
















The power and peril of first offers in negotiations: a conceptual, meta-analytic, and experimental synthesis

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ABSTRACT

Is it advantageous to make the first offer and to do so ambitiously? Although initial studies suggested clear advantages across cultures and contexts, recent findings have challenged the robustness of this first-mover advantage. A preregistered meta-analysis of 374 effects from 90 studies (Study 1; $N = 16,334$) revealed three beneficial effects of making the first offer: (a) a general first-mover advantage ($g = 0.42, m = 80$), (b) a positive correlation between first-offer magnitude and agreement value ($r = 0.62, g = 1.56, m = 53$), and (c) an advantage of ambitious (vs. moderate) first offers on agreement value ($g = 1.14, m = 187$). The meta-analysis also identified two detrimental outcomes of ambitious first offers: (d) fewer deals (i.e., more impasses; $g = -0.42, m = 13$) and (e) worse subjective value experienced by recipients ($g = -0.40, m = 41$). Two preregistered experiments (Study 2a-2b; $N = 2,121$) replicated both the beneficial and detrimental meta-analytic effects and simultaneously tested multiple psychological mechanisms driving these effects. Across the experiments, selective accessibility drove the effect of first-offer magnitude on counteroffers, while anger drove the effects on impasses and subjective value. Across both the meta-analysis and the experiments, negotiation complexity moderated both the beneficial and detrimental effects of first offers; as the number and type of issues (i.e., complexity) increased, the effects of first offers became smaller, and the mechanisms changed. Overall, the current meta-analysis and experiments collectively illuminate the direction, size, psychological pathways, and boundaries of first-offer effects in negotiations.

1. Introduction

Negotiations are a ubiquitous social activity central to individuals' personal and professional lives (Boothby et al., 2023; Brett & Thompson, 2016; Galinsky & Schweitzer, 2015; Schuster et al., 2023; Thompson et al., 2010). Across the globe, negotiators face fundamental questions regarding first offers: Do I make the first offer? How ambitiously do I make it? Does an overly ambitious first offer increase the risk of walking

away with nothing (i.e., impasse), and does it impair my relationship with the negotiation counterpart?

On the one hand, over 45 studies conducted over the past 50 years have documented that it is economically advantageous to make the first offer (e.g., Galinsky & Mussweiler, 2001; Gunia et al., 2013; Liebert et al., 1968). For example, final prices tend to be higher when sellers vs. buyers make the first offer. On the other hand, a number of studies have documented disadvantages of moving first in a negotiation: For

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example, first offers can reveal sensitive information about compatible preferences (Loschelder et al., 2014b) or about a negotiation's integrative potential, which can then be exploited (Loschelder et al., 2016). Psychologically, first offers can send signals about a negotiator's flexibility (Lee et al., 2018), likeability (Maaravi & Segal, 2022), competence (Mason et al., 2013), politeness (Ames & Mason, 2015), sincerity (Leonardelli et al., 2019), and alternatives (Brady et al., 2021; Schaerer et al., 2016). These revelations and signals can adversely impact outcomes for the offer maker—reducing or at times even reversing the positive first-offer effects (Loschelder et al., 2014b; Loschelder et al., 2016; Maaravi & Segal, 2022) and decreasing negotiators' satisfaction (Galinsky et al., 2002). Similarly, making an ambitious first offer can also harm the offer maker by increasing the risk of the negotiation ending in an impasse (e.g., because the other party considers this first offer outrageous, Ames & Mason, 2015; Ma et al., 2024; Petrowsky et al., 2023; Schweinsberg et al., 2012). Echoing these findings, some experienced negotiation practitioners advise people to “never make the first offer” (Dell & Boswell, 2009, p. 153).

As these heterogeneous examples show, the effects of first offers in negotiations are complex and, at times, contradictory. This is further complicated by the fact that prior studies differ widely in their design, context, sample, first-offer extremity, and more. A recent qualitative review provides a broad overview of different antecedents and consequences of first offers (Lipp et al., 2022); however, this review did not empirically test hypotheses regarding effects, mediators, and moderators, and it could not provide evidence on aggregated effect sizes, effect distributions, publication bias, nor draw statistical inferences about the presence, direction, and magnitude of effects.

While other recent meta-analyses on negotiations investigated unethical behavior (Nohe et al., 2022), gender differences (Kugler et al., 2018; Mazei et al., 2015), or hardline versus softline strategies (Hüffmeier et al., 2014), the effects of first offers have not yet been analyzed comprehensively in a meta-analysis, apart from a single exception twenty years ago (Orr & Guthrie, 2005). Although this prior meta-analysis documented a medium-to-large impact of anchors on negotiation outcomes, it (a) included only a small number of effects ($m = 19$), (b) included anchors unrelated to first offers, (c) did not consider many of the detrimental effects of making offers uncovered in recent years, as these were not yet documented, and (d) only focused on the one dependent variable of sale prices, not other important outcomes including impasses or subjective value. Considering the vast number of papers on negotiation offers and outcomes that have been published since 2005, the literature lacks a systematic and up-to-date understanding of the potential benefits and drawbacks of first offers, both theoretically and empirically, on economic and relational outcomes.

To address this research gap, we first offer a conceptual model that articulates when and why making the first offer, and making it ambitiously, is beneficial or detrimental. We then present a comprehensive meta-analysis spanning 90 studies and 374 effects ($N = 16,334$; Study 1) to test the theoretical predictions derived from our model. In addition, we present two high-powered, preregistered experiments ($N = 2,121$; Study 2a-2b) to (a) corroborate the meta-analytical effects and (b) empirically explore the various proposed psychological mechanisms (see our conceptual model), offering a novel approach to further validate our meta-analytical findings.

Our research makes important contributions to the first-offer literature and helps answer enduring practical questions about offer timing and ambitiousness. First, by synthesizing the fragmented empirical findings on first-offer effects and their mechanisms, we summarize and broaden the scientific debate; this is important because the literature has typically investigated final agreements as primary negotiation outcome without accounting for underlying psychological mechanisms. To expand this scope, we present and test a holistic conceptual model that comprehensively details *how*, *when*, and *why* first offers impact both objective and subjective negotiation outcomes—we believe for the first time. Second, we meta-analytically test whether first offers—moving

first and doing so ambitiously—exert stable effects on (a) agreement value, (b) impasse rates, and (c) subjective value; this is important, as it provides empirical nuance to the ‘go first and go ambitious’ suggestions from prior reviews (Orr & Guthrie, 2005). Third, by empirically examining a theoretically derived moderating factor—negotiation complexity—that can magnify, reduce, eliminate, or potentially reverse the effects of first offers, we test and challenge the prevalent notion of a first-mover disadvantage in complex negotiation settings (Loschelder et al., 2014b; Loschelder et al., 2016). Fourth, we corroborate our conceptual model and meta-analytical findings with two high-powered preregistered experiments in a low-complexity single-issue ($N_{\text{Study2a}} = 1,052$) and a high-complexity multi-issue setting ($N_{\text{Study2b}} = 1,069$); it seemed important to stimulate the scientific debate with causal, experimental evidence and novel insights on first-offer mechanisms that identify unanswered questions on the presumed link between first-offer magnitude and anchoring. Our experiments offer the first empirical investigation of all eight proposed first-offer mechanisms as parallel mediators, while controlling for the influence of the respective other mechanisms. Finally, we use the meta-insights from our findings to formulate seven empirically grounded recommendations for first-offer research that highlight focal points and overlooked areas to stimulate and guide future research agendas.

2. Theory and model conceptualization

We first review the most foundational psychological mechanisms used to explain first-offer effects and highlight recent models that help to conceptualize the occurrence of first-offer advantages vs. disadvantages. Our conceptual model (Fig. 1) summarizes (I) the key decisions individuals make about first offers that (II) can catalyze several psychological and interpersonal processes, which (III) produce a range of beneficial and detrimental effects along three key negotiation outcomes, as a function of (IV) a central moderator.

2.1. Key decisions at the start of negotiations and their effects on outcomes

At the start of any negotiation, negotiators need to make two crucial decisions (Fig. 1-I): Should I make the first offer or wait for the other party to initiate? And if I move first, how ambitious should my offer be? While moving first can drop a powerful numerical and psychological anchor, making the first offer can also reveal valuable information about the offer maker's interests and preferences that the counterpart can leverage and exploit. Similarly, making an ambitious first offer can signal power or confidence but can also cause offense if it violates the counterpart's expectations.

The decision to move first (or not) and to do so ambitiously (or moderately) has been shown to affect three central negotiation outcomes (Fig. 1-III): (1) agreement value, (2) impasses, and (3) subjective value. Agreement value represents the amount of value one claims from the final negotiation outcome (e.g., the agreed upon price when selling a product; Galinsky & Mussweiler, 2001). Thus, agreement value is usually seen as the most central and important outcome of a negotiation. However, agreement value has certain limits as a dependent variable; for example, it can only be measured for negotiations that end in a deal, and it does not capture any psychological impacts of the negotiation. As such, it is necessary to also examine other outcome dimensions that may be affected by first offers, such as impasses and subjective value.

An impasse is a binary measure of whether a negotiation ends with vs. without a deal (e.g., Schweinsberg et al., 2023). Previous negotiation research has often excluded impasses when reporting results on first-offer effects (Tripp & Sondak, 1992; Schweinsberg et al., 2022). As a result, prior research that focusses solely on agreement value might artificially magnify first-offer effects through the methodological decision to exclude impasses. The explicit integration of impasses into our conceptual model is necessary to fully capture how first offers impact

economic outcomes, especially because overly ambitious offers could increase the likelihood of impasses (Schweinsberg et al., 2012).

In contrast, subjective value is a relational outcome that captures negotiators' post-negotiation perceptions of the relationship, the self, the process, and the outcome (e.g., "How satisfied are you with your own outcome?"; "Would you characterize the negotiation process as fair?"; Curhan et al., 2006). While subjective value might not always have direct economic consequences in one-shot negotiations, it can affect the willingness to implement agreements or collaborate in the long-term, as well as the economic outcomes that result from this (Curhan et al., 2010; Leonardelli et al., 2019). For instance, an overly ambitious offer might reduce the counterpart's subjective value and willingness to seek out the offer maker as negotiation counterpart again. Similar to impasses, subjective value is an important addition to our model, as it captures the long-term effects of first-offer behavior.

2.2. Beneficial and detrimental first-offer effects and mechanisms

Prior research has identified a range of psychological mechanisms (Fig. 1-II) to explain the economic and relational benefits as well as detriments of first offers.

2.2.1. Mechanisms leading to beneficial outcomes for the first-offer maker

The anchoring effect ranks amongst the most robust phenomena in human decision-making (Chapman & Johnson, 1999; Tversky & Kahneman, 1974), as well as psychological science (Kahneman, 1992; Klein et al., 2014) and organizational behavior (Bhatia & Gunia, 2018; Brady et al., 2021; Schaerer et al., 2016). When presented with a numerical anchor value (e.g., a first offer) before giving one's own estimate or proposal (e.g., a counteroffer), individuals assimilate their proposal to the previously considered anchor (e.g., making a counteroffer close to the first offer; Bhatia & Gunia, 2018; Brady et al., 2021; Schweinsberg et al., 2023). Two influential theoretical accounts explain the psychological mechanisms behind anchoring: insufficient adjustment and selective accessibility.¹

Insufficient adjustment. The insufficient adjustment account (Fig. 1-B1) proposes that individuals sequentially adjust away from an initial anchor value (Tversky & Kahneman, 1974) but terminate this adjustment process once reaching a plausible estimate, presumably to limit the mental effort of adjusting (Epley & Gilovich, 2006). Hence, adjustment is often insufficient, resulting in an estimate biased in the direction of the anchor (Frech et al., 2019, 2020; Tversky & Kahneman, 1974)—that is, a higher/lower counteroffer biased by the first offer, and ultimately a better agreement and more value claimed by the first mover.

Selective accessibility. The selective accessibility model (Fig. 1-B2), in turn, posits that anchors render information consistent with an anchor value cognitively accessible (Mussweiler & Strack, 1999a; 1999b; Strack & Mussweiler, 1997). For instance, a high anchor value in a negotiation (e.g., a townhouse listed at \$750,000) leads an individual to attend to information consistent with the anchor value (e.g., justifying the \$750,000 price tag). This results in an increased cognitive accessibility of anchor-consistent features (e.g., spacious backyard, modern baths, oak floors). Therefore, an estimate closer to the initial anchor seems appropriate (Chapman & Johnson, 1994; Mussweiler & Strack, 2000; cf. Harris et al., 2019)—again, ultimately leading to more value

¹ Researchers have proposed various other theories for the psychological processes that account for anchoring effects, ranging from numeric and magnitude priming (Wilson et al., 1996), to the attitudinal perspective of anchoring (Wegener et al., 2010), extremeness aversion (Lewis et al., 2019), informational value (Northcraft & Neale, 1987), and the scale-distortion theory (Frederick & Mochon, 2012; Schaerer et al., 2016). For brevity, we focus on the two most pervasive mechanisms of insufficient adjustment and selective accessibility.

claimed by the first mover.

Interpersonal perceptions. Despite the robustness of anchoring effects (Gunia et al., 2013), prior research has produced findings that cannot be explained by anchoring alone. Negotiations are complex social decision processes, characterized by various intra- and interpersonal perceptions and cognitions (McGuire et al., 2022; Neale & Bazerman, 1992). An interpersonal mechanism—person perception—can also contribute to the benefits of first offers (Fig. 1-B3): The decision to move first or to make an ambitious first offer can signal power and confidence by the offer maker. Offer recipients may infer from this that the offer maker has more alternatives and is not dependent on reaching a deal at all costs (Buelens & Van Poucke, 2004). In turn, these signals can translate into more favorable counteroffers, better final agreements, lower impasse rates, and increased subjective value.

2.2.2. Mechanisms leading to detrimental outcomes for the first-offer maker

Other first-offer mechanisms, however, can lead to detrimental effects (Fig. 1-D).

Mis-anchoring. While a first offer can anchor a counterpart in the intended direction (e.g., sellers making high first offers), first offers can also—inadvertently—work in the opposite direction and serve as a detrimental anchor (Fig. 1-D1). If the offer maker underestimates the counterpart's willingness to pay, moving first can leave unclaimed value on the table (Maaravi & Levy, 2017; Jiang & Ma, 2019). For example, a seller that unknowingly makes a first offer below the buyer's intended offer will reach a worse deal than a seller who moves second.

Interpersonal perceptions. When confronted with a first offer, especially when it is overly ambitious, offer recipients might perceive the offer maker as unreasonable, inflexible, or unpleasant (Fig. 1-D2, e.g., Ames & Mason, 2015). These negative interpersonal perceptions can increase the likelihood of impasses and reduce subjective value.

Emotions. Accompanying these interpersonal perceptions, a decision to move first and make an ambitious offer can also elicit negative emotions (Fig. 1-D3). Offer recipients can feel insulted, angry, and annoyed, which can foster impasses and reduce subjective value (Schweinsberg et al., 2012; see also Jäger, Loschelder, & Friese, 2017b).

Perceived economic constraints. Making an ambitious first offer can make the economic constraints of the counterpart salient and increase the probability of an impasse, especially when it exceeds their limit (Fig. 1-D4). Beyond this short-term increase in impasses, first offers and overly ambitious offers can also cause long-term detriments (e.g., reduced subjective value and willingness to negotiate again; Maaravi et al., 2014).

The disclosure of integrative/compatible information. Making a first offer can also have detrimental effects when the offer itself conveys information about the offer maker's preferences that can be exploited by the recipient (Fig. 1-D5). For example, if an offer reveals that the underlying preferences of the offer maker and recipient are compatible (e.g., both want the same outcome), the recipient can strategically bluff about their own priorities and feign an 'illusory conflict' to extract larger concessions (O'Connor and Carnevale, 1997; Thompson, 1990), resulting in a first-mover disadvantage (Loschelder et al., 2014b, Loschelder et al., 2016).

2.3. First-offer benefits vs. detriments: The moderating role of complexity

Although first offers may affect negotiation outcomes via a series of mechanisms, their effect may also be influenced by structural factors. To address this, our conceptual model examines a key moderator that integrates a variety of findings in the literature: negotiation complexity (see also Warsitzka et al., 2023). We conceptualize negotiation complexity as the extent to which negotiators must understand, integrate, and trade-off interdependent issues whose underlying interrelations are uncertain. We argue that complexity rises with dimensionality (i.e., number of issues), configuration (i.e., issue type), and ambiguity (i.e., clarity of counterpart's priorities).

Methodologically, complexity is frequently operationalized by both issue type (Fig. 1-C1) and number of issues (Fig. 1-C2). Because high negotiation complexity increases the difficulty of crafting a suitable first offer and anticipating the opponent's reaction, it is likely to influence the link between first offers and different negotiation outcomes.

Low complexity—few distributive issues. In situations of low complexity (e.g., single-issue price negotiations; e.g., Trötschel et al., 2013), moving first is generally associated with advantageous economic results (e.g., Galinsky & Mussweiler, 2001). In such purely distributive, 'zero-sum' negotiations, the goals of the negotiation parties are diametrically opposed—one party's gains are the other party's equivalent losses; the parties value the issue(s) similarly. In this setting, first offers may usually result in a first-mover advantage due to the anchoring effect (Fig. 1-B1/B2) and interpersonal perceptions (Fig. 1-B3). For instance, a seller who offers their product for a relatively high price will subsequently receive higher counteroffers, leading to a higher final agreement. This finding has been replicated across various settings, cultures, and negotiation objects (e.g., Gunia et al., 2013).

Although making the first offer does not guarantee negotiation success in low-complexity negotiations (e.g., mis-anchoring, Fig. 1-D1), we predict that more ambitious first movers will, on average, claim more agreement value (Fig. 1-O1) than second movers or less ambitious first movers. However, ambitious first offers can also amplify the competitive nature of low-complexity negotiations. We thus predict that more ambitious offers also increase impasse likelihood (Fig. 1-O2) and impair subjective value (Fig. 1-O3).

High complexity—multiple compatible or integrative issues. In situations of high complexity (e.g., multi-issue negotiations with differing priorities), the likelihood of a first-mover disadvantage increases (Loschelder et al., 2014b, Loschelder et al., 2016). More complex negotiations often involve compatible and integrative issues. Compatible issues are those for which parties unknowingly have the same preferences—without conflict of interest or need to negotiate. For instance, both a candidate and a recruiter may prefer the candidate to work in a particular city (Loschelder et al., 2014b). The compatibility of interests may not be self-evident due to zero-sum views that the negotiation pie is fixed, information asymmetry, and insufficient communication (O'Connor and Carnevale, 1997; Thompson & Hastie, 1990). Thus, first offers can inadvertently reveal information about compatibility that the counterpart could exploit.

Integrative negotiations occur when parties place differing importance on at least some of the issues for which their preferences are opposed. This setting enables trade-offs in which one party reduces their demands on their low-priority issue (which is of higher priority to the other party) to reach their goals on the high-priority issue (which is of lower priority to the other party; Gelfand et al., 2011). Integrative tradeoffs allow for the maximization of joint gains and the achievement of pareto-optimal agreements (Thompson et al., 2010).

Although moving first and doing so ambitiously can still trigger beneficial anchoring mechanisms (e.g., insufficient adjustment) in high-complexity negotiations, we expect that moving first also involves the greater difficulty associated with choosing an ambitious value (mis-anchoring, Fig. 1-D1) and the greater risk of revealing preferences that the other side can leverage and exploit (information on compatible/integrative issues, Fig. 1-D5). For example, the offer recipient might use insight that an issue is compatible to feign disinterest and to elicit higher concessions on other issues (Jäger et al., 2017a; Loschelder et al., 2014b; Loschelder et al., 2016). We hence propose that moving first can negatively influence individual agreement value (Fig. 1-O1) in high-complexity negotiations. At the same time, we propose that, given the greater cooperative scope of high complexity, integrative and compatible negotiations will also result in fewer impasses (Fig. 1-O2) and higher subjective value perceptions (Fig. 1-O3).

2.4. Testing the conceptual model of first-offer effects

Fig. 1 summarizes our full model with all of the aforementioned (I) key decisions, (II) eight mechanisms, (III) resulting negotiation outcomes, and (IV) moderating impact of complexity. We tested our conceptual model with a meta-analysis (Study 1) and two preregistered experiments (Study 2a & 2b). Due to the small number of primary studies that explicitly measure at least one of the first-offer mechanisms from our conceptual model (i.e., only 11 out of 90 studies), we could not examine them meta-analytically. As a result, Study 1 explores the size and direction of main and moderation effects, while Study 2a and 2b experimentally confirm and extend these by also incorporating the first-offer mechanisms that can produce beneficial or detrimental outcomes. In line with the OBHDP research transparency guidelines, we make all preregistrations, materials, data, and analysis scripts publicly available, have no funding or conflicts of interest to disclose, and did not use artificial intelligence for producing this manuscript.

3. Study 1: meta-analysis

The meta-analysis has three main goals. First, we seek to quantify the overall size of first-offer effects on three key negotiation outcomes: agreement value, impasse rate, and subjective value for all relevant studies through the cutoff date of March 31, 2025.² Second, we seek to quantify the heterogeneity of effect-size estimates and examine the impact of a theory-driven moderator (i.e., negotiation complexity) that can be operationalized in terms of the number of issues and issue type. Finally, we seek to examine the robustness of these first-offer effects using seven different methods of analyzing publication bias.

3.1. Methods

3.1.1. Open science and transparency statement

We followed reporting guidelines for meta-analyses outlined in the PRISMA statement (Page et al., 2021) and preregistered the present meta-analysis on the Open Science Framework (OSF). Data were analyzed using R, version 4.2.1 (R Core Team, 2022). Following recent recommendations for the reproducibility of reviews (Lakens et al., 2016), we made all data, code, preregistration, and additional files publicly available in the Supporting Online Materials (SOM) on OSF (<https://osf.io/b4r36>).

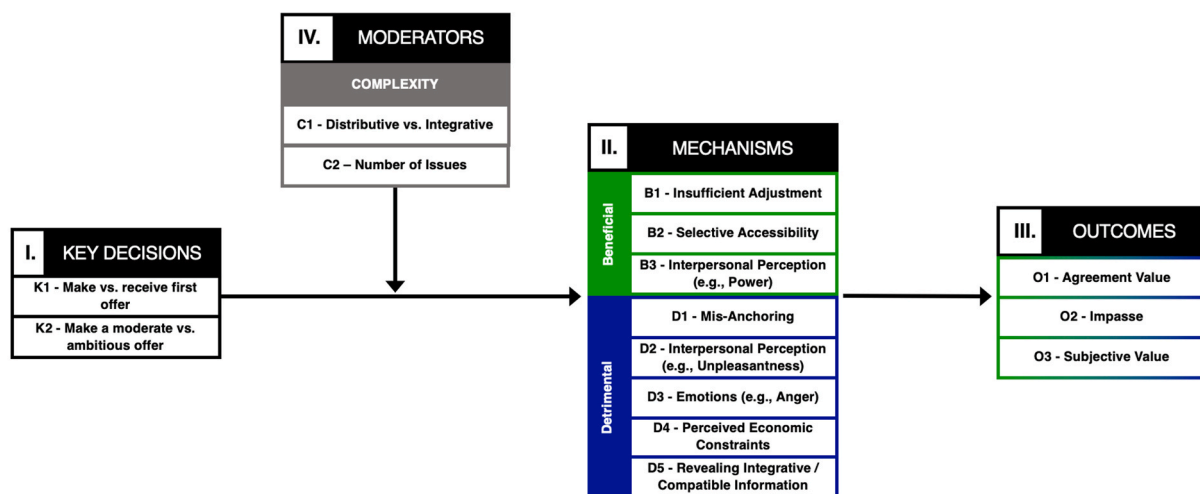
3.1.2. Inclusion criteria and search strategy

As preregistered, studies were eligible for inclusion if they (a) included empirical data, (b) instructed participants to actively engage in interactive negotiations or react to predefined negotiation scenarios, (c) investigated first offers (instead of external anchors such as random numbers or third-party estimates), (d) included outcome variables that captured the various effects of first offers in negotiations (e.g., final agreements), (e) provided sufficient statistical values to compute effect sizes, and (f) were written in English or German.³

We conducted (1) a systematic academic literature search with different online citation database providers, namely EBSCO (with databases APA PsycArticles, APA PsycInfo, PSYINDEX, and Psychology and Behavioral Sciences Collection), Web of Science, and ProQuest. As an example, the search term for EBSCO was ($TI=(first\ AND\ offer^*)\ OR\ TI=$

² We conducted our first database search in January 2020. We repeated it in February 2023 to account for novel publications. This decision was solely made to keep the analyses up-to-date and did not alter any of the reported mean effect estimates (all $ps > 0.372$). At the request of the associate editor, we repeated the search once more in April 2025 to account for the most recent publications (again, this did not alter any effect estimates, all $ps > 0.925$).

³ Only articles written in English fulfilled the other criteria and were thus included in the analyses.



Note. Building off this conceptual model, our meta-analysis empirically aggregates first-offer effects (I) on three kinds of negotiations outcomes (III) along with the most promising theoretical moderator (IV). We furthermore illustrate (II) eight mechanisms—beneficial (B1–B3) and detrimental ones (D1–D5)—that explain whether making the first offer, and making it ambitiously, are predicted to lead to a first-mover advantage vs. disadvantage.

Fig. 1. Conceptual Model of First-Offer Effects: Outcomes, Psychological Mechanisms, and Moderators.

(open* AND proposal)) OR TI=((counteroffer* OR offer* OR outcome* OR value* OR amount* OR precis* OR numeric OR pric*) AND (anchor* OR bargain* OR negotiat*)). The search term was adapted to fit the search logic of other databases, but keywords remained the same (see https://osf.io/b4r36/?view_only=e4bb08d54dfe49e596f2453ebcbb9371). This systematic search led to a total of 4,175 results. In addition, we conducted (2) a complementary search through reference harvesting (i. e., investigating papers that cited or were cited by influential papers on first-offer effects, e.g., Galinsky & Mussweiler, 2001). To counteract the file-drawer problem (Friesse & Frankenbach, 2020), we also (3) issued calls for (un)published data via e-mail lists and community boards from different scientific societies (i.e., Academy of Management [AOM] – Organizational Behavior, AOM – Conflict Management, International Association of Conflict Management [IACM]) and (4) directly contacted the corresponding authors ($n = 44$) of studies from which we had already extracted relevant effect sizes. Steps (2)-(4) identified 20 additional, potentially relevant manuscripts. We subsequently screened the results regarding their titles, abstracts, and full texts, if necessary.

3.1.3. Screening

Two members of the research team conducted a pilot test of the inclusion criteria on 100 randomly selected search results, reaching high interrater reliability (McHugh, 2012; 97 %, $\kappa = 0.90$). Titles and abstracts of all 4,175 systematic search results were screened to determine whether these studies matched the inclusion criteria. All articles that were not yet eliminated based on titles and abstract ($n = 415$) were screened in full by two members of the research team. We excluded 357 of these 415 articles, mainly because they did not capture the constructs essential for our meta-analysis (e.g., first-offer magnitude).⁴ In total, we included $n = 58$ articles from the systematic search and $n = 2$ articles from the unsystematic search (i.e., steps 2–4 above). All $n = 60$ articles were again screened in full by two members of the author team to identify all suitable effect sizes. Cases with disagreement were discussed and resolved by the author team. The PRISMA flow chart provides

⁴ For articles that captured the relevant constructs (e.g., first-offer magnitude and final price) but did not report sufficient statistical values to compute effect sizes (e.g., only group means without standard deviations), we contacted the corresponding authors ($n = 16$, leading to the inclusion of $m = 5$ effects from $n = 3$ articles).

screening details (Fig. 2).

3.1.4. Moderator coding

As illustrated in the opening examples, the first-offer literature is heterogeneous in its negotiation paradigms and first-offer characteristics. Prior studies differ markedly in their findings, ranging from large positive effects to null findings to large negative first-offer effects. To gather more information about the boundary conditions under which first offers have stronger vs. weaker advantageous or even disadvantageous effects, we coded moderators related to our theoretically grounded construct of complexity (see Fig. 1-IV), as well as numerous preregistered, exploratory moderator variables. For brevity, we report only the moderators related to complexity in the present manuscript. An exhaustive overview of all preregistered moderators with accompanying analyses and detailed results are available in the SOM on OSF. Across all moderators, the interrater reliability using intraclass correlation (ICC) for continuous (Shrout & Fleiss, 1979) and κ for categorical moderators (Cohen, 1968) was high according to common standards (Cicchetti, 1994; mean ICC[2,1] = 0.96, mean $\kappa = 0.86$). Any coding discrepancies were resolved through discussion.

Issue type. We coded whether negotiation issues were strictly distributive, or featured compatible issues with illusory conflict (Thompson, 1990) and/or integrative issues with the possibility for making mutually beneficial trade-offs (Follett, 1940).

Number of issues. We coded the number of issues in each negotiation (min = 1, max = 8, $M = 1.60$, $SD = 1.39$, skew = +2.75). Given its positive skew and following the helpful suggestion of an anonymous reviewer, we truncated this variable into three categories (1, 2, 3+ issues).

3.1.5. Effect size calculation

Analysis scripts detailing all effect size calculations are available in the SOM on OSF. We computed Hedges' g effect sizes and accompanying variances (Var_g). Similar to Cohen's d , Hedges' g quantifies the difference between groups in the metric of the pooled standard deviation, but additionally corrects for small sample sizes (Hedges, 1981). For studies that incorporated multiple first-offer values (e.g., \$2,800 vs. \$2,600 vs. \$2,300 in Yukl, 1974), we computed separate effects for each pairwise comparison. For studies that reported multiple negotiation outcomes (e.g., agreement value and impasse rate in Schweinsberg et al., 2012), we

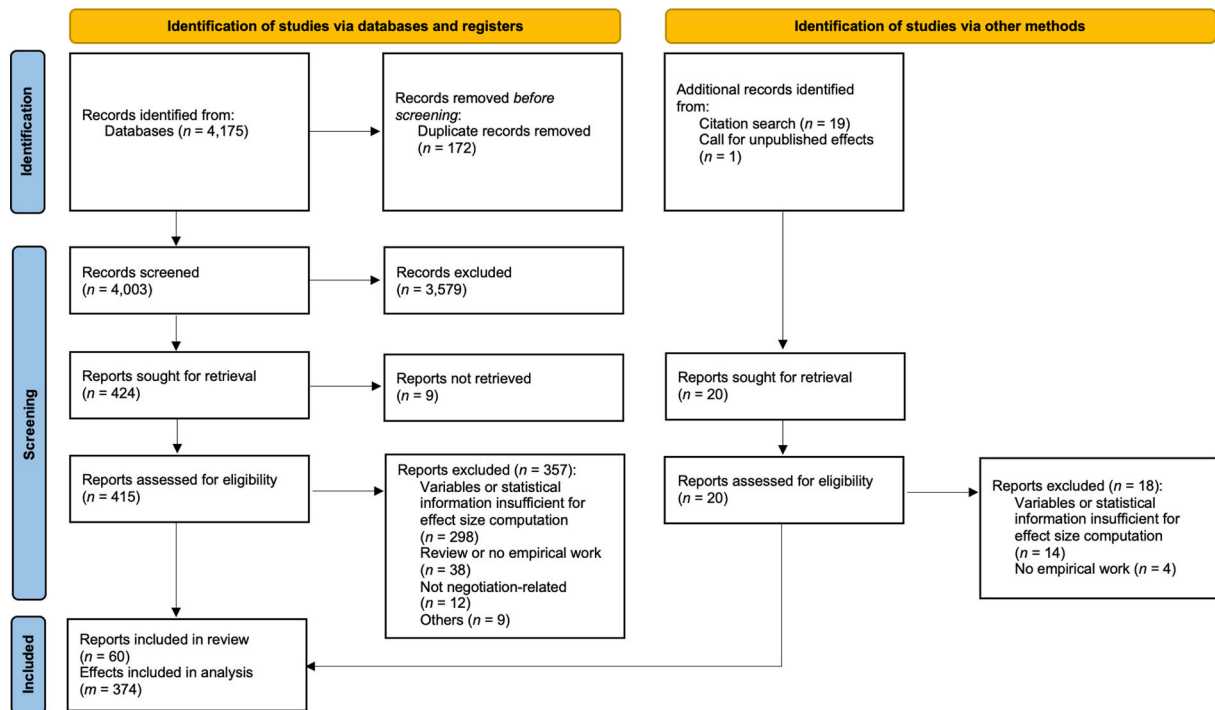


Fig. 2. PRISMA Flow Chart of Screening and Study Coding.

computed separate effect sizes for each type of effect. Importantly, the RVE approach (detailed below) accounts for the resulting statistical dependency of effect sizes.

We computed effect sizes with the *compute.es* package in R (version 0.2.5; Del Re, 2013). This package offers commands for the computation of effect sizes based on recommended formulas (Cooper et al., 2009) from a wide range of statistical metrics, such as *F* values, *t* values, correlations, or means and standard deviations. For within-subjects designs and dependent effect sizes, we used the formulas proposed by Cooper et al. (2009) and Borenstein et al. (2021) to account for correlations between measures. We computed effects by (1) comparing the negotiation outcomes of first movers vs. second movers (*sequence*), (2) capturing the correlations between first-offer magnitude and negotiation outcome (*correlation*), or (3) comparing the negotiation outcomes of ambitious vs. moderate first movers (*magnitude*). Sequence measures thus refer to the key decision of moving first vs. second to improve negotiation outcomes (Fig. 1-K1), whereas correlation and magnitude measures indicate whether ambitious first offers produce better outcomes than moderate offers (Fig. 1-K2). Since magnitude measures stem from controlled experiments, they can establish causal first-offer effects (in contrast to correlation effects). In turn, correlation measures feature a natural variation of first-offer values (in contrast to magnitude effects that stem from experiments with fixed first-offer manipulations). Hence, both measures examine the same key decision, but in different ways. We thus investigated the two separately.

We coded instances in which the (ambitious) first mover elicited more agreement value, more subjective value, and fewer impasses as positive effect sizes (i.e., $g > 0$; better outcomes for the [ambitious] offer maker). In contrast, we coded instances in which the (ambitious) first mover elicited less agreement value, less subjective value, and more impasses as negative effect sizes (i.e., $g < 0$; worse outcomes for the [ambitious] offer maker). For detailed information on the effect size computation please refer to Table S1 (https://osf.io/b4r36/?view_only=7e91bd285de940b480da9cc64b362cbd), the detailed R script (https://osf.io/b4r36/?view_only=4236414f67c1494bb50534b133c4591e), and Appendix A.

3.1.6. Meta-analytic procedure

We followed a two-step procedure: First, for our main analysis, we computed dependency-corrected summary effects per negotiation outcome (i.e., agreement value, impasse rate, subjective value). Second, for the moderation analyses, we generated three different subsets (one per negotiation outcome) and conducted moderator analyses per subset. We used random-effects meta-analysis models instead of fixed-effects models as the included studies varied substantially regarding experimental settings, sample characteristics, negotiation issues, and offer extremity. Hence, it seemed implausible to expect one true, fixed population effect (Borenstein et al., 2021). In total, we investigated $m = 320$ agreement value effects, $m = 13$ impasse effects, and $m = 41$ subjective value effects (covering all dimensions of subjective value; see Curhan et al., 2006 and Appendix A). This markedly higher share of agreement value effects compared to impasse and subjective value effects is in line with observations of prior work (Lipp et al., 2022; Schweinsberg et al., 2022).

3.1.6.1. Robust variance estimation. We used robust variance estimation (RVE), a methodological approach that statistically accounts for effect size dependency by estimating the covariance matrices of meta-regression coefficients (Hedges et al., 2010). RVE has also been used in recent meta-analyses in other psychological fields (e.g., Friese et al., 2017; Frankenbach et al., 2022). Conventional meta-analysis aggregates effects per study sample (Borenstein et al., 2021), resulting in a significant loss of information. In contrast, the RVE approach allows for the inclusion of multiple effect sizes per study in a single meta-analytical model.

We fitted all RVE models with the *robumeta* package (version 2.0) for R with small-sample adjustment of covariance structures and degrees of freedom (Fisher & Tipton, 2015). Significance testing was conducted via *t*-tests for single parameters (Tipton, 2015) and approximate Hotelling-Zhang tests for multiple parameters (AHZ; Tipton & Pustejovsky, 2015) with the *clubsandwich* package for R (version 0.5.8, Pustejovsky, 2021). These small-sample-corrected significance tests are very reliable and maintain nominal α -levels even under extreme conditions (Tipton & Pustejovsky, 2015). RVE yields reliable results with a minimum of 10

studies for estimating summary effects and a minimum of 20–40 studies when estimating slopes in meta-regressions (Hedges et al., 2010; Tipton, 2013). When the number of studies falls below these limits, type-I error rates increase. We thus urge caution in interpreting estimates based on a small number of studies and effects with $df < 4$ (Tipton, 2015; hence, respective estimates are reported in parentheses in Table 1).

Dependency correction. The RVE approach features two distinct weighting schemes to correct for dependent effect sizes (Hedges et al., 2010). The ‘hierarchical’ weighting scheme corrects for multiple studies and experiments being conducted by the same author or in the same laboratory. The ‘correlated’ weighting scheme corrects for multiple effects based on the same selection of individuals—e.g., multiple dependent variables or statistical tests from the same sample. As both dependencies often exist simultaneously in meta-analyses, the weighting scheme should be chosen based on the most prevalent type of dependency (Tanner-Smith et al., 2016). The studies included in our analysis were conducted by various researchers but usually report multiple measures from the same sample (e.g., pairwise comparisons of three different first-offer values). Thus, we chose the correlated weighting scheme and assumed a within-study effect size correlation of ρ (rho) = 0.8. Robustness analyses with different ρ values (from 0 to 1 in steps of 0.2) showed a negligible influence on the overall summary effect (i.e., $\Delta g < \pm 0.001$; see Tanner-Smith & Tipton, 2014).

Effect heterogeneity. We quantified effect heterogeneity with τ^2 and I^2 by fitting intercept-only random-effect RVE models on each subset (Borenstein et al., 2021). τ^2 estimates the absolute variance of true effects, whereas I^2 indicates the ratio (in %) of true variance to total variance—i.e., the proportion of observed variance that reflects true effect variations rather than sampling error. We additionally report 80 % credibility (CR) intervals as a measure of effect variability across studies (Morris, 2023; Whitener, 1990; Wiernik et al., 2017). In contrast to confidence intervals (CI), which describe the uncertainty around a single population mean effect, CRs describe the spread of the distribution of true effects across studies (i.e., a range in which a future effect size from a prospective study will likely fall).

Main analysis. We incorporated three different outcomes: (1) agreement value, (2) impasse rate, and (3) subjective value. We additionally subdivided agreement value effects ($m = 320$) into sequence (first vs. second movers; $m = 80$), correlation (between first offers and agreement values; $m = 53$), and magnitude measurements (ambitious vs. moderate first offers; $m = 187$). For the other two effect samples (impasses, $m = 13$; subjective value, $m = 41$), we did not further subdivide analyses due to insufficient power.

Moderation and robustness analyses. We conducted separate moderation analyses per negotiation outcome and per moderator. Multiple robustness analyses examined whether our meta-analytical main effects were robust to three preregistered criteria for outliers (e.g., sample size $|z| > 3$) and to small-study effects and publication bias. Publication bias refers to non-significant effects being less likely to be published (Franco et al., 2014). This poses a threat to meta-analyses as it might bias effect estimates and reduce the validity of findings. Following recent recommendations, we therefore applied a total of seven different methods to identify and correct for small-study effects and publication bias (i.e., Trim-and-Fill, PET-PEESE, p -curve, Egger’s, 3PSM, TESSPST, RoBMA; Sterne & Egger, 2005; Stanley & Doucouliagos, 2014; Simonsohn et al., 2015; McShane et al., 2016; Stanley, 2017; Carter et al., 2019; Borenstein et al., 2021; Stanley et al., 2021; Bartoš et al., 2022).

3.2. Results

We closely followed our preregistered analysis plan. Deviations are transparently highlighted here: https://osf.io/b4r36/?view_only=ea790ae83b274868a525bf6ef910d2d9. The additional Figs. S1–S13 and Tables S1–S8 are available in the SOM (https://osf.io/b4r36/?view_only=7e91bd285de940b480da9cc64b362cbd). For a detailed overview of all included studies and effects, please see Appendix A.

3.2.1. Main effect estimates of first-offer effects on three negotiation outcomes

We estimated an RVE model based on all 374 effect sizes with the three negotiation outcomes as moderator ([1] agreement value⁵: $k = 87$, $m = 320$, subdivided into (i) sequence, $k = 28$, $m = 80$, (ii) correlation, $k = 34$, $m = 53$, and (iii) magnitude, $k = 38$, $m = 187$; [2] impasse rate: $k = 7$, $m = 13$; and [3] subjective value: $k = 15$; $m = 41$) to test for effect differences, and one RVE model per subset to quantify mean effect estimates (see Fig. 3). The (1) agreement value analysis shows that (i) first movers claimed more agreement value than second movers ($g = 0.42$, $CI_{95\%}[0.20, 0.65]$, $p < 0.001$; $CR_{80\%}[-0.32, 1.16]$); (ii) first offers were positively associated with agreement value ($g = 1.56$, $CI_{95\%}[1.19, 1.92]$, $p < 0.001$; equivalent to $r = 0.62$, $R^2 = 0.38$; $CR_{80\%}[0.29, 2.83]$); and (iii) ambitious first offers led to higher agreement value than moderate first offers ($g = 1.14$, $CI_{95\%}[0.73, 1.55]$, $p < 0.001$; $CR_{80\%}[-0.12, 2.40]$). All first-offer effects on agreement value were therefore positive, indicating an overall advantage of moving first ambitiously.

However, for (2) impasse rate, a detrimental effect emerged ($g = -0.42$, $CI_{95\%}[-0.73, -0.11]$, $p = 0.018$; $CR_{80\%}[-0.83, -0.01]$), with ambitious first offers leading to more impasses (and fewer agreements). For (3) subjective value, we also identified a detrimental effect ($g = -0.40$, $CI_{95\%}[-0.53, -0.26]$, $p < 0.001$; $CR_{80\%}[-0.64, -0.17]$),⁶ with ambitious first offers leading to lower subjective value (e.g., satisfaction) for the counterpart.⁷ The overall model differentiated by effect type was highly significant, $F(4, 25.96) = 26.83$, $p < 0.001$.

In sum, while moving first and doing so ambitiously generally comes with economic advantages for agreement value ($0.42 \leq g \leq 1.56$), these effects only account for negotiations that end in a deal. A broader perspective that looks beyond short-term economic advantages but also incorporates negative short- and long-term economic as well as relational outcomes creates a more nuanced image of first-offer effects: Moving first ambitiously generally reduces agreement rates (i.e., increases impasses; $g = -0.42$) and hampers relationships (i.e., reduces the counterpart’s subjective value; $g = -0.40$).

3.2.2. Moderator analysis

We investigated effect size heterogeneity for all negotiation outcome subsets. Absolute heterogeneity (indicated by τ^2) was high for all effect types. The proportion of variation in observed effects due to variation in true effects rather than sampling error (indicated by I^2) was moderate-to-high for agreement value sequence effects ($\tau^2 = 0.32$, $I^2 = 84.09$ %), high for agreement value correlation effects ($\tau^2 = 0.98$, $I^2 = 89.84$ %), high for agreement value magnitude effects ($\tau^2 = 0.92$, $I^2 = 97.00$ %), moderate for impasse rate effects ($\tau^2 = 0.09$, $I^2 = 66.90$ %), and moderate for subjective value effects ($\tau^2 = 0.03$, $I^2 = 47.41$ %). Furthermore, credibility intervals (CR) were large and included zero for agreement value effects, indicating substantial effect variability across

⁵ Counteroffers are often used as a proxy for agreement value (e.g., in vignette studies in which the negotiation is terminated after participants state their counteroffer; Maaravi & Segal, 2022). We also coded these counteroffer effects for our agreement value meta-analysis. The decision to include these did not alter any mean effect estimates as effect sizes for counteroffers versus final agreements did not differ (magnitude: $p = 0.620$; sequence: $p = 0.114$; correlation: $p = 0.356$). We therefore combined and jointly investigated counteroffers and final agreements in all agreement value analyses.

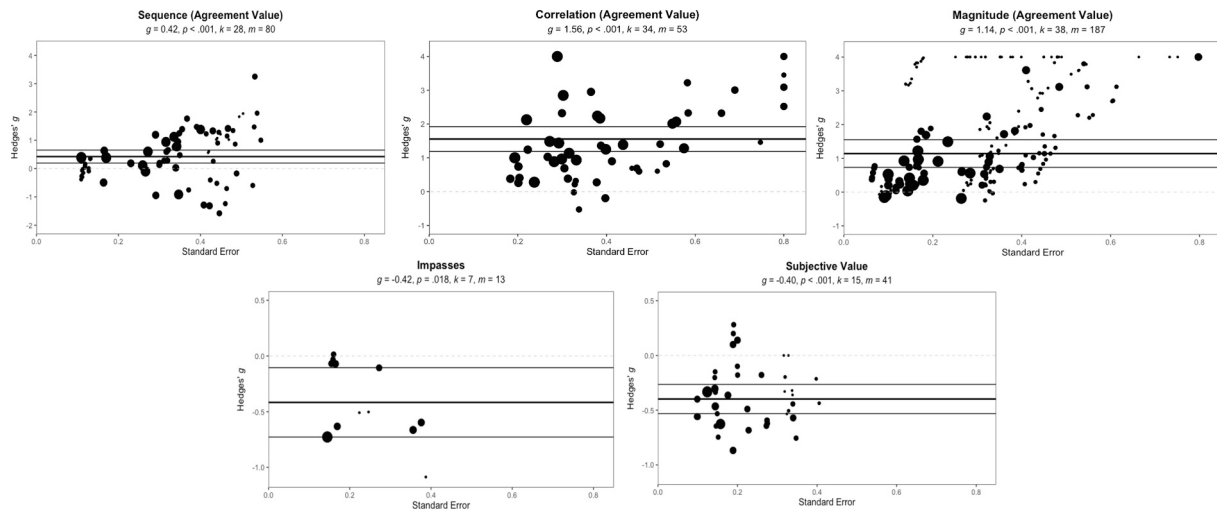
⁶ For papers that measured subjective value with multiple items, we additionally corrected for scale measurement error and attenuation (Schmidt & Hunter, 2014). The corrected estimate corroborated the robustness of our main effect estimate ($g = -0.41$, $CI_{95\%}[-0.55, -0.27]$, $p < 0.001$) with a negligible effect difference of $\Delta g = 0.01$ compared to without this correction.

⁷ We corroborated the robustness of all these main effects in additional multi-level analyses that account for effects being nested within studies being nested within papers. These multi-level analyses produced the same pattern of results (all $ps \leq 0.002$). The average deviation of estimated effect sizes from RVE and multi-level analyses was small: $\Delta g = 0.104$.

Table 1
Moderation Analyses of Complexity.

Moderator	Summary effect					k	m	Test of moderation			
	g	t	df	p	CI _{95%}			t/F	df	p	I ²
Agreement Value Total											
[†] Issue Type											
Distributive	1.12	7.97	69.80	< 0.001	[0.84, 1.41]	74	264	1.92	23.62	0.067	95.23
Integrative/Compatible	0.68	3.72	16.08	0.002	[0.29, 1.07]	18	56				
*Number of Issues								8.79	11.03	0.005	95.31
One	1.17	7.98	65.14	< 0.001	[0.88, 1.47]	68	243				
Two	0.35	3.05	4.58	0.032	[0.05, 0.66]	5	11				
Three or More	0.71	3.09	12.83	0.009	[0.21, 1.21]	14	64				
Agreement Value Sequence											
Issue Type								0.93	10.97	0.372	84.56
Distributive	0.48	3.41	19.81	0.002	[0.18, 0.77]	22	58				
Integrative/Compatible	0.28	1.70	6.49	0.137	[-0.12, 0.67]	8	22				
Number of Issues								1.73	2.11	(0.359)	84.54
One	0.55	3.59	16.75	0.002	[0.22, 0.87]	18	39				
Two	0.15	1.75	1.00	(0.330)	[-0.95, 1.26]	2	6				
Three or More	0.21	1.29	6.73	0.240	[-0.18, 0.59]	8	35				
Agreement Value Correlation											
*Issue Type								2.84	17.39	0.011	87.32
Distributive	1.82	8.89	22.73	< 0.001	[1.40, 2.25]	26	32				
Integrative/Compatible	0.92	3.66	9.28	0.005	[0.36, 1.49]	11	21				
*Number of Issues								13.41	6.14	0.006	87.14
One	1.87	8.72	21.25	< 0.001	[1.43, 2.32]	22	30				
Two	0.47	3.33	2.61	(0.055)	[-0.02, 0.97]	4	5				
Three or More	1.23	3.51	5.80	0.013	[0.37, 2.10]	7	16				
Agreement Value Magnitude											
Issue Type								2.18	2.35	(0.142)	97.07
Distributive	1.19	5.41	33.81	< 0.001	[0.74, 1.64]	35	174				
Integrative/Compatible	0.68	7.64	1.99	(0.017)	[0.29, 1.06]	3	13				
Number of Issues								2.18	2.35	(0.142)	97.07
One	1.19	5.41	33.81	< 0.001	[0.74, 1.64]	35	174				
Two	–	–	–	–	–	–	–				
Three or More	0.68	7.64	1.99	(0.017)	[0.29, 1.06]	3	13				
Impasses											
Issue Type								–	–	–	–
Distributive	–0.42	–3.34	5.54	0.018	[-0.73, –0.10]	7	13				
Integrative/Compatible	–	–	–	–	–	–	–				
Number of Issues								–	–	–	–
One	–0.42	–3.34	5.54	0.018	[-0.73, –0.10]	7	13				
Two	–	–	–	–	–	–	–				
Three or More	–	–	–	–	–	–	–				
Subjective Value											
[†] Issue Type								2.29	4.31	0.079	25.04
Distributive	–0.49	–15.1	7.14	< 0.001	[-0.57, –0.42]	11	33				
Integrative/Compatible	–0.16	–1.09	2.35	(0.375)	[-0.70, 0.38]	4	8				
Number of Issues								2.51	1.47	(0.295)	1.11
One	–0.49	–16.2	5.51	< 0.001	[-0.71, –0.32]	11	33				
Two	0.05	na	–	–	–	1	4				
Three or More	–0.36	–4.67	1.00	(0.134)	[-1.34, 0.62]	2	2				

Note. All variables for which the moderation analyses yielded $p < 0.05$ are marked with an *asterisk ([†] indicates $p < 0.10$). g = Hedges' g effect size; df = small-sample-corrected degrees of freedom; $CI_{95\%}$ = 95 % confidence interval; m = number of effect sizes in the moderator level; k = number of studies per moderator level. Significant test statistics for the moderators indicate significance of the overall model. I^2 is the percentage of true variance in the total observed effect variance after accounting for the indicated moderator. 'na' indicates that t values are non-applicable due to only one study. Please note that higher df coincide with higher statistical confidence. When df fall below 4, significance tests should be interpreted with caution—hence, in these cases, we report p values in parentheses. A full overview of all moderators is available in the SOM (Table S2-S7).



Note. Main RVE analysis moderated by effect type, $AHZ[25.96] = 26.83, p < .001$. The x-axes depict the standard errors of effect sizes. The y-axes indicate Hedges' g effect sizes. g = mean effect estimate; k = number of studies; m = number of effect sizes; p = p value testing Hedges' g against zero. Black dots represent individual effect sizes; diameters of dots represent the weight of the effect in the meta-analytic RVE model. The thick black horizontal lines represent the meta-analytic summary effects. The thin black horizontal lines represent the borders of the $CI_{95\%}$ around the summary effects. The dashed gray horizontal lines represent the null effect at $g = 0$. To increase readability, effect sizes $g > 4$ and $se > 0.8$ are depicted at $g = 4$ and $se = 0.8$, respectively (see Figure S1 in SOM with extended axes).

Fig. 3. Meta-Analytical Effect Estimates for (1) Three Measures of Agreement Value, (2) Impasse Rate, and (3) Subjective Value.

studies (Whitener, 1990; Wiernik et al., 2017). Overall, this calls for moderation analyses to identify factors that might explain this variability. We report moderator analyses and statistical tests separately for each of the effect subsets (see Table 1).

3.2.2.1. Agreement value. We first conducted the moderation analyses across all 320 effects without subdividing by operationalization (for higher statistical power). The moderation effect for issue type missed the common threshold for statistical significance ($\alpha < 0.05$): effects were descriptively smaller for negotiations with integrative or compatible characteristics ($g = 0.68, CI_{95\%}[0.29, 1.07]; CR_{80\%}[-0.59, 1.95]$) compared to strictly distributive negotiations ($g = 1.12, CI_{95\%}[0.84, 1.41]; CR_{80\%}[-0.15, 2.39]; t(23.62) = 1.92, p = 0.067$). A significant moderation effect for number of issues showed that more issues coincided with smaller effects, $F(2, 11.03) = 8.79, p = 0.005$.

Correlation. Correlation effects were significantly smaller for negotiations with integrative or compatible characteristics ($g = 0.92, CI_{95\%}[0.36, 1.49]$, equivalent to $r = 0.42, R^2 = 0.18; CR_{80\%}[-0.21, 2.05]$) compared to strictly distributive negotiations ($g = 1.82, CI_{95\%}[1.40, 2.25]$, equivalent to $r = 0.67, R^2 = 0.45; CR_{80\%}[0.69, 2.95]$), $t(17.39) = 2.84, p = 0.011$. We again found a significant moderation effect for number of issues, with more issues coinciding with smaller effects, $F(2, 6.14) = 13.41, p = 0.006$.

Sequence and magnitude. No significant moderation effects emerged for sequence effects, $ps \geq 0.359$, or magnitude effects,⁸ $ps \geq 0.142$.

3.2.2.2. Impasse rate. Moderation analyses for impasse effects remained inconclusive due to the small number of studies ($k = 7$) and a lack of

⁸ When first-offer magnitude is manipulated, the effect size on agreement value depends on the size of the manipulation (i.e., the difference between the first offers). Larger initial differences naturally produce larger effects. We find that a one percent increase in initial differences increases effect sizes by $g = 0.045$ on average, $CI_{95\%}[0.02, 0.07], p = 0.002$. To illustrate, for an experiment comparing offers of \$1,100 and \$1,000 (the high offer being 10% larger than the low offer), the data predict an effect size of $g = 0.45$. However, controlling for this influence of initial offer differences did not alter the significance of our moderation analyses.

variation in moderator levels.

3.2.2.3. Subjective value. Moderation analyses for subjective value showed a descriptive difference for issue type, with subjective-value detriments being descriptively larger in distributive ($g = -0.49, CI_{95\%}[-0.57, -0.42]; CR_{80\%}[-0.54, -0.44]$) compared to integrative or compatible settings ($g = -0.16, CI_{95\%}[-0.70, 0.38]; CR_{80\%}[-0.51, 0.19]$), although this difference was not significant according to the common significance threshold, $t(4.31) = 2.29, p = 0.079$.

3.2.2.4. Interim summary. We meta-analytically quantified first-offer effects and investigated whether moderators pertaining to negotiation complexity account for systematic variation in these effects. In general, results indicate moderation for agreement value and subjective value effects—that is, effects were indeed smaller in more complex negotiation settings.

3.2.3. Robustness tests

3.2.3.1. Analyses of outliers. Excluding outliers based on three preregistered criteria (effect size: $m = 6$, RVE weights: $m = 13$, sample size: $m = 4$) did not affect any decision for or against significance in any of our main or moderation analyses (see SOM for details).

3.2.3.2. Small-study effects and publication bias. Following recent recommendations for meta-analyses, we applied a total of seven different methods for identifying and correcting for small-study effects and publication bias (Trim-and-Fill, PET-PEESE, p -curve, Egger's, 3PSM, TESSPSST, RoBMA). We specifically focus on TESSPSST and 3PSM in this manuscript because they function well with highly heterogeneous effect samples (Carter et al., 2019; Stanley et al., 2021). We also report RoBMA for a Bayesian perspective on publication bias (Bartoš et al., 2022) and p -curve analyses to investigate the evidential basis for effects and potential p -hacking (Simonsohn et al., 2014). Due to space constraints, details for all seven methods are available in the SOM.

TESSPSST. The TESSPSST method (test of excess statistical significance and proportion of statistical significance test; Stanley et al., 2021) incorporates heterogeneity to calculate the expected proportion of statistically significant findings in absence of publication bias. Publication bias is indicated if the actual proportion of significant findings in the

meta-analytic sample exceeds the expected proportion. Based on recent simulations, it is the most powerful method to detect publication bias (Stanley et al., 2021).

TESSPST indicated excess statistical significance (and thus publication bias) for all agreement value effects—sequence, $Z = 2.52$, $p = 0.006$; correlation, $Z = 2.20$, $p = 0.014$; and magnitude, $Z = 2.53$, $p = 0.006$ —but no publication bias for impasse and subjective value effects, $Z_s \leq 0.90$, $p_s \geq 0.184$.

3PSM. The 3PSM approach (three-parameter selection model; Iyengar & Greenhouse, 1988; McShane et al., 2016) compares the intercept-only baseline meta-analytical model with an adjusted model that explicitly incorporates a significance-based study selection process ($0 < p < 0.025$ for significant studies, i.e., a two-tailed p value of 0.05, and $0.025 < p < 1$ for nonsignificant studies). If the inclusion of the selection process significantly improves the baseline model (as indicated by a likelihood-ratio test), publication bias is assumed to be present. Since 3PSM does not handle effect dependency natively (as RVE does; Rodgers & Pustejovsky, 2021), we followed the procedure proposed by Frankenhoch et al. (2022): We randomly drew one effect size per study, created a baseline and a selection process model, conducted likelihood-ratio tests for model comparisons, and repeated these steps 100 times to mitigate the impact of chance when sampling effect sizes (see SOM). We report average p values across repetitions.

3PSM indicated publication bias for sequence effects, $p = 0.028$, $g_{\text{adjusted}} = -0.03$, $CI_{95\%}[-0.45, 0.40]$, but not for correlation, magnitude, impasse, or subjective value effects, $p_s \geq 0.236$.

RoBMA. The RoBMA method (Robust Bayesian Meta-Analyses; Bartoš et al., 2022) uses a combination of PET, PEESE, and selection models to simultaneously estimate an ensemble of 36 models with different component combinations. It detects publication bias with a weighted averaging of model estimates and results in a Bayes Factor for the presence of publication bias. We conducted the analysis with JASP and the default priors and default model specifications (see Bartoš et al., 2022).

RoBMA showed substantial evidence of publication bias for (1) sequence, $BF_{10} = 3.66$, $g_{\text{adjusted}} = 0.10$, $CI_{95\%}[-0.05, 0.50]$, (2) correlation, $BF_{10} = 9.98$, $g_{\text{adjusted}} = 0.82$, $CI_{95\%}[0.00, 1.49]$, and (3) magnitude effects, $BF_{10} = 3.47$, $g_{\text{adjusted}} = 0.56$, $CI_{95\%}[-0.02, 1.19]$, but anecdotal evidence *against* publication bias for (4) impasse, $BF_{10} = 0.41$, and (5) subjective value effects, $BF_{10} = 0.71$.

p -curve. The p -curve is a tool for visualizing the distribution of p values and can either show evidential basis for a given effect or suggest evidence for p -hacking. Under conditions of no true population effect ($g = 0$), barely significant p values (e.g., from 0.02 to 0.05) are expected to occur at the same rate as any other p value, both highly significant ones ($p < 0.01$) and clearly non-significant ones (i.e., a flat p -curve; Simonsohn et al., 2014; 2015). In case of p -hacking, p -curves outperform other methods of bias correction (Simonsohn et al., 2014). Positively skewed p -curves with most p values < 0.01 are suggestive of true population effects.

The p -curve analyses identified no evidence of p -hacking in any of the five effect subsets, with evidential value in favor of true population effects for all effect types, $-22.68 \leq Z_s \leq -2.93$, $p_s \leq 0.002$ (see SOM Fig. S2-S6 for p -curve visualizations).

Summary of publication bias analyses. Overall, we found some indications for small-study effects or publication bias for agreement value effects (14 out of all 21 analyses suggested the presence of publication bias). After bias correction, all mean effect estimates remained significantly positive for correlation effects, but not for sequence and magnitude effects (Table 2). For impasse and subjective value effects, we found few indications for small-study effects or publication bias (1 out of all 14 analyses indicated bias), with significant effects even after bias correction.

3.2.4. Additional findings

Complementary to our main findings, this systematic meta-analysis provides unique insights into overlooked areas of first-offer research: Most primary studies (a) did *not* attempt to measure the mechanisms

behind first-offer effects ($k = 79$ out of 90), (b) investigated first-offer effects in one-time interactions ($m = 357$ out of 374) without the possibility of long-term effects, (c) almost exclusively utilized vignette studies, lab experiments, or classroom exercises ($m = 366$ out of 374), (d) relied on samples from Western societies ($k = 77$ out of 90), and (e) did not preregister hypotheses (84 out of 90; many studies were conducted prior to the widespread adoption of preregistration). We return to these findings in the general discussion (see also Table 4).

3.2.5. Discussion

Overall, the meta-analysis provides support for the theorized relationships in our conceptual model, suggesting that first offers have both beneficial and detrimental effects. Moving first and moving ambitiously increased agreement value but also decreased agreement likelihood (i.e., higher impasse risk) and the counterpart's subjective value. Moreover, our analyses indicate a complexity moderation for agreement value and subjective value, such that these effects were smaller in more complex negotiation settings.

The findings from the meta-analysis make an important contribution to the existing literature since prior reviews were either qualitative or conducted several decades ago. Although the meta-analysis allowed us to test the effect of first offers and offer magnitude on three central negotiation outcomes, we could not test the proposed underlying mechanisms due to the shortage of prior empirical examination (i.e., only 11 out of 90; 12.2% of studies included a measure of mechanisms). To systematically test these mechanisms and to seek replication of the meta-analytic findings, we designed two additional experiments. We decided to focus on the most consequential aspects of first offers—whether first offers are made ambitiously and whether the effects differ between low-complexity (i.e., single issue, distributive) and high-complexity negotiations (i.e., multiple issues, integrative).

We conducted two high-powered, preregistered experiments for three reasons. First, this approach allowed us to seek replication of the main effects of first-offer magnitude on agreement value, impasses, and subjective value. Second, the experiments allowed us to causally test negotiation complexity as a moderating factor. Finally, the experiments allowed us to simultaneously test all eight first-offer mechanisms that we derived from prior literature (see Fig. 1 and <https://osf.io/kbvf8> for an extensive preregistration document).

Based on our prior theorizing and meta-analytical findings, we preregistered the following hypotheses for the two experiments:

H1: Higher first offers (by the seller) will lead to (a) higher counteroffers, (b) higher final sale prices, (c) an increased impasse likelihood, and (d) reduced subjective value of the counterpart (i.e., the buyer).

H2: These main effects will be larger in single-issue, distributive compared to multi-issue, integrative negotiation settings (complexity moderation).

H3: These main effects will be mediated by selective accessibility, insufficient adjustment, power perceptions, mis-anchoring, unpleasantness, anger, and perceived economic constraints (and integrative insight in the integrative negotiation setting).

4. Study 2a & 2b: experiments

4.1. Sample size and power

We recruited $N = 1,052$ (Study 2a; single issue, distributive) and $N = 1,069$ (Study 2b; multiple issues, integrative) U.S. participants via Prolific, an online research platform with high data quality (see Peer et al., 2022). We recruited participants for both experiments at the same time and from the same pool (i.e., identical inclusion criteria) to ensure comparability between experiments and high data quality (e.g., 100% prior approval rate). Participants could only enroll in one of the experiments. Our preregistered power analyses yielded a power of $1 - \beta = 99.02\%$ to detect conventionally 'small-to-moderate' effects ($d = 0.30$).

Table 2
Overview of Seven Publication Bias Analyses per Effect Type.

Method	Agreement Value Effects			Relational Effects	
	Sequence [$g = 0.42$]	Correlation [$g = 1.56$]	Magnitude [$g = 1.14$]	Impasse [$g = -0.42$]	Sub. Value [$g = -0.40$]
1. TESSPST	bias	bias	bias	no bias	no bias
2. 3PSM	-0.03 ^{n.s.}	no bias	no bias	no bias	no bias
3. RoBMA	0.10 ^{n.s.}	0.82*	0.56 ^{n.s.}	no bias	no bias
4. p-Curve	no bias	no bias	no bias	no bias	no bias
5. <i>PET-PEESE</i>	-0.13 ^{n.s.}	1.44*	0.32*	no bias	no bias
6. <i>Trim-and-Fill</i>	0.32*	no bias	no bias	no bias	-0.34*
7. <i>Egger's</i>	no bias	bias	bias	no bias	no bias

Note. Cells with 'bias' indicate that a bias was detected, but no adjusted estimate can be provided by the respective method. Cells with 'no bias' indicate that no bias was detected, hence no adjustment was necessary (pointing towards true population effects). Numerical values are corrected effect estimates (Hedges' g s) that were bias-corrected by the respective method. The second row from the top shows uncorrected effect estimates in squared parentheses. Values marked with an asterisk * signal significant effects after bias correction (i.e., suggesting true population effects). Methods 5–7 in *italics* may deliver unreliable results in highly heterogeneous effect samples and should be interpreted cautiously (Carter et al., 2019; Stanley, 2017).

4.2. Procedure, manipulations, and measures

For a full overview of all experimental materials, a comprehensive item list, and all data, please refer to https://osf.io/b4r36/?view_only=21f0e968eb6444b1b431d1bbc3c25140.

Participants assumed the buyer role and received information about established negotiation scenarios. In Study 2a, we used the single-issue distributive sale of a pharmaceutical plant (see Galinsky & Mussweiler, 2001). In Study 2b, we used the multi-issue integrative sale of a café (see Loschelder et al., 2016). Participants were briefed on key information about the case and their limits (S2a: paying maximally \$25 million; S2b: gaining at least 6,300 individual points). After reading the case information, participants received predefined first offers from their counterpart (i.e., the seller).

Magnitude manipulation. In both experiments, we manipulated the seller's first-offer magnitude as a between-subjects factor. To obtain more precise insights into different levels of first-offer magnitude, we included four equidistant conditions: non-assertive (e.g., \$21 million for the plant), moderately assertive (\$26 million), assertive (\$31 million), to highly assertive (\$36 million).

Outcome measures. After receiving the first offer, participants were asked to predict the likelihood of the negotiation ending in an impasse ('anticipated impasse likelihood'; 0 %–100 %) and their perceived subjective value (four items on the relationship adapted from the *Subjective Value Inventory*, Curhan et al., 2006; $\alpha = 0.956$, e.g., "Did the first offer build a good foundation for a future relationship with your counterpart?"), in a randomized order.

Participants were then asked to make their counteroffer. If the counteroffer was below the seller's first offer, the seller replied that they could not accept this and asked participants to make a higher counteroffer. Participants then inserted their second counteroffer. The negotiation process continued in this way until participants made their fourth counteroffer (i.e., the final counteroffer) or until participants met the seller's initial demands with one of their counteroffers—these cases were then marked as 'actual deals' (coded as 1) whereas negotiations in which participants did not meet the seller's initial demands were marked as 'actual impasses' (coded as 0).

In line with our preregistration, we used participants' anticipated impasse likelihood, perceived subjective value, first counteroffer, and final counteroffer as key dependent variables (DVs). Final counteroffer serves as a proxy for agreement value. Following a suggestion in the review process, we additionally used actual deals/impasses as a DV in our exploratory, supplementary analyses (see SOM, Figs. S8–S10).⁹

Measured mechanisms. After participants made their last

counteroffer, we assessed the eight first-offer mechanisms from our conceptual model in a randomized order (Fig. 1).¹⁰ We assessed each mechanism with three items on 7-point Likert scales¹¹:

- Selective accessibility ($\alpha = 0.906$): e.g., "The first offer made me think of the plant's upsides and benefits."
- Insufficient adjustment ($\alpha = 0.691$): e.g., "It felt wrong to move farther away from the seller's first offer with my first counteroffer."
- Power ($\alpha = 0.847$): e.g., "The seller is in a powerful position."
- Mis-anchoring ($\alpha = 0.864$): e.g., "I feel like the seller could have claimed more value with a more aggressive first offer."
- Unpleasantness ($\alpha = 0.889$): e.g., "I think that the seller is an unpleasant person."
- Anger ($\alpha = 0.945$): e.g., "The seller's first offer upset me."
- Economic constraints ($\alpha = 0.906$): e.g., "The seller's first offer made me think about my financial limits."
- Integrative insight ($\alpha = 0.850$): e.g., "The first offer showed which issues the seller values highly."

We then assessed demographics and three preregistered data quality checks that participants had to pass for inclusion in the sample (e.g., recalling the seller's first offer).

¹⁰ We measured all mediating mechanisms *after* measuring negotiation outcomes. Making participants actively aware of all psychological mechanisms *before* asking about their negotiation behavior might have inadvertently interfered with their responses on these key DVs; this could have (artificially) boosted the alignment of mediators and DVs due to inflated consistency motives and common-method variance (Chaudoin et al., 2021; Podsakoff et al., 2003). While we propose that the present order of measurement yields a more conservative test of our main hypotheses, we acknowledge that it did not allow us to establish temporal precedence of mediators being assessed *before* outcomes. We return to this aspect in the discussion.

¹¹ Please note that prior research has seldomly measured these first-offer mechanisms (see Appendix A). If measured, the items were often self-developed due to a lack of validated scales (our experiments are no exception). Whenever available, we aligned our items with recent operationalizations (e.g., power: Tuncel et al., 2020; unpleasantness: Lee & Ames, 2017; anger: Schweinsberg et al., 2012; integrative insight: Loschelder et al., 2016). For mechanisms with no known, prior operationalizations, we developed items through extensive discussions within the research team. For selective accessibility and insufficient adjustment—the two theoretically most influential, but empirically rarely tested mechanisms—we additionally tested our scales empirically in two validation studies (with $N = 220$ each) to ensure these measures are indeed sensitive to capturing the insufficient adjustment processes and selectively available information in the expected directions. Both validation studies showed significant effects in the expected directions (p s < 0.001; see SOM, Fig. S13), thus corroborating the reliable measurement of the underlying mechanisms.

⁹ Using this alternative DV confirmed the main analyses on anticipated impasse likelihood reported below, and in parts even aligned more closely with our hypotheses (see OSF for details on these analyses).

4.3. Results

First-offer effects on outcomes. As predicted, and consistent with H1 and our meta-analytic main effects, making higher first offers had beneficial effects for sellers by increasing counteroffers, including final offers. At the same time, higher first offers also increased the anticipated impasse likelihood and lowered the subjective value of recipients across both experiments (see Fig. 4A–D).

The results from the distributive negotiation (S2a) supported the predicted relationships for all outcome variables, such that more ambitious offers increased first counteroffers, $F(3, 1,048) = 51.79, p < 0.001, \eta_p^2 = 0.129$, and final counteroffers, $F(3, 1,048) = 166.62, p < 0.001, \eta_p^2 = 0.323$, and, at the same time, also decreased anticipated agreement likelihood (higher impasse risk), $F(3, 1,048) = 91.87, p < 0.001, \eta_p^2 = 0.208$, and subjective value, $F(3, 1,048) = 113.09, p < 0.001, \eta_p^2 = 0.245$.

The results from the integrative negotiation (S2b) fully supported the predicted relationships for all outcome variables as well, such that more ambitious offers increased first counteroffers: $F(3, 1,065) = 25.58, p < 0.001, \eta_p^2 = 0.067$, and final counteroffers: $F(3, 1,065) = 79.09, p < 0.001, \eta_p^2 = 0.182$, while also decreasing anticipated agreement likelihood: $F(3, 1,065) = 62.00, p < 0.001, \eta_p^2 = 0.149$, and subjective value: $F(3, 1,065) = 88.18, p < 0.001, \eta_p^2 = 0.199$.

Complexity moderation. To test our hypothesis for the moderating role of complexity (H2), we examined whether first-offer effects were larger in the single-issue, distributive Study 2a (low complexity) than in the multi-issue, integrative Study 2b (high complexity). As preregistered, we conducted linear regressions with first-offer magnitude as predictor (coded as 1 = non-assertive to 4 = highly assertive) and the z-standardized first counteroffer, final counteroffer, anticipated deal likelihood,¹² and subjective value as criterion. A comparison of regression coefficients between settings (Clogg et al., 1995) supported the moderation hypothesis: the effects were significantly larger in the distributive than in the integrative setting for first counteroffers ($b = 0.321$ vs. $b = 0.222, Z = 1.904, p = 0.028$) and for final counteroffers ($b = 0.502$ vs. $b = 0.377, Z = 2.604, p = 0.005$). Similar patterns emerged, albeit not significant, for anticipated deal likelihood ($b = -0.401$ vs. $b = -0.339, Z = -1.240, p = 0.107$) and subjective value ($b = -0.434$ vs. $b = -0.394, Z = -0.833, p = 0.202$).¹³

First-offer mechanisms. The high-powered experiments allowed us to run simultaneous, multiple mediation analyses to examine H3, the mediating impact of all proposed mechanisms (see conceptual model in Fig. 1). To that end and as preregistered, we entered first-offer magnitude as the predictor, the z-standardized counteroffers (first and final), deal likelihood, and subjective value as DVs, as well as the z-standardized measures of (1) insufficient adjustment, (2) selective accessibility, (3) power, (4) mis-anchoring, (5) unpleasantness, (6) anger, (7) economic constraints, and (8) integrative insight as mediators (H3; 5,000 bootstrap samples, Model 4, Hayes, 2013). In line with our preregistration for the statistical mediation models on the DVs ‘deal likelihood’ and ‘subjective value’, we excluded insufficient adjustment and selective

accessibility as mechanisms as these anchoring mechanisms should, from a theoretical perspective, not influence these DVs (see Figs. S11 and S12 for exploratory analyses with these mechanisms included).

We found significant partial indirect effects for all DVs in both the distributive (Fig. 5) and the integrative (Fig. 6) negotiation settings. Except for economic constraints and integrative insights, all mechanisms from our conceptual model contributed to mediating the first-offer magnitude effects on at least one of the negotiation outcomes. As expected, higher first offers caused participants to be angrier, to perceive the first mover as more unpleasant, but also as more powerful, to perceive the first offer as less of a mis-anchor for the offer maker, and to become more aware of their own economic constraints (e.g., Fig. 5, Experiment 1). Across both experiments, the comparably strongest effects emerged for how angry participants were themselves and how unpleasant they perceived the other negotiator to be. In turn, as Figs. 5 and 6 illustrate, these various perceptions jointly accounted for the first-offer effects on counteroffers (A–B), anticipated deal likelihood (C), and subjective value (D)—albeit with differential relative importance as a function of beneficial versus detrimental effects. Surprisingly, higher first offers also caused buyers to be selectively *less* aware of the negotiation object’s upsides and benefits, as well as to report having adjusted *sufficiently* (not insufficiently) away from the first-offer anchor. We return to these counter-intuitive findings in the Discussion.

Following a helpful suggestion in the review process, we additionally applied exploratory relative weight analysis (RWA, Tonidandel & LeBreton, 2011; 2015) to examine the relative importance of each mechanism in predicting the negotiation outcomes. Whereas our multiple mediation analysis accounts for the effects of a mechanism while holding all other mechanisms constant (i.e., a mechanism’s unique contribution after partialling out shared variance between correlated mechanisms), RWA accounts for the total share of explained variance in the DV that can be attributed to a mechanism (i.e., including both unique and shared variance with other mechanisms; Tonidandel & LeBreton, 2011, 2015). RWA hence provides a slightly different perspective on the relative importance of first-offer mechanisms by also accounting for shared variance between mechanisms. The RWA results nicely complement our multiple regression analyses (see Table 3): for example, they confirm the importance of power for predicting counteroffers in distributive settings (Fig. 5), and anger for predicting lower deal likelihood and subjective value (Figs. 5 and 6). In addition, they also show that, contrary to what one might expect based on the mediation results, integrative insight holds some importance for explaining variance in all negotiation outcomes in complex settings. Across both studies, the RWA results consistently reinforce the importance of selective accessibility and insufficient adjustment for predicting first and final counteroffers, of anger and unpleasantness for predicting deal likelihood and subjective value, and the relative unimportance of economic constraints as a first-offer mechanism. We provide a full overview of all relative weights in Table 3.

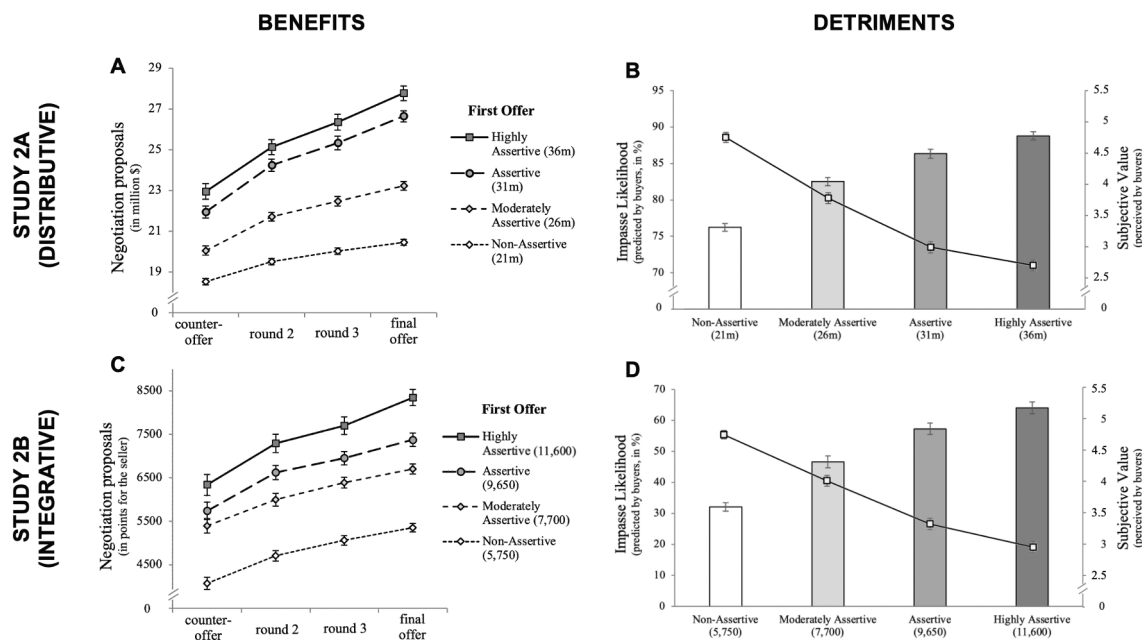
5. General discussion

Our conceptual model synthesizes how, when, and why first offers beneficially and detrimentally impact different negotiation outcomes—agreement value, impasses, and subjective value. The preregistered RVE meta-analysis of 374 effect sizes from 90 studies (overall $N = 16,334$; Study 1) suggests that (1) advantageous agreements generally emerge across a wide range of settings and scenarios, (i) when comparing first and second movers’ outcomes ($g = +0.42$; adjusted g s between $+0.32$ and -0.13), (ii) when examining correlations between first offers and agreement values ($g = +1.56$; $r = +0.62$; adjusted g s $\geq +0.82$; adjusted r s $\geq +0.37$), and (iii) when comparing extreme vs. moderate first offers ($g = +1.14$; adjusted g s $\geq +0.32$). Effect estimates are highly significant and ‘moderate’ to ‘very large’ according to common conventions.

Our analyses of outcomes beyond agreement value add important

¹² Anticipated deal likelihood is the reversed anticipated impasse likelihood (100 – anticipated impasse likelihood). An impasse likelihood of 75% corresponds to a deal likelihood of 25%, etc. We used deal likelihood as a DV in these regression analyses to align with the directional coding of effects in our meta-analysis—that is, negative effect sizes reflecting more impasses and thus a lower deal likelihood.

¹³ These moderation patterns on our four DVs also replicated in three exploratory analyses: when we (1) simultaneously examined the data of both studies in a joint moderation model with complexity as a moderator variable, and (2) simultaneously examined the data of both studies in a joint mediated moderation model with complexity as a moderator variable and all first-offer mechanisms as mediators. When (3) controlling for age, gender, and negotiation experience, the moderation on anticipated deal likelihood even reached significance with these controls included ($p = 0.047$).



Note. Panels A and B show experimental results for the low-complexity distributive negotiation setting (S2a, $N=1,052$), panels C and D show experimental results for the high-complexity integrative negotiation setting (S2b, $N=1,069$). Bars in panels B and D depict impasse likelihood, lines depict subjective value. Error bars represent standard errors. Across both negotiation settings, main effects for first-offer magnitude emerged—more assertive (i.e., higher) first offers by the seller led to (1) higher counteroffers, (2) higher final offers (a proxy for sale price), (3) higher anticipated impasse likelihood, and (4) lower subjective value (i.e., relational detriments). All four panels A-D corroborate the meta-analytical main effects. For patterns on actual impasses, please refer to Figure S8.

Fig. 4. First-Offer Effects on Counteroffers, Anticipated Impasse Likelihood, and Subjective Value in Distributive and Integrative Negotiations.

nuance to these findings: We quantify two detriments of first offers by investigating (2) impasses, which carry significant short-term economic consequences, and (3) subjective value, which can carry longer-term economic and relational consequences. In contrast to the beneficial effects on agreement value, moving first ambitiously generally led to fewer agreements (i.e., more impasses, $g = -0.42$) and to worse subjective value perceptions by the negotiation counterpart ($g = -0.40$, adjusted $g = -0.34$).

In line with the proposed moderator of the conceptual model, these effects were most apparent in low-complexity negotiations. As the number of issues increased and integrative potential emerged, the first offer's effects, both beneficial and detrimental, weakened. Thus, negotiation complexity was a moderating variable in the true sense of the word: it changed the size of the effects to make them more moderate.

We subsequently corroborated all meta-analytic findings with two high-powered, preregistered experiments (Study 2a-2b) that additionally generated new and holistic insights on the beneficial and detrimental mechanisms behind first-offer effects.

5.1. Conceptual contributions and theoretical implications

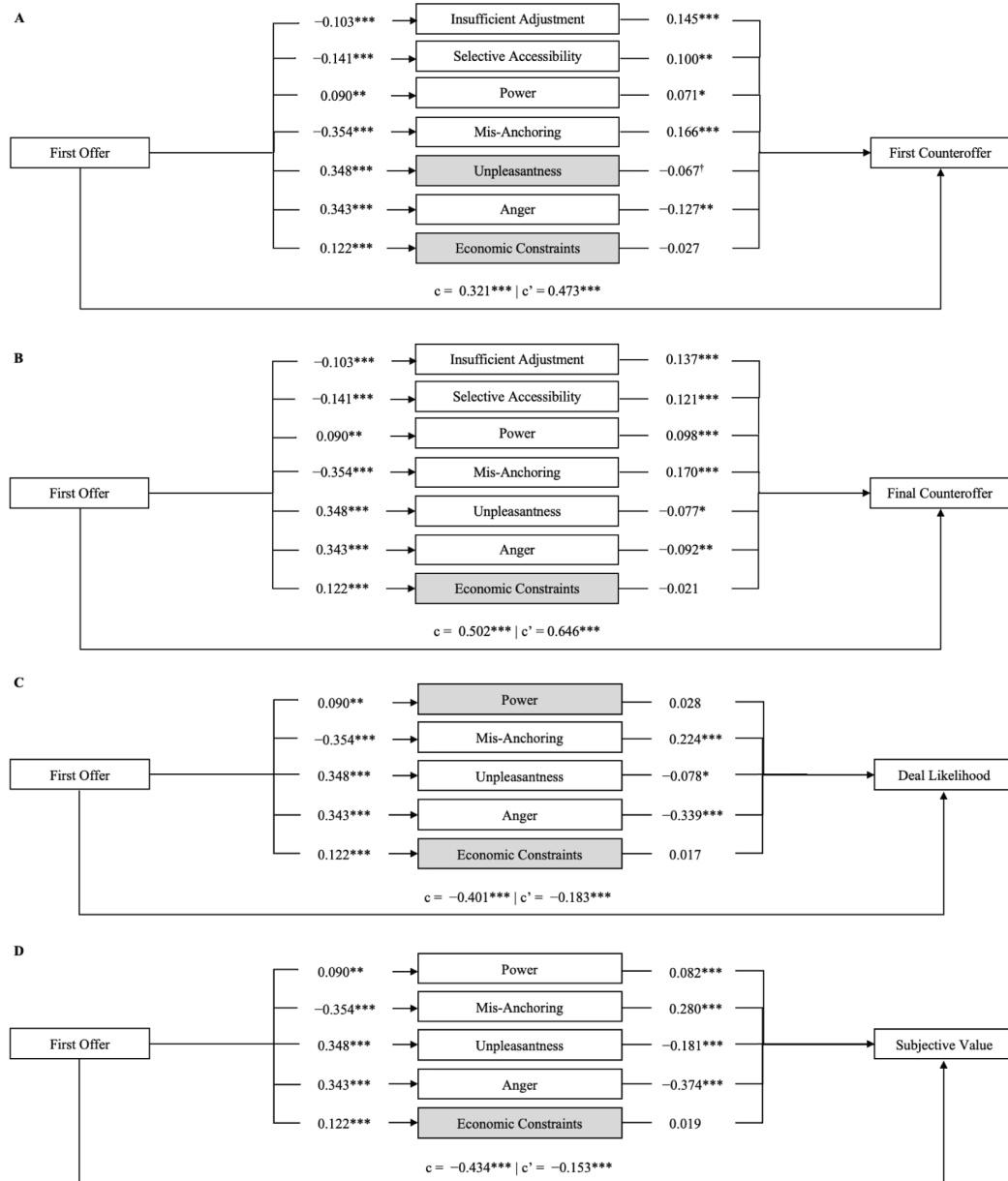
The present research contributes to negotiation theory in three ways: First, we summarize and broaden the scientific debate beyond the typical focus on final agreements by introducing a comprehensive conceptual model that (a) integrates over five decades of research linking first offers to three different outcomes (final agreements, impasses, and subjective value), (b) integrates eight different psychological mechanisms, and (c) proposes a key moderator of these effects: negotiation complexity. We empirically tested our conceptual model with a meta-analysis and two high-powered preregistered experiments that corroborated all meta-analytical main and moderation effects. The experiments identified a mediating role of six (selective accessibility, insufficient adjustment, power, mis-anchoring, unpleasantness, anger) out of our eight proposed mechanisms (no mediation effects for

perceived economic constraints and integrative insights¹⁴) in a simultaneous investigation (Figs. 5 and 6).

Our model and results paint a more nuanced picture of first-offer effects than has emerged before, challenging prior suggestions to 'go first and go ambitious' from a two-decade old meta-analysis (Orr & Guthrie, 2005) and past research (Galinsky et al., 2009). Although ambitious first offers lead to more value claimed for the offer maker in case of a deal, they can also increase the risk of an impasse and impair the relationship with the counterpart (i.e., reduced subjective value). Our findings also address prior calls for a systematic investigation of issue type as a moderating factor (Lipp et al., 2022). Contrary to the prevalent notion of a first-mover disadvantage in complex negotiations (Loschelder et al., 2014b, Loschelder et al., 2016), we find an overall advantageous effect of moving first and doing so ambitiously in complex integrative and multi-issue negotiations (see Table 1). Our findings thus reveal that first-mover disadvantages on agreement value can occur in some high-complexity negotiations (Loschelder et al., 2014b, Loschelder et al., 2016), but do not materialize on average.

Second, our experimental investigation stimulates the scientific debate on first-offer mechanisms and raises theoretical questions on the presumed links between first-offer magnitude and anchoring. Studies 2a and 2b revealed that out of the three beneficial mediators we had conceptualized, only power emerged as a significant mediator for increased counteroffers, deal likelihood, and subjective value in our multiple mediation analyses. For the two other

¹⁴ To avoid a confound in our manipulations of Study 2b, we deliberately did not manipulate the degree of integrative insight between first offers. All four offers provided a similar degree of integrative insight, which could well explain the null effect for the a-path of this mechanism. In line with prior research (e.g., Loschelder et al., 2016), integrative insights likely act as a mediator when first offers vary in the integrative information they provide—a notion further backed by our relative weight analysis that highlighted an overlap in variance between (first-offer independent) integrative insight and negotiation outcomes (Table 3).



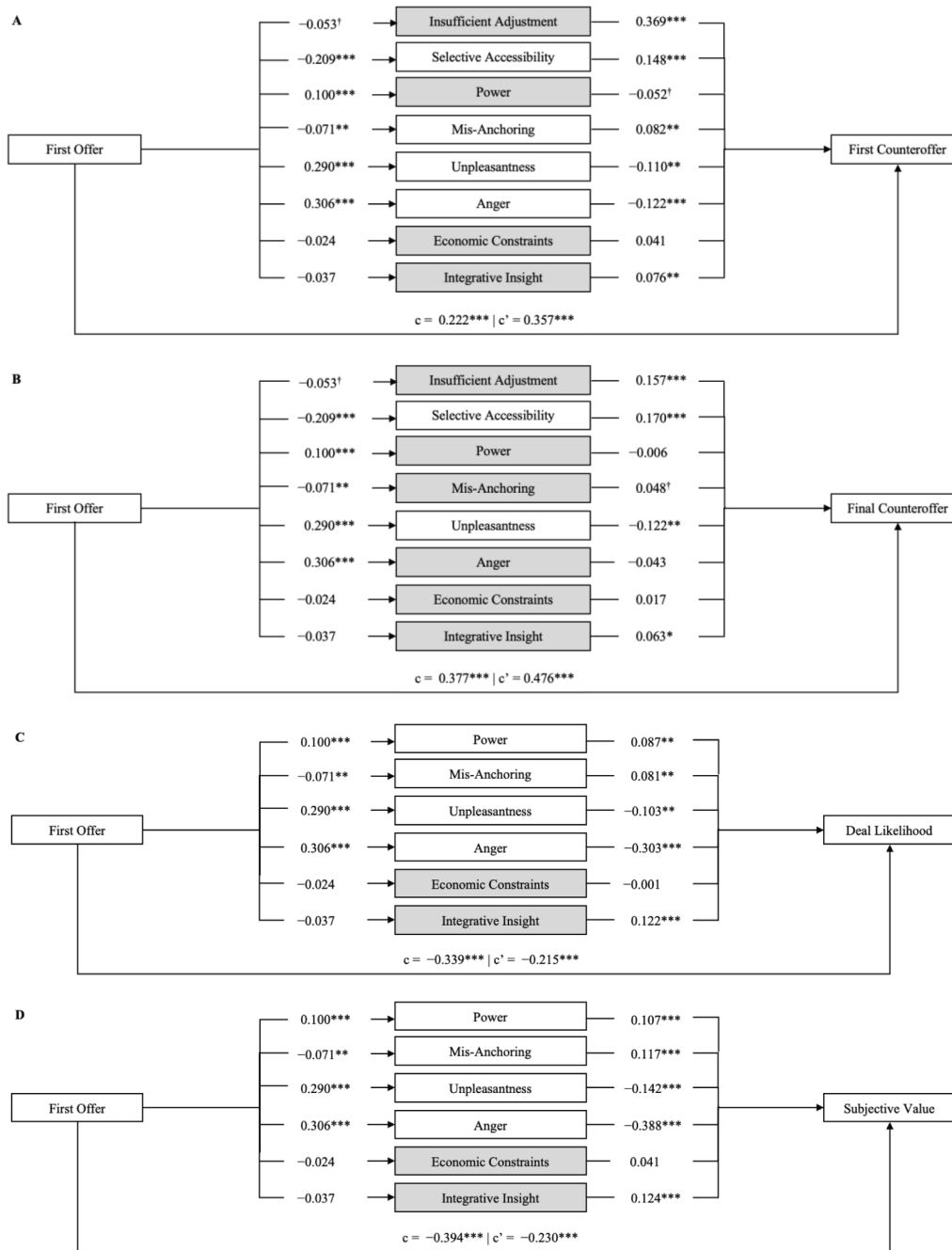
Note. First offers (coded as 1=non-assertive to 4=highly assertive) influence (A) first and (B) final counteroffer, (C) anticipated deal likelihood, and (D) subjective value in the expected directions of the meta-analytical main effects. Mediators with significant indirect effects are displayed in white, mechanisms that did not mediate are displayed in gray. Mediators and DVs are z-standardized for comparability between negotiation scenarios. For patterns on actual deals, please refer to Figure S9. In line with our preregistration, we excluded insufficient adjustment and selective accessibility for deal likelihood and subjective value (C–D) as these anchoring mechanisms should, from a theoretical perspective, not influence these constructs. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Fig. 5. Distributive Negotiation: Mediation Effects on Counteroffers, Anticipated Deal Likelihood, and Subjective Value.

mechanisms—insufficient adjustment and selective accessibility (whose scales we tested in two validation studies; Fig. S13)—surprising effects in the opposite direction emerged. While the mediation b-paths looked as expected from theorizing (i.e., more insufficient adjustment and selective accessibility led to higher counteroffers), the a-paths pointed in the opposite direction in both experiments: Higher first offers led to negotiators reporting *less* insufficient adjustment (i.e., more sufficient adjustment) and *less* selectively accessible information in support of the anchor.

We can only speculate about the potential reasons for these findings. The astute reader could argue that insufficient adjustment and selective

accessibility are unconscious processes that are difficult to measure with introspective, item-based questionnaires—however, this should logically lead to null effects, not to reversed effects. Insufficient adjustment may be more of an objective outcome rather than an introspectively accessible psychological process. Indeed, a thorough inspection of the literature revealed that both mechanisms of insufficient adjustment and selective accessibility are highly prominent but have been rarely measured directly, nor experimentally tested in mediation analyses (cf. Harris et al., 2019). Instead, studies infer insufficient adjustment at an objective level using quantified measures on the same scale as the manipulation. In contrast, our self-report measures were purely



Note. First offers (coded as 1=non-assertive to 4=highly assertive) influence (A) first and (B) final counteroffer, (C) anticipated deal likelihood, and (D) subjective value in the expected directions of the meta-analytical main effects. Mediators with significant indirect effects are displayed in white, mechanisms that did not mediate are displayed in gray. Mediators and DVs are z-standardized for comparability between negotiation scenarios. For patterns on actual deals, please refer to Figure S10. In line with our preregistration, we excluded insufficient adjustment and selective accessibility for deal likelihood and subjective value (C–D) as these anchoring mechanisms should, from a theoretical perspective, not influence these constructs. [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Fig. 6. Integrative Negotiation: Mediation Effects on Counteroffers, Anticipated Deal Likelihood, and Subjective Value.

subjective and psychological (e.g., “It felt wrong to move farther away from the seller’s first offer with my first counteroffer”). Thus, even while negotiators demonstrated objectively *insufficient* adjustment in dollars, they may not have psychologically experienced this behavior as ‘insufficient.’ Indeed, in absolute dollars, they objectively adjusted farther away from the very assertive sellers’ first offer (e.g., €36 million) than from less assertive offers (e.g., €26 million). Even though this adjustment from very assertive first offers was still insufficient, negotiators

psychologically perceived it as more sufficient than the less pronounced adjustment away from lower first-offer anchors. Future research should more directly examine this insufficient adjustment process (for instance, via eye tracking) in both objective, behavioral and in introspective, psychological ways to better understand this process and the possible disconnect between subjective perceptions and objective adjustment behavior.

Similarly, we can only speculate as to why higher first offers led

Table 3

Relative weight analyses of first-offer mechanisms' impact on negotiation outcomes in study 2a and 2b.

	First Counteroffer		Final Counteroffer		Deal Likelihood		Subjective Value	
	Distributive	Integrative	Distributive	Integrative	Distributive	Integrative	Distributive	Integrative
(1) Insufficient Adjustment	33.2 %	65.3 %	19.3 %	43.6 %	–	–	–	–
(2) Selective Accessibility	18.5 %	11.1 %	16.5 %	18.5 %	–	–	–	–
(3) Power	30.0 %	1.1 %	44.2 %	11.9 %	0.1 %	1.4 %	0.7 %	1.5 %
(4) Mis-Anchoring	6.6 %	6.9 %	0.8 %	5.3 %	31.8 %	5.3 %	30.3 %	6.1 %
(5) Unpleasantness	1.0 %	3.2 %	2.8 %	1.9 %	25.3 %	31.8 %	29.1 %	32.1 %
(6) Anger	3.0 %	2.5 %	2.1 %	1.8 %	42.3 %	52.4 %	39.5 %	52.3 %
(7) Economic Constraints	7.7 %	2.1 %	14.3 %	1.7 %	0.5 %	0.8 %	0.4 %	1.5 %
(8) Integrative Insight	–	7.8 %	–	15.3 %	–	8.3 %	–	6.5 %

Note. Percentage of variance that each mechanism contributes to explaining the respective negotiation outcome (i.e., dependent variable), calculated through relative weight analysis (RWA; [Tonidandel & LeBreton, 2011, 2015](#)). The three most important predictors per DV and negotiation context are formatted in bold.

participants to report *less* selectively accessible information in support of the anchor. Very assertive first offers (€36 million for the plant) did not lead negotiators to particularly “think of the plant’s upsides and benefits”, possibly because this overly assertive offer upset buyers and made them angry. The interpersonal perception of the opposing seller could well have prevented the buyer from selectively focusing on positive attributes of the negotiation object. Future research should also more directly examine the underlying process of selective accessibility (e.g., through implicit associations) and explore a potential interplay of this mechanism with other proposed mechanisms from our conceptual model (e.g., anger, perceived unpleasantness).

Third and finally, we contribute to the first-offer literature and theorizing by comparing the relative impact of prominent underlying mechanisms: our parallel investigation of multiple first-offer mechanisms allowed us to examine their relative importance as a function of negotiation outcome and negotiation complexity (see [Table 3](#)). For example, anger and unpleasantness were important for predicting deal likelihood and subjective value in distributive and integrative negotiation settings; both were less important, however, for predicting counteroffers. This could indicate a relatively higher influence of affective states on relational decisions (e.g., evaluating and terminating the interaction) compared to the evidently more cognitive process of making a counteroffer. In turn, power emerged as a stronger predictor of counteroffers in low-complexity compared to high-complexity negotiations. Thus, in high-complexity negotiations, offer receivers might compensate for power differentials through creative counteroffers and logrolling. Power also held less value for predicting deal likelihood and subjective value. Our results further indicate that economic constraints are relatively unimportant for all complexities and negotiation outcomes (see [Table 3](#), row 7). While this could point to the true unimportance of perceived economic constraints, it could also point to the limits of the experimental paradigms used in extant first-offer research.

We hope this novel attempt to explore the relative importance of first-offer mechanisms will inspire other scholars to further investigate the various psychological processes behind first-offer effects (and their interplay). For example, future research could build on the present findings by examining how different mechanisms are linked (sequentially)—for instance, elevated perceptions of the opponent’s power could sequentially cause negotiators to selectively activate negotiation knowledge that is consistent with a first-offer anchor, which could then sequentially cause the offer recipient to adjust more insufficiently. Taken together, our work hopefully marks the starting point for a more holistic understanding of first offers’ cognitive, affective, and interpersonal mechanisms in various negotiation settings.

5.2. Methodological contributions and meta-insights

Beyond our theoretical contributions to the field, the present research offers novel meta-insights and methodological contributions. The meta-analytical Study 1 provides unique insights on focal points and overlooked areas within first-offer research: Most primary studies have

(1) focused on selective characteristics of first offers (e.g., magnitude) while neglecting others (e.g., rationales), (2) focused on main effects, often without measuring mechanisms, (3) excluded impasses from systematic investigation, (4) studied one-time interactions without the possibility for long-term effects, (5) not studied real-life negotiations, (6) used participants primarily from Western societies, and (7) not preregistered hypotheses or analyses. Based on these findings, we formulate seven recommendations for future research:

First, research should continue to investigate different first-offer characteristics, such as rationales ([Maaravi et al., 2011; Lee & Ames, 2017](#)), precision ([Frech et al., 2020; Loschelder et al., 2014a](#)), framing ([Majer et al., 2020](#)), and multiple offers ([Leonardelli et al., 2019](#)). We hope that future meta-analyses will be able to test more nuanced predictions and uncover additional insights on those first-offer characteristics (and potentially even their interplay) because sufficient data on these characteristics will then be available.

Second, in line with our Studies 2a and 2b, future research should put a greater focus on understanding first-offer mechanisms and their interplay to fully grasp when, how, and why assertive first offers are advantageous versus disadvantageous for the offer maker. To substantiate causality between psychological mechanisms and negotiation outcomes, future studies could further (1) measure mediators prior to outcomes to establish temporal precedence—something we abstained from to prevent inflated consistency motives and common-method variance ([Chaudoin et al., 2021; Podsakoff et al., 2003](#))—or ideally (2) also establish causal experimental chains or moderation-of-process designs ([Spencer et al., 2005](#)) while combining different measurement methods (e.g., questionnaires, implicit measures, eye tracking).

Third, we encourage researchers to follow the recommendations by [Schweinsberg et al. \(2022\)](#) for analyzing impasses (e.g., reporting descriptive measures of all agreements including and excluding impasses). This will help to capture the full range of relevant negotiation outcomes, paint a complete picture of costs and benefits of first offers, and help to increase the generalizability of experimental findings to real-world scenarios.

Fourth, future studies may wish to incorporate multiple rounds of negotiations and investigate high ‘ERRO’ contexts (i.e., high economic relevance of relational outcomes; [Hart & Schweitzer, 2022](#)) to examine whether more assertive offers produce long-term backlash when settings emphasize the economic importance of relations.

Fifth, we wish to join recent calls for analyzing unstructured data ([Jang et al., 2018; Karagözoğlu, 2019](#)) and propose that future first-offer research should increasingly investigate real-life negotiations across different contexts (e.g., union negotiations, online bargaining, political negotiations, climate negotiations, etc.). We furthermore encourage researchers to use process-oriented or qualitative methodological approaches (e.g., [Curhan et al., 2022; Di Stasi et al., 2023; Yeomans, 2022](#)) to capture and investigate the dynamics of first offers in real-life negotiations, as well as the antecedents and consequences of real negotiation behavior (e.g., power dynamics, cognitions, concessions, rationales, etc.).

Sixth, we encourage scholars examining first offers to conduct-multi study projects that examine cultural differences in heterogenous samples. Scholars should take cultural dimensions and segmentations into account (e.g., dignity, face, and honor cultures, or cultural tightness versus looseness; [Aslani et al., 2016](#); [Brett et al., 2017](#)). For example, the use of more assertive first offers might be more effective in culturally ‘loose’ societies with less pervasive social norms, and this difference in effectiveness might travel through a specific set of psychological processes and behavioral responses.

Seventh, we advocate for a consistent implementation of open science practices in future first-offer research, including statistical power and sample-size analyses, preregistration, open data, and reporting of all manipulations, measures, and nonsignificant results. This will increase transparency, prevent biased effect estimations from small samples, and decrease file drawer effects ([Nelson et al., 2018](#)), facilitating future meta-analyses. [Table 4](#) provides a concise overview of all seven findings, problems, and resulting recommendations.

Beyond these meta-insights into the field of first-offer research, our meta-analysis and experimental studies generate methodological insights. Study 1 finds a substantial meta-analytic difference in effect sizes between two operationalizations of agreement value (sequence: $g = +0.42$, magnitude: $g = +1.14$).¹⁵ While sequence effects allow for a natural variation of first offers (i.e., higher realism), they also introduce more noise into the data (i.e., less control; first-offer magnitude being influenced by multiple factors like confidence, sincerity, or social value orientation). Yet, magnitude effects, which result from experimental manipulations, offer more control but lower realism. Researchers should thus make a conceptual case for when and why they choose one operationalization over the other and ideally combine operationalizations across multiple studies to balance their respective strengths and shortcomings. Beyond the meta-analysis, Studies 2a and 2b make a methodological contribution by being the first to test multiple first-offer mechanisms simultaneously (e.g., statistically controlling for each other’s influence, thus debiasing effect estimates; [Figs. 4 and 5](#)). This is a unique advancement over prior research that has focused on selected mechanisms and thus not examined the relative strength of different mechanisms.

5.3. Effect heterogeneity and variability

Our meta-analytical results indicate moderate-to-high absolute heterogeneity and variation in true effects for all three outcomes (i.e., agreement value, impasses, subjective value). This variability of effects becomes evident in the large credibility (CR) intervals—ranges within which 80 % of individual true effects are expected to fall (sequence: $CR_{80\%}[-0.32, 1.16]$, $m = 80$; correlation: $CR_{80\%}[0.29, 2.83]$, $m = 53$; magnitude: $CR_{80\%}[-0.12, 2.40]$, $m = 187$; impasses: $CR_{80\%}[-0.83, -0.01]$, $m = 13$; subjective value: $CR_{80\%}[-0.64, -0.17]$, $m = 41$). For instance, sequence effects average $g = 0.42$, yet an individual study drawn from the same population could plausibly range from a small negative effect ($g = -0.32$) to a large positive one ($g = +1.16$). Hence, although moving first *generally* increases one’s individual agreement value via a small-to-moderate effect, it could also do so via a large effect (see [Ma et al., 2002](#)), or even backfire (see [Loschelder et al., 2016](#)). Correlation and magnitude effects show even broader intervals, indicating the contextual dependence of effect sizes (e.g., study design, sample, negotiation characteristics). In contrast, impasse effects and

¹⁵ This makes sense from a conceptual perspective: Experiments that merely manipulate sequence (1) can produce a first-mover disadvantage ([Loschelder et al., 2014b; 2016](#)), and (2) will feature a natural mix of ambitious and moderate offers in the group of first movers, amounting to smaller average effects. A direct comparison of experimentally induced ambitious vs. moderate first offers (i.e., magnitude effects) without this naturally-occurring mix in magnitude plausibly amounts to larger effects.

Table 4
Seven recommendations for future research on first-offer effects.

Finding	Why this is problematic	Recommendations
1. Characteristics Important characteristics of first offers are not recorded (e.g., rationales, precision) or only tested in few experiments	Knowledge on many first-offer characteristics is based on few, selected papers and the interplay between these characteristics is unclear	Large-scale research projects to replicate and extend prior findings on first-offer characteristics and test their interplay (e.g., precision, ranges, rationales, framing)
2. Mechanisms Psychological mechanisms explaining first-offer effects are insufficiently researched, rarely measured directly, largely cognitive, and rarely include emotions	Missing insights on mechanisms behind first-offer effects and the interplay between cognitive and emotional factors	More experiments should incorporate a wide range of psychological mechanisms and their interplay to explain (dis)advantageous first-offer effects—ideally with various measures and causal experimental chains
3. Impasses Impasses are not investigated systematically and often simply excluded from further analysis	Impasses and their accompanying costs are not accounted for—leading to limited theoretical conclusions and erroneous practical relevance	Impasses should be transparently reported in each condition—differences as a function of condition should be statistically analyzed
4. Long-Term Effects The majority of effects stem from one-time interactions ($m = 357$ out of 374) and situations with low economic relevance of relational outcomes (*ERRO*; $m = 267$ out of 374)	Inability to capture long-term relational and economic effects of first-offer behavior	More experiments with multiple rounds of negotiations between the same parties or in high ERRO contexts (e.g., negotiations for services, consulting, multi-round interactions, etc.)
5. Real-Life Negotiations Overreliance on vignette studies, classroom exercises, and laboratory experiments ($m = 366$ out of 374)	Insights from artificial scenarios with (often) undergrad students might not be generalizable to real-life negotiations with seasoned practitioners and incentives	Investigation of real-life negotiations (or at least realistic, incentivized negotiation simulations with experienced practitioners)
6. Culture Overreliance on samples from Western societies ($k = 77$ out of 90)	Effects and psychological mechanisms might differ substantially when applied to other cultures	Multi-study research that replicates effects or hypothesizes systematic differences between cultures (e.g., West vs. East; tight vs. loose; honor vs. face vs. dignity)
7. Preregistration Lack of preregistered studies ($k = 6$ out of 90)	Questionable research practices might inflate effect sizes and lead to non-replicable results	All future studies in first-offer research should be preregistered to make results more reliable and replicable and to reduce the file-drawer effect

subjective value display 80 % CRs that are narrower and entirely negative, making a reversal of sign unlikely. In all, practitioners can expect first-mover advantages in agreement value in many—but not all—cases, while effects of more assertive first offers on deal likelihood and subjective value are consistently negative. Nevertheless, the comparably small number of effects ($m = 13$) for impasses cautions that

these bounds might produce imprecise estimates. The wide CIs also underscore the need to incorporate contextual factors rather than relying solely on the grand mean.

The high variability of effect sizes overall (see also Fig. 3) persisted after moderation analyses—hence, the majority of between-study variance remained unexplained after moderation. We propose two potential explanations for this: First, we suspect that complex combinations of different moderating conditions may be at work, which we were unable to capture with our analyses (please refer to the SOM for a detailed report of all preregistered moderators and to Table S8 for additional analyses with multiple moderators in the same model; https://osf.io/b4r36/?view_only=7e91bd285de940b480da9cc64b362cbd). The effects in the present meta-analysis reflect overall trends in the data and stem from over 40 different negotiation tasks (e.g., buying a car, selling a house, negotiating salary, agreeing on services, allocating joint resources, etc.) with heterogeneous characteristics (i.e., differing in settings, role descriptions, issues, limits, targets, etc.). While this increases the robustness of findings across negotiation settings (see Gunia et al., 2013), it also produces heterogeneity in effect estimates.

Second, first-offer effects are impacted by other dyadic, interpersonal factors (e.g., interpersonal dynamics, sympathy, trust, verbal cues, attractiveness, etc.). Because meta-analyses are, by definition, secondary analyses of aggregated data, we cannot account for these dyad-level factors (that are often neither reported nor examined). The remaining effect variability indicates that despite progress, this literature has not yet fully accounted for the psychological complexity of the negotiation process. Our analyses thus give impetus for future first-offer research (see meta-Insights).

5.4. Evidence for true population effects

For agreement value, multiple bias detection methods suggested the presence of small-study effects or publication bias (Table 2): Specifically, for sequence effects, bias correction methods produced overall small to null effects ($-0.13 \leq g \leq 0.32$). For magnitude effects and correlation effects, bias-corrected estimates remained positive and were small to large ($0.32 \leq g \leq 1.44$). For impasse and subjective value effects, little (to no) bias was detected, and effects persisted after correction ($g = -0.42$; $g \leq -0.34$).

Similar to many other scientific fields, first-offer effects are likely affected by publication bias (Friese & Frankenbach, 2020). Nonetheless, many mean effect estimates continued to differ from zero even after bias correction (even for correction methods that are prone to overcorrecting effects). Two other findings support evidence of true effects. First, our *p*-curve analyses did not suggest evidence for *p*-hacking and offered a sound evidential basis for true population effects. Second, our two high-powered preregistered experiments replicated all meta-analytical main effects in the expected directions for first-offer magnitude. In all, the present analyses lead us to conclude that beneficial and detrimental first-offer effects are present in the population—at least with ‘small’ to ‘moderate’ effect sizes.

5.5. Practical relevance

Our meta-analytic effect estimates offer insights into general data patterns that can be translated into targeted practical advice for organizational units (e.g., for sales and procurement departments). To highlight the practical significance of our findings, we applied the binomial effect-size display (Funder and Ozer, 2019). In terms of sequence, the positive effect estimate ($g = +0.42$) suggests that moving first can be economically beneficial in six out of ten negotiations: If we hypothetically assumed that a sample of 100 dyads were negotiating, an effect of $g = +0.42$ is equivalent to 60 negotiators benefitting from moving first with respect to their agreement value (vs. 40 with no benefit or a disadvantage). In line with many classic papers on anchoring in negotiations, the large correlation effect estimate suggests that more

ambitious first offers generally coincide with better agreements ($g = 1.56$; $r = 0.62$). An effect of $g = 1.56$ would be equivalent to a positive relationship between the first offer and agreement value in 81 out of 100 negotiations (vs. no [positive] correlation in 19 dyads). Finally, the highly positive magnitude effect estimate ($g = +1.14$) is equivalent to 75 out of 100 negotiators benefitting from making ambitious vs. moderate first offers with higher agreement value (vs. 25 who do not).

These practical quantifications of average first-mover benefits offer insights that are unique to our meta-analysis. Scaling these effects to the actual number of negotiations that take place within an organization every day, advising negotiators to move first and doing so ambitiously can have substantial positive implications, at least for claiming economic value. However, looking beyond final agreements, more ambitious offers also coincided with higher impasse risks ($g = -0.42$, equivalent to 60 out of 100 negotiators suffering from increased impasse risk). Furthermore, ambitious first offers also decreased subjective value perceptions regarding the negotiation process, offer maker, and the relationship ($g = -0.40$, equivalent to 59 out of 100 negotiators suffering from subjective value detriments), which could also incur longer-term economic disadvantages.

Combining the findings from the meta-analysis and experiments, we urge organizations to carefully evaluate the specific structural and relational features, as well as the overarching goals of the negotiation contexts they most frequently operate in. If the structure of most negotiations organizational negotiators face is simple and distributive, and the relationship is short term, advising procurement or sales to move first and to do so ambitiously should yield significant economic gains. However, when negotiations structures are complex and integrative, or when relational outcomes are paramount, waiting for the other party to move first or making more modest first offers might deserve consideration in the interest of preventing relational losses and non-agreements. In general, it is important to note that the meta-analytic patterns cannot be predictive of outcomes in every individual negotiation but should only be used to inform general guidelines on an organizational level.

6. Conclusion

The influence of first offers on negotiation outcomes have been well-researched for almost six decades (starting with Chertkoff & Conley, 1967). While a plethora of original studies has investigated a diverse set of negotiation types, tasks, and settings, research to date has lacked a conceptual model of mechanisms and boundary conditions, as well as a comprehensive meta-analytical synthesis. Leveraging a preregistered meta-analysis and two high-powered, preregistered experimental studies, the present research both reconceptualizes and synthesizes the empirical findings for three distinct first-offer effects—the value of an agreement, the likelihood of an impasse, and negotiators’ subjective value perceptions. We find substantial positive effects of first offers for agreement value, with making the first offer and making it ambitiously leading to economic gains for the offer maker. At the same time, ambitious first offers also lead to increased impasse likelihood and relational detriments. Additionally, we find that multiple psychological mechanisms (e.g., anger, power perceptions, and perceived unpleasantness) jointly explain these main effects. In all, negotiators are generally advised to make the first offer (ambitiously), but to make it thoughtfully and with awareness of the involved risks, boundary conditions, and resulting psychological processes. Despite abundant research in this field, future preregistered, realistic, and high-powered studies are needed to replicate and extend these findings and their mechanisms across contexts, cultures, and offer characteristics.

CRedit authorship contribution statement

Hannes M. Petrowsky: Writing – review & editing, Writing – original draft, Visualization, Validation, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation,

Conceptualization. **Lea Boecker:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Yannik A. Escher:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Marie-Lena Frech:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Malte Friese:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Adam D. Galinsky:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Brian Gunia:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Alice J. Lee:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Michael Schaerer:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Martin Schweinsberg:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Meikel Soliman:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Roderick Swaab:** Writing – review & editing, Methodology, Data curation, Conceptualization. **Eve S. Troll:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Methodology, Formal analysis, Data curation, Conceptualization. **Marcel Weber:** Writing – review & editing, Methodology, Data curation,

Conceptualization. **David D. Loschelder:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A

Overview of Studies and Effects Included in Meta-Analysis on First-Offer Effects.

Study	Country	Effect No.	StudyType	Effect Type	Description	Sample Size	Effect Size (g)	Issue Type	No. Issues	FO Mech.
Ames & Mason, 2015, Exp.1	USA	1	SC	AV-M	\$110 vs \$90, CO	151	0.88	Dist	1	–
Ames & Mason, 2015, Exp.1	USA	2	SC	AV-M	\$110 vs \$100, CO	149	0.23	Dist	1	–
Ames & Mason, 2015, Exp.1	USA	3	SC	AV-M	\$100 vs \$90, CO	162	0.75	Dist	1	–
Ames & Mason, 2015, Exp.1	USA	4	SC	AV-M	\$110 vs \$90, FA	151	1.88	Dist	1	–
Ames & Mason, 2015, Exp.1	USA	5	SC	AV-M	\$110 vs \$100, FA	149	0.73	Dist	1	–
Ames & Mason, 2015, Exp.1	USA	6	SC	AV-M	\$100 vs \$90, FA	162	0.80	Dist	1	–
Ames & Mason, 2015, Exp.2	USA	7	SC	AV-M	\$54,000 vs \$52,000, CO	401	0.20	Dist	1	–
Ames & Mason, 2015, Exp.2	USA	8	SC	AV-M	\$54,000 vs \$52,000, FA	403	0.39	Dist	1	–
Ames & Mason, 2015, Exp.3	USA	9	SC	AV-M	\$110 vs \$90, CO	159	1.69	Dist	1	–
Ames & Mason, 2015, Exp.3	USA	10	SC	AV-M	\$110 vs \$90, FA	158	0.92	Dist	1	–
Ames & Mason, 2015, Exp.5	USA	11	IA	AV-M	Bolstering vs Bracketing, FA	50	0.56	Dist	1	–
Ames & Mason, 2015, Exp.5	USA	12	IA	IM	\$8,485 vs \$7,475	60	–0.60	Dist	1	–
Arunachalam et al., 1998	USA	1	IA	AV-C	FO-FA	105	2.32	Int	4	–
Arunachalam et al., 1998	HKG	2	IA	AV-C	FO-FA	96	2.95	Int	4	–
Barron, 2003	USA	1	IA	AV-C	FO-FA	35	1.25	Dist	4	–
Bateman, 1980	USA	1	IA	AV-M	\$7.00 vs \$6.70, FA	101	1.49	Dist	1	–
Bateman, 1980	USA	2	IA	IM	\$7.00 vs \$6.70	216	–0.73	Dist	1	–
Benton et al., 1972	USA	1	IA	IM	F vs D, Schedule 1	183	–0.63	Dist	1	–
Benton et al., 1972	USA	2	IA	IM	F vs D, Schedule 2	190	–0.07	Dist	1	–
Bhatia & Gunia, 2018, Exp.3a	EUR	1	IA	AV-C	FO-CO	44	0.94	Dist	1	–
Bhatia & Gunia, 2018, Exp.4	USA	2	IA	AV-M	\$12,000 vs \$11,000, CO	415	0.53	Dist	1	–
Bhatia & Gunia, 2018, Exp.4	USA	3	IA	SV	\$12,000 vs \$11,000, Benevolence spec.	415	–0.44	Dist	1	–
Bhatia & Gunia, 2018, Exp.4	USA	4	IA	SV	\$12,000 vs \$11,000, Benevolence gen.	415	–0.62	Dist	1	–
Bhatia & Gunia, 2018, Exp.4	USA	5	IA	SV	\$12,000 vs \$11,000, Manipulateness spec.	415	–0.41	Dist	1	–
Bhatia & Gunia, 2018, Exp.4	USA	6	IA	SV	\$12,000 vs \$11,000, Manipulateness gen.	415	–0.57	Dist	1	–
Black and Diaz, 1996	USA	1	IA	AV-M	\$318,890 vs \$113,850, CO	38	3.80	Dist	1	–

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Study	Country	Effect No.	StudyType	Effect Type	Description	Sample Size	Effect Size (g)	Issue Type	No. Issues	FO Mech.
Black and Diaz, 1996	USA	2	IA	AV-M	\$318,890 vs \$189,500, CO	33	1.97	Dist	1	–
Black and Diaz, 1996	USA	3	IA	AV-M	\$189,500 vs \$113,850, CO	35	2.45	Dist	1	–
Black and Diaz, 1996	USA	4	IA	AV-M	\$318,890 vs \$113,850, FA	34	6.48	Dist	1	–
Black and Diaz, 1996	USA	5	IA	AV-M	\$318,890 vs \$189,500, FA	29	3.12	Dist	1	–
Black and Diaz, 1996	USA	6	IA	AV-M	\$189,500 vs \$113,850, FA	31	6.31	Dist	1	–
Brodth, 1994	USA	1	IA	AV-C	FO-FA, Buyer Scoop	8	3.45	Int	3	–
Brodth, 1994	USA	2	IA	AV-C	FO-FA, Buyer Control	11	1.46	Int	3	–
Brodth, 1994	USA	3	IA	AV-C	FO-FA, Seller Scoop	16	0.61	Int	3	–
Brodth, 1994	USA	4	IA	AV-C	FO-FA, Seller Control	21	0.69	Int	3	–
Brodth, 1994	USA	5	IA	AV-S	FM vs SM, FA	58	0.11	Int	3	–
Cardella & Seiler, 2016	USA	1	IA	AV-M	\$201,326 vs \$198,674, FA, Total	33	0.69	Dist	1	–
Cardella & Seiler, 2016	USA	2	IA	AV-M	\$201,326 vs \$198,674, FA, First Round	66	0.32	Dist	1	–
Chertkoff & Conley, 1967	USA	1	IA	AV-M	\$2,500 vs \$2,000, FA	240	0.92	Dist	1	–
Chi et al., 2013	TAI	1	IA	AV-C	FO-Profit	53	1.14	Dist	1	–
Claussen-Schulz, 2003	USA	1	IA	AV-C	FO-FA	17	1.28	Dist	1	–
Cotter & Henley, 2008	USA	1	IA	AV-S	FM vs SM, FA, First	336	0.24	Dist	7	–
Cotter & Henley, 2008	USA	2	IA	AV-S	FM vs SM, FA, Second	334	–0.27	Dist	7	–
Cotter & Henley, 2008	USA	3	IA	AV-S	FM vs SM, FA, Third	304	–0.15	Dist	7	–
Cotter & Henley, 2008	USA	4	IA	AV-S	FM vs SM, FA, Fourth	322	–0.07	Dist	7	–
Cotter & Henley, 2008	USA	5	IA	AV-S	FM vs SM, FA, Fifth	314	–0.02	Dist	7	–
Cotter & Henley, 2008	USA	6	IA	AV-S	FM vs SM, FA, Sixth	320	–0.30	Dist	7	–
Cotter & Henley, 2008	USA	7	IA	AV-S	FM vs SM, FA, Seventh	324	–0.23	Dist	7	–
Cotter & Henley, 2008	USA	8	IA	AV-S	FM vs SM, FA, Eighth	328	–0.28	Dist	7	–
Cotter & Henley, 2008	USA	9	IA	AV-S	FM vs SM, FA, Ninth	340	–0.38	Dist	7	–
Cotter & Henley, 2008	USA	10	IA	AV-S	FM vs SM, FA, Tenth	320	–0.07	Dist	7	–
Fassina & Whyte, 2014, Exp.1	CAN	1	IA	AV-S	FM vs SM, FA, Flinch	51	–0.95	Dist	1	–
Fassina & Whyte, 2014, Exp.1	CAN	2	IA	AV-S	FM vs SM, FA, Control	33	0.03	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.1	USA	1	IA	AV-S	FM vs SM, CO	38	1.39	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.1	USA	2	IA	AV-S	FM vs SM, CO, No BATNA	38	1.25	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.1	USA	3	IA	AV-S	FM vs SM, CO, BATNA	38	0.28	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.1	USA	4	IA	AV-C	FO-FA, BATNA	19	4.83	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.1	USA	5	IA	AV-C	FO-FA, No BATNA	19	0.60	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.2	USA	6	IA	AV-S	FM vs SM, CO	32	3.25	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.2	USA	7	IA	AV-S	FM vs SM, FA, Target	32	1.47	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.2	USA	8	IA	AV-S	FM vs SM, FA, Reservation	32	0.48	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.2	USA	9	IA	AV-C	FO-FA, Target	16	2.52	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.2	USA	10	IA	AV-C	FO-FA, Reservation	16	0.83	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.3	USA	11	IA	AV-S	FM vs SM, CO	40	1.76	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.3	USA	12	IA	AV-S	FM vs SM, FA, BATNA	40	1.09	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.3	USA	13	IA	AV-S	FM vs SM, FA, Target	40	0.28	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.3	USA	14	IA	AV-C	FO-FA, BATNA	20	3.09	Dist	1	–
Galinsky & Mussweiler, 2001, Exp.3	USA	15	IA	AV-C	FO-FA, Target	20	0.69	Dist	1	–
Galinsky et al., 2002, Exp.2	USA	1	IA	AV-C	FO-FA	27	2.07	Dist	1	–
Galinsky et al., 2005, Exp.2	USA	1	IA	AV-C	FO-FA	27	2.01	Dist	1	–
Gunia et al., 2013, Exp.1a	THA	1	IA	AV-S	FM vs SM, FA	30	1.38	Dist	1	–
Gunia et al., 2013, Exp.1b	Global	2	IA	AV-S	FM vs SM, FA	37	0.78	Dist	1	–
Gunia et al., 2013, Exp.2	THA	3	IA	AV-S	FM vs SM, FA, Total	22	1.03	Int	4	–
Gunia et al., 2013, Exp.2	THA	4	IA	AV-S	FM vs SM, FA, Price	22	1.94	Dist	4	–
Gunia et al., 2013, Exp.2	THA	5	IA	AV-S	FM vs SM, FA, Runs	22	0.61	Int	4	–
Gunia et al., 2013, Exp.2	THA	6	IA	AV-S	FM vs SM, FA, Years	22	0.56	Int	4	–
Gunia et al., 2013, Exp.2	THA	7	IA	AV-S	FM vs SM, FA, Juniors	19	1.02	Dist	4	–
Gunia et al., 2013, Exp.2	THA	8	IA	AV-S	FM vs SM, FA, PSS Total	22	1.21	Int	4	–
Gunia et al., 2013, Exp.2	THA	9	IA	AV-S	FM vs SM, FA, PSS Price	22	1.83	Dist	4	–
Gunia et al., 2013, Exp.2	THA	10	IA	AV-S	FM vs SM, FA, PSS Juniors	22	1.07	Dist	4	–
Gunia et al., 2013, Exp.2	THA	11	IA	AV-S	FM vs SM, FA, PSS Runs/Years	22	0.60	Int	4	–

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Study	Country	Effect No.	StudyType	Effect Type	Description	Sample Size	Effect Size (g)	Issue Type	No. Issues	FO Mech.
Gunia et al., 2013, Exp.3	USA	12	IA	AV-S	FM vs SM, FA	55	0.60	Dist	1	–
Gunia et al., 2013, Exp.4	USA	13	IA	AV-S	FM vs SM, FA, Distributive	40	0.60	Dist	8	–
Gunia et al., 2013, Exp.4	USA	14	IA	AV-S	FM vs SM, FA, Integrative	43	0.19	Int	8	–
Gunia et al., 2013, Exp.4	USA	15	IA	AV-S	FM vs SM, FA, Compatible	43	0.13	Com	8	–
Jiang & Ma, 2019, Exp.2	CHI	1	IA	AV-S	FM vs SM, FA	34	–0.91	Dist	1	–
Kang et al., 2024, Exp.4	HKG	1	IA	AV-C	FO-FA	63	2.24	Dist	1	–
Kohls, 1970	USA	1	IA	AV-C	FO-FA	72	0.28	Int	2	–
Korobkin & Doherty, 2009	USA	1	IA	AV-S	FM vs SM, FA	55	–0.10	Dist	1	–
Korobkin & Doherty, 2009	USA	2	IA	AV-C	FO-FA	55	0.97	Dist	1	–
Kristensen & Gärling, 2000, Exp.2	SWE	1	IA	AV-M	350,000 SEK vs 250,000 SEK, CO	62	3.61	Dist	1	–
Kristensen & Gärling, 2000, Exp.2	SWE	2	IA	AV-M	350,000 SEK vs 250,000 SEK, FA	62	2.24	Dist	1	–
Leib et al., 2018, Exp.2	USA	1	SC	AV-M	\$350,000 vs \$150,000, CO	184	9.17	Dist	1	–
Leib et al., 2018, Exp.2	USA	2	SC	AV-M	\$350,000 vs \$250,000, CO	183	4.59	Dist	1	–
Leib et al., 2018, Exp.2	USA	3	SC	AV-M	\$250,000 vs \$150,000, CO	183	5.09	Dist	1	–
Leib et al., 2018, Exp.2	USA	4	SC	AV-M	\$349,000 vs \$149,000, CO	176	13.68	Dist	1	–
Leib et al., 2018, Exp.2	USA	5	SC	AV-M	\$349,000 vs \$249,000, CO	176	7.36	Dist	1	–
Leib et al., 2018, Exp.2	USA	6	SC	AV-M	\$249,000 vs \$149,000, CO	176	6.99	Dist	1	–
Leib et al., 2018, Exp.2	USA	7	SC	AV-M	\$351,000 vs \$151,000, CO	184	12.65	Dist	1	–
Leib et al., 2018, Exp.2	USA	8	SC	AV-M	\$351,000 vs \$251,000, CO	185	5.77	Dist	1	–
Leib et al., 2018, Exp.2	USA	9	SC	AV-M	\$251,000 vs \$151,000, CO	184	6.60	Dist	1	–
Leib et al., 2018, Exp.2	USA	10	SC	AV-M	\$349,800 vs \$149,800, CO	182	14.26	Dist	1	–
Leib et al., 2018, Exp.2	USA	11	SC	AV-M	\$349,800 vs \$249,800, CO	182	7.01	Dist	1	–
Leib et al., 2018, Exp.2	USA	12	SC	AV-M	\$249,800 vs \$149,800, CO	182	6.62	Dist	1	–
Leib et al., 2018, Exp.2	USA	13	SC	AV-M	\$350,200 vs \$150,200, CO	174	17.09	Dist	1	–
Leib et al., 2018, Exp.2	USA	14	SC	AV-M	\$350,200 vs \$250,200, CO	174	9.03	Dist	1	–
Leib et al., 2018, Exp.2	USA	15	SC	AV-M	\$250,200 vs \$150,200, CO	175	8.64	Dist	1	–
Leib et al., 2018, Exp.2	USA	16	SC	AV-M	\$150,200 vs \$149,800, CO	360	0.07	Dist	1	–
Leib et al., 2018, Exp.2	USA	17	SC	AV-M	\$250,200 vs \$249,800, CO	361	0.15	Dist	1	–
Leib et al., 2018, Exp.2	USA	18	SC	AV-M	\$350,200 vs \$349,800, CO	361	0.17	Dist	1	–
Leib et al., 2018, Exp.2	USA	19	SC	AV-M	\$151,000 vs \$149,000, CO	357	0.02	Dist	1	–
Leib et al., 2018, Exp.2	USA	20	SC	AV-M	\$251,000 vs \$249,000, CO	357	–0.03	Dist	1	–
Leib et al., 2018, Exp.2	USA	21	SC	AV-M	\$351,000 vs \$349,000, CO	356	0.03	Dist	1	–
Leib et al., 2021, Exp.1	USA	1	SC	AV-M	\$350,000 vs \$150,000, CO, Buy	312	6.95	Dist	1	–
Leib et al., 2021, Exp.1	USA	2	SC	AV-M	\$350,000 vs \$250,000, CO, Buy	312	3.19	Dist	1	–
Leib et al., 2021, Exp.1	USA	3	SC	AV-M	\$250,000 vs \$150,000, CO, Buy	313	3.83	Dist	1	–
Leib et al., 2021, Exp.1	USA	4	SC	AV-M	\$349,800 vs \$149,800, CO, Buy	293	8.39	Dist	1	–
Leib et al., 2021, Exp.1	USA	5	SC	AV-M	\$349,800 vs \$249,800, CO, Buy	293	3.70	Dist	1	–
Leib et al., 2021, Exp.1	USA	6	SC	AV-M	\$249,800 vs \$149,800, CO, Buy	301	3.82	Dist	1	–
Leib et al., 2021, Exp.1	USA	7	SC	AV-M	\$350,200 vs \$150,200, CO, Buy	318	6.87	Dist	1	–
Leib et al., 2021, Exp.1	USA	8	SC	AV-M	\$350,200 vs \$250,200, CO, Buy	318	3.20	Dist	1	–
Leib et al., 2021, Exp.1	USA	9	SC	AV-M	\$250,200 vs \$150,200, CO, Buy	319	3.78	Dist	1	–
Leib et al., 2021, Exp.1	USA	10	SC	AV-M	\$350,000 vs \$150,000, CO, Sell	284	7.46	Dist	1	–
Leib et al., 2021, Exp.1	USA	11	SC	AV-M	\$350,000 vs \$250,000, CO, Sell	284	3.17	Dist	1	–
Leib et al., 2021, Exp.1	USA	12	SC	AV-M	\$250,000 vs \$150,000, CO, Sell	285	3.35	Dist	1	–
Leib et al., 2021, Exp.1	USA	13	SC	AV-M	\$349,800 vs \$149,800, CO, Sell	278	6.83	Dist	1	–
Leib et al., 2021, Exp.1	USA	14	SC	AV-M	\$349,800 vs \$249,800, CO, Sell	277	3.23	Dist	1	–
Leib et al., 2021, Exp.1	USA	15	SC	AV-M	\$249,800 vs \$149,800, CO, Sell	278	3.98	Dist	1	–
Leib et al., 2021, Exp.1	USA	16	SC	AV-M	\$350,200 vs \$150,200, CO, Sell	280	10.55	Dist	1	–
Leib et al., 2021, Exp.1	USA	17	SC	AV-M	\$350,200 vs \$250,200, CO, Sell	280	3.94	Dist	1	–
Leib et al., 2021, Exp.1	USA	18	SC	AV-M	\$250,200 vs \$150,200, CO, Sell	282	3.87	Dist	1	–
Leib et al., 2021, Exp.1	USA	19	SC	AV-M	\$150,200 vs \$149,800, CO, Buy	622	–0.07	Dist	1	–
Leib et al., 2021, Exp.1	USA	20	SC	AV-M	\$250,200 vs \$249,800, CO, Buy	621	–0.07	Dist	1	–
Leib et al., 2021, Exp.1	USA	21	SC	AV-M	\$350,200 vs \$349,800, CO, Buy	611	–0.15	Dist	1	–
Leib et al., 2021, Exp.1	USA	22	SC	AV-M	\$150,200 vs \$149,800, CO, Sell	560	0.16	Dist	1	–
Leib et al., 2021, Exp.1	USA	23	SC	AV-M	\$250,200 vs \$249,800, CO, Sell	559	0.02	Dist	1	–
Leib et al., 2021, Exp.1	USA	24	SC	AV-M	\$350,200 vs \$349,800, CO, Sell	559	0.17	Dist	1	–
Leib et al., 2022, Exp.1	USA	1	SC	AV-M	\$250,200 vs \$249,800, CO	482	–0.16	Dist	1	–
Leib et al., 2022, Exp.2	USA	2	SC	AV-M	\$250,200 vs \$249,800, CO	443	–0.11	Dist	1	–
Leonardelli et al., 2019, Exp.6	USA	1	IA	AV-C	FO-FA, Total	37	–0.02	Int	5	–
Leonardelli et al., 2019, Exp.6	USA	2	IA	AV-C	FO-FA, Distributive	37	0.22	Dist	5	–
Leonardelli et al., 2019, Exp.6	USA	3	IA	AV-C	FO-FA, High Priority	37	–0.53	Int	5	–
Leonardelli et al., 2019, Exp.6	USA	4	IA	AV-C	FO-FA, Low Priority	37	0.32	Int	5	–
Leonardelli et al., 2019, Exp.6	USA	5	IA	SV	FO-Negotiation Climate	37	–0.59	Int	5	–
Liebert et al., 1968	USA	1	IA	AV-M	\$3,050 vs \$2,615, CO	40	0.54	Dist	1	–
Liebert et al., 1968	USA	2	IA	AV-M	\$3,050 vs \$2,615, FA	40	0.89	Dist	1	–
Lipp et al., 2023, Exp.2	GER	1	IA	AV-M	\$31 m vs \$23 m, CO	34	0.31	Dist	1	–
Lipp et al., 2023, Exp.2	GER	2	IA	AV-M	\$27 m vs \$23 m, CO	38	0.20	Dist	1	–
Lipp et al., 2023, Exp.2	GER	3	IA	AV-M	\$31 m vs \$27 m, CO	36	0.02	Dist	1	–

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Study	Country	Effect No.	StudyType	Effect Type	Description	Sample Size	Effect Size (g)	Issue Type	No. Issues	FO Mech.
Lipp et al., 2023, Exp.2	GER	4	IA	AV-M	\$31 m vs \$23 m, FA	34	1.92	Dist	1	–
Lipp et al., 2023, Exp.2	GER	5	IA	AV-M	\$27 m vs \$23 m, FA	38	1.22	Dist	1	–
Lipp et al., 2023, Exp.2	GER	6	IA	AV-M	\$31 m vs \$27 m, FA	36	0.30	Dist	1	–
Lipp et al., 2023, Exp.2	GER	7	IA	AV-M	\$19 m vs \$11 m, CO	34	–0.04	Dist	1	–
Lipp et al., 2023, Exp.2	GER	8	IA	AV-M	\$19 m vs \$15 m, CO	39	0.23	Dist	1	–
Lipp et al., 2023, Exp.2	GER	9	IA	AV-M	\$15 m vs \$11 m, CO	39	–0.25	Dist	1	–
Lipp et al., 2023, Exp.2	GER	10	IA	AV-M	\$19 m vs \$11 m, FA	34	0.69	Dist	1	–
Lipp et al., 2023, Exp.2	GER	11	IA	AV-M	\$19 m vs \$15 m, FA	39	0.43	Dist	1	–
Lipp et al., 2023, Exp.2	GER	12	IA	AV-M	\$15 m vs \$11 m, FA	39	0.40	Dist	1	–
Lipp et al., 2023, Exp.2	GER	13	IA	SV	\$31 m vs \$23 m, SVI	34	–0.40	Dist	1	–
Lipp et al., 2023, Exp.2	GER	14	IA	SV	\$27 m vs \$23 m, SVI	38	–0.59	Dist	1	–
Lipp et al., 2023, Exp.2	GER	15	IA	SV	\$31 m vs \$27 m, SVI	36	0.00	Dist	1	–
Lipp et al., 2023, Exp.2	GER	16	IA	SV	\$19 m vs \$11 m, SVI	34	–0.36	Dist	1	–
Lipp et al., 2023, Exp.2	GER	17	IA	SV	\$19 m vs \$15 m, SVI	39	0.00	Dist	1	–
Lipp et al., 2023, Exp.2	GER	18	IA	SV	\$15 m vs \$11 m, SVI	39	–0.37	Dist	1	–
Loschelder et al., 2014a, Exp.1	GER	1	IA	AV-M	140€ vs 120€, FA, Round	40	0.21	Dist	1	Adj
Loschelder et al., 2014a, Exp.1	GER	2	IA	AV-M	140€ vs 120€, FA, Moderate	40	0.74	Dist	1	Adj
Loschelder et al., 2014a, Exp.1	GER	3	IA	AV-M	140€ vs 120€, FA, Precise	40	0.93	Dist	1	Adj
Loschelder et al., 2014a, Exp.2	GER	4	IA	AV-M	1,200€ vs 900€, FA, Round	41	1.06	Dist	1	Adj
Loschelder et al., 2014a, Exp.2	GER	5	IA	AV-M	1,200€ vs 900€, FA, Precise	41	1.72	Dist	1	Adj
Loschelder et al., 2014b, Exp.1	Global	1	IA	AV-C	FO-FA, Distributive	44	0.69	Dist	1	–
Loschelder et al., 2014b, Exp.1	Global	2	IA	AV-C	FO-FA, Compatible	40	0.38	Com	2	–
Loschelder et al., 2014b, Exp.2	Global	3	IA	AV-C	FO-FA, Distributive	62	1.03	Dist	1	–
Loschelder et al., 2014b, Exp.2	Global	4	IA	AV-C	FO-FA, Compatible	120	0.38	Com	2	–
Loschelder et al., 2016, Exp.1	GER	1	IA	AV-S	FM vs SM, FA, Uninformative	40	0.66	Int	3	Ins
Loschelder et al., 2016, Exp.1	GER	2	IA	AV-S	FM vs SM, FA, Informative	25	–1.58	Int	3	Ins
Loschelder et al., 2016, Exp.1	GER	3	IA	AV-S	FM vs SM, FA, Informative	15	–0.17	Int	3	Ins
Loschelder et al., 2016, Exp.2	GER	4	IA	AV-S	FM vs SM, FA, Uninformative	17	0.86	Int	3	Ins
Loschelder et al., 2016, Exp.2	GER	5	IA	AV-S	FM vs SM, FA, Informative	18	–0.70	Int	3	Ins
Loschelder et al., 2016, Exp.2	GER	6	IA	AV-S	FM vs SM, FA, Uninformative	18	1.34	Int	3	Ins
Loschelder et al., 2016, Exp.2	GER	7	IA	AV-S	FM vs SM, FA, Informative	17	1.47	Int	3	Ins
Loschelder et al., 2016, Exp.3	GER	8	IA	AV-S	FM vs SM, FA, Uninformative	21	0.90	Int	3	Ins
Loschelder et al., 2016, Exp.3	GER	9	IA	AV-S	FM vs SM, FA, Informative	21	–1.24	Int	3	Ins
Loschelder et al., 2016, Exp.3	GER	10	IA	AV-S	FM vs SM, FA, Implicit	21	–0.40	Int	3	Ins
Loschelder et al., 2016, Exp.3	GER	11	IA	AV-S	FM vs SM, FA, Explicit	21	–0.60	Int	3	Ins
Loschelder et al., 2017, Exp.3	GER	1	IA	AV-S	FM vs SM, FA	57	1.12	Dist	1	–
Ma & Jaeger, 2010	CHI	1	IA	AV-C	FO-FA	100	0.41	Int	–	–
Ma & Jaeger, 2010	CAN	2	IA	AV-C	FO-FA	112	0.74	Int	–	–
Ma & Jaeger, 2010	CHI	3	IA	SV	FO-SV Negotiation	100	0.14	Int	–	–
Ma & Jaeger, 2010	CAN	4	IA	SV	FO-SV Negotiation	112	0.10	Int	–	–
Ma et al., 2002	CHI	1	IA	AV-C	FO-FA	100	0.26	Int	2	–
Ma et al., 2002	CAN	2	IA	AV-C	FO-FA	112	1.24	Int	2	–
Ma et al., 2002	CHI	3	IA	SV	FO-SV Process	100	–0.17	Int	2	–
Ma et al., 2002	CAN	4	IA	SV	FO-SV Outcome	112	0.20	Int	2	–
Ma et al., 2002	CHI	5	IA	SV	FO-SV Process	100	–0.10	Int	2	–
Ma et al., 2002	CAN	6	IA	SV	FO-SV Outcome	112	0.28	Int	2	–
Maaravi & Levy, 2017, Exp.4	ISR	1	IA	AV-C	FO-CO	43	3.22	Dist	1	–
Maaravi & Levy, 2017, Exp.4	ISR	2	IA	AV-C	FO-FA	43	5.13	Dist	1	–
Maaravi & Levy, 2017, Exp.4	ISR	3	IA	AV-S	FM vs SM, FA	43	0.94	Dist	1	–
Maaravi & Segal, 2022, Exp.1	USA	1	SC	AV-C	FO-CO	177	2.13	Dist	1	Lik

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Study	Country	Effect No.	StudyType	Effect Type	Description	Sample Size	Effect Size (g)	Issue Type	No. Issues	FO Mech.
Maaravi & Segal, 2022, Exp.1	USA	2	SC	AV-M	\$11,000 vs \$9,000, CO	56	0.62	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	3	SC	AV-M	\$13,000 vs \$9,000, CO	44	2.40	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	4	SC	AV-M	\$15,000 vs \$9,000, CO	50	3.83	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	5	SC	AV-M	\$17,000 vs \$9,000, CO	50	4.23	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	6	SC	AV-M	\$19,000 vs \$9,000, CO	54	3.28	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	7	SC	AV-M	\$21,000 vs \$9,000, CO	48	3.06	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	8	SC	AV-M	\$13,000 vs \$11,000, CO	50	1.07	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	9	SC	AV-M	\$15,000 vs \$11,000, CO	56	1.94	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	10	SC	AV-M	\$17,000 vs \$11,000, CO	56	2.06	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	11	SC	AV-M	\$19,000 vs \$11,000, CO	60	1.85	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	12	SC	AV-M	\$21,000 vs \$11,000, CO	54	1.88	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	13	SC	AV-M	\$15,000 vs \$13,000, CO	44	1.36	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	14	SC	AV-M	\$17,000 vs \$13,000, CO	44	1.61	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	15	SC	AV-M	\$19,000 vs \$13,000, CO	48	1.10	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	16	SC	AV-M	\$21,000 vs \$13,000, CO	42	1.18	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	17	SC	AV-M	\$17,000 vs \$15,000, CO	50	0.20	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	18	SC	AV-M	\$19,000 vs \$15,000, CO	54	0.05	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	19	SC	AV-M	\$21,000 vs \$15,000, CO	48	0.36	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	20	SC	AV-M	\$19,000 vs \$17,000, CO	54	-0.09	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	21	SC	AV-M	\$21,000 vs \$17,000, CO	48	0.25	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	22	SC	AV-M	\$21,000 vs \$19,000, CO	52	0.28	Dist	1	Lik
Maaravi & Segal, 2022, Exp.1	USA	23	SC	SV	FO-Liking	177	-0.63	Dist	1	-
Maaravi & Segal, 2022, Exp.2	USA	24	SC	AV-C	FO-CO	133	2.85	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	25	SC	AV-M	\$11,000 vs \$9,000, CO	42	1.09	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	26	SC	AV-M	\$13,000 vs \$9,000, CO	37	1.87	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	27	SC	AV-M	\$15,000 vs \$9,000, CO	37	3.69	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	28	SC	AV-M	\$17,000 vs \$9,000, CO	37	3.78	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	29	SC	AV-M	\$19,000 vs \$9,000, CO	37	3.61	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	30	SC	AV-M	\$21,000 vs \$9,000, CO	38	3.49	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	31	SC	AV-M	\$13,000 vs \$11,000, CO	41	0.99	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	32	SC	AV-M	\$15,000 vs \$11,000, CO	41	2.79	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	33	SC	AV-M	\$17,000 vs \$11,000, CO	41	3.08	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	34	SC	AV-M	\$19,000 vs \$11,000, CO	41	2.93	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	35	SC	AV-M	\$21,000 vs \$11,000, CO	42	2.93	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	36	SC	AV-M	\$15,000 vs \$13,000, CO	36	1.39	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	37	SC	AV-M	\$17,000 vs \$13,000, CO	36	1.79	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	38	SC	AV-M	\$19,000 vs \$13,000, CO	36	1.72	Dist	1	Lik

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Study	Country	Effect No.	StudyType	Effect Type	Description	Sample Size	Effect Size (g)	Issue Type	No. Issues	FO Mech.
Maaravi & Segal, 2022, Exp.2	USA	39	SC	AV-M	\$21,000 vs \$13,000, CO	37	1.94	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	40	SC	AV-M	\$17,000 vs \$15,000, CO	36	0.71	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	41	SC	AV-M	\$19,000 vs \$15,000, CO	36	0.69	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	42	SC	AV-M	\$21,000 vs \$15,000, CO	37	1.14	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	43	SC	AV-M	\$19,000 vs \$17,000, CO	36	0.05	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	44	SC	AV-M	\$21,000 vs \$17,000, CO	37	0.64	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	45	SC	AV-M	\$21,000 vs \$19,000, CO	37	0.58	Dist	1	Lik
Maaravi & Segal, 2022, Exp.2	USA	46	SC	SV	FO-Liking	133	-0.36	Dist	1	-
Maaravi & Segal, 2022, Exp.2	USA	47	SC	SV	FO-Hiring	133	-0.87	Dist	1	Lik
Maaravi & Segal, 2022, Exp.3	USA/UK	48	SC	AV-M	\$17,000 vs \$13,000, CO	193	1.57	Dist	1	Lik
Maaravi & Segal, 2022, Exp.3	USA/UK	49	SC	AV-M	\$21,000 vs \$13,000, CO	185	1.80	Dist	1	Lik
Maaravi & Segal, 2022, Exp.3	USA/UK	50	SC	AV-M	\$21,000 vs \$17,000, CO	196	0.74	Dist	1	Lik
Maaravi & Segal, 2022, Exp.3	USA/UK	51	SC	SV	\$17,000 vs \$13,000, Liking	193	-0.34	Dist	1	-
Maaravi & Segal, 2022, Exp.3	USA/UK	52	SC	SV	\$21,000 vs \$13,000, Liking	185	-0.53	Dist	1	-
Maaravi & Segal, 2022, Exp.3	USA/UK	53	SC	SV	\$21,000 vs \$17,000, Liking	196	-0.20	Dist	1	-
Maaravi & Segal, 2022, Exp.3	USA/UK	54	SC	SV	\$17,000 vs \$13,000, Hiring	193	-0.15	Dist	1	Lik
Maaravi & Segal, 2022, Exp.3	USA/UK	55	SC	SV	\$21,000 vs \$13,000, Hiring	185	-0.75	Dist	1	Lik
Maaravi & Segal, 2022, Exp.3	USA/UK	56	SC	SV	\$21,000 vs \$17,000, Hiring	196	-0.65	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	57	SC	AV-C	FO-CO	59	2.17	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	58	SC	AV-M	\$15,000 vs \$13,000, CO	23	1.35	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	59	SC	AV-M	\$17,000 vs \$13,000, CO	23	2.28	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	60	SC	AV-M	\$19,000 vs \$13,000, CO	23	3.12	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	61	SC	AV-M	\$21,000 vs \$13,000, CO	20	2.71	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	62	SC	AV-M	\$17,000 vs \$15,000, CO	26	0.72	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	63	SC	AV-M	\$19,000 vs \$15,000, CO	26	1.70	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	64	SC	AV-M	\$21,000 vs \$15,000, CO	23	1.66	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	65	SC	AV-M	\$19,000 vs \$17,000, CO	26	1.09	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	66	SC	AV-M	\$21,000 vs \$17,000, CO	23	1.15	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	67	SC	AV-M	\$21,000 vs \$19,000, CO	23	0.24	Dist	1	Lik
Maaravi & Segal, 2022, Exp.4	ISR	68	SC	SV	FO-Liking	59	-0.18	Dist	1	-
Maaravi & Segal, 2022, Exp.4	ISR	69	SC	SV	FO-Hiring	59	-0.64	Dist	1	Lik
Maaravi et al., 2011, Exp.2	ISR	1	IA	AV-S	FM vs SM, FA, No Argument	23	1.28	Dist	1	-
Maaravi et al., 2011, Exp.2	ISR	2	IA	AV-S	FM vs SM, FA, Argument	20	0.26	Dist	1	-
Maaravi et al., 2011, Exp.2	ISR	3	IA	AV-S	FM vs SM, CO, No Argument	19	1.96	Dist	1	-
Maaravi et al., 2011, Exp.2	ISR	4	IA	AV-S	FM vs SM, CO, Argument	20	1.15	Dist	1	-
Maaravi et al., 2011, Exp.3	ISR	5	SC	AV-M	\$182,000 vs \$132,000, CO, No Argument	37	3.11	Dist	1	-
Maaravi et al., 2011, Exp.3	ISR	6	SC	AV-M	\$182,000 vs \$132,000, CO, Argument	37	1.81	Dist	1	-
Maaravi et al., 2014, Exp.1	ISR	1	IA	AV-C	FO-FA	84	1.49	Dist	1	-
Maaravi et al., 2014, Exp.1	ISR	2	IA	SV	Anchor vs No Tactic, SV	55	-0.59	Dist	1	-
Maaravi et al., 2014, Exp.1	ISR	3	IA	SV	Anchor vs Control, SV	54	-0.62	Dist	1	-
Magee et al., 2007, Exp.4	USA	1	IA	AV-C	FO-FA	31	1.39	Dist	1	-
Majer et al., 2020, Exp.1	GER	1	SC	AV-S	FM vs SM, CO, Offer	60	1.19	Dist	1	-

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Study	Country	Effect No.	StudyType	Effect Type	Description	Sample Size	Effect Size (g)	Issue Type	No. Issues	FO Mech.
Majer et al., 2020, Exp.1	GER	2	SC	AV-S	FM vs SM, CO, Request	56	0.19	Dist	1	-
Majer et al., 2020, Exp.2	GER	3	IA	AV-S	FM vs SM, FA, Offer	40	1.33	Dist	1	-
Majer et al., 2020, Exp.2	GER	4	IA	AV-S	FM vs SM, FA, Request	41	-1.31	Dist	1	-
Majer et al., 2020, Exp.3	GER	5	IA	AV-S	FM vs SM, FA, Offer	36	1.42	Dist	2	-
Majer et al., 2020, Exp.3	GER	6	IA	AV-S	FM vs SM, FA, Request	43	-1.29	Dist	2	-
Majer et al., 2020, Exp.5	GER	7	IA	AV-S	FM vs SM, FA, Offer	36	1.00	Dist	2	-
Majer et al., 2020, Exp.5	GER	8	IA	AV-S	FM vs SM, FA, Request	19	-0.52	Dist	2	-
Majer et al., 2020, Exp.5	GER	9	IA	AV-S	FM vs SM, FA, Low Aversion	22	1.23	Dist	2	-
Majer et al., 2020, Exp.5	GER	10	IA	AV-S	FM vs SM, FA, High Aversion	40	-0.75	Dist	2	-
Mason et al., 2013, Exp.1a	USA	1	SC	AV-M	\$21.00 vs \$19.00, CO	186	0.42	Dist	1	-
Mason et al., 2013, Exp.1b	USA	2	SC	AV-M	\$11.00 vs \$9.00, CO	170	1.22	Dist	1	-
Mason et al., 2013, Exp.1c	USA	3	SC	AV-M	\$10.15 vs \$9.85, CO	56	-0.19	Dist	1	-
Mason et al., 2013, Exp.1d	USA	4	SC	AV-M	\$20.15 vs \$19.85, CO	164	0.21	Dist	1	-
Mason et al., 2013, Exp.3	USA	5	SC	AV-M	\$2135 vs \$1965, CO	158	0.97	Dist	1	-
Moosmayer et al., 2013	GER	1	IA	AV-C	FO-FA	284	4.43	Dist	1	-
Moran & Ritov, 2002, Exp.1	ISR	1	IA	SV	\$4,800 vs \$3,800	262	-0.33	Int	3	-
Moran & Ritov, 2002, Exp.2	ISR	2	IA	AV-M	4 vs 1, CO	26	0.82	Int	3	-
Moran & Ritov, 2002, Exp.2	ISR	3	IA	AV-M	4 vs 2, CO	26	0.77	Int	3	-
Moran & Ritov, 2002, Exp.2	ISR	4	IA	AV-M	6 vs 4, CO	26	0.79	Int	3	-
Moran & Ritov, 2002, Exp.2	ISR	5	IA	AV-M	Furnishing, CO	22	1.14	Int	3	-
Moran & Ritov, 2002, Exp.2	ISR	6	IA	AV-M	Payment, CO	24	1.03	Int	3	-
Moran & Ritov, 2002, Exp.2	ISR	7	IA	AV-M	Floor, CO	25	0.65	Int	3	-
Oesch & Whyte, 2002	CAN	1	IA	AV-S	FM vs SM, FA	147	0.39	Dist	1	-
Pruitt & Syna, 1985	USA	1	IA	AV-M	\$2750 vs \$2,115, FA	97	0.91	Dist	1	-
Ritov, 1996	ISR	1	IA	AV-S	FM vs SM, FA	268	0.39	Int	3	-
Ritov, 1996	ISR	2	IA	AV-C	FO-FA	134	1.00	Int	3	-
Ritov, 1996	ISR	3	IA	AV-M	FO-FA	269	0.57	Int	3	-
Ritov, 1996	ISR	4	IA	AV-M	FO-FA, Overall Most	269	0.43	Int	3	-
Ritov, 1996	ISR	5	IA	AV-M	FO-FA, Overall Least	269	0.37	Int	3	-
Ritov, 1996	ISR	6	IA	AV-M	FO-FA, Specific Most	269	0.71	Int	3	-
Ritov, 1996	ISR	7	IA	AV-M	FO-FA, Overall Least	269	0.77	Int	3	-
Rosette et al., 2014, Exp.1	USA	1	IA	AV-C	FO-FA	71	1.44	Dist	1	-
Rua et al., 2021, Exp.2	USA	1	IA	AV-C	FO-FA, Mixed	39	1.36	Dist	1	-
Rua et al., 2021, Exp.2	USA	2	IA	AV-C	FO-FA, Same	25	-0.19	Dist	1	-
Rua et al., 2021, Exp.2	USA	3	IA	SV	FO-Relationship, Mixed	39	-0.21	Dist	1	-
Rua et al., 2021, Exp.2	USA	4	IA	SV	FO-Process, Mixed	39	-0.54	Dist	1	-
Rua et al., 2021, Exp.2	USA	5	IA	SV	FO-Relationship, Same	25	-0.49	Dist	1	-
Rua et al., 2021, Exp.2	USA	6	IA	SV	FO-Process, Same	25	-0.24	Dist	1	-
Schaerer et al., 2016, Exp.5	Global	1	IA	AV-S	FM vs SM, FA, Single Alternative	152	0.63	Dist	1	-
Schaerer et al., 2016, Exp.5	Global	2	IA	AV-S	FM vs SM, FA, Multiple Alternatives	152	-0.49	Dist	1	-
Schweinsberg et al., 2012, Exp.1	UK	1	IA	AV-M	£280 vs £140, CO	126	0.56	Dist	1	Ang
Schweinsberg et al., 2012, Exp.1	UK	2	IA	AV-M	£280 vs £140, FA	35	5.38	Dist	1	Ang
Schweinsberg et al., 2012, Exp.1	UK	3	IA	IM	£280 vs £140, FA, Impasses Coded	69	-0.50	Dist	1	Ang
Schweinsberg et al., 2012, Exp.1	UK	4	IA	IM	£280 vs £140, Immediate	160	-0.51	Dist	1	Ang
Schweinsberg et al., 2012, Exp.1	UK	5	IA	IM	£280 vs £140, Ultimate	160	-1.09	Dist	1	Ang
Schweinsberg et al., 2012, Exp.1	UK	6	IA	SV	£280 vs £140, Low Power	80	-0.54	Dist	1	Ang
Schweinsberg et al., 2012, Exp.1	UK	7	IA	SV	£280 vs £140, High Power	80	-0.76	Dist	1	Ang
Schweinsberg et al., 2012, Exp.2	SGP	8	IA	IM	£112,000 vs £58,000	73	-0.66	Dist	1	Ang
Schweinsberg et al., 2012, Exp.2	SGP	9	IA	SV	£112,000 vs £58,000, Low Power	34	-0.47	Dist	1	Ang
Schweinsberg et al., 2012, Exp.2	SGP	10	IA	SV	£112,000 vs £58,000, High Power	34	-0.80	Dist	1	Ang
Shalvi et al., 2010	ISR	1	IA	AV-C	FO-FA, External	28	0.90	Int	3	-
Shalvi et al., 2010	ISR	2	IA	AV-C	FO-FA, Internal	28	0.27	Int	3	-
Shalvi et al., 2010	ISR	3	IA	AV-M	Ambitious vs Moderate, FA, Absolute	58	0.62	Int	3	-
Shalvi et al., 2010	ISR	4	IA	AV-M	Ambitious vs Moderate, FA, Relative	58	0.60	Int	3	-

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Study	Country	Effect No.	StudyType	Effect Type	Description	Sample Size	Effect Size (g)	Issue Type	No. Issues	FO Mech.
Sinaceur et al., 2013, Exp.1	FRA	1	IA	AV-S	FM vs SM, FA, Early	36	0.77	Int	1	-
Sinaceur et al., 2013, Exp.1	FRA	2	IA	AV-S	FM vs SM, FA, Late	36	0.95	Int	1	-
Sterbenz & Phillips, 2001	USA	1	IA	AV-S	FM vs SM, FA, Session 1	120	0.35	Dist	1	-
Sterbenz & Phillips, 2001	USA	2	IA	AV-S	FM vs SM, FA, Session 2	120	0.35	Dist	1	-
Sterbenz & Phillips, 2001	USA	3	IA	AV-S	FM vs SM, FA, Session 3	140	0.14	Dist	1	-
Sterbenz & Phillips, 2001	USA	4	IA	AV-S	FM vs SM, FA, Session 4	140	0.08	Dist	1	-
Sterbenz & Phillips, 2001	USA	5	IA	AV-S	FM vs SM, FA, Session 5	140	0.16	Dist	1	-
Sterbenz & Phillips, 2001	USA	6	IA	AV-S	FM vs SM, FA, Session 6	140	0.04	Dist	1	-
Sterbenz & Phillips, 2001	USA	7	IA	AV-S	FM vs SM, FA, Session 7	120	-0.09	Dist	1	-
Sterbenz & Phillips, 2001	USA	8	IA	AV-S	FM vs SM, FA, Session 8	120	0.00	Dist	1	-
Thorsteinson & Clark, 2022, Exp.1	USA	1	SC	AV-M	\$40,113 vs \$39,887, CO	192	0.04	Dist	1	-
Thorsteinson & Clark, 2022, Exp.1	USA	2	SC	SV	\$40,113 vs \$39,887, Fairness	196	-0.52	Dist	1	-
Thorsteinson & Clark, 2022, Exp.1	USA	3	SC	SV	\$40,113 vs \$39,887, Valence	196	-0.34	Dist	1	-
Thorsteinson, 2010	USA	1	SC	AV-M	\$40,050 vs \$39,950, CO	126	0.35	Dist	1	-
Weingart et al., 1990	USA	1	IA	AV-C	FO-FA, Buyer	22	1.41	Int	3	-
Weingart et al., 1990	USA	2	IA	AV-C	FO-FA, Seller	22	2.32	Int	3	-
Wilson, 2012	USA	1	IA	AV-C	FO-FA, Third Party	28	3.01	Dist	1	-
Wilson, 2012	USA	2	IA	AV-C	FO-FA, Panel	28	2.33	Dist	1	-
Yao et al., 2018	Global	1	IA	AV-C	FO-FA	5	7.16	Dist	1	-
Yan & Pena-Marin, 2017, Exp.1	USA	1	SC	AV-M	\$325,499 vs \$324,599, CO	289	0.04	Dist	1	-
Yan & Pena-Marin, 2017, Exp.1	USA	2	SC	AV-M	\$365,399 vs \$364,599, CO	290	0.08	Dist	1	-
Yan & Pena-Marin, 2017, Exp.1	USA	3	SC	AV-M	\$377,429 vs \$376,579, CO	289	0.15	Dist	1	-
Yan & Pena-Marin, 2017, Exp.1	USA	4	SC	IM	\$325,499 vs \$324,599	201	-0.05	Dist	1	-
Yan & Pena-Marin, 2017, Exp.1	USA	5	SC	IM	\$365,399 vs \$364,599	201	0.01	Dist	1	-
Yan & Pena-Marin, 2017, Exp.1	USA	6	SC	IM	\$377,429 vs \$376,579	201	-0.03	Dist	1	-
Yan & Pena-Marin, 2017, Exp.2	USA	7	SC	AV-M	\$4.13 vs \$3.87, CO	185	0.25	Dist	1	-
Yan & Pena-Marin, 2017, Exp.2	USA	8	SC	AV-M	\$20.70 vs \$19.30, CO	251	0.22	Dist	1	-
Yan & Pena-Marin, 2017, Exp.2	USA	9	SC	IM	\$4.13 vs \$3.87	316	-0.11	Dist	1	-
Yan & Pena-Marin, 2017, Exp.2	USA	10	SC	IM	\$20.70 vs \$19.30	316	-0.07	Dist	1	-
Yukl, 1974	USA	1	IA	AV-M	\$2,800 vs \$2,300, CO, Small Concessions	20	1.14	Dist	1	-
Yukl, 1974	USA	2	IA	AV-M	\$2,800 vs \$2,600, CO, Small Concessions	20	0.84	Dist	1	-
Yukl, 1974	USA	3	IA	AV-M	\$2,600 vs \$2,300, CO, Small Concessions	20	0.55	Dist	1	-
Yukl, 1974	USA	4	IA	AV-M	\$2,800 vs \$2,300, CO, Large Concessions	20	1.32	Dist	1	-
Yukl, 1974	USA	5	IA	AV-M	\$2,800 vs \$2,600, CO, Large Concessions	20	0.69	Dist	1	-
Yukl, 1974	USA	6	IA	AV-M	\$2,600 vs \$2,300, CO, Large Concessions	20	0.30	Dist	1	-
Yukl, 1974	USA	7	IA	AV-M	\$2,800 vs \$2,300, FA, Small Concessions	20	2.20	Dist	1	-
Yukl, 1974	USA	8	IA	AV-M	\$2,800 vs \$2,600, FA, Small Concessions	20	0.96	Dist	1	-
Yukl, 1974	USA	9	IA	AV-M	\$2,600 vs \$2,300, FA, Small Concessions	20	1.14	Dist	1	-
Yukl, 1974	USA	10	IA	AV-M	\$2,800 vs \$2,300, FA, Large Concessions	20	2.69	Dist	1	-
Yukl, 1974	USA	11	IA	AV-M	\$2,800 vs \$2,600, FA, Large Concessions	20	2.28	Dist	1	-
Yukl, 1974	USA	12	IA	AV-M	\$2,600 vs \$2,300, FA, Large Concessions	20	1.31	Dist	1	-
Yukl, 1974	USA	13	IA	AV-C	FO-CO	60	0.89	Dist	1	-

Note. Abbreviations: Study Type: IA = Interactive, SC = Scenario-based; Effect Type: AV-S = Agreement Value Sequence, AV-C = Agreement Value Correlation, AV-M = Agreement Value Magnitude, IM = Impasse, SV = Subjective Value; Issue Type: Dist = Distributive, Int = Integrative, Com = Compatible; First Offer Mechanisms: Adj = Adjustment, Ang = Anger, Lik = Liking, Ins = Integrative Insight. Only mechanisms that seek to explore first-offer effects are featured in this Table (i.e., unrelated mechanisms [e.g., offer precision] are not covered).

Appendix B. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.obhdp.2025.104448>.

References

- Ames, D. R., & Mason, M. F. (2015). Tandem anchoring: Informational and politeness effects of range offers in social exchange. *Journal of Personality and Social Psychology*, 108, 254–274. <https://doi.org/10.1037/pspi0000016>
- Arunachalam, V., Wall, J. A., Jr, & Chan, C. (1998). Hong Kong versus US negotiations: Effects of culture, alternatives, outcome scales, and mediation. *Journal of Applied Social Psychology*, 28(14), 1219–1244. <https://doi.org/10.1111/j.1559-1816.1998.tb01675.x>
- Aslani, S., Ramirez-Marin, J., Brett, J., Yao, J., Semnani-Azad, Z., Zhang, Z. X., & Adair, W. (2016). Dignity, face, and honor cultures: A study of negotiation strategy and outcomes in three cultures. *Journal of Organizational Behavior*, 37(8), 1178–1201. <https://doi.org/10.1002/job.2095>
- Barron, L. A. (2003). Ask and you shall receive? Gender differences in negotiators' beliefs about requests for a higher salary. *Human Relations*, 56(6), 635–662. <https://doi.org/10.1177/00187267030566001>
- Bartos, F., Maier, M., Quintana, D. S., & Wagenmakers, E. J. (2022). Adjusting for publication bias in JASP and R: Selection models, PET-PEESE, and robust Bayesian meta-analysis. *Advances in Methods and Practices in Psychological Science*, 5(3). <https://doi.org/10.1177/25152459221109259>
- Bateman, T. S. (1980). Contingent concession strategies in dyadic bargaining. *Organizational Behavior and Human Performance*, 26(2), 212–221. [https://doi.org/10.1016/0030-5073\(80\)90055-0](https://doi.org/10.1016/0030-5073(80)90055-0)
- Benton, A. A., Kelley, H. H., & Liebling, B. (1972). Effects of extremity of offers and concession rate on the outcomes of bargaining. *Journal of Personality and Social Psychology*, 24(1), 73. <https://doi.org/10.1037/h0033368>
- Bhatia, N., & Gunia, B. C. (2018). "I was going to offer bs0050,000 but...": The effects of phantom anchors in negotiation. *Organizational Behavior and Human Decision Processes*, 148, 70–86. <https://doi.org/10.1016/j.obhdp.2018.06.003>
- Black, R. T., & Diaz, J., III (1996). The use of information versus asking price in the real property negotiation process. *Journal of Property Research*, 13(4), 287–297. <https://doi.org/10.1080/095999196368808>
- Boothby, E. J., Cooney, G., & Schweitzer, M. E. (2023). Embracing complexity: A review of negotiation research. *Annual Review of Psychology*, 74. <https://doi.org/10.1146/annurev-psych-033020-014116>
- Borenstein, M., Hedges, L. V., Higgins, J. P., & Rothstein, H. R. (2021). *Introduction to meta-analysis* (2nd ed.). John Wiley & Sons.
- Brady, G. L., Inesi, M. E., & Mussweiler, T. (2021). The power of lost alternatives in negotiations. *Organizational Behavior and Human Decision Processes*, 162, 59–80. <https://doi.org/10.1016/j.obhdp.2020.10.010>
- Brett, J., & Thompson, L. (2016). Negotiation. *Organizational Behavior and Human Decision Processes*, 136, 68–79. <https://doi.org/10.1016/j.obhdp.2016.06.003>
- Brett, J. M., Gunia, B. C., & Teucher, B. M. (2017). Culture and negotiation strategy: A framework for future research. *Academy of Management Perspectives*, 31(4), 288–308. <https://doi.org/10.5465/amp.2015.0195>
- Brod, S. E. (1994). "Inside information" and negotiator decision behavior. *Organizational Behavior and Human Decision Processes*, 58(2), 172–202. <https://doi.org/10.1006/obhd.1994.1033>
- Buelens, M., & Van Poucke, D. (2004). Determinants of a negotiator's initial opening offer. *Journal of Business and Psychology*, 19, 23–35. <https://doi.org/10.1023/B.JOBV.0000040270.104.33.54>
- Cardella, E., & Seiler, M. J. (2016). The effect of listing price strategy on real estate negotiations: An experimental study. *Journal of Economic Psychology*, 52, 71–90. <https://doi.org/10.1016/j.joep.2015.11.001>
- Carter, E. C., Schönbrodt, F. D., Gervais, W. M., & Hilgard, J. (2019). Correcting for bias in psychology: A comparison of meta-analytic methods. *Advances in Methods and Practices in Psychological Science*, 2(2), 115–144. <https://doi.org/10.1177/2515245919847196>
- Chapman, G. B., & Johnson, E. J. (1994). The limits of anchoring. *Journal of Behavioral Decision Making*, 7(4), 223–242. <https://doi.org/10.1002/bdm.3960070402>
- Chapman, G. B., & Johnson, E. J. (1999). Anchoring, activation, and the construction of values. *Organizational Behavior and Human Decision Processes*, 79(2), 115–153. <https://doi.org/10.1006/obhd.1999.2841>
- Chaudoin, S., Gaines, B. J., & Livny, A. (2021). Survey design, order effects, and causal mediation analysis. *Journal of Politics*, 83(4), 1851–1856. <https://doi.org/10.1086/715166>
- Chertkoff, J. M., & Conley, M. (1967). Opening offer and frequency of concession as bargaining strategies. *Journal of Personality and Social Psychology*, 7(2), 181–185. <https://doi.org/10.1037/h0024997>
- Chi, S. C. S., Friedman, R. A., & Shih, H. L. (2013). Beyond offers and counteroffers: The impact of interaction time and negotiator job satisfaction on subjective outcomes in negotiation. *Negotiation Journal*, 29(1), 39–60. <https://doi.org/10.1111/nej.12004>
- Cicchetti, D. V. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment*, 6(4), 284–290. <https://doi.org/10.1037/1040-3590.6.4.284>
- Claussen-Schulz, A. (2003). *As good as your word: The effect of expressed commitment and first offers on outcomes in a negotiation simulation*. doi.org/10.2139/ssrn.400800.
- Clogg, C. C., Petkova, E., & Haritou, A. (1995). Statistical methods for comparing regression coefficients between models. *American Journal of Sociology*, 100(5), 1261–1293.
- Cohen, J. (1968). Weighted kappa: Nominal scale agreement provision for scaled disagreement or partial credit. *Psychological Bulletin*, 70(4), 213–220. <https://doi.org/10.1037/h0026256>
- Cooper, H., Hedges, L. V., & Valentine, J. C. (2009). *The handbook of research synthesis and meta-analysis* (2nd ed.). Sage Foundation. <https://doi.org/10.7758/9781610448864>
- Cotter, M. J., & Henley, J. A., Jr (2008). First-offer disadvantage in zero-sum game negotiation outcomes. *Journal of Business-to-Business Marketing*, 15(1), 25–44. <https://doi.org/10.1080/15470620801946587>
- Curhan, J. R., Elfenbein, H. A., & Xu, H. (2006). What do people value when they negotiate? Mapping the domain of subjective value in negotiation. *Journal of Personality and Social Psychology*, 91(3), 493. <https://doi.org/10.1037/0022-3514.91.3.493>
- Curhan, J. R., Elfenbein, H. A., & Eisenkraft, N. (2010). The objective value of subjective value: A multi-round negotiation study. *Journal of Applied Social Psychology*, 40(3), 690–709. <https://doi.org/10.1111/j.1559-1816.2010.00593.x>
- Curhan, J. R., Overbeck, J. R., Cho, Y., Zhang, T., & Yang, Y. (2022). Silence is golden: Extended silence, deliberative mindset, and value creation in negotiation. *Journal of Applied Psychology*, 107(1), 78–94. <https://doi.org/10.1037/apl0000877>
- Dell, D., & Boswell, J. (2009). *Never make the first offer (except when you should): Wisdom from a master dealmaker*. Portfolio/Penguin.
- Del Re, A. C. (2013). *compute.es: Compute effect sizes*. R package version 0.2-2. URL <http://cran.r-project.org/web/packages/compute.es>
- Di Stasi, M., Templeton, E., & Quoidbach, J. (2023). Zooming out on bargaining tables: Exploring which conversation dynamics predict negotiation outcomes. *Journal of Applied Psychology*. Advance online publication. <https://doi.org/10.1037/apl0001136>
- Epley, N., & Gilovich, T. (2006). The anchoring-and-adjustment heuristic: Why the adjustments are insufficient. *Psychological Science*, 17(4), 311–318. <https://doi.org/10.1111/j.1467-9280.2006.01704.x>
- Fassina, N. E., & Whyte, G. R. (2014). "I am disgusted by your proposal": The effects of a strategic flinch in negotiations. *Group Decision and Negotiation*, 23, 901–920. <https://doi.org/10.1007/s10726-013-9360-8>
- Fisher, Z., & Tipton, E. (2015). *robustmeta: An R-package for robust variance estimation in meta-analysis*. In *arXiv Preprint 1503.02220*. <https://doi.org/10.48550/arXiv.1503.02220>
- Follett, M. P. (1940). Constructive conflict. In H. C. Metcalf, & L. Urwick (Eds.), *Dynamic administration: The collected papers of Mary Parker Follett*. Harper: New York, NY.
- Franco, A., Malhotra, N., & Simonovits, G. (2014). Publication bias in the social sciences: Unlocking the file drawer. *Science*, 345(6203), 1502–1505. <https://doi.org/10.1126/science.1255484>
- Frankenbach, J., Weber, M., Loschelder, D. D., Kilger, H., & Friese, M. (2022). Sex drive: Theoretical conceptualization and meta-analytic review of gender differences. *Psychological Bulletin*. <https://doi.org/10.1037/bul0000366>
- Frech, M. L., Loschelder, D. D., & Friese, M. (2019). How and why different forms of expertise moderate anchor precision in price decisions. *Journal of Experimental Psychology*, 66(2), 165–175. <https://doi.org/10.1027/1618-3169/a000441>
- Frech, M. L., Loschelder, D. D., & Friese, M. (2020). How attribution-of-competence and scale-granularity explain the anchor precision effect in negotiations and estimations. *Social Cognition*, 38(1), 40–61. <https://doi.org/10.22028/D291-32423>
- Frederick, S. W., & Mochon, D. (2012). A scale distortion theory of anchoring. *Journal of Experimental Psychology: General*, 141(1), 124. <https://doi.org/10.1037/a0024006>
- Friese, M., & Frankenbach, J. (2020). p-Hacking and publication bias interact to distort meta-analytic effect size estimates. *Psychological Methods*, 25(4), 456. <https://doi.org/10.1037/met0000246>
- Friese, M., Frankenbach, J., Job, V., & Loschelder, D. D. (2017). Does self-control training improve self-control? A meta-analysis. *Perspectives on Psychological Science*, 12(6), 1077–1099. <https://doi.org/10.1177/1745691617697076>
- Funder, D. C., & Ozer, D. J. (2019). Evaluating effect size in psychological research: Sense and nonsense. *Advances in Methods and Practices in Psychological Science*, 2(2), 156–168. <https://doi.org/10.1177/2515245919847202>
- Galinsky, A. D., & Mussweiler, T. (2001). First offers as anchors: The role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology*, 81(4), 657. <https://doi.org/10.1037/0022-3514.81.4.657>
- Galinsky, A., & Schweitzer, M. (2015). *Friend and foe: When to cooperate, when to compete, and how to succeed at both*. Random House.
- Galinsky, A. D., Mussweiler, T., & Medvec, V. H. (2002). Disconnecting outcomes and evaluations: The role of negotiator focus. *Journal of Personality and Social Psychology*, 83(5), 1131–1140. <https://doi.org/10.1037/0022-3514.83.5.1131>
- Galinsky, A. D., Leonardelli, G. J., Okhuysen, G. A., & Mussweiler, T. (2005). Regulatory focus at the bargaining table: Promoting distributive and integrative success. *Personality and Social Psychology Bulletin*, 31(8), 1087–1098. <https://doi.org/10.1177/0146167205276429>
- Galinsky, A. D., Ku, G., & Mussweiler, T. (2009). To start low or to start high? The case of auctions versus negotiations. *Current Directions in Psychological Science*, 18(6), 357–361. <https://doi.org/10.1111/j.1467-8721.2009.01667.x>

- Gelfand, M. J., Fulmer, C. A., & Severance, L. (2011). The psychology of negotiation and mediation. In *APA Handbook of Industrial and Organizational Psychology, Vol 3*. (pp. 495-554). American Psychological Association. 10.1037/12171-014.
- Gunia, B. C., Swaab, R. I., Sivanathan, N., & Galinsky, A. D. (2013). The remarkable robustness of the first-offer effect: Across culture, power, and issues. *Personality and Social Psychology Bulletin*, 39(12), 1547-1558. <https://doi.org/10.1177/0146167213499236>
- Harris, A. J., Blower, F. B., Rodgers, S. A., Lagator, S., Page, E., Burton, A., & Speekenbrink, M. (2019). Failures to replicate a key result of the selective accessibility theory of anchoring. *Journal of Experimental Psychology: General*, 148(9), e30.
- Hart, E., & Schweitzer, M. E. (2022). When we should care more about relationships than favorable deal terms in negotiation: The economic relevance of relational outcomes (ERRO). *Organizational Behavior and Human Decision Processes*, 168, Article 104108. <https://doi.org/10.1016/j.obhdp.2021.104108>
- Hayes, A. F. (2013). Mediation, moderation, and conditional process analysis. *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*, 1(6), 12-20.
- Hedges, L. V. (1981). Distribution theory for Glass's estimator of effect size and related estimators. *Journal of Educational Statistics*, 6(2), 107-128. <https://doi.org/10.3102/10769986006002107>
- Hedges, L. V., Tipton, E., & Johnson, M. C. (2010). Robust variance estimation in meta-regression with dependent effect size estimates. *Research Synthesis Methods*, 1(1), 39-65. <https://doi.org/10.1002/jrsm.5>
- Hüffmeier, J., Freund, P. A., Zerrers, A., Backhaus, K., & Hertel, G. (2014). Being tough or being nice? a meta-analysis on the impact of hard-and softline strategies in distributive negotiations. *Journal of Management*, 40(3), 866-892. <https://doi.org/10.1177/0149206311423788>
- Iyengar, S., & Greenhouse, J. B. (1988). Selection models and the file drawer problem. *Statistical Science*, 3(1), 109-117. <http://www.jstor.org/stable/2245925>.
- Jäger, A., Loschelder, D. D., & Friese, M. (2017b). Using self-regulation to overcome the detrimental effects of anger in negotiations. *Journal of Economic Psychology*, 58, 31-43.
- Jäger, A., Loschelder, D. D., & Friese, M. (2017a). How self-regulation helps to master negotiation challenges: An overview, integration, and outlook. *European Review of Social Psychology*, 26, 203-246. <https://doi.org/10.4324/9781315094250>
- Jiang, C. M., & Ma, J. T. (2019). "When your anchor sinks your boat": A replication and extension study. *Journal of Economic Psychology*, 75, Article 102138. <https://doi.org/10.1016/j.joep.2019.01.001>
- Kahneman, D. (1992). Reference points, anchors, norms, and mixed feelings. *Organizational Behavior and Human Decision Processes*, 51(2), 296-312. [https://doi.org/10.1016/0749-5978\(92\)90015-Y](https://doi.org/10.1016/0749-5978(92)90015-Y)
- Kang, S. H., Hur, J. D., & Kilduff, G. J. (2024). Beating the rival but losing the game: How the source of alternative offers alters behavior and outcomes in negotiation. *Journal of Applied Psychology*, 109(3), 386-401. <https://doi.org/10.1037/apl0001154>
- Karagozöglu, E. (2019). On "going Unstructured" in Bargaining Experiments. In J. F. Laslier, H. Moulin, M. Sanver, & W. Zwicker (Eds.), *The Future of Economic Design. Studies in Economic Design*. Springer. https://doi.org/10.1007/978-3-030-18050-8_40
- Klein, R. A., Ratliff, K. A., Vianello, M., Adams, R. B., Bahník, Š., Bernstein, M. J., & Nosek, B. A. (2014). Investigating variation in replicability: A "many labs" replication project. *Social Psychology*, 45(3), 142-152. <https://doi.org/10.1027/1864-9335/a000178>
- Kohls, J. W. (1970). *Bargaining behavior and outcomes*. Iowa State University.
- Korobkin, R., & Doherty, J. (2009). Who wins in settlement negotiations? *American Law and Economics Review*, 11(1), 162-208. <https://doi.org/10.1093/aler/ahp004>
- Kristensen, H., & Gärling, T. (2000). Anchoring induced biases in consumer price negotiations. *Journal of Consumer Policy*, 23(4), 445-460. <https://doi.org/10.1023/A:1007280722313>
- Kugler, K. G., Reif, J. A., Kaschner, T., & Brodbeck, F. C. (2018). Gender differences in the initiation of negotiations: A meta-analysis. *Psychological Bulletin*, 144(2), 198. <https://doi.org/10.1037/bul0000135>
- Lakens, D., Hilgard, J., & Staaks, J. (2016). On the reproducibility of meta-analyses: Six practical recommendations. *BMC Psychology*, 4(1), 24. <https://doi.org/10.1186/s40359-016-0126-3>
- Lee, A. J., & Ames, D. R. (2017). "I can't pay more" versus "It's not worth more": Divergent effects of constraint and disparagement rationales in negotiations. *Organizational Behavior and Human Decision Processes*, 141, 16-28. <https://doi.org/10.1016/j.obhdp.2017.05.002>
- Lee, A. J., Loschelder, D. D., Schweinsberg, M., Mason, M. F., & Galinsky, A. D. (2018). Too precise to pursue: How precise first offers create barriers-to-entry in negotiations and markets. *Organizational Behavior and Human Decision Processes*, 148, 87-100. <https://doi.org/10.1016/j.obhdp.2018.03.001>
- Leib, M., Köbis, N. C., Francke, M., Shalvi, S., & Roskes, M. (2018). In a seller's market, setting precise asking prices backfires. Working Paper, https://osf.io/preprint/s/psarxiv/fxqm3_v1.
- Leib, M., Köbis, N. C., Francke, M., Shalvi, S., & Roskes, M. (2021). Precision in a seller's market: Round asking prices lead to higher counteroffers and selling prices. *Management Science*, 67(2), 1048-1055. <https://doi.org/10.1287/mnsc.2019.3570>
- Leib, M., Kee, K., Loschelder, D. D., & Roskes, M. (2022). Perspective taking does not moderate the price precision effect, but indirectly affects counteroffers to asking prices. *Journal of Experimental Social Psychology*, 101, Article 104323. <https://doi.org/10.1016/j.jesp.2022.104323>
- Leonardelli, G. J., Gu, J., McRuer, G., Medvec, V. H., & Galinsky, A. D. (2019). Multiple equivalent simultaneous offers (MESOs) reduce the negotiator dilemma: How a choice of first offers increases economic and relational outcomes. *Organizational Behavior and Human Decision Processes*, 152, 64-83. <https://doi.org/10.1016/j.obhdp.2019.01.007>
- Lewis, J., Gaertig, C., & Simmons, J. P. (2019). Extremeness aversion is a cause of anchoring. *Psychological Science*, 30(2), 159-173. <https://doi.org/10.1177/0956797618799305>
- Liebert, R. M., Smith, W. P., Hill, J. H., & Keiffer, M. (1968). The effects of information and magnitude of initial offer on interpersonal negotiation. *Journal of Experimental Social Psychology*, 4(4), 431-441. [https://doi.org/10.1016/0022-1031\(68\)90068-1](https://doi.org/10.1016/0022-1031(68)90068-1)
- Lipp, W., Smolinski, R., & Kesting, P. (2022). Toward a process model of first offers and anchoring in negotiations. *Negotiation and Conflict Management Research*.
- Lipp, W. E., Smolinski, R., & Kesting, P. (2023). Beyond the first offer: Decoding negotiation openings and their impact on economic and subjective outcomes. *Group Decision and Negotiation*, 32(2), 395-433. <https://doi.org/10.1007/s10726-023-09813-5>
- Loschelder, D. D., Stuppi, J., & Trötschel, R. (2014a). "€ 14,875?!": Precision boosts the anchoring potency of first offers. *Social Psychology and Personality Science*, 5(4), 491-499. <https://doi.org/10.1177/1948550613499942>
- Loschelder, D. D., Swaab, R. I., Trötschel, R., & Galinsky, A. D. (2014b). The first-mover disadvantage: The folly of revealing compatible preferences. *Psychological Science*, 25(4), 954-962. <https://doi.org/10.1177/0956797613520168>
- Loschelder, D. D., Trötschel, R., Swaab, R. I., Friese, M., & Galinsky, A. D. (2016). The information-anchoring model of first offers: When moving first helps versus hurts negotiators. *Journal of Applied Psychology*, 101(7), 995-1012. <https://doi.org/10.1037/apl0000096>
- Loschelder, D. D., Friese, M., & Trötschel, R. (2017). How and why precise anchors distinctly affect anchor recipients and senders. *Journal of Experimental Social Psychology*, 70, 164-176. <https://doi.org/10.1016/j.jesp.2016.11.001>
- Ma, Z., & Jaeger, A. M. (2010). A comparative study of the influence of assertiveness on negotiation outcomes in Canada and China. *Cross Cultural Management: An International Journal*, 17(4), 333-346. <https://doi.org/10.1108/13527601011086568>
- Maaravi, Y., & Levy, A. (2017). When your anchor sinks your boat: Information asymmetry in distributive negotiations and the disadvantage of making the first offer. *Judgment and Decision Making*, 12(5), 420-429. <https://doi.org/10.1017/S193029750000646X>
- Maaravi, Y., & Segal, S. (2022). Reconsider what your MBA negotiation course taught you: The possible adverse effects of high salary requests. *Journal of Vocational Behavior*, 139, Article 103803. <https://doi.org/10.1016/j.jvb.2022.103803>
- Maaravi, Y., Ganzach, Y., & Pazy, A. (2011). Negotiation as a form of persuasion: Arguments in first offers. *Journal of Personality and Social Psychology*, 101(2). <https://doi.org/10.1037/a0023331>
- Maaravi, Y., Pazy, A., & Ganzach, Y. (2014). Winning a battle but losing the war: On the drawbacks of using the anchoring tactic in distributive negotiations. *Judgment and Decision Making*, 9(6), 548-557. <https://doi.org/10.1017/S1930297500006410>
- Ma, Z., Wang, X., Jaeger, A., Anderson, T., Wang, Y., & Saunders, D. (2002). Individual perception, bargaining behavior, and negotiation outcomes: A comparison across two countries. *International Journal of Cross Cultural Management*, 2(2), 171-184. <https://doi.org/10.1177/147059802002002865>
- Ma, A., Ponce de Leon, R., & Rosette, A. S. (2024). Asking for less (but receiving more): Women avoid impasses and outperform men when negotiators have weak alternatives. *Journal of Applied Psychology*, 109(7), 1145. <https://doi.org/10.1037/apl0001138>
- Magee, J. C., Galinsky, A. D., & Gruenfeld, D. H. (2007). Power, propensity to negotiate, and moving first in competitive interactions. *Personality and Social Psychology Bulletin*, 33(2), 200-212. <https://doi.org/10.1177/0146167206294413>
- Majer, J. M., Trötschel, R., Galinsky, A. D., & Loschelder, D. (2020). Open to offers, but resisting requests: How the framing of anchors affects motivation and negotiated outcomes. *Journal of Personality and Social Psychology*, 119(3), 582-599. <https://doi.org/10.1037/pspi0000210>
- Mason, M. F., Lee, A. J., Wiley, E. A., & Ames, D. R. (2013). Precise offers are potent anchors: Conciliatory counteroffers and attributions of knowledge in negotiations. *Journal of Experimental Social Psychology*, 49(4), 759-763. <https://doi.org/10.1016/j.jesp.2013.02.012>
- Mazel, J., Hüffmeier, J., Freund, P. A., Stuhlmacher, A. F., Bilke, L., & Hertel, G. (2015). A meta-analysis on gender differences in negotiation outcomes and their moderators. *Psychological Bulletin*, 141(1), 85-104. <https://doi.org/10.1037/a0038184>
- McGuire, S. J., Reilly, P. R., Zhang, Y., & Prabhu, V. P. (2022). Dyad integrative behavior and negotiation outcomes. *Conflict Resolution Quarterly*, 39(3), 295-314. <https://doi.org/10.1002/crq.21332>
- McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemia Medica*, 22(3), 276-282.
- McShane, B. B., Böckenholt, U., & Hansen, K. T. (2016). Adjusting for publication bias in meta-analysis: An evaluation of selection methods and some cautionary notes. *Perspectives on Psychological Science*, 11(5), 730-749.
- Moosmayer, D. C., Chong, A. Y. L., Liu, M. J., & Schuppert, B. (2013). A neural network approach to predicting price negotiation outcomes in business-to-business contexts. *Expert Systems with Applications*, 40(8), 3028-3035. <https://doi.org/10.1016/j.eswa.2012.12.018>
- Moran, S., & Ritov, I. (2002). Initial perceptions in negotiations: Evaluation and response to "logrolling" offers. *Journal of Behavioral Decision Making*, 15(2), 101-124. <https://doi.org/10.1002/bdm.405>
- Morris, S. B. (2023). Meta-analysis in organizational research: A guide to methodological options. *Annual Review of Organizational Psychology and Organizational Behavior*, 10(1), 225-259. <https://doi.org/10.1146/annurev-orgpsych-031921-021922>

- Mussweiler, T., & Strack, F. (1999a). Hypothesis-consistent testing and semantic priming in the anchoring paradigm: A selective accessibility model. *Journal of Experimental Social Psychology*, 35(2), 136–164. <https://doi.org/10.1006/jesp.1998.1364>
- Mussweiler, T., & Strack, F. (1999b). Comparing is believing: A selective accessibility model of judgmental anchoring. *European Review of Social Psychology*, 10(1), 135–167. <https://doi.org/10.1080/14792779943000044>
- Mussweiler, T., & Strack, F. (2000). Numeric judgments under uncertainty: The role of knowledge in anchoring. *Journal of Experimental Social Psychology*, 36(5), 495–518. <https://doi.org/10.1006/jesp.1999.1414>
- Neale, M. A., & Bazerman, M. H. (1992). Negotiator cognition and rationality: A behavioral decision theory perspective. *Organizational Behavior and Human Decision Processes*, 51(2), 157–175. [https://doi.org/10.1016/0749-5978\(92\)90009-V](https://doi.org/10.1016/0749-5978(92)90009-V)
- Nelson, L. D., Simmons, J., & Simonsohn, U. (2018). Psychology's renaissance. *Annual Review of Psychology*, 69, 511–534. <https://doi.org/10.1146/annurev-psych-122216-011836>
- Nohe, C., Hüffmeier, J., Bürkner, P., Mazei, J., Sondern, D., Runte, A., & Hertel, G. (2022). Unethical choice in negotiations: A meta-analysis on gender differences and their moderators. *Organizational Behavior and Human Decision Processes*, 173, Article 104189. <https://doi.org/10.1016/j.obhdp.2022.104189>
- Northcraft, G. B., & Neale, M. A. (1987). Experts, amateurs, and real estate: An anchoring-and-adjustment perspective on property pricing decisions. *Organizational Behavior and Human Decision Processes*, 39, 84–97. [https://doi.org/10.1016/0749-5978\(87\)90046-X](https://doi.org/10.1016/0749-5978(87)90046-X)
- O'Connor, K. M., & Carnevale, P. J. (1997). A nasty but effective negotiation strategy: Misrepresentation of a common-value issue. *Personality and Social Psychology Bulletin*, 23(5), 504–515. <https://doi.org/10.1177/0146167297235006>
- Oesch, J. M., & Whyte, G. (2002). *Best foot forward or waiting game: First mover effects in a distributive negotiation*. doi.org/10.2139/ssrn.305144.
- Orr, D., & Guthrie, C. (2005). Anchoring, information, expertise, and negotiation: New insights from meta-analysis. *Ohio State Journal on Dispute Resolution*, 21, 597.
- Page, M. J., Moher, D., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., & McKenzie, J. E. (2021). PRISMA 2020 explanation and elaboration: Updated guidance and exemplars for reporting systematic reviews. *BMJ*, 372. <https://doi.org/10.1136/bmj.n160>
- Peer, E., David, R., Andrew, G., Zak, E., & Ekaterina, D. (2022). Data quality of platforms and panels for online behavioral research. *Behavior Research Methods*, 54, 1–20. <https://doi.org/10.3758/s13428-021-01694-3>
- Petrowsky, H. M., Schweinsberg, M., Seitz, L., Funk, B., & Loschelder, D. D. (2023). Deal or no deal? how round vs precise percentage offers and price-ending mimicry affect impasse risk in over 25 million eBay negotiations. *Journal of Economic Psychology*, 94, Article 102584. <https://doi.org/10.1016/j.joep.2022.102584>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Pruitt, D. G., & Syna, H. (1985). Mismatching the opponent's offers in negotiation. *Journal of Experimental Social Psychology*, 21(2), 103–113. [https://doi.org/10.1016/0022-1031\(85\)90009-5](https://doi.org/10.1016/0022-1031(85)90009-5)
- Pustejovsky, J. E. (2021). *clubSandwich: Cluster-robust (sandwich) variance estimators with small-sample corrections*. <https://github.com/jepusto/clubSandwich>.
- R Core Team. (2022). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Ritov, I. (1996). Anchoring in simulated competitive market negotiation. *Organizational Behavior and Human Decision Processes*, 67(1), 16–25. <https://doi.org/10.1006/obhd.1996.0062>
- Rodgers, M. A., & Pustejovsky, J. E. (2021). Evaluating meta-analytic methods to detect selective reporting in the presence of dependent effect sizes. *Psychological Methods*, 26(2), 141–160. <https://doi.org/10.1037/met0000300>
- Rosette, A. S., Kopelman, S., & Abbott, J. L. (2014). Good grief! anxiety sours the economic benefits of first offers. *Group Decision and Negotiation*, 23, 629–647. <https://doi.org/10.1007/s10726-013-9348-4>
- Rua, T., Aytug, Z., Simarasi, N., & Lin, L. (2021). How traditional gender roles hurt both women and men: Negative processes and outcomes in mixed-gender negotiations. *Gender in Management: An International Journal*, 36(2), 271–293. <https://doi.org/10.1108/GM-05-2019-0065>
- Schaerer, M., Loschelder, D. D., & Swaab, R. I. (2016). Bargaining zone distortion in negotiations: The elusive power of multiple alternatives. *Organizational Behavior and Human Decision Processes*, 137, 156–171. <https://doi.org/10.1016/j.obhdp.2016.09.001>
- Schmidt, F. L., & Hunter, J. E. (2014). *Methods of meta-analysis: Correcting error and bias in research findings*. CA: Thousand Oaks.
- Schuster, C., Sparkman, G., Walton, G. M., Alles, A., & Loschelder, D. D. (2023). Egalitarian norm messaging increases human resources professionals' salary offers to women. *Journal of Applied Psychology*, 108(4), 541–552. <https://doi.org/10.1037/apl0001033>
- Schweinsberg, M., Ku, G., Wang, C. S., & Pillutla, M. M. (2012). Starting high and ending with nothing: The role of anchors and power in negotiations. *Journal of Experimental Social Psychology*, 48(1), 226–231. <https://doi.org/10.1016/j.jesp.2011.07.005>
- Schweinsberg, M., Thau, S., & Pillutla, M. M. (2022). Negotiation impasses: Types, causes, and resolutions. *Journal of Management*, 48(1), 49–76. <https://doi.org/10.1177/01492063211021657>
- Schweinsberg, M., Petrowsky, H. M., Funk, B., & Loschelder, D. D. (2023). Understanding the first-offer conundrum: How buyer offers impact sale price and impasse risk in 26 million eBay negotiations. *Proceedings of the National Academy of Sciences*, 120(32). 10.1073/pnas.2218582120.
- Shalvi, S., Moran, S., & Ritov, I. (2010). Overcoming initial anchors: The effect of negotiators' dispositional control beliefs. *Negotiation and Conflict Management Research*, 3(3), 232–248. <https://doi.org/10.1111/j.1750-4716.2010.00059.x>
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420–428. <https://doi.org/10.1037/0033-2909.86.2.420>
- Simonsohn, U., Nelson, L. D., & Simmons, J. P. (2014). P-curve: A key to the file-drawer. *Journal of Experimental Psychology: General*, 143(2), 534–547. <https://doi.org/10.1037/a0033242>
- Simonsohn, U., Simmons, J. P., & Nelson, L. D. (2015). Better P-curves: Making P-curve analysis more robust to errors, fraud, and ambitious P-hacking, a Reply to Ulrich and Miller (2015). *Journal of Experimental Psychology: General*, 144(6), 1146–1152. <https://doi.org/10.1037/xge0000104>
- Sinaceur, M., Maddux, W. W., Vasiljevic, D., Nüchel, R. P., & Galinsky, A. D. (2013). Good things come to those who wait: Late first offers facilitate creative agreements in negotiation. *Personality and Social Psychology Bulletin*, 39(6), 814–825. <https://doi.org/10.1177/0146167213483319>
- Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology*, 89(6), 845. <https://doi.org/10.1037/0022-3514.89.6.845>
- Stanley, T. D. (2017). Limitations of PET-PEESE and other meta-analysis methods. *Social Psychological and Personality Science*, 8(5), 581–591. <https://doi.org/10.1177/1948550617693062>
- Stanley, T. D., & Doucouliagos, H. (2014). Meta-regression approximations to reduce publication selection bias. *Research Synthesis Methods*, 5(1), 60–78. <https://doi.org/10.1002/jrsm.1095>
- Stanley, T. D., Doucouliagos, H., Ioannidis, J. P., & Carter, E. C. (2021). Detecting publication selection bias through excess statistical significance. *Research Synthesis Methods*, 12(6), 776–795. <https://doi.org/10.1002/jrsm.1512>
- Sterbenz, F. P., & Phillips, O. R. (2001). Bargaining experiments with deadlines and random delays. *Economic Inquiry*, 39(4), 616–626. <https://doi.org/10.1093/ei/39.4.616>
- Sterne, J. A., & Egger, M. (2005). Regression methods to detect publication and other bias in meta-analysis. In H. R. Rothstein, A. J. Sutton, & M. Borenstein (Eds.), *Publication Bias in Meta-Analysis: Prevention, Assessment and Adjustments* (pp. 99–110). Wiley. <https://doi.org/10.1002/0470870168.ch6>
- Strack, F., & Mussweiler, T. (1997). Explaining the enigmatic anchoring effect: Mechanisms of selective accessibility. *Journal of Personality and Social Psychology*, 73(3), 437. <https://doi.org/10.1037/0022-3514.73.3.437>
- Tanner-Smith, E. E., & Tipton, E. (2014). Robust variance estimation with dependent effect sizes: Practical considerations including a software tutorial in Stata and SPSS. *Research Synthesis Methods*, 5(1), 13–30. <https://doi.org/10.1002/jrsm.1091>
- Tanner-Smith, E. E., Tipton, E., & Polanin, J. R. (2016). Handling complex meta-analytic data structures using robust variance estimates: A tutorial in R. *Journal of Developmental and Life-Course Criminology*, 2, 85–112. <https://doi.org/10.1007/s40865-016-0026-5>
- Thompson, L. (1990). The influence of experience on negotiation performance. *Journal of Experimental Social Psychology*, 26(6), 528–544. [https://doi.org/10.1016/0022-1031\(90\)90054-P](https://doi.org/10.1016/0022-1031(90)90054-P)
- Thompson, L., & Hastie, R. (1990). Social perception in negotiation. *Organizational Behavior and Human Decision Processes*, 47(1), 98–123. [https://doi.org/10.1016/0749-5978\(90\)90048-E](https://doi.org/10.1016/0749-5978(90)90048-E)
- Thompson, L. L., Wang, J., & Gunia, B. C. (2010). Negotiation. *Annual Review of Psychology*, 61, 491–515. <https://doi.org/10.1146/annurev.psych.093008.100458>
- Thorsteinson, T. J. (2010)*. *Effects of precise salary offers on counteroffers and perceptions*. Poster presented at the 25th Annual SIOP Convention, Atlanta.
- Thorsteinson, T. J., & Clark, M. E. (2022). Effects of explanations and precise anchors on salary offers. *The Journal of Social Psychology*, 1–16. <https://doi.org/10.1080/00224545.2022.2081527>
- Tipton, E. (2013). Robust variance estimation in meta-regression with binary dependent effects. *Research Synthesis Methods*, 4(2), 169–187. <https://doi.org/10.1002/jrsm.1070>
- Tipton, E. (2015). Small sample adjustments for robust variance estimation with meta-regression. *Psychological Methods*, 20(3), 375. <https://doi.org/10.1037/met0000011>
- Tipton, E., & Pustejovsky, J. E. (2015). Small-sample adjustments for tests of moderators and model fit using robust variance estimation in meta-regression. *Journal of Educational and Behavioral Statistics*, 40(6), 604–634. <https://doi.org/10.3102/1076998615606099>
- Tonidandel, S., & LeBreton, J. M. (2011). Relative importance analysis: A useful supplement to regression analysis. *Journal of Business and Psychology*, 26, 1–9. <https://doi.org/10.1007/s10869-010-9204-3>
- Tonidandel, S., & LeBreton, J. M. (2015). RWA web: A free, comprehensive, web-based, and user-friendly tool for relative weight analyses. *Journal of Business and Psychology*, 30, 207–216. <https://doi.org/10.1007/s10869-014-9351-z>
- Tripp, T. M., & Sondak, H. (1992). An evaluation of dependent variables in experimental negotiation studies: Impasse rates and Pareto efficiency. *Organizational Behavior and Human Decision Processes*, 51(2), 273–295. [https://doi.org/10.1016/0749-5978\(92\)90014-X](https://doi.org/10.1016/0749-5978(92)90014-X)
- Trötschel, R., Bündgens, S., Hüffmeier, J., & Loschelder, D. D. (2013). Promoting prevention success at the bargaining table: Regulatory focus in distributive negotiations. *Journal of Economic Psychology*, 38, 26–39. <https://doi.org/10.1016/j.joep.2012.03.006>
- Tuncel, E., Kong, D. T., Parks, J. M., & van Kleef, G. A. (2020). Face threat sensitivity in distributive negotiations: Effects on negotiator self-esteem and demands.

- Organizational Behavior and Human Decision Processes*, 161, 255–273. <https://doi.org/10.1016/j.obhdp.2020.07.004>
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131. <https://doi.org/10.1126/science.185.4157.1124>
- Warsitzka, M., Zhang, H., Beersma, B., Freund, P. A., & Trötschel, R. (2023). Expanding the pie or spoiling the cake? how the number of negotiation issues affects integrative bargaining. *Journal of Applied Psychology*. Advance online publication. <https://doi.org/10.1037/apl0001149>
- Wegener, D. T., Petty, R. E., Blankenship, K. L., & Detweiler-Bedell, B. (2010). Elaboration and numerical anchoring: Implications of attitude theories for consumer judgment and decision making. *Journal of Consumer Psychology*, 20(1), 5–16. <https://doi.org/10.1016/j.jcps.2009.12.003>
- Weingart, L. R., Thompson, L. L., Bazerman, M. H., & Carroll, J. S. (1990). Tactical behavior and negotiation outcomes. *International Journal of Conflict Management*, 1(1), 7–31. <https://doi.org/10.1108/eb022670>
- Whitener, E. M. (1990). Confusion of confidence intervals and credibility intervals in meta-analysis. *Journal of Applied Psychology*, 75(3), 315–321. <https://doi.org/10.1037/0021-9010.75.3.315>
- Wiernik, B. M., Kostal, J. W., Wilmot, M. P., Dilchert, S., & Ones, D. S. (2017). Empirical benchmarks for interpreting effect size variability in meta-analysis. *Industrial and Organizational Psychology*, 10(3), 472–479. <https://doi.org/10.1017/iop.2017.44>
- Wilson, L. (2012). Anchoring bias in the TARP warrant negotiations. *Journal of Economics and Business*, 64(1), 63–76. <https://doi.org/10.1016/j.jeconbus.2011.03.002>
- Wilson, T. D., Houston, C. E., Etling, K. M., & Brekke, N. (1996). A new look at anchoring effects: Basic anchoring and its antecedents. *Journal of Experimental Psychology: General*, 125(4), 387. <https://doi.org/10.1037/0096-3445.125.4.387>
- Yan, D., & Pena-Marin, J. (2017). Round off the bargaining: The effects of offer roundness on willingness to accept. *Journal of Consumer Research*, 44(2), 381–395. <https://doi.org/10.1093/jcr/ucx046>
- Yao, J., Ma, L., & Zhang, L. (2018). From lab experiments to real negotiations: An investigation of international iron ore negotiations. *Negotiation Journal*, 34(1), 69–87. <https://doi.org/10.1111/nej.12213>
- Yeomans, M. (2022). The straw man effect: Partisan misrepresentation in natural language. *Group Processes & Intergroup Relations*, 25(7), 1905–1924. <https://doi.org/10.1177/13684302211014582>
- Yukl, G. A. (1974). Effects of situational variables and opponent concessions on a bargainer's perception, aspirations, and concessions. *Journal of Personality and Social Psychology*, 29(2), 227. <https://doi.org/10.1037/h0036013>