "bargaining researchers [...] traditionally have confused goal specificity and difficulty" (Huber & Neale, 1987, p. 197; see Bazermann et al., 1985; Pruitt, 1981 for further contrary definitions of goal specificity). Huber and Neale (1987) further tried to provide evidence of and clear up the relationship between difficulty and specificity. Despite the efforts of some authors (e.g., Northcraft et al., 1994), there is still no systematic review of goal specificity in negotiation research. Even Zetik and Stuhlmacher (2002) quoted Locke et al. (1989) in stating that goal specificity is usually not measured distinctly from goal difficulty. We coded difficulty and specificity separately to clarify the relationship between those two variables.

Previously, Zetik and Stuhlmacher (2002) showed that negotiators with so-called optimal goals achieved significantly better results compared to negotiators with suboptimal goals. Therefore, in their meta-analysis the authors differentiated between optimal and suboptimal goals only. They defined optimal goals as goals that are specific and difficult. They stated that they were not able to include specificity in their analysis, as there were too

few negotiation studies that distinctively differentiated between goal specificity and goal difficulty. Therefore, they could not provide insights into this matter. Consequently, we seek to offer an important extension to their work with regard to specificity. As we explicitly coded specific goals (“gain 100 points”) vs. unspecific goals (“view the points as gains rather than losses”) we think we can refine the effects shown in the previous meta-analysis. When looked at closely, a “do-your-best goal” is rather an unspecific rather than an easy goal. In fact, one could reasonably argue that the difficulty of this goal cannot be assessed reliably. Therefore, we want to shed light on the unclear and indistinct relationship between difficulty and specificity by including framing and regulatory focus studies, which introduce rather unspecific goals in our analysis.

We want to go into detail and examine the effects of unspecific vs. the effects of specific goals under constant difficulty to see whether Locke and Latham’s (1990) theory can be seen as being successful in the context of negotiation, as it has been in other fields. As the relationship between unspecific and specific goals is comparable to that which Zetik & Stuhlmacher (2002) found when examining goal difficulty, we propose that it also holds true for specificity. We argue for a specificity component as well as a difficulty continuum, in which higher (i.e., more difficult and more specific) goals lead to better outcomes compared to lower (easy and unspecific) goals. Therefore, we hypothesize:

*Hypothesis 4. There is a monotonic effect of goal specificity on negotiation outcomes:  
The more specific the goal, the better the negotiation outcome.*

Following regulatory focus literature (Galinsky et al., 2005), better outcomes could be reached in a promotion-focus setting. Werth et al. (2006) found similar results. While very few studies have actually looked at the specificity component of goal setting (for a notable exception outside of goal setting, see Locke, Mento, & Katcher, 1978), it is still an important

area of research. Hence, we hypothesize that this relationship can be generalized to the regulatory focus research for joint outcomes as a whole:

*Hypothesis 5. Individuals who set promotion-focused goals achieve better negotiation results compared to individuals who set prevention-focused goals.*

To be able to realize the integrative potential in a negotiation, one player needs to compromise on an issue that is less important to him in order to get more of the resources that are more important to him. However, this is only possible if both players are willing to compromise to some extent. As a result, one can say that the negotiator's distributive orientation (self-focused profit maximization) can deter the dyad from achieving better profit overall (Liu & Wilson, 2011). In addition, Polzer and Neale (1995) mention the possibility that negotiators with a difficult goal focus very much on their profit rather than on a better, integrative solution, thereby reducing overall joint profit. In a similar fashion, Bereby-Meyer, Moran and Unger-Aviram (2004) found that learning goals (compared to mere performance goals) helped teams to realize more integrative potential.

The two dominating scenarios of negotiation research are Bazerman et al.'s (1985) buyer–seller scenario with three dimensions (two of which are integrative and one distributive) and Neale's (1997) new recruit case consisting of eight dimensions, of which four are integrative, two distributive and two compatible. These two scenarios differ in their respective degree of integrativeness, with 23% integrativeness in Bazerman et al.'s (1985) scenario and 63% integrativeness in Neale's (1997) scenario, where the degree of integrativeness means how much of the actual outcome can be achieved on integrative vs. distributive dimensions. This is an important addition to the current research on goal setting in negotiations. As goals are almost exclusively used in a distributive way as point targets, their

effect is likely to be higher in distributive settings (see also Katz-Navon & Goldschmidt, 2009).

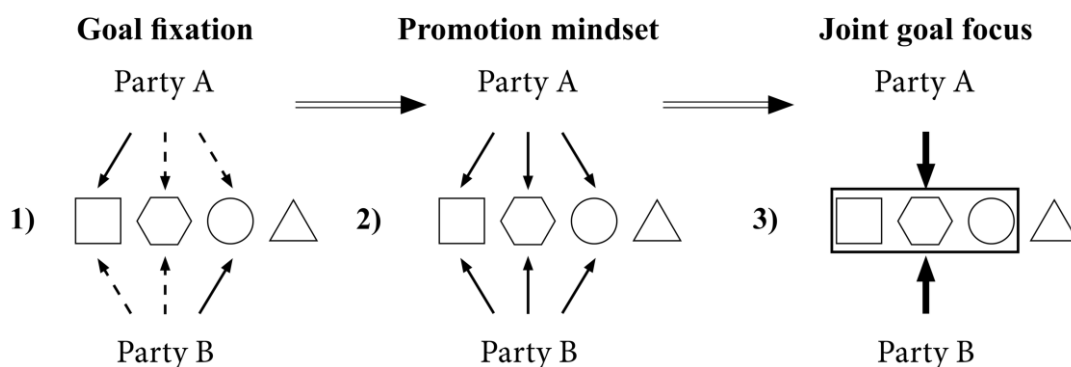


Figure 1. Proposed model of the impact of regulatory focus on negotiation achievement.

We propose a conceptual three-step process for explaining the impact of goal setting in negotiations: In line with “classic” goal-setting research (e.g., Locke and Latham, 1990), in the first step goals increase focus, thereby increasing performance – especially on distributive outcomes. However, because individuals tend to get fixated on goals, goals deter the broader view – especially for integrative options. As Locke et al. (1989, p.272) have stated, “vague goals could conceivably be more effective than specific goals in that [...] [they allow for] flexibility in responding to environmental contingencies”. This flexibility accounts for the benefit of the promotion mindset in our proposed model.

In the second step, a promotion (“What is there to win”) mindset, which implies that goals are not too narrow, helps individuals be open to mutually beneficial solutions to overcome the functional fixedness of goals (e.g., Duncker & Lees, 1945), thus increasing the chances of realizing integrative potential.

In a third step, once all cards are on the table, goals enhance performance again as they guide behavior. The two parties now are aware of what to look out for, so searching for additional dimensions to negotiate on would be disadvantageous at that point. This proposed model is illustrate in Figure 1. Hence, we hypothesize:

*Hypothesis 6. The degree of integrativeness will affect joint integrative outcomes, such that the more integrative a negotiation setting, the higher the joint profit.*

## **Method**

### **Literature search**

We searched the popular databases PsychINFO (12/98 – 09/2018), PsychINDEX (up to 09/2018) and Google Scholar (up to 09/2018) for terms associated with negotiation (“negotiation”, “bargaining”) and goals (e.g., “goal”, “motivation” and “ambition”) or their respective German translations; the full list is available on request. Attempts were made to locate further studies by a) writing to leading researchers in the field and asking for unpublished materials, and b) reviewing the reference lists of relevant books. Further, the studies that were used by Zetik and Stuhlmacher (2002) were included, and we were able access 19 of the original 21 studies included in their final sample. After that, a forward search was conducted, where we reviewed all studies citing the aforementioned meta-analysis, and the resulting papers were searched for suitable studies. After the preliminary sample was compiled, another forward search was conducted, where we reviewed the articles that cited the studies of our preliminary sample.

### **Inclusion criteria**

The above-mentioned criteria resulted in hundreds of studies to be screened and evaluated. The main inclusion criteria were empirical studies manipulating goals or aspiration level in two-party negotiations. We excluded papers that either did not have a clear link to negotiations in the organizational context (e.g., Robertson, 2003) or lacked a clear goal perspective. To ensure comparability, we only included studies in which final profit was used as the dependent variable. Moreover, we excluded studies that measured offers (e.g., Galinsky

& Mussweiler, 2001; Jäger, Loschelder, & Friese, 2017) or negotiation intentions only (e.g., Darnon, Muller, Schragger, Pannuzzo, & Butera, 2006; Miles, 2010).

We also excluded studies in which profit was measured as part of a matrix game, such as ultimatum games or dictator games (e.g., Declerck, Kiyonari, & Boone, 2009; Koning, Steinel, van Beest, & van Dijk, 2011), as the results of these games have been found to differ substantially from explicit negotiations (e.g., Walters, Stuhlmacher, & Meyer, 1998).

According to our research agenda, we excluded studies that dealt with group negotiations (e.g., Bereby-Meyer, et al., 2004; Rapoport & Au, 2001).

Finally, studies had to report appropriate data to calculate the necessary effect sizes. Efforts were made to gain sufficient primary data by contacting the authors and requesting their data. Only studies that reported means, group sizes and standard deviations for their results could be included. Our efforts resulted in 32 studies with a total of 180 effect sizes.

### **Coding procedure**

The relevant studies were independently coded by two coders. The authors initially agreed on more than 80% of the codings, resulting in a very good inter-rater reliability (Cohen's kappa was .89 for goal difficulty and .84 for goal specificity). For the remaining studies, consensus was reached after discussions by the coders. The coding scheme included main characteristics of the study (see Table 3 in the Appendix for the full list of coded variables). To compare the effects across studies, we calculated a standardized effect based on a comparison with the 50/50 equal split that would appear to be the easiest result (For this and further detailed calculations see Open Science Framework). For example, if there were 1000 points in total to be achieved, of which 600 were on distributive and 400 on integrative dimensions, and the dyads achieved on average 700 points with an SD of 200, we would have an effect size of  $d = (700 - 600) / 200 = 0.5$  for the distributive outcome and  $d = (700 - 1000) / 200 = -1.5$  for the integrative outcome. This approach has been used in several negotiation

studies in the past (e.g., Hamner & Harnett, 1975; Trötschel, Bündgens, Hüffmeier, & Loschelder, 2013), and it is a suitable way to compare otherwise incomparable effect sizes across studies.

To test the hypothesis that the integrativeness of a scenario has an impact on negotiation outcomes (Hypothesis 6), we computed an additional effect size representing the percentage of achieved integrative potential. Referring back to the aforementioned example, we would count the negotiation as 40% integrative (400 out of 1000 points can be achieved on integrative dimensions) and we would categorize it as having achieved 25% of the integrative potential ( $700 - 600 = 100$  out of  $1000 - 600 = 400$  points).

If there was no explicit indication of goal difficulty, we assessed the difficulty based on a comparison with existing studies. This resulted in four different difficulty categories: no goals, easy goals, medium-difficulty goals and difficult goals. Goal specificity was coded according to the following schema: No goal was the baseline category and included “do-your-best goals” (we view them as implicit in negotiations), unspecific goals constituted the second category (including RF and framing), and specific numeric goals formed a third category. When assessing individual profit in a buyer and seller scenario, we used the profits of the buyer, when stated. In this way, we tried to minimize biases resulting from different frames in these scenarios. While Polzer and Neale (1995), for example, could not find different effects depending on the role (e.g., buyer or seller), Galinsky and Mussweiler (2001) showed that buyers were more likely to give lower offers.

Efforts were made to gain primary data (e.g. Miles & Clenney, 2012) and we used primary data whenever possible. When studies reported multiple effect sizes, we used these multiple measures and modeled the dependency. The full data is available as supplementary material.

### **Statistical analysis**



To compute effect sizes, we used the *metafor* package (Viechtbauer, 2010) of the statistical programming language *R* (R Core Team, 2018). The computed standard effect size for each different study was Cohen's *d*. As we coded multiple outcomes per study – and sometimes multiple samples per study – we used a multilevel meta-analysis to model the variance between studies ( $\tau_s^2$ ) and the variance within studies ( $\tau_e^2$ ) (Rutter & Gatsonis, 2001) separately. Consequently, we divided the data into two subsets, one containing the effects for joint outcomes and one containing the effects for individual outcomes. If studies reported individual as well as joint outcomes, they were included in both analyses to make full use of the available data. Publication bias was assessed using Egger's test (Egger, Smith, Schneider, & Minder, 1997). The final dataset as well as all our analysis can be retrieved from the Open Science Framework (OSF) via

[https://osf.io/27m3u/?view\\_only=8b1a32db4e4343a9ba373674dd37cf37](https://osf.io/27m3u/?view_only=8b1a32db4e4343a9ba373674dd37cf37)

## Results

In the following analyses, the tables display contrasts compared to the baseline condition. Therefore, the indices of the estimators refer to difference from the baseline condition rather than displaying absolute values. The displayed results refer to the amount the dyads (or individuals) reached compared to the mean split of the full distributive or integrative points (see Methods). As a result, values for individual outcomes are more likely to yield higher positive results.

### Effects of goal difficulty

Table 4

*Meta-analytical estimate for the effect of goal difficulty*

outcome level	$k$	goal difficulty	$\beta$	CI	$p$	$\tau_s^2$	$\tau_e^2$
ID	108	Goal vs no goal <sup>a</sup>	-	-	-	-	-
		Easy vs no goal <sup>a</sup>	-	-	-	-	-
		Moderate vs easy goal	1.49	[0.88, 2.11]	<.001***	1.22	0.87
		Difficult vs easy goal	1.37	[0.69, 2.05]	<.001***		
II	43	Goal vs no goal	2.02	[0.78, 3.26]	.001**	0.20	0.57
		Easy vs no goal	0.89	[-.26, 2.04]	.130	0.39	0.35
		Moderate vs no goal	1.54	[0.40, 2.68]	.008**		
		Difficult vs no goal	2.01	[0.93, 3.10]	<.001***		
JD	47	Goal vs no goal	0.56	[-0.52, 1.65]	.305	2.00	1.03
		Easy vs no goal	0.03	[-1.33, 1.34]	.963	1.89	1.04
		Moderate vs no goal	0.70	[-0.45, 1.85]	.232		
		Difficult vs no goal	0.52	[-0.78, 1.82]	.434		
JI	45	Goal vs no goal	0.14	[-0.42, 0.71]	.615	0.26	0.32
		Easy vs no goal	-0.34	[-0.93, 0.26]	.266	0.24	0.18
		Moderate vs no goal	0.28	[-0.23, 0.79]	.281		
		Difficult vs no goal	0.40	[-0.16, 0.97]	.163		

*Note.* \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ,  $k$  = number of effect sizes,  $\beta$  = meta-analytic estimate, ID = individual-distributive, II = individual-integrative, JD = joint-distributive, JI = joint-integrative. In the II, JD and JI condition, scores are based on dummy-coded variables with the no-goal category as the baseline; in the JD condition, the easy goal category was used as the baseline, <sup>a</sup> = could not be determined because of small number of studies ( $k = 2$ ) in no-goal condition

We conducted separate analyses for integrative and distributive negotiations settings on both individual and joint outcome levels. The results are presented in Table 4. As there were just two studies with a no-goal condition in the Individual-Distributive setting, we did not compute an overall goal vs. no-goal contrast and used the easy goal condition as a more reliable baseline for the analysis of goal difficulty for this setting. We found a significant

effect of overall goal setting only in Individual-Integrative settings, and so we can only partially confirm Hypothesis 1, which predicted a generally positive effect of goal setting. Hypothesis 2 predicted a stronger effect for goals in distributive compared to integrative settings. As can be seen in Table 4, there was no evidence of goal setting actually leading to higher outcomes in distributive compared to integrative settings so that Hypothesis 2 cannot be confirmed. Hypothesis 3 predicted a monotonic effect for goal difficulty, such that higher difficulty leads to better outcomes. As can be seen in Table 4, there was enough evidence for this hypothesis only in Individual-Distributive and Individual-Integrative settings. Therefore Hypothesis 3 can only be partially supported.

### Effects of goal specificity

The results of the meta-analytical estimates regarding goal specificity are presented in Table 5. No significant effects of goals specificity were found in either Individual-Distributive, Individual-Integrative, Joint-Distributive or Joint-Integrative settings. Thus, Hypothesis 4, which predicted a positive impact of specific over unspecific goals, cannot be supported.

Table 5

*Meta-analytical estimate for the effect of goal specificity*

outcome level	$k$	goal specificity	$\beta$	CI	$p$	$\tau_s^2$	$\tau_e^2$
ID	108	Unspecific vs no goal	-0.37	[-1.28, 0.54]	.422	1.21	0.91
		Specific vs no goal	0.68	[-0.07, 1.44]	.077		
II	56	unspecific vs no goal	0.31	[-0.59, 1.21]	.503	0.48	0.50
		specific vs no goal	0.13	[-0.50, 0.76]	.687		

JD	62	unspecific vs no goal	-0.07	[-1.41, 1.25]	.907	2.23	0.93
		specific vs no goal	0.49	[-0.40, 1.37]	.280		
JI	57	unspecific vs no goal	-0.02	[-0.80, 0.76]	.961	0.36	0.32
		specific vs no goal	0.24	[-0.27, 0.76]	.353		

*Note.*  $k$  = number of effect sizes,  $\beta$  = meta-analytic estimate, ID = individual-distributive, II = individual-integrative, JD = joint-distributive, JI = joint-integrative; all scores are based on dummy-coded variables with the respective no goal category as the baseline

The results for regulatory focus were not fully conclusive. Because the number of effect sizes did not allow us to conduct separate analyses, we merged distributive and integrative measures. We tested the effects for studies in which the individuals were either in a framing or a regulatory focus condition. There were 43 effect sizes for individual measures and eleven effect sizes for joint measures (the latter derived from only three studies). For individual outcomes, no significant difference was found between promotion and prevention focus ( $\beta = 0.08$ ,  $p = .617$ ,  $CI = [-0.24, 0.40]$ ). For joint outcomes, no significant difference between a positive and a negative frame was found either ( $\beta = -0.01$ ,  $p = .980$ ,  $CI = [-0.61, 0.59]$ ). Therefore, Hypothesis 5, which stated that individuals negotiating under a promotion focus achieve better outcomes, cannot be confirmed.

### Effects of integrativeness

Only for joint-integrative negotiations there were enough effect sizes to compute a meta-analytical estimate. We added regulatory focus and goal difficulty as additional predictors in the analysis to control for their possible influence. The results are displayed in Table 6. We find evidence that the degree of integrativeness has a strong significant impact on joint outcomes, above and beyond goal difficulty and regulatory focus: For every percent of the final outcome that is achievable on an integrative rather than distributive dimension – just

a change in the setting, a shift in the payoff matrix – the realized integrative potential increases by 0.57 percent. Thus, Hypothesis 6 can be supported.

Table 6

*Meta-analytical estimate for the effect of integrativeness*

Variable category	$k$	characteristic	$\beta$	CI	$p$	$\tau_s^2$	$\tau_e^2$
Topic	45	Integrativeness	0.57	[0.07, 1.07]	.026*	0.02	0.02
Regulatory focus		Prevention	0.53	[0.10, 0.95]	.015*		
		Promotion	0.44	[0.01, 0.86]	.044*		
Goal difficulty		Easy	0.01	[-0.20, 0.22]	.916		
		Medium	0.18	[-0.02, 0.37]	.080		
		Hard	0.22	[0.02, 0.42]	.033*		

*Note.* \*  $p < .05$ ,  $k$  = number of effect sizes,  $\beta$  = meta-analytic estimate; for regulatory focus, the baseline category is no regulatory focus; for goal difficulty, the baseline is no goal.

### Effects of moderators

We also tested effects of the several moderators. To control for possible confounding of goal difficulty, we included goal difficulty as an additional predictor in the meta-regression models. See the data and analyses provided on OSF for an overview of the moderator result. When the number of effects for a particular variable was too small, we could not differentiate between distributive and integrative outcomes, we then distinguished between individual and joint outcomes only. The baseline category was always the most frequent value of the moderator.

For *goal symmetry*, there were no significant differences between symmetric and non-symmetric goals for both individual and joint outcomes. For *goal type* (self-set vs. assigned) no significant differences were found. Further, for *sample type* (students vs. MBA-students vs. professionals) we could not find significant differences. We dropped the resource dilemma

scenario, as the number of studies using this ( $n = 2$ ) was very small. Moreover, no significant effect of the *negotiation format* (face-to-face vs. indirect negotiation via either notes or computer) was found.

### **Publication bias**

After controlling for goal difficulty, Egger's test found evidence of funnel plot asymmetry for ID ( $z = 4.48$ ,  $p < .001$ ) but not for JD ( $z = 0.26$ ,  $p = .80$ ), II ( $z = -0.31$ ,  $p = .75$ ) or JI ( $z = 0.96$ ,  $p = .33$ ) settings. Similarly, after controlling for specificity instead of goal difficulty, Egger's test found evidence of funnel plot asymmetry for ID ( $z = 3.14$ ,  $p < .01$ ) but not for JD ( $z = -0.70$ ,  $p = .48$ ), II ( $z = -0.52$ ,  $p = .60$ ) or JI ( $z = 0.88$ ,  $p = .38$ ) settings. While this may indicate some publication bias for individual distributive outcomes, funnel plot asymmetry may also be a result of the large between study variation we found in our meta-analysis (for a visualization, see the forest and funnel plots on OSF). Accordingly, we caution against over-interpreting these results in the present context.

## **Discussion**

### **Review of results**

Our results shed light onto multiple effects of goal setting in negotiations. We could not find evidence for a general homogeneous effect of goal setting: to determine the impact of goal setting, one needs to take into account the difficulty and specificity of the goal and the integrativeness of the negotiation. Specifically, our results show that difficult goals have a positive impact on individual negotiation outcomes. In addition, setting difficult goals in distributive settings has a clear positive impact for individual outcomes when compared to setting easy goals. We could not find an effect of goal specificity. Finally, we showed that the integrativeness of the negotiation has a strong impact on the realized integrative negotiation outcome.

To our knowledge, this is the first time the integrativeness of negotiations as well as the specificity component of goal setting have been analyzed. Our findings extend and refine

previous insights: First, we demonstrate that setting difficult goals enhances individual negotiation outcomes. But we could not find significant effects of goal setting for joint outcomes.

Separating goal specificity and difficulty is one of the crucial tasks for proving evidence for Locke and Latham's (1990) goal-setting theory in the field of negotiations. Therefore, the results clarify a long-neglected but important question in the field of negotiations (Huber & Neale, 1987). For joint outcomes, we found comparable effect sizes of goal difficulty and specificity while, for individual outcomes, the effects of goal difficulty were much more pronounced than those of goal specificity. On a theoretical level, specificity is necessary but not sufficient for difficulty, which reflects our empirical findings. A goal needs to be specific to a minimum level to be able to be categorized as difficult. One could easily imagine a specific, easy goal ("write your name"), whereas the opposite – an unspecific, difficult goal – is much harder to imagine (but not impossible, as the research body in the field of implementation intentions underlines). The effect of specific goals in distributive settings could also be influenced by the study design, as most studies combine a specific goal with a difficult goal.

While we could not show a general effect of promotion focus vs. prevention focus, we did find a positive effect of both promotion as well as prevention focus (vs. no regulatory focus) on realized integrative potential. It seems that when the parties see the negotiation from a different angle (either positive or negative), the negotiating parties are much more likely to find and use opportunities for integrative solutions.

Further, we could find an effect of the degree of integrativeness of the scenario on the realized integrative potential. This finding seems logical: Only when the integrative part of the negotiation contributes heavily to the overall profit, it is worth examining. Or, in other words, when there is a lot to win by cooperating, people tend to cooperate more. Finally, we did not find any significant impact of any of the moderators (with the exception of sample

type student vs non-student). This is somewhat surprising given the considerable variation between outcomes. One reason may be that, despite the variation in outcomes, experimental conditions were indeed very similar across studies. For example, only five of a total of 40 samples used an indirect negotiation process, via either exchange of notes or computers.

### **Study limitations**

The first limitation of the present study involves the categorical classification of *goal difficulty*. Although we sought to reach better comparability across studies with our definition, it still is to some degree arbitrary. Second, our method of comparing results across samples is open to discussion. By applying a multilevel meta-analysis, we were able to compare results across different conditions. However, due to the large heterogeneity across studies, the overall comparability is not ideal. Third, our analysis on integrativeness is (almost) solely based on two different scenarios with a range from 23% in Bazerman et al.'s (1985) scenario to 63% of integrativeness in Neale's (1997) scenario. Only Kirk et al. (2013) use a different degree of integrativeness in their scenario (40%), but they do not include goal difficulty in their experiment on implementation intention. As research on multi-party negotiations is getting more and more common, it would be interesting to see whether our results can be supported in this area as well. Finally, as every other meta-analysis, our study is limited by all the limitation of the included primary studies.

### **Implications for theory, future research and negotiation practice**

The results of the present study shed new light on the interplay between goal setting and negotiation for theory and practice, because in real-world scenarios, integrative negotiations instead of pure distributive negotiations are most likely to be the dominant type. Interest-based or integrative negotiations incorporate a series of behaviors and emotions such as hidden goals, needs, concerns, and fears that shape negotiation behavior. Typically, there will be at least the chance for some kind of additional value, which is not adequately incorporated



in simulated laboratory settings. Therefore, the insights and results of integrative negotiations should be considered when trying to apply scientific knowledge to practice.

### **Negotiation theory and future research**

Commencing with the substantial systematic impact identified in the present study of the integrativeness of the negotiation setting on the negotiation outcomes, it seems striking that in several decades of goal-setting research in negotiations, only two negotiation tasks have been used. In this sense, we call for future studies that systematically vary the integrative potential of the negotiation setting and investigate the impact of integrative potential and subsequent negotiation behavior. Based on the gained insights, we propose a series of methodological adjustments for future research.

**Reporting the data.** The present study revealed that future studies should devote more care to the reported data. In our sample, only approximately half of the examined papers reported sample sizes, means and standard deviations in their results. Further, there should be more focus on the description of the sample. A considerable proportion of studies do not mention the age or the sex composition of their sample. As other possible moderators, such as the time taken to complete the negotiation or even the time of the day the negotiation took place, were also rarely mentioned, data reporting in general clearly needs to be improved to achieve the goal of more open science. Additionally, a more detailed reporting of the negotiation results would greatly help advance this issue: If results on the individual dimensions of the negotiation rather than an overall profit would be reported, this would allow for separate analyses of the impact of goal setting on distributive, integrative and compatible dimensions. Finally, other dependent variables like negotiation satisfaction seem to be worth examining in the future.

**Impasses.** Some authors reported being uncertain about how to treat their data with respect to the issue of impasse (e.g., Tasa, Celani, & Bell, 2013). We propose that in future studies, the number of impasses should always be evaluated alongside the actual point-based

outcome. This is of particular interest as some authors (e.g., Pruitt & Lewis, 1975) found that dyads in which both individuals had high individual goals were more likely to reach an impasse. This seems logical but has enormous practical consequences. If this holds true, we would potentially need to modify our positive view on goal setting.

**Acquaintance.** Another important aspect that should be considered in future studies is the participants' mutual acquaintance. Though some authors have reported these measures (e.g., Pruitt et al., 1983), most research has not. It seems very likely that the acquaintanceship of the negotiation partners will have an impact on the negotiation outcome, especially in situations where prosocial or very challenging goals are set. Other factors that could be included in further analyses are process variables. While most studies focus on outcomes (either emotional or score-oriented) very few deal with process variables (Lai et al., 2013). As the influence of goal setting in the field of negotiation becomes clearer, it seems worth examining the processes that lead to the reported results. Further, it would be very interesting to see whether the found effects are replicated outside student samples and with more experienced negotiators, as only one study included a sample with professionals (Neale & Northcraft, 1986).

**Full negotiations.** In a vast number of studies published in the field, only first offers were used instead of real negotiations. While measuring only first offers as the dependent variable is understandable from a feasibility standpoint, this vastly limits the generalizability and accuracy of the results of the experiments for real-life negotiations. In addition, recent studies in the field of negotiations have vastly and almost exclusively relied on crowdsourcing platforms such as Amazon MTurks, while there is no evidence to date that the results obtained by Amazon MTurks can be appropriately compared to actual negotiations. Further, in a lot of studies, the study design did not allow us to include the data in a meta-analysis, as data requirements for comparison with other studies were not met. We urge future researchers to

design their experiments in a fashion such that the individual studies are suitable for integration in future meta-analytic investigations.

**Regulatory focus.** Finally, we call for more research on the effects of regulatory focus in negotiation settings. On the one hand, we did not find differences between promotion and prevention focus, on the other hand, we did find an effect of regulatory focus (vs. no regulatory focus) on the realized integrative potential. In any case, we hope that our study sets the path for more research on regulatory focus and negotiation behavior.

## **Conclusion**

In line with prior research results, goal setting in respect to negotiation is a valid method, but the results show that practitioners should focus on setting specific – and particularly – difficult goals. It is important to keep in mind that while parties probably mainly focus on their individual outcomes, the joint outcome, or even the other party's outcome might also be of interest. For these situations, it might be beneficial to *not* use specific rigid cost targets but rather to promote an open mind (see Figure 1). In order to realize the integrative potential, both parties need to try to find this potential, first. Hence, a mindset in which the parties view the negotiation as a process in which both can win and think “How can I help you help me” might leave both parties better off. This holds especially true for situations in which both parties will face each other again in future negotiations. In this case, both negotiating parties should not try to humiliate the other party but should rather seek and incorporate the other party's needs. Non-compliance to this rule might result in winning a battle but possibly losing the war.

The results of the present study depict a differential picture of the interplay between goal setting and negotiation behavior. As previously assumed, the data does reveal that difficult goals have a positive impact on individual negotiation outcomes, but contrary to prior assumptions, the data does not support the homogeneous effect of goal setting in general. In sum, the results show that goal setting in negotiations can increase outcomes if it is done

correctly: difficult goals enhance outcomes in individual settings. Further we found that a higher integrative potential of a negotiation setting implies a higher percentage of this potential to be realized. Thereby, our present study does not only advance and extend previous findings, but it also introduces a new research area, namely determining the role of integrativeness in negotiation settings.

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(Studies included in the meta-analysis are marked with a \*)

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## Appendix

Table 2

*Profit table of scenario from Bazerman et al. 1985*

Option	Seller net profit schedule			Buyer net profit schedule			Option
A	0	0	0	4000	2400	1600	A
B	200	300	500	3500	2100	1400	B
C	400	600	1000	3000	1800	1200	C
D	600	900	1500	2500	1500	1000	D
E	800	1200	2000	2000	1200	800	E
F	1000	1500	2500	1500	900	600	F
G	1200	1800	3000	1000	600	400	G
H	1400	2100	3500	500	300	200	H
I	1600	2400	4000	0	0	0	I

Table 3

*Coded variables*


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the year of publication,  
 the country in which the study was conducted,  
 the integrative potential (distributive vs. negative),  
 type of goal (prosocial vs. egocentric),  
 goal difficulty,  
 participation in the goal setting (assigned vs. self-set goals),  
 experience with negotiation tasks,  
 gender characteristics (relative share of males vs. females),  
 gender composition of the sample (same sex vs. mixed sex),  
 age of the participants,  
 sample type (students vs. MBA-students vs. professionals),  
 topic of negotiation (buyer/seller vs. job contract vs. resource dilemma),  
 scenario used (Bazerman's 1985 buyer/seller vs. Neale's 1997 New recruit case)  
 format (face-to-face vs. exchange of notes vs. computer-assisted),  
 rewards (no rewards vs. result-based vs. participation based),  
 outcome level (individual vs. joint outcome),  
 duration of the negotiation,  
 goal symmetry (opponent with equivalent, different or unknown goal),  
 percentage of maximum points,  
 share of integrativeness,  
 negotiation outcome in points/money,  
 standard deviation of the result,  
 sample size,  
 ambition level, i.e. the degree to which individuals were focused on gaining (e.g. by  
 focusing on their target), losing (e.g. by focusing on their best alternative to a negotiated  
 agreement (BATNA)) or neither (by no further manipulation)

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