

Only When It's Fair: Transparency Perceptions Influence Negotiation Initiation

Tamara Montag-Smit¹, Cassandra L. Batz-Barbarich², Karoline Evans¹,
and Ursula Sanborn-Overby³

- 1 Department of Management, University of Massachusetts Lowell
- 2 Department of Economics, Business, and Finance, Lake Forest College
- 3 Department of Psychology, SUNY Oneonta

Keywords

Negotiation, Negotiation initiation, Transparency, Performance-based Pay, Equity, Gender

Correspondence

Tamara Montag-Smit, Department of Management, University of Massachusetts Lowell, 72 University Ave., Lowell, MA 01854, United States. Email: tamara_montagsmit@uml.edu

doi.org/10.34891/36sa-jz51

Abstract

Negotiation has a considerable impact on individuals' lives and has been proposed as a key mechanism to address the gender wage gap. Most people, especially women, however, are hesitant to initiate a negotiation. According to the theoretical model of negotiation initiation proposed by Reif and Brodbeck (2014), people are more likely to initiate negotiations in response to perceived discrepancies between their current (offered) outcome and their own expectation, yet very little is known regarding *what* influences perceptions of discrepancy. To better answer this question, we integrate fairness theory with negotiation initiation theory to predict that transparency regarding relative pay and performance increases the likelihood of detecting a negative discrepancy when it exists due evaluation of the offer based on fairness norms. We predict transparency will be especially beneficial for women, and that perceived negative discrepancy leads to negotiation initiation. Across two studies, we find that transparency significantly enhances the positive relationship between performance-based discrepancies and perceived negative discrepancies. Moreover, both studies confirmed the link between perceived discrepancy and negotiation initiation as well as initiation amount. However, we did not find gender differences. Thus, the results support the benefits of transparency, but transparency was not particularly beneficial for women, because women and men were equally likely to negotiate regardless of transparency. While transparency may not "level the playing field" for women specifically, it does create a fairer playing field for everyone.

Introduction

Negotiation has an important impact on individuals' lives, affecting outcomes such as salaries, personal benefits, and career trajectories, and it is proposed as a key mechanism to address the gender wage gap (Babcock & Laschever, 2009; Craver et al., 2004). However, an imbalance around negotiation initiation expectations has emerged, where organizations typically expect that individuals will negotiate at a higher rate than individuals report being willing to do. In fact, recent survey data finds that 55% of employees are *unwilling* to ask for a pay raise (Hagh, 2021) and similar numbers are reported regarding negotiations during the hiring process (Maurer, 2018). This discomfort with negotiation is supported by scholarly research as well. In laboratory experiments, even when participants are explicitly told that they can negotiate, 44-74% still choose *not* to initiate (Eriksson & Sandberg, 2012; Exley et al., 2020). While these figures reflect that both men and women leave opportunities on the table, women are more likely than men to do so (Kugler et al., 2018). Thus, what motivates or inhibits people – particularly women – from initiating negotiation is an important question that we seek to understand.

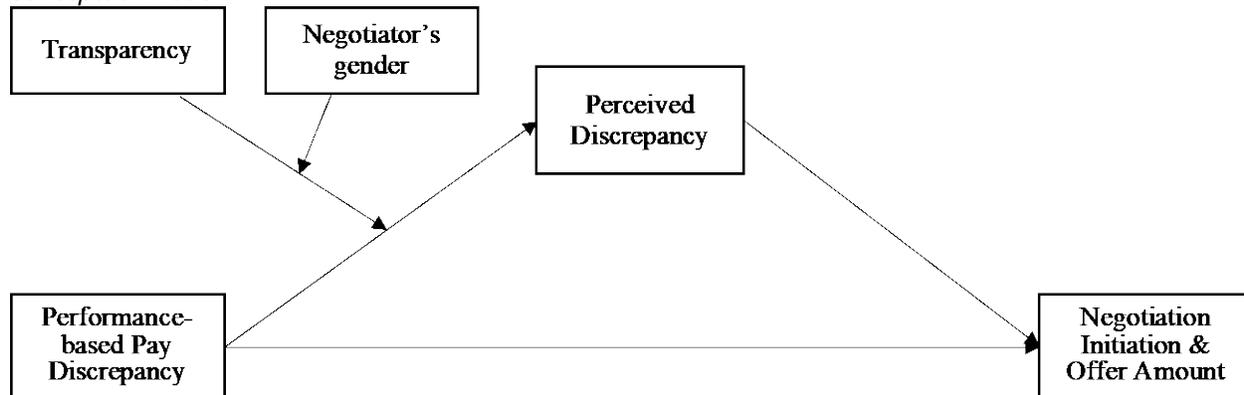
According to the theoretical model of negotiation initiation by Reif and Brodbeck (2014), people are more likely to initiate negotiations in response to perceived discrepancies between their current (offered) outcome (e.g., pay level, benefits, etc.) and their own standard (or expectation) as negotiation serves to reduce the discrepancy between the two. This perceived situational discrepancy triggers affective, cognitive, and motivational responses (Reif & Brodbeck, 2014, 2017). More specifically, a perceived discrepancy causes an affective reaction (e.g., dissatisfaction), which, coupled with one's cognitive appraisal (or estimation) of their ability to negotiate successfully as well as their desire for and expectation of receiving an improved outcome from negotiation, leads to negotiation initiation. Typical explanations for why women in particular are less likely to negotiate include women appraising their ability to negotiate successfully as lower than men (Reif et al., 2019) and reporting expectations of receiving the desired, positive outcome from negotiation as less probable (e.g., Andersen et al., 2021; Miles & Lasalle, 2008). This is particularly true in counter-normative situations such as in self-oriented (or masculine) contexts (e.g., negotiating for a pay raise) versus other-oriented (or feminine) contexts (e.g., negotiating on behalf of another person or team; Kugler et al., 2018).

It is also possible that some people fail to initiate a negotiation because of differences in their tendencies to perceive a discrepancy in the first place – a tendency that may also be influenced by gender. A perceived discrepancy, according to Reif and Brodbeck (2014, 2017), results from comparing one's current situation to their own standards. Reif and Brodbeck stop short of describing *how* people develop these standards which predicate a perceived discrepancy. In fact, to our knowledge, only one study has examined antecedents to perceived discrepancies (Reif & Brodbeck, 2017). In this study, the authors had people write salary expectations and then based on their responses the authors created an "objective discrepancy" by offering them a specific amount below (negative discrepancy), above (positive discrepancy), or equal to (no discrepancy) their expectations. While this study was able to show a strong correlation between objective and perceived discrepancy, they do not address the question of *how* people developed those initial expectations used to create the "objective discrepancy." Moreover, these researchers found mixed gender effects on those initial expectations (male participants had higher salary expectations in Study 2, but not Study 1). This leaves open the possibility that differences in the propensity to initiate negotiation exist because gender differences in standards and expectations exist, which lead to gender differences in perceived discrepancies.

Our goal in this research is to investigate pay and performance transparency effects on perceived negative discrepancy (i.e., receiving less than expected based on one's relative performance). To do so, we integrate equity theory and fairness norms with negotiation initiation theory, to better understand how people form discrepancy perceptions. Fairness theory allows us to consider how social norms around fairness develop and how people use social comparison information (i.e., relative performance) to establish norms and evaluate situational fairness. In a typical employee compensation situation, such as the current research context, employees make social comparisons with coworkers (i.e., a referent other) to gauge their pay standing and the fairness of the reward based on their relative performance. However, research shows that these comparisons are often based on inaccurate estimates due to lack of disclosure (secrecy), poor assumptions about the performance of oneself and others, and the use of ambiguous referents (e.g., Burroughs, 1982; Carrell & Dittrich, 1978; Cullen & Perez-Truglia, 2018; Lawler, 1966). Lack of disclosure creates a situation where people are more likely to rely on ambiguous data points such as stereotypes (e.g., men perform better) and general social norms (e.g., women earn less than men). Thus, it is possible that some portion of the difference detected in one's propensity to negotiate could be due to a reliance on ambiguous social norms, which result in differing expectations and behaviors (e.g., women expect lower pay).

Pay transparency, defined as information disclosure about coworker pay and performance, could create clearer norms for all employees (especially women) by providing neutral (and non-gendered) social comparison information. With coworker pay information available, people should be less likely to rely on ambiguous social norms, but it is still an open question as to whether people will use this information fruitfully (Brown et al., 2022), especially women who worry about experiencing backlash for negotiating (Amanatullah & Tinsley, 2013). Thus, in this research we test whether discrepancy perceptions, i.e., perceptions of unfair distribution of outcomes, differ depending on the level of transparency the situation provides and the gender of the negotiator. We examine if transparency allows employees to have a greater awareness of whether discrepancies exist, subsequently allowing employees to know when and how to advocate for themselves regarding pay or other benefits. Moreover, we test if these effects are particularly beneficial for women.

In this research, we investigate these relationships in a performance-based pay situation. Given that approximately 90% of employers have performance-based pay (Gerhart & Fang, 2015), the potential impact in this context is substantial. Moreover, based on the recognition that a performance-based pay context creates a situation where pay raises will range depending on performance, we can examine discrepancy size (no discrepancy represents a fair outcome and negative discrepancy represents an unfair outcome) by offering the same small raise to everyone (i.e., equality-based payments) rather than offering raises based on one's performance (i.e., equity-based payments). Related to this point, we can test our use of fairness theory by examining the amount of the employees' negotiation initiation, a novel variable that warrants inquiry (cf. Reif & Brodbeck, 2017). If fairness (equity) is driving one's negotiation initiation, then we would expect there to be a strong correlation between one's performance level and the size of one's initiation amount, which has meaningful impact on negotiation outcomes (Bateman, 1980; Galinsky & Mussweiler, 2001). Figure 1 below displays our conceptual model.

Figure 1.*Conceptual model*

Integrating Fairness Theory to Understand Perceived Discrepancy

Reif and Brodbeck's model of negotiation initiation is preconditioned on the premise that people will be motivated to negotiate when they detect (or perceive) a discrepancy by comparing their current situation (e.g., a low offer) with their own expectations (e.g., performance-based expectations) and find their expectations were not met. However, subsumed within this premise is the idea that an individual enters a situation with unambiguous expectations and standards.

To understand how people develop situational standards and expectations, we turn to the literature on workplace fairness. In bridging these literatures, we equate perceived negative discrepancies with perceived unfairness. When considering distributive fairness (especially regarding pay) people evaluate whether the outcomes received are fair relative to what they expected (Colquitt, 2001), which echoes the evaluation made to determine a perceived negative discrepancy (Reif & Brodbeck, 2014). Moreover, fairness research suggests that people have a natural cognitive preference for fair and equitable exchange relationships (Carrell & Dittrich, 1978), including the exchange relationship between employee and employer, and a lack of fairness would lead to dissatisfaction. Again, this mirrors the relationships outlined in Reif and Brodbeck's (2014) model of negotiation initiation, where a perceived negative discrepancy leads to dissatisfaction (Reif & Brodbeck, 2017). Thus, traditional fairness research, especially regarding distributive fairness, can inform our understanding of how perceived discrepancies develop and translate into negotiation initiation.

Fairness theory helps shed light on what informs these initial situational standards and expectations. More specifically, fairness theory finds that people make social comparisons to establish their expectations and evaluate fairness norms (Carrell & Dittrich, 1978). In other words, people tend to determine what is fair based on what others have received (e.g., others in my department received a 3% raise, so 3% is fair) or based on their experience in a similar situation (e.g., I typically receive a 3% raise, so 3% is fair). Social norms, however, are conditional based on the situation, meaning people follow these norms when they are aware of the norm for the situation and the situation reinforces following the norm (Bicchieri & Chavez, 2010). Thus, people may apply a general norm (e.g., a 3% raise is fair) until the situation cues a different norm. In absence of information about situational norms, people will rely on default norms and assumptions and apply them to the situation. General norms around dividing rewards

include equality, equity or random (Bicchieri & Chavez, 2010); in the context of business, equity is typically considered the more appropriate norm (e.g., Deutsch, 1975; Leventhal, 1976).

Equity norms are based on the ideas of Equity Theory (Adams, 1963). According to equity theory, a perception of fairness is based on whether a person feels that they have received “outputs” relative to their “inputs,” particularly in light of what “outputs” others receive for their “inputs” (Adams, 1963; Greenberg, 1988). Importantly, the choice of referent has a significant impact on one’s fairness perception (e.g., Chen et al., 2002; Gibson & Lawrence, 2010; Kulik & Ambrose, 1992). The intention to pursue additional outputs, such as to increase one’s salary through negotiation, is dependent upon the perception that they have not received appropriate outputs compared to their relevant referent (e.g., colleagues).

Equity norms are particularly important in a performance-based pay system, which means that rewards are contingent on meeting specified performance metrics, and rewards increase as performance level increases. There is a strong correlation between having a performance-based pay structure and individual performance (e.g., Gerhart & Rynes, 2003; Jenkins et al., 1998) as well as positive employee attitudes (e.g., van Yperen et al., 2005; Werner & Ones, 2000). When compensation is based on performance, employees feel a sense of control because employees control the amount of effort they put into their job, and performance-based pay rewards them for their effort (e.g., van Yperen et al., 2005; expectancy theory, Vroom, 1964). In fact, when people know that they are in control of their performance, they perceive an equitable division of rewards as fairer (than equality), even if the equitable payment is not to their advantage (Fair process effect; e.g., Greenberg & Folger, 1983; van den Bos, Vermunt, et al., 1997). Research also finds that people adjust their assessment of fairness based on changes to coworker outcomes, even when their own outcomes do not change (Werner & Ones, 2000). In other words, one’s perception of a discrepancy may not be directly related to meeting objective performance metrics, as it is greatly influenced by the relative performance information available.

It would then be expected that if all employees, regardless of performance level, were offered a reward amount associated with low performance that this would create an “objective discrepancy” for moderate and high performers. We label this as “performance-based pay discrepancy.” If people in this situation are likely to encounter a negative discrepancy, the question we ask is at what point do employees perceive the offer as unfair. In other words, at what level of performance will an employee find a minimal raise to be unfair such that they perceive it as a negative discrepancy worthy of initiating negotiation? While many factors may impact perceiving this discrepancy, we expect based on the equity norm that one’s output should be relative to their input. Thus, higher performance should result in greater reward expectations (and lower performance results in satisfaction with lower rewards. Thus, we hypothesize:

H1. A performance-based pay discrepancy is positively related to perceived discrepancy.

Perceived Discrepancy and Negotiation Initiation

By definition, a negotiation is initiated when individuals start negotiating intentionally and on their own terms (Reif & Brodbeck, 2014). Importantly, negotiation initiation occurs independent of negotiation success (Reif & Brodbeck, 2014, 2017), meaning that one can successfully initiate a negotiation even if they do not achieve any of their goals in negotiating. As a result, the antecedents of negotiation initiation vary from broader negotiation research and rely on separate theory to predict when individuals will choose to negotiate. Accordingly, Reif and Brodbeck’s (2014) theoretical model of negotiation initiation provides a parsimonious rationale for initiation based on long-standing affect and cognitive-motivational theories. At its core, this model proposes that decisions to negotiate reflect a calculation that encompasses the perceived utility that negotiated action will have on their end goals against the costs of taking direct action. Thus, based on Reif and Brodbeck’s model and the existing

research that shows a strong link between perceived discrepancy and negotiation initiation (Reif et al., 2019, 2020; Reif & Brodbeck, 2017), we expect that a perceived discrepancy is positively associated with negotiation initiation. Thus:

H2a. Perceived discrepancy will mediate the relationship between performance-based pay discrepancy and negotiation initiation.

Existing negotiation initiation research has primarily focused on the binary decision of whether one initiates a negotiation (e.g., Small et al., 2007) or intends to (e.g., Reif et al., 2020; Reif & Brodbeck, 2017). However, this literature has not yet examined initiation amount, which is known to impact the outcome of the negotiation (Bateman, 1980; Galinsky & Mussweiler, 2001). Negotiation initiation is not simply about the choice of whether to negotiate, but also requires a calculation based on an individual forming expectations about what they deserve (compared to their current offer) and determining an initiation amount based on this calculation. People adjust their initial proposals based on their strategic positioning that encompasses more than just whether they are happy with their current state. As Reif & Brodbeck (2014) show, cues about how the initiating amount will be received and whether it will result in a positive outcome shapes what individuals ask for. For example, one study shows that one's initiation calculation includes backlash costs – or rather the perceived or actual social consequences of making an ask (Toosi et al., 2019). As such, workers adjust their willingness to negotiate not only based on the costs, but also how much they are willing to ask for (within the threshold of what they believe will minimize social costs). Prior research has also found that criteria of fairness are indeed important in setting an initiation amount in a negotiation (Buelens & Van Poucke, 2004; Gächter & Riedl, 2006). Thus, we expect that the magnitude of perceived discrepancy also impacts the initial amount with which an individual initiates the negotiation. Thus:

H2b. Perceived discrepancy is positively related to negotiation initiation amount, mediating the relationship between performance-based pay discrepancy and initiation amount.

Transparency (High vs. Low)

It is important to note that in workplace negotiations, especially salary negotiations, management often has more information than employees regarding the parameters of the negotiation and the range of outcomes available, among other things. This asymmetry in information between the worker and management creates what negotiation researchers call structural ambiguity – or “the degree of uncertainty in parties’ understanding of the economic structure of the [potential] negotiation (Bowles et al., 2005, p. 952)” – within the negotiation situation. We suspect these same ambiguity effects are relevant for developing a discrepancy perception as well.

The presence of structural ambiguity is often the default state under which salary negotiations operate, with approximately two-thirds of the employees in the private sector in the United States reporting that their companies have a pay secrecy policy in place (Hegewisch & Williams, 2014). However, a countermovement towards pay transparency has started to gain traction due to increased legislation on the topic. Pay transparency is typically thought of as the disclosure of information about coworker pay levels (Colella et al., 2007). In many contexts, particularly in response to pay transparency legislation, pay transparency includes presenting applicants with pay ranges associated with each job title. For existing employees, and related to pay raises, pay transparency often takes the form of presenting ranges or average raise data. While this information provides some basis on which to inform expectations via a calculation of one's input to output, it leaves an important part of the equation ambiguous – that of the referent other's input and output. As such, we consider this approach to represent low pay transparency. While this does not represent complete secrecy (i.e., no pay information beyond one's own pay level), low transparency remains ambiguous.

However, many companies choose to provide a greater level of pay transparency (high transparency), with the presentation of explicit formulas for determining pay raises and complete transparency about who receives what level of raise (e.g., Buffer; Whole Foods). High transparency provides information about situational norms, and it would specifically reinforce the equity norm in a performance-based pay situation (cf. Belogolovsky & Bamberger, 2014). High transparency also provides objective information about what others have received (i.e., outputs) relative to what they have provided (i.e., inputs). Information disclosure, however, does not guarantee that people will use the information, or that all people will know how to use the information. In fact, research shows that employees are less likely to seek social comparison pay information when they see their situation as fair (Smit & Montag-Smit, 2019). We suspect, however, that presenting people with the lowest pay level within the range will ignite initial concerns of unfairness, which will push them toward seeking and using the information available to them. In other words, when there is a performance-based pay discrepancy, people will use the transparent information to choose an appropriate social referent for comparison and establish an accurate standard of their own worth.

Making an equity-based evaluation requires relative comparison information about both sides of the equity equation (input and output). In the case of performance-based pay, employee performance is one key metric for developing a standard upon which one would base their expectations. However, performance metrics and standards are often rife with ambiguity, and the relationship between performance and level of pay increase is often obscured. In some cases, managers and organizational leaders will intentionally use ambiguous metrics to remain flexible when allocating rewards. When there is a lack of accurate information, people are likely to still make judgments, using ambiguous assumptions and data points (Brown et al., 2022). In a performance-based pay context, situational cues may include meaningful and non-meaningful cues about one's own performance compared to others' performance.

Reducing ambiguity about what others receive for their inputs reduces variation in whether an individual believes the offer they received was fair, relative to their expectations and should decrease the chance they incorrectly perceive their pay as unfair. Therefore, when pay and performance information is transparent, individuals have a clear indicator of whether a performance-based pay discrepancy exists. As such, we expect transparency to moderate the relationship between performance-based pay discrepancy and perceived discrepancy such that transparency increases the likelihood that a person will *perceive* a greater negative discrepancy when a larger performance-based pay discrepancy exists. Inherent in this prediction is that people will use the information provided to them when there is greater transparency.

H3. Transparency will moderate the relationship between performance-based pay discrepancy and perceived discrepancy such that this relationship is stronger under condition of high transparency compared to low transparency.

H4a. Transparency will moderate the indirect relationship between performance-based pay discrepancy and negotiation initiation such that this relationship is stronger under condition of high transparency compared to low transparency.

H4b. Transparency will moderate the indirect relationship between performance-based pay discrepancy and negotiation initiation amount such that this relationship is stronger under condition of high transparency compared to low transparency.

Overview of Studies

To examine the antecedents of perceived discrepancy as well as the extent to which transparency alleviates structural ambiguity and increases negotiation initiation, we designed two studies aimed at testing the theoretical model in both a high and low situationally ambiguous context (Kugler et al., 2018).

These studies differed on a number of important qualities that allowed us to not only replicate our results, but also increase the generalizability of our conclusions. The first study was based on existing protocols for research on negotiation initiation in a lab-based experimental setting with primarily undergraduate students with high situational ambiguity (Small et al., 2007). We based a second study loosely on the scenario presented in the first, but with a more realistic, low situationally ambiguous scenario of a salary negotiation. While the study was an online-based experimental setting, it involved a working population.

Study 1

Method

Design and Recruitment

Study 1 used an experimental design with eight (high vs. low pay transparency X high vs. low performance transparency X female vs. male) experimental conditions. 430 participants were recruited at three public American universities via email announcements (including faculty and staff), university-sponsored subject pools, and in-class announcements. Participants were told upon recruitment that they would have the opportunity to earn between \$3 and \$10 for participating in the “Word Game Study.”

Procedure and Participants

Using a procedure outlined by Small et al. (2007), participants signed up for an individual session. They were greeted by a researcher and told that participation would involve playing the game, “Boggle” – which we referred to as the “word game.” The rules of the game were displayed for the participant and summarized by the researcher. Participants were given an opportunity to ask clarifying questions and when they were ready, they started playing the game. There were four rounds and each round lasted three minutes. When they were finished with the game, they alerted the researcher who instructed them to begin on a Qualtrics survey while their score was calculated. Pay and performance transparency were manipulated between the end of the game and payment. The experiment was set up to be a performance-based pay situation in which greater performance should lead to greater pay expectations, yet participants were offered the lowest possible amount (\$3USD) and given the opportunity to negotiate.

Of the 430 who participated, 331 performed well enough on the task (i.e., generated more than 30 words across three games) to create an unfair situation such that they deserved (\$4-\$10) more than they were offered (\$3). Only these 331 participants were included in model testing. In this sample, 197 were female and 137 were male (41%); ages 18-63, median age = 21; 14% had a high school education, 72.5% has some college, 7% had a bachelor’s degree, and the remaining 6.5% had a graduate degree.

Manipulation and Measurement

Performance was measured as participants’ actual performance (i.e., objective scores) on the Boggle task, meaning that this independent variable was not independently manipulated. Since all participants were offered the same amount of \$3, this measure was used to determine the performance-based discrepancy level which varied based upon participants true performance.

Transparency was manipulated in two ways in this study. First, using Qualtrics survey software, the participants were randomly assigned to one of two conditions: *high or low pay transparency*. In the *high pay transparency* condition, participants viewed a table of individual names with scores and pay level associated with each name. They were reminded that they were able to earn between \$3 and \$10USD for participating in the study and told that the table represented scores and payment amounts for other individuals who had participated in the study. The scores were presented in rank order, and payment was distributed such that it was clear that those who performed better received greater payment. Scores listed ranged from 15 to 101, and payment levels ranged from \$3 to \$10USD (scores above 30 earned more than \$3). In the *low pay transparency* condition, participants were reminded that they could earn between \$3 and \$10USD for participating in the study.

Performance transparency was manipulated after scoring. After approximately three minutes (during which the participant was viewing pay information as just described), the researcher announced that they had finished tallying the participant's score. At this point, based on a coin flip completed before the session started, the researcher read one of two possible research scripts. For those who were randomly assigned to the *high performance transparency* condition, the researcher provided them their objective numeric score for the game. Alternatively, for the *low performance transparency* condition, the researcher let them know that they did "well" in the game, replicating language used in Small et al. (2007).

The two transparency factors were combined to create a "fully transparent" condition versus "not fully transparent" condition. The fully transparent condition includes participants that received both pay and performance information. The three remaining conditions were collapsed to form the not fully transparent condition, because these conditions contained low levels of pay transparency, performance transparency, or both. We found this collapsing of conditions appropriate given they did not differ significantly on our measure of perception ($M_s = 4.15 - 4.23$; $F = .103$, ns) and negotiation initiation ($M_s = .103 - .123$; $F = .102$, ns).

Perceived negative discrepancy was measured as performance perceptions given that people who believe they performed better should expect greater payment and would thus have a greater discrepancy between what they believe they should have received and what was offered. We chose not to ask directly about payment expectations before negotiation in this experiment to reduce any possible demand effects that could have occurred from just asking about expectations. Instead, after receiving payment for participation, the participant was asked to finish completing the brief survey that they started before negotiation. This follow-up survey asked participants, "How do you think your Boggle performance in this session compares to other participants in this study?" with response options from "1-much worse than average" to "4-average" to "7-much better than average."

Negotiation initiation was measured based on actual behavior. After the researcher provided performance feedback, they offered the participant \$3USD (holding out three \$1 bills for the participant) and asked, "Is \$3 okay?" At this point, participants had the chance to negotiate for more money. As described in Small et al. (2007), participants who explicitly asked for more money were given the amount they requested. If participants complained about the amount offered but did not ask for more money, the researcher repeated the prompt of offering \$3 and asking if that amount was okay. If the participant asked how the payment was determined, the researcher explained that they could provide more details at the end of the experiment, and then they repeated the offer of \$3 and asked if \$3 was okay. It was only if the participant explicitly asked for additional money (if a vague

request for more money was requested without a specific number, they were asked to clarify how much more they were requesting), were they given the additional payment. This request was classified as negotiating (1), and all other responses were classified as not negotiating (0).

Multiple *control variables* were also included¹. Both male and female students worked in the experimenter role in return for a wage or class credit ($n = 19$). Students were trained on the experiment protocol by the authors and conducted the experiment for at least one full semester. Experimenter gender was not randomly assigned. Instead, *experimenter gender* was captured by the experimenter attributing their name to the session. These were later coded as 1 (Female) and 0 (Male) and controlled for in the analyses. Moreover, one of the data collection sites used a psychology subject pool as a recruiting source. Given that this was a secondary incentive, which may have influenced the participants to focus less attention on the amount of money they earned for doing the experiment, we included *subject pool* as a control.

Additional control variables included *age*, *education*. Also, because the predictions are premised on the extent to which individuals identify with their gender identity, we include measures of masculinity and femininity, specifically Bem's Sex Role Inventory (BSRI, 1974) measure of *Masculinity* ($\alpha = .879$) and *Femininity* ($\alpha = .851$). Participants rated the extent to which each item listed (e.g., act as a leader, is compassionate) describes them in general and most of time, and items were measured on a scale of 1 (Not at all like me) to 5 (Just like me).

Results and Discussion

Table 1 displays the means, standard deviations, and correlations for the study variables. Negotiation initiation is positively correlated with participant education level ($r = .117, p < .01$) and reported masculinity level ($r = .211, p < .01$). Both were included as control variables during model testing. Consistent with existing research (e.g., Sczesny et al., 2018), which provides evidence to the validity of our sample, men agreed to more masculine attributes than women ($r = -.267, p < .001$) and women agreed to more feminine attributes compared to men ($r = .240, p < .001$) on the BSRI.

Interestingly, participant gender was not significantly correlated with negotiation initiation ($r = -.033, ns, p = .547$), which suggests that men and women initiate negotiation to a similar extent. In fact, a total of 15.7% of the male participants and 18.2% of the female participants negotiated for greater payment (see Table 2). This contradicts some existing research (e.g., Small et al., 2007; Kugler et al., 2018). Gender also did not correlate significantly with participant performance ($r = .078, p = .153$) such that women and men performed equally well on the task (mean performance levels per condition displayed in Table 2). There was also not a significant correlation between gender and perceived discrepancy based on performance ($r = -.025, ns, p = .655$).

Hypothesis Testing

The conceptual model was tested using the PROCESS 4.0 regression macro for SPSS v28. This macro uses a bootstrapping approach (5000 samples) to assess the indirect effects at differing levels of the moderators (Hayes, 2013). For *negotiation initiation*, which is a dichotomous DV, the macro

¹ All hypotheses were also tested without the inclusion controls. Results did not differ. See Appendix D for additional results.

tested a binary logistic regression (1 = yes, 0 = no). Significant effects are supported by the absence of zero within the bias-corrected 95% confidence intervals.

First, we tested the unconditional mediation model (H1 & H2a, b; Template Model 4). Results indicate that participants' perceptions fully mediate the relationship between performance and negotiation initiation such that there is a direct effect of performance on perceived discrepancy ($B = .025$, $SE = .003$, $t = 9.212$, $p < .001$; supporting H1), a direct effect of perceived discrepancy on negotiation initiation ($B = .561$, $SE = .164$, $Z = 3.431$, $p < .001$), and an indirect effect of performance on negotiation initiation via perception ($B = .014$, $SE = .005$, $CI: .006, .025$; supporting H2a). The direct effect of performance on negotiation initiation was non-significant ($B = .007$, $SE = .008$, $CI: -.010, .025$), indicating full mediation. Moreover, perception partially mediated the relationship between performance and initiation offer amount, with a direct effect of perceived discrepancy ($B = .484$, $SE = .100$, $t = 4.844$, $p < .001$) and an indirect effect of performance on initiation offer amount via perception ($B = .012$, $SE = .003$, $CI: .006, .019$; supporting H2b).

Next, the moderated mediation model was tested with transparency as the moderator (H3, H4a, b; Template Model 7; see Table 3, Models 1, 3, 4). This model explicitly tests the direct conditional effects on the mediator (perceived discrepancy) and dependent variables (negotiation initiation and initiation offer amount) as well as the conditional indirect effects on these DVs due to the mediator of perceived discrepancy. Results support transparency as moderator of the relationship between objective performance and perception ($B = .026$, $SE = .006$, $t = 4.555$, $p < .001$) and conditional indirect effect on negotiation initiation ($B = .014$, $SE = .005$, $LLCI: .006$, $ULCI: .027$) and initiation offer amount ($B = .012$, $SE = .004$, $LLCI: .006$, $ULCI: .021$). When transparency was low, performance had a significant effect on perceived discrepancy ($B = .0187$, $SE = .0032$, $t = 5.945$, $p < .001$), but this effect was significantly stronger when transparency was high ($B = .0434$, $SE = .0047$, $t = 9.214$, $p < .001$; see Figure 2), supporting H3 and H4a, b.

Finally, we tested the full model with a 3-way interaction (Template Model 11) including full transparency and gender as moderators of the mediator (see Table 3, Model 2). There was no 3-way interaction with gender ($B = -.015$, $SE = .013$, $t = -1.180$, *ns*) and gender did not moderate (2-way interaction) the relationship between performance and perceived discrepancy ($B = .002$, $SE = .006$, $t = 0.725$, *ns*), meaning male and female participants had equivalent expectations based on their performance, and their perceptions were equivalently influenced by transparency.

Supplemental Qualitative Findings

As a follow-up to testing the quantitative model, we examined open-ended responses to the questions of why or why not people negotiated in this experiment. This question was asked on a Qualtrics survey after negotiation and payment occurred. First, the researchers read through all the responses to develop a comprehensive set of codes that would capture all the reasons provided (see Appendix A-B for definitions and sample quotes). For participants who chose to negotiate, reasons for this action included: (1) Good performance, (2) Unfairness/Dissatisfaction with the offer, (3) Transparency, and (4) Need (based on personal circumstances). For participants who chose not to negotiate, reasons for inaction included: (1) Poor performance, (2) Fairness/ Satisfaction with the offer, (3) Authority (of the experimenter), (4) Social reasons, (5) Lack of awareness, and (6) Lack of need.

Table 1.
Study 1 Correlation table

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1 Age	21.18	6.09											
2 Education	2.03	0.76	.632**										
3 Masculinity	3.54	0.55	-.059	-.101	.879								
4 Femininity	3.54	0.50	-.097	-.041	-.044	.851							
5 Subject pool	0.49	0.50	-.324**	-.361**	.118*	-.030							
6 Female Experimenter	0.70	0.45	-.023	.011	-.069	-.012	.035						
7 Performance	49.75	23.90	.042	.118*	.102	-.044	-.021	-.100					
8 Perceived Discrepancy	4.00	1.22	.059	.113*	.193**	-.113*	-.038	-.001	.474**				
9 Female	0.57	0.50	.099	.158**	-.267**	.240**	-.218**	.050	.078	-.025			
10 Pay Transparency	0.54	0.50	-.025	.060	.005	.061	.007	-.018	.069	-.009	.076		
11 Objective Feedback	0.53	0.50	.047	.005	-.026	-.003	.083	.059	.027	-.001	-.097	.019	
12 Negotiation Initiation	0.14	0.34	.021	.117*	.211**	-.009	-.094	.042	.207**	.305**	-.033	.123*	.131*

N = 334; * $p < .05$, ** $p < .01$

Table 2.

Study 1 Negotiation initiation per condition

	N 334	Mean Performance	N (%) who negotiated	Mean (SD) Amount Negotiated \$
Low Pay Transparency	153			
<i>Low performance transparency</i>	73		9 (12.3%)	8.11 (1.97)
Males	27	61.6 (21.9)	5 (18.5%)	8.00 (1.87)
Females	46	51.1 (15.2)	4 (8.7%)	8.25 (2.36)
<i>High performance transparency</i>	80		9 (10.8%)	9.67 (1.00)
Males	42	56.8 (20.8)	3 (7.1%)	10.0 (0.00)
Females	38	56.5 (18.2)	6 (15.8%)	9.50 (1.23)
High Pay Transparency	181			
<i>Low performance transparency</i>	83		9 (11.3%)	9.33 (2.00)
Males	29	50.2 (21.7)	3 (10.3%)	10.0 (0.00)
Females	54	63.0 (24.8)	6 (11.1%)	9.00 (2.45)
<i>High performance transparency</i>	98		29 (29.6%)	6.97 (2.08)
Males	39	53.7 (16.6)	14 (35.9%)	5.93 (1.33)
Females	59	62.7 (24.3)	15 (25.4%)	7.93 (2.22)

Figure 2.

Study 1: Moderating effect of transparency on the relationship between performance-based discrepancy and perceived discrepancy

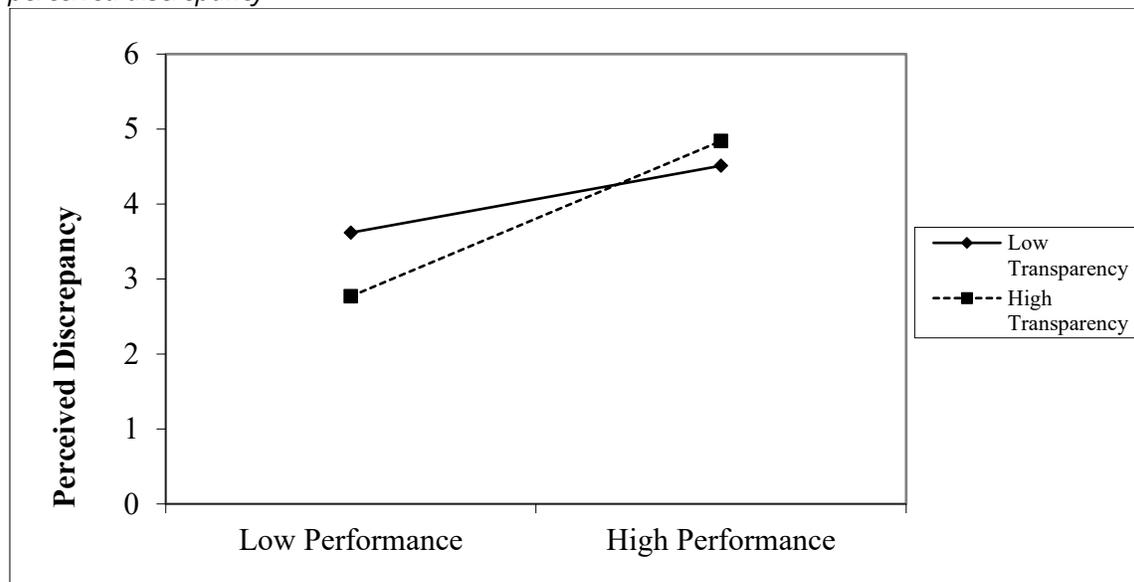


Table 3.
Study 1 regression results

Variable	Mediator: Perceived Discrepancy						DV: Negotiation Initiation			DV: Initiation Offer Amount		
	Model 1 (2-way)			Model 2 (3-way)			Model 3			Model 4		
	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI
Intercept	2.565	1.283	3.847	2.693	1.334	4.053	-9.236	-13.18	-5.29	-4.269	-6.63	-1.90
Age	-0.001	-.023	.022	0.001	-.023	.023	-0.034	-.108	.039	-0.029	-.071	.012
Education	0.119	-.080	.318	0.120	-.081	.321	0.360	-.235	.955	0.335	-.034	.704
Masculinity	0.318**	.114	.522	0.295**	.084	.506	1.059**	.432	1.686	0.762**	.380	1.145
Femininity	-0.227*	-.449	-.006	-0.193	-.422	.037	0.206	-.426	.837	0.188	-.223	.599
Subject Pool	-0.064	-.299	.171	-0.071	-.311	.168	-0.572	-1.276	.131	-0.467*	-.903	-.032
Female Experimenter	0.169	-.063	.401	0.180	-.053	.414	0.357	-.336	1.050	0.188	-.143	.714
Performance	0.017**	.011	.024	0.015**	.001	.024	0.008	-.007	.024	0.011*	.001	.025
Full Transparency	-1.540**	-2.230	-.849	-2.089**	-3.312	-.866						
Female				-0.332	-1.088	.424						
Discrepancy x Full Transparency	0.026**	.015	.037	0.037**	.016	.058						
Discrepancy x Female				0.005	-.008	.017						
Full Transparency x Female				0.710	-.803	2.223						
Discrepancy x Full Transparency x Female				-0.015	-.040	.011						
Perception							0.551**	.231	.872	0.484**	.287	.680
Pseudo R² / R²		.306**			.312**			.230**			.214**	

Note. 95% confidence intervals for all confidence intervals; CI = Confidence Interval; LLCI = Lower limit of confidence interval; ULCI = upper limit of confidence interval
 N = 333; * $p < .05$; ** $p < .01$

Responses to these questions were coded by three independent coders blind to experimental condition and other relevant case factors (e.g., participant gender). The three research assistants independently read each comment and assigned codes to each comment. Multiple codes were assigned to comments that mentioned multiple ideas. Based on this coding process, agreement level among the three research assistants exceeded acceptable standards ($ICC_1 > .7$). Thus, a code was assigned to each comment when at least two of the research assistants agreed with the same code for the comment. Furthermore, the first author spot checked a random sample of fifty codes and agreed with the determined code in all fifty cases.

When asked why they **did** negotiate, the most common reasons were a perception of *good performance* that deserved more than the amount offered (74.5%) and *transparency* of the provided information to justify a request for more (54.5%). Transparency (as a condition) had a significant impact such that 85.7% (24 of the 28 who negotiated) of those who were provided total transparency cited receiving the information as their reason for negotiating. 1 (of the 9 total) who negotiated in the low performance and pay transparency condition also cited information as their reason for negotiating stating that the information regarding the range (\$3 being the minimum) was enough information to help her request more. 4 (out of 9 total) who only received the pay information without explicit performance feedback stated that the information provided motivated them to request greater payment. Chi-square test reveals that participants cited transparency as their reason for negotiating significantly more when provided high pay transparency versus low ($\chi^2(1,55) = 20.36, p > .001$). Likewise, participants cited transparency as their reason for negotiating significantly more when provided total transparency compared to conditions with low levels of transparency ($\chi^2(1,55) = 22.35, p < .001$). No other differences emerged in the written comments based on experimental condition or participant gender.

When asked why they **did not** negotiate, the most common reasons were a perception of *poor performance* that deserved the amount offered (31.1%), being *satisfied with the offer* of \$3 (29.3%), and *social reasons* such as not wanting to appear rude (18.9%). Women were significantly more likely to reference social reasons: 23.1% of female participants cited social reasons whereas 12.7% of male participants cited social reasons. These percentages are significantly different according to the chi square test ($\chi^2(1,270) = 4.60, p = .022$). No other significant differences emerged.

Discussion

Overall, Study 1 confirmed that a performance-based pay discrepancy led to a perceived discrepancy and that this relationship was enhanced when performance and pay transparency was high. Transparency provides information to make the discrepancy apparent, which then increases the likelihood someone will initiate a negotiation in a face-to-face context according to our findings. Moreover, transparency enhanced the correlation between performance and the initiating offer amount such that high performers opened with larger initial offers (\$8-10) compared to moderate performers (\$5-7). Interestingly, we found the effect to only increase negotiation initiation rates to almost 30%, which leaves a large portion of individuals still not asking for what they deserve. Based on qualitative data, almost 20% of those non-negotiators stated that they were reluctant to negotiate for social reasons (not wanting to be rude) with women being more likely than men to cite this reason.

Surprisingly, results do not support any gender differences in negotiation behaviors. While we are not the first study to find no gender differences in negotiation initiation (cf. Ren et al., 2022), it is worth ruling out alternative explanations of these null findings. It could be argued that null findings were due to the sample chosen for the study. While student samples have been used in past studies finding a gender difference, many years have passed since these initial studies were published. It

could be that because the original findings showing that “women don’t ask” were so popularly consumed, young adults may be more aware of this phenomenon today than in the past. Thus, women (and men) may purposefully attempt to engage in counter-stereotypical behavior to avoid conforming to the negative stereotype. This is likely coupled by the fact that the gender difference in agency – a core reason why women are believed to initiate negotiations less than men – has decreased in recent years meaning that young women today are more likely to have traits associated with negotiation success. (Donnelly & Twenge, 2017).

Study 2

As such, Study 2 is designed to address potential sample and methodological concerns present in Study 1. More specifically, in Study 2 we manipulate performance to control for performance level upfront (rather than through statistical means). Manipulating performance level means that we were able to control the level of negative discrepancy between what a person “should” be offered and what they are actually offered. In this way, we have designed a task in which everyone “should” negotiate based on their performance, because people are told that they are either a moderate performer or a high performer, yet they are offered the lowest amount, which is presumably for low performers.

Further, in Study 2, everyone is given some baseline level of performance feedback. They are clearly informed that they are in a performance review meeting where they will be told their raise. The link between performance and pay may be stronger based on this setup as well as the expectation that negotiation is expected in a meeting discussing one’s pay raise (i.e., low situational ambiguity). This was likely not the case in the Study 1, where negotiating for compensation to complete a university study is uncommon (i.e., high situational ambiguity).

Method

Design and Participants

In Study 2, an experimental design with eight (moderate vs. high performance X high transparency vs. low transparency X female vs. male) experimental conditions was employed. A total of 266 individuals (131 females and 132 males; ages 20-74, median Age = 35) recruited from MTurk using the CloudResearch platform participated in exchange for \$1.50. In this sample 71.8% work full-time, 8.6% work part-time, 14.7% are self-employed or gig workers, and 4.9% are retired or unemployed. The sample ranges from 2-50 years of work experience (mean = 15.34 years). 72.8% of the sample is White/Caucasian, 11.7% Black/African American, 5.3% Hispanic/Latinx, 3.8% Asian, 3.4% Native American, and 3.3% multiple races or other. 4% of our sample have a high school diploma, 23.1% with some college, 50.9% with a 4-year degree, and 13.9% with more than 4 years of college.

Procedure

Participants entered a virtual negotiation scenario that asked them to imagine they worked as a sales representative for an advertising firm and were asked to place themselves in the situation described over the next several pages. To ensure that participants took the appropriate amount of time to read the provided details of the scenario that followed, a minimum time (10-30 seconds based on pre-testing) was set for each page of the survey that contained scenario details.

They first received information about the organization and their role as a sales representative. They then were told that it was time for their annual performance review, which is when their supervisor would present them with their annual merit raise. They were told that raises generally range from 3-10% of one's base salary (which they were told is \$53,000). They were told that on the next page they would receive information that was provided to them prior to this review including (1) their written performance evaluation and (2) some pay information. From there, subjects were randomly assigned (by the Qualtrics survey software) to one of four experimental conditions that differed based on two factors: (1) transparency (high vs. low transparency) and (2) performance level (high vs. moderate) (see Appendix C for full set of manipulation materials).

Data Cleaning. 839 individuals completed the study. All participants were allowed to complete the study (rather than kicking people out of the study for failing an attention check) and responses were scanned post-hoc for quality. Two overt (e.g., "Please select 'Strongly Disagree'") and two veiled (e.g., "My workplace is physically located on the moon") attention check items were included among the Likert scale measures. 406 individuals were excluded for missing two or more of the attention check items. Two additional questions were used to confirm their understanding of the virtual negotiation scenario. 73 people failed to correctly answer both of these questions. A remaining 104 incorrectly answered one of the two questions. In all these cases, we examined their open-ended responses; 85 of these cases were excluded based on low quality open-ended responses (e.g., "good" as their text response to multiple open-ended questions). 9 additional cases were excluded because questions were not answered, or text was pasted from the survey into the open-ended text box².

Manipulation and Measurement

Performance (high vs. moderate) was manipulated based on the performance review information provided to the participant in the scenario. Moderate performance was defined as performance that was centered around the average which represented meeting expectations. High performance was defined as performance that was above average and represented exceeding expectations. The amount and type of information provided about this set level of performance was dependent upon whether the participant was in the high or low transparency condition.

Low transparency was defined as the condition in which information was ambiguous and limited about both performance and pay. Whereas *transparency* was defined as the condition in which information was concrete, objective, and extensive about both performance and pay.

Regarding *performance*, in the *low transparency condition* they were provided a vague statement about their performance. More specifically, for the *moderate* performance, they were told they were "met expectations this year" and that it "met the requirements of the position on a number of different levels" and for the high-performance condition, they were told they were "outstanding job this year" and that it was "superior on a number of different levels." In the *high transparency* condition, subjects were provided a rating of their performance on a scale of 1 (unsatisfactory) to 5 (outstanding) on 8 different performance indicators. In addition, they were provided concrete values on four objective performance indicators (e.g., number of new clients signed, sales totals for new clients). More specifically, for *moderate* performance, they were given "3s" representing "meets expectations" on the 8 different indicators and were given concrete values on the four objective indicators that were in between the highest and lowest values for the company (which they would see on the next page). For high performance, they were given "5s" representing "outstanding" on the 8 different indicators

² We also tested the hypotheses under loosened exclusion criteria and results held. See Appendix D.

and were given concrete values on the four objective indicators that were among the highest values for the company (which again, they would see on the next page).

Regarding *pay*, in the *low transparency* condition, they were told the following: “when pay raises were given last year, they generally ranged from a 3% to a 10% increase in annual salary.” In the *high transparency* condition, they were told the same thing, but also provided a chart with information about the objective performance information (e.g., clients signed, sales totals) of twelve other sales representatives as well as their associated raise percentage. Replicating the design of Study 1, this information revealed a performance-based pay system based on the equity norm. The information was organized according to performance so that it was quickly discernable that higher performers earned larger raises.

Several design measures were taken to increase the effectiveness of the manipulations. Before providing participants with the performance and pay information, the survey clearly indicated that participants would be shown the information before their meeting with their supervisor only, so they should study and remember the information provided to them. Moreover, after the relevant information was provided, participants responded to two attention check items regarding details from the scenario (current salary, raise range), as previously described, participants were removed from the study for failing both attention check items. Moreover, all participants were given the opportunity to review the scenario information a second time (after responding to the two attention check items) if they were uncertain of some of the details.

Perceived discrepancy was measured as perceived performance given the performance-based pay situation, which created a performance-based discrepancy (replicating Study 1). It was also measured more directly as pay expectation based on their perceived performance. These items were measured after reading the performance and pay information ahead of their meeting with their supervisor, participants responded to two questions (embedded among the manipulation check items) intended to measure their expectations in the moment: perceived performance (1-Not well at all to 5-Extremely well) and the level of raise they think they deserved (0-10%). Correlation between these two items is .549. Thus, they were averaged together to form the perceived discrepancy variable.

Negotiation Initiation was determined using a similar protocol as Study 1. The hypothetical performance meeting ends with the supervisor saying, “I am giving you a 3% raise (\$1590). Is that okay?” Following this, participants read, “Please type out your response to your supervisor. Please respond as though you were actually in this situation. What would you say to your supervisor?” Like Study 1, we defined negotiation as a clear request for more money even if the exact amount of that request was unclear. After writing their open-ended response, participants selected whether they agreed with the supervisor’s offer. In cases where the open-ended response was ambiguous, we used this self-report item to inform whether they thought they negotiated and erred on the side of agreeing with the participant’s self-report.

Participants also responded to additional control variables of age and years of work experience. Additionally, as we did in Study 1, we included Bem’s Sex Role Inventory (BSRI, 1974) measure of Masculinity ($\alpha = .841$) and Femininity ($\alpha = .885$). For a similar reason we included a measure of Gender Role Beliefs (J. Brown & Gladstone, 2012), Entitlement (Campbell et al., 2004), and Social Desirability (1 item: “I have never told a lie”).

Results

Table 4 displays the means, standard deviations, and correlations for the study variables. Negotiation initiation is positively correlated with years of work experience ($r = .170$, $p < .01$) and

negatively associated with Gender Role Beliefs ($r = -.176, p < .01$) and social desirability ($r = -.264, p < .01$). Moreover, *perceived discrepancy* is positively correlated with femininity ($r = .135, p < .05$), Gender Role Beliefs ($r = .146, p < .05$) and entitlement ($r = .200, p < .01$). These variables were included as control variables during model testing³. Interestingly, participant gender was not significantly correlated with negotiation initiation ($r = .085, ns$), which suggests that men and women initiate negotiation to a similar extent. In fact, a total of 60.6% of the male participants and 68.7% of the female participants negotiated for greater payment (see Table 5).

Conceptual Model Testing

The conceptual model was again tested using the PROCESS 4.0 regression macro for SPSS v28 using the same parameters as in Study 1. First the unconditional mediation model was tested (H1 & H2a, b; Template Model 4). Results indicate that participants' perceptions mediate the relationship between performance level and negotiation initiation such that there is a direct effect of performance on perceived discrepancy ($B = 3.164, SE = .281, t = 11.269, p < .001$), a direct effect of perceived discrepancy on negotiation initiation ($B = .365, SE = .073, Z = 5.008, p < .001$), and an indirect effect of performance on negotiation initiation via perception ($B = 1.154, SE = .279, CI: .741, 1.825$). The direct effect of performance on negotiation initiation was non-significant ($B = -.041, SE = .360, CI: -.745, .664$), indicating full mediation. Moreover, perception fully mediated the relationship between performance and initiation amount, with a direct effect of perceived discrepancy ($B = .568, SE = .054, t = 10.617, p < .001$) and an indirect effect of performance on initiation amount via perception ($B = 1.812, SE = .258, CI: .1.336, 2.362$; supporting H2b).

Next, the moderated mediation model was tested with transparency as a moderator (Template Model 7; see Table 5, Model 1, 3, 4; H3, H4a, b). Like Study 1, results support transparency as moderator of the relationship between objective performance and perception ($B = 1.569, SE = .572, t = 2.745, p < .01$) and the conditional indirect effect on negotiation initiation ($B = .581, SE = .250, LLCI: .165, ULCI: 1.154$) and initiation amount ($B = .892, SE = .352, LLCI: .239, ULCI: 1.622$). When transparency was low, performance had a significant effect on perceived discrepancy ($B = 2.514, SE = .374, t = 6.717, p < .001$), but this effect was significantly stronger when transparency was high ($B = 4.084, SE = .430, t = 9.507, p < .001$; see Figure 3).

Finally, we tested the 3-way interaction including transparency and gender as moderators of the mediation model (see Table 6, Model 2). Similar to Study 1, there was no 3-way interaction, meaning male and female participants had equivalent expectations based on their performance and their perceptions were not significantly influenced by transparency.

Supplemental Qualitative Findings

As a follow-up to testing the quantitative model, we again examined open-ended responses to the questions of why or why not people negotiated in this experiment. The codes used and coding process was the same as Study 1. Based on this coding process, agreement level between the two researchers was 92.56%, which exceeded acceptable standards ($ICC_1 > .7$). Thus, a code was assigned to each comment when one of the researchers assigned the code.

When asked why they *did* negotiate, the most common reasons were a perception of good performance that deserved more than the amount offered (93.6%) and using the provided

³ Results held with and without the inclusion of control variables. See Appendix D for additional results.

Table 4.
Study 2 Correlation table

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1 Age	38.34	11.84											
2 Work Experience	15.34	11.62	.856**										
3 Masculinity	45.97	10.92	.011	-.032	.841								
4 Femininity	54.02	10.29	.086	.010	.116	.885							
5 Gender Role Beliefs	3.30	1.40	-.007	-.193**	.199**	.086	.915						
6 Entitlement	3.71	1.40	-.199**	-.334**	.386**	.031	.538**	.897					
7 Social Desirability	2.10	1.69	-.017	-.249**	.195**	.013	.437**	.431**	.921				
8 Female	0.50	0.50	.218**	.188**	-.134*	.110	-.117	-.141*	-.139*				
9 High Performance	0.49	0.50	.016	.034	-.059	.086	.041	-.002	.032	-.004			
10 Transparency	0.43	0.50	.014	.025	-.001	-.102	-.113	-.069	-.050	.057	-.003		
11 Perceived Discrepancy	4.13	0.84	.037	.048	.023	.172**	.129**	.170**	.053	.021	.564**	-.051	
12 Negotiate	0.65	0.48	.101	.170**	.013	-.040	-.176**	-.081	-.264**	.085	.172**	.074	.331**

N = 266; * $p < .05$, ** $p < .01$

Table 5.
Study 2 Negotiation initiation per condition

	N	N (%) who negotiated	Mean (SD) Amount Negotiated %
Low Transparency	151		
Moderate performance	77	43 (55.8%)	6.58 (1.53)
Males	39	21 (53.8%)	6.74 (1.41)
Females	37	21 (56.8%)	6.50 (1.67)
High performance	74	50 (67.6%)	7.84 (1.92)
Males	40	24 (60.0%)	7.65 (1.82)
Females	34	26 (76.5%)	8.00 (2.02)
High Transparency	115		
Moderate performance	59	34 (57.6%)	5.68 (1.43)
Males	28	17 (60.7%)	5.76 (1.03)
Females	30	17 (56.7%)	5.59 (1.77)
High performance	56	45 (80.4%)	8.42 (1.84)
Males	25	18 (72.0%)	8.00 (2.03)
Females	30	26 (86.7%)	8.85 (1.54)

Figure 3.
Study 2: Moderating effect of transparency on the relationship between performance-based discrepancy and perceived discrepancy

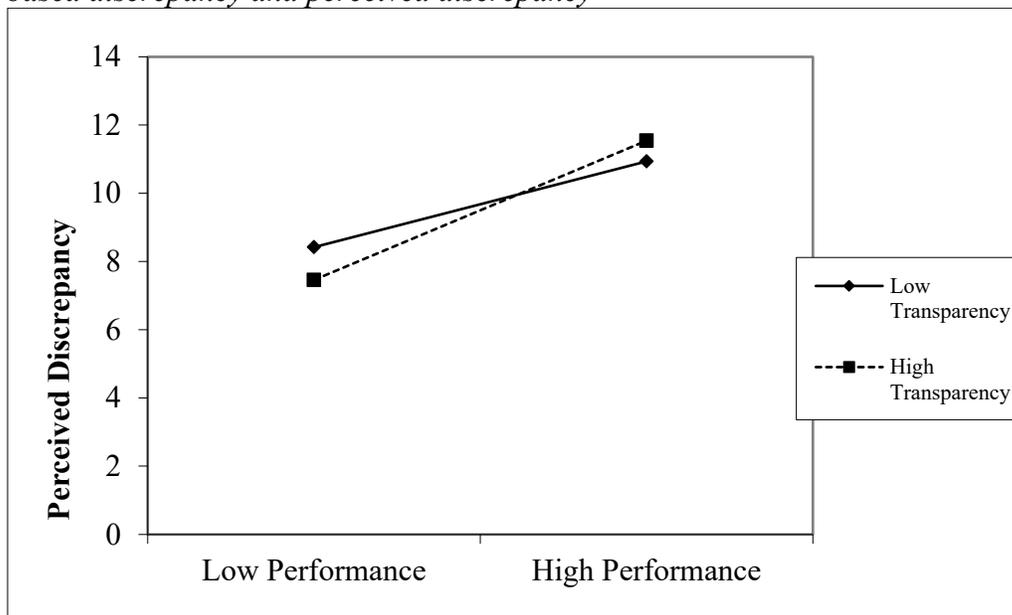


Table 6.
Study 2 regression results

Variable	Mediator: Perceived Discrepancy						DV: Negotiation Initiation			DV: Initiation Amount		
	Model 1 (2-way)			Model 2 (3-way)			Model 3			Model 4		
	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI
Intercept	8.443	6.355	10.530	8.350	6.355	10.51	-2.617	-5.024	-.211	-.499	2.466	1.468
Age	-0.024	-.074	.026	-0.025	-.077	.026	0.031	-.020	.082	.028	-.017	.082
Work Experience	0.042	-.010	.095	0.044	-.010	.097	-0.007	-.062	.049	.007	-.040	.049
Masculinity	-0.006	-.033	.021	-0.006	-.033	.022	0.020	-.009	.050	.011	-.012	.050
Femininity	0.030*	.003	.057	0.032*	.005	.060	-0.028	-.058	.002	-.022	-.046	.002
Gender Role Beliefs	0.097	-.150	.344	0.126	-.127	.380	-0.342*	-.617	-.067	-.261*	-.471	-.067
Entitlement	0.429**	.169	.690	0.392**	.122	.661	0.071	-.215	.356	.009	-.222	.356
Social Desirability	-0.063	-.258	.133	-0.049	-.247	.149	-0.346**	-.552	-.140	-.274**	-.446	-.140
Performance	2.491**	1.769	3.213	2.428**	1.423	3.432	-0.041	-.745	.664	.211	-.371	.664
Transparency	-0.972**	-1.745	-.200	-0.731**	-1.845	.383						
Female				-0.015	-1.057	1.027						
Discrepancy x Transparency	1.593**	.481	2.704	0.932	-0.670	2.533						
Discrepancy x Female				0.098	-1.369	1.566						
Transparency x Female				-0.346	-1.904	1.213						
Discrepancy x Transparency x Female				1.128	-1.099	3.355						
Perception							0.365**	.222	.507	0.568**	.463	.674
Pseudo R² / R²		.409**			.410**			.309**			.480**	

Note. 95% confidence intervals for all confidence intervals; CI = Confidence Interval; LLCI = Lower limit of confidence interval; ULCI = upper limit of confidence interval
N = 266; * $p < .05$; ** $p < .01$

information to justify a request for more (34.9%). High transparency (as a condition) had a significant impact such that 57.0% (versus 16.1% in low transparency condition) of those who were provided high transparency cited receiving the information as their reason for negotiating. Chi-square test reveals that participants cited transparency as their reason for negotiating significantly more when provided high pay transparency versus low ($\chi^2(1,172) = 31.35, p > .001$). Furthermore, high performers were significantly more likely to reference the information provided: 42.1% of high performers cited the information available whereas only 26.0% of moderate performers cited information. These percentages are significantly different according to the chi square test ($\chi^2(1,172) = 4.87, p = .036$). No other differences emerged in the written comments based on experimental condition or participant gender for why people negotiated.

When asked why they **did not** negotiate, the most common reasons were a perception that the offer was fair (74.5%) and that they deserved the amount offered based on their performance level (55.3%), authority of the supervisor was also mentioned by 19.1% of the sample. No differences were detected based on the conditions of performance or transparency or gender.

Discussion

Study 2 replicates the moderating effect of transparency on the relationship between performance and negotiation initiation in a virtual performance-based pay context with low ambiguity regarding negotiation (i.e., pay raise meeting). Our findings show that the size of the performance relates to one's perception of negative discrepancy when offered an unfair raise, which in turn drives the likelihood of negotiation initiation. This relationship is enhanced when there is transparency, and the qualitative responses to the question of why people negotiated show that transparency was an important factor in the decision to negotiate.

Study 2 also replicates the unexpected null effects of participant gender that was also found in Study 1. This suggests that the null effects may not be limited to just college students, but a working sample as well – which – while there has been literature that has suggested diminishing gender differences in negotiations (e.g., Ren et al., 2022), was still surprising.

General Discussion

The current research sought to examine pay and performance transparency and participant gender as predictors of when a negative perceived discrepancy is experienced and whether it leads to negotiation initiation in a performance-based pay context. To test this, we designed two complementary studies – one in a high situationally ambiguous context and one in a low situationally ambiguous context (Kugler et al., 2018). Across these two studies, we found that transparency significantly enhances the positive relationship between performance-based discrepancies and perceived negative discrepancies. Moreover, both studies confirmed the link between perceived discrepancy and negotiation initiation as well as initiation amount. However, we did not find gender differences, which contradicts our predictions.

Fairness, and equity in this case, provided a useful framework for considering the factors that may impact the discrepancy perceptions that drive negotiation initiation. In a performance-based pay context, a desire for equity drives the experience of discrepancy perceptions when the offered pay was low (i.e., unfair as based on contextual clues). Moreover, this desire for more equitable (i.e., fair) outcomes motivated people to initiate a negotiation by asking for greater pay. Further confirming the importance of fairness, the initiating amount correlated positively with perceived discrepancy and performance. That is, high performers initiated negotiations with a higher initiation amount than

moderate performers, showing that the equity norm dictated not only the initiation behavior, but the specific ask itself.

Importantly, we found that this relationship was enhanced when there was performance and pay transparency. Considering this result in the light of fairness theory, we would expect that the equity norm would dictate perceptions and behavior in this context, such that exposure to information that showed an equity-based pay system reinforced and enhanced expectations around these norms. In many organizational contexts there is no objective number to achieve, and therefore no (or very limited) context on which to assess the fairness of outcome (i.e., pay) distributions. This highlights the importance of this often-missing information as a driver of negotiation initiations as well as initiations that are fair both to the employee and to the organization. Collectively, the use of fairness theory substantially enhances our ability to understand the way, and under which conditions, discrepancies are perceived and lead to negotiation initiation.

Across the two studies, open-ended data also revealed that most individuals who negotiated cited their performance level as their reason for negotiating – and that people who did not negotiate were also most likely to mention that the offer seemed “fair” based on their performance. In this sense, we find that people do not need direct instructions to negotiate to see the opportunity to negotiate. Instead, negotiation seems to be driven by natural desires for fairness, and the more information that was provided to the participants, the more confident they were about what they deserved. More specifically, people were overall more likely to ask for more money if they thought they deserved it by performing well on the assigned task. Further, when participants were given information about how others performed and were paid and were able to compare that to their own performance, it was clear that their sense of injustice was more likely to cause action, in this case, they sought to balance the scale by asking for more money.

Unlike previous research examining negotiation initiation (cf. Small et al. 2007), the current studies did not find gender differences in negotiation initiation. In examining the number of men and women who negotiated, no statistically significant differences emerge, and the raw percentages are equivalent. Most surprising is that we did not find an effect of men negotiating more than women in the control conditions. In study 1, we utilized the same protocol as that described in Small et al (2007), but we do not find the gender differences they found in the control conditions. This suggests that the initial effects found in previous research are not as stable as originally thought. While some papers have replicated the gender difference in negotiation initiation, others have not. In fact, a comprehensive meta-analysis of over 120 empirical studies found that while on average men engage in negotiation at a greater rate than women overall, this difference was largely dependent upon context and are subject to vary (Mazei et al., 2015).

Theoretical Implications

We chose to focus on perceived discrepancy as the mediator between a performance-based pay discrepancy and negotiation initiation. However, if we think about perceived discrepancy under the broader umbrella of inequity perceptions, negotiation initiation is one of several possible outcomes, as perceptions of inequity also drive job dissatisfaction, reduced performance, and employee turnover (e.g., Day, 2012; Greenberg, 1990; Griffeth & Gaertner, 2001). Thus, this research has implications for the fairness literature as well by showing the importance of transparency in establishing strong equity norms. As we found, perceptions were more strongly correlated with performance when performance and pay information was available, showing that transparency increases the situational norm of equity. Equity perceptions are known to enhance motivation and performance, primarily based on the expectation that greater effort should result in greater reward

(e.g., Expectancy theory). We confirm this possible outcome in our Study 2 qualitative data, where people accepted the low raise offer and opted to focus on their own performance to increase their chance of a higher future raise. This only occurred under the conditions of transparency where equity was salient, and people could rely on the expectation that higher performance will lead to higher reward. Noteworthy, this was only true for moderate performers where a small discrepancy existed so they could see it as justified. When the discrepancy was large, negotiation seemed to be the most justified action, perhaps suggesting a clear indication that the participant knew the equity norm was violated, which provided strong justification for their action: negotiation initiation.

Moreover, our research finds that transparency exposes the reality of a pay structure. In the current research, transparency exposed an equity-based pay structure such that higher performers earned higher pay increases and lower performers earned lower pay increases. However, organizations may also allocate equality-based pay increases (every employee receives the same percentage increase) or random pay increases (metrics for determining raise level are ambiguous or unknown). Other researchers (Cullen & Pakzad-Hurson, 2016) have found that transparency pushes employers towards compressing pay such that all employees make similar wages (including high and low performers). We contribute to the existing research on pay transparency to show that transparency's effect is primarily in exposing the fairness of the underlying pay structure. Existing research that finds pay compression as a result of transparency may have had a pay structure that did not clearly follow an equity norm. In this case, when pay decisions appear more random or ambiguous, transparency may have an opposite effect from what we found. In fact, it is possible that transparency would reduce negotiation initiation when the pay structure is ambiguous. Future research could examine the effect of transparency in varying pay structures such as equality-based and random or ambiguous.

Finally, we examined gender as an antecedent to perceived discrepancies based on existing research pointing to the importance of gender as a factor. However, other individual differences may have an impact of how people develop pay expectations, therefore impacting a perceived discrepancy in an unfair pay situation. For example, prosocial personality traits can impact the extent to which people follow or violate social norms in other economic situations (Zhao et al., 2017). Given that gender norms seem to have a dissipating effect (i.e., we did not find gender effects), it may be fruitful for future research to examine other individual differences that may be relevant for how people establish, evaluate and follow social norms.

Practical Implications

As our research confirms, transparency, and the more accurate social comparisons that result from transparency, are important for establishing one's own standard and expectations. Despite the wide-spread resistance from organizations to provide transparency, this line of research suggests a major benefit for organizations in that those that are more deserving of higher pay will ask – whereas those that are less deserving are less likely to ask. We postulate that this would reduce the effects of wide-spread pay dissatisfaction as well by producing a more accurate assessment of pay fairness. Based on this research, we recommend that managers be more transparent with employees. Transparency provides information that allows employees to justify their request for more money. Given the link to fairness, providing more information may have the added benefit of increasing fairness perceptions because people feel more in control of the outcome.

Limitations and Future Research Directions

While this study was critical in that it was one of the first to examine more directly antecedents of perceived discrepancy, it is important to acknowledge a number of limitations that should be addressed in future work. First, while a strength of our study was that we used two complementary studies – with behavioral outcomes – our particular protocols did have a number of important limitations to note. Our studies only examined the influence of pay transparency in a very specific situation – following performance of a task and in a situation where future interactions with the co-negotiator are non-existent. Future research should look at the impact of pay transparency in situations where performance is not also a factor – such as the case of salary negotiations at the start of a new job. Additionally, future research could manipulate the extent to which participants perceive a social consequence based on future anticipated interactions with their co-negotiator as would also be the case in a work setting where one is likely to work alongside individuals, they engage in negotiation in the future.

Relatedly, we did not have a truly “secret” condition – which, in a pay-for-performance scenario may be rare – is not rare within the broader private and public sector. In all conditions, participants were provided, at a minimum, a general understanding of both their performance and pay raise range – this information, while limited, does provide some context on which individuals may base perceptions of pay discrepancy. Future work should seek to examine these effects for conditions of complete “secrecy” – or rather, in situations in which no information is provided on the side of the employer regarding typical pay ranges nor performance. This context again would be more realistic for salary negotiations prior to beginning a new role, and thus would be an important context to understand the potential power of transparency on behaviors in this context as well.

Lastly, our laboratory experimental condition provided strong casual evidence, but the utilization of a lab protocol did come at the cost of limited experimental control in terms of maintaining consistency of experimenters. To ensure that sufficient data was collected on which to have the power to base our conclusions, data had to be collected over multiple semesters across multiple institutions – which ultimately meant we relied upon nineteen different experimenters. While we took great care in ensuring that the protocol across experimenters remained consistent, and statistically controlled for things such as experimenter gender, there may be effects from this variability that we were unable to account for. Future work should seek to replicate these effects in conditions in which resources available allow there to be greater consistency in the experimenters that lead the protocol.

References

- Adams, J. S. (1963). Towards an understanding of inequity. *Journal of Abnormal and Social Psychology, 67*(5), 422–436. <https://doi.org/10.1037/H0040968>
- Amanatullah, E. T., & Morris, M. W. (2010). Negotiating gender roles: Gender differences in assertive negotiating are mediated by women’s fear of backlash and attenuated when negotiating on behalf of others. *Journal of Personality and Social Psychology, 98*(2), 256–267. <https://doi.org/10.1037/a0017094>
- Amanatullah, E. T., & Tinsley, C. H. (2013). Punishing female negotiators for asserting too much...or not enough: Exploring why advocacy moderates backlash against assertive female negotiators. *Organizational Behavior and Human Decision Processes, 120*(1), 110–122. <https://doi.org/10.1016/j.obhdp.2012.03.006>

- Andersen, S., Marx, J., Nielsen, K. M., & Vesterlund, L. (2021). Gender differences in negotiation: Evidence from real estate transactions. *The Economic Journal*, *131*(638), 2304–2332. <https://doi.org/10.1093/EJ/UEAB010>
- Babcock, L., & Laschever, S. (2009). Women don't ask: Negotiation and the gender divide. In *Women Don't Ask: Negotiation and the Gender Divide*. <https://doi.org/10.2307/4135303>
- 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)
- Belogolovsky, E., & Bamberger, P. A. (2014). Signaling in secret: Pay for performance and the incentive and sorting effects of pay secrecy. *Academy of Management Journal*, *57*(6), 1706–1733. <https://doi.org/10.5465/amj.2012.0937>
- Bicchieri, C., & Chavez, A. (2010). Behaving as expected: Public information and fairness norms. *Journal of Behavioral Decision Making*, *23*(2), 161–178. <https://doi.org/10.1002/BDM.648>
- Bowles, H. R., Babcock, L., & Lai, L. (2007). Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. *Organizational Behavior and Human Decision Processes*, *103*(1), 84–103. <https://doi.org/10.1016/j.obhdp.2006.09.001>
- Bowles, H. R., Babcock, L., & McGinn, K. L. (2005). Constraints and triggers: Situational mechanics of gender in negotiation. *Journal of Personality and Social Psychology*, *89*(6), 951–965. <https://doi.org/10.1037/0022-3514.89.6.951>
- Brown, M., Nyberg, A. J., Weller, I., & Strizver, S. D. (2022). Pay information disclosure: Review and recommendations for research spanning the pay secrecy–pay transparency continuum. *Journal of Management*, *48*(6), 1661–1694. <https://doi.org/10.1177/01492063221079249>
- Buelens, M., & Van Poucke, D. (2004). Determinants of a negotiator's initial opening offer. *Journal of Business and Psychology*, *19*(1), 23–35. <https://doi.org/10.1023/B:JOB.0000040270.10433.54>
- Burroughs, J. D. (1982). Pay secrecy and performance: The psychological research. *Compensation Review*, *14*(3), 44–54. <https://doi.org/10.1177/088636878201400305>
- Campbell, K. W., Bonacci, A. M., Shelton, J., Exline, J. J., & Bushman, B. J. (2004). Psychological entitlement: Interpersonal consequences and validation of a self-report measure. *Journal of Personality Assessment*, *83*(1), 29–45.
- Carrell, M. R., & Dittrich, J. E. (1978). Equity theory: The recent literature, methodological considerations, and new directions. *The Academy of Management Review*, *3*(2), 202. <https://doi.org/10.2307/257661>
- Chen, C. C., Choi, J., & Chi, S. C. (2002). Making justice sense of local-expatriate compensation disparity: Mitigation by local referents, ideological explanations, and interpersonal sensitivity in China-foreign joint ventures. *Academy of Management Journal*, *45*(4), 807–817. <https://doi.org/10.2307/3069313>
- Colella, A., Paetzold, R. L., Zardkoohi, A., & Wesson, M. J. (2007). Exposing pay secrecy. *Academy of Management Review*, *32*(1), 55–71. <https://doi.org/10.5465/AMR.2007.23463701>
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, *86*(3), 386–400. <https://doi.org/10.1037/0021-9010.86.3.386>
- Craver, C. B., Babcock, L., & Laschever, S. (2004). If women don't ask: Implications for bargaining encounters, the Equal Pay Act, and Title VII. *Michigan Law Review*, *102*(6). <https://doi.org/10.2307/4141939>
- Cullen, Z., & Pakzad-Hurson, B. (2016). *Equal Pay for Equal Work? Evidence for the Renegotiation of Short-Term Contracts Online*.
- Cullen, Z., & Perez-Truglia, R. (2018). *How much does your boss make? The effects of salary comparisons*. <https://doi.org/10.3386/w24841>
- Day, N. E. (2012). Pay equity as a mediator of the relationships among attitudes and communication about pay level determination and pay secrecy. *Journal of Leadership and Organizational Studies*, *19*(4), 426–476. <https://doi.org/10.1177/1548051812455240>

- Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice? *Journal of Social Issues*, 31(3), 137–149. <https://doi.org/10.1111/j.1540-4560.1975.tb01000.x>
- Donnelly, K., & Twenge, J. M. (2017). Masculine and feminine traits on the Bem Sex-Role Inventory, 1993–2012: A cross-temporal meta-analysis. *Sex Roles*, 76(9–10), 556–565. <https://doi.org/10.1007/s11199-016-0625-y>
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3). <https://doi.org/10.1037/0033-295X.109.3.573>
- Eriksson, K. H., & Sandberg, A. (2012). Gender differences in initiation of negotiation: Does the gender of the negotiation counterpart matter? *Negotiation Journal*, 28(4), 407–428. <https://doi.org/10.1111/j.1571-9979.2012.00349.x>
- Exley, C. L., Niederle, M., & Vesterlund, L. (2020). Knowing when to ask: The cost of leaning in. *Journal of Political Economy*, 128(3), 816–854. <https://doi.org/10.1086/704616>
- Gächter, S., & Riedl, A. (2006). Dividing justly in bargaining problems with claims. *Social Choice and Welfare*, 27(3), 571–594. <https://doi.org/10.1007/s00355-006-0141-z>
- 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), 657–669. <https://doi.org/10.1037/0022-3514.81.4.657>
- Gerhart, B., & Fang, M. (2015). Pay, intrinsic motivation, extrinsic motivation, performance, and creativity in the workplace: Revisiting long-held beliefs. *Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 489–521. <https://doi.org/10.1146/annurev-orgpsych-032414-111418>
- Gerhart, B., & Rynes, S. (2003). *Compensation: Theory, Evidence, and Strategic Implications*. SAGE Publications, Inc. <https://doi.org/10.4135/9781452229256>
- Gibson, D. E., & Lawrence, B. S. (2010). Women’s and men’s career referents: How gender composition and comparison level shape career expectations. *Organization Science*, 21(6), 1159–1175. <https://doi.org/10.1287/orsc.1090.0508>
- Greenberg, J. (1988). Equity and workplace status: A field experiment. *Journal of Applied Psychology*, 73(4), 606–613. <https://doi.org/10.1037/0021-9010.73.4.606>
- Greenberg, J. (1990). Employee theft as a reaction to underpayment inequity: The hidden cost of pay cuts. *Journal of Applied Psychology*, 75(5), 561–568. <https://doi.org/10.1037/0021-9010.75.5.561>
- Greenberg, J., & Folger, R. (1983). Procedural justice, participation, and the fair process effect in groups and organizations. In *Basic Group Processes* (pp. 235–256). Springer New York. https://doi.org/10.1007/978-1-4612-5578-9_10
- Griffeth, R. W., & Gaertner, S. (2001). A role for equity theory in the turnover process: An empirical test. *Journal of Applied Social Psychology*, 31(5), 1017–1037. <https://doi.org/10.1111/j.1559-1816.2001.tb02660.x>
- Hagh, C. (2021, December 2). *Don't Ask for a Raise — Negotiate It*. Harvard Business Review. <https://hbr.org/2021/12/dont-ask-for-a-raise-negotiate-it>
- Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis*. Guilford Press.
- Hegewisch, A., & Williams, C. (2014). Pay Secrecy and Wage Discrimination — IWPR. *Institute for Women's Policy Research: Quick Figures, January*. <http://www.iwpr.org/publications/pubs/pay-secrecy-and-wage-discrimination>
- J. Brown, M., & Gladstone, N. (2012). Development of a Short Version of the Gender Role Beliefs Scale. *International Journal of Psychology and Behavioral Sciences*, 2(5), 154–158. <https://doi.org/10.5923/J.IJPBS.20120205.05>

- Jenkins, G. D., Mitra, A., Gupta, N., & Shaw, J. D. (1998). Are financial incentives related to performance? A meta-analytic review of empirical research. *Journal of Applied Psychology, 83*(5), 777–787. <https://doi.org/10.1037/0021-9010.83.5.777>
- Kray, L. J., & Gelfand, M. J. (2009). Relief versus regret: The effect of gender and negotiating norm ambiguity on reactions to having one's first offer accepted. *Social Cognition, 27*(3), 418–436. <https://doi.org/10.1521/soco.2009.27.3.418>
- Kray, L. J., & Thompson, L. (2004). Gender stereotypes and negotiation performance: An examination of theory and research. *Research in Organizational Behavior, 26*. [https://doi.org/10.1016/S0191-3085\(04\)26004-X](https://doi.org/10.1016/S0191-3085(04)26004-X)
- Kugler, K. G., Reif, J. A. M., Kaschner, T., & Brodbeck, F. C. (2018). Gender differences in the initiation of negotiations: A meta-analysis. *Psychological Bulletin, 144*(2), 198–222. <https://doi.org/10.1037/bul0000135>
- Kulik, C. T., & Ambrose, M. L. (1992). Personal and situational determinants of referent choice. *Academy of Management Review, 17*(2), 212–237. <https://doi.org/10.5465/amr.1992.4279534>
- Kulik, C. T., & Olekalns, M. (2012). Negotiating the gender divide: Lessons from the negotiation and organizational behavior literatures. *Journal of Management, 38*(4). <https://doi.org/10.1177/0149206311431307>
- Lawler, E. E. (1966). Managers' attitudes toward how their pay is and should be determined. *Journal of Applied Psychology, 50*(4), 273–279. <https://doi.org/10.1037/h0023617>
- Leventhal, G. S. (1976). What should be done with equity theory? New approaches to the study of fairness in social relationships. In K. J. Gergen (Ed.), *Social Exchange Theory*. John Wiley.
- Maurer, R. (2018, February 20). *Salary Negotiations Aren't Happening as Much as You'd Think*. HR Daily Newsletter. <https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/salary-negotiations-are-not-happening.aspx>
- Mazei, 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>
- Miles, E. W., & Lasalle, M. M. (2008). Asymmetrical contextual ambiguity, negotiation self-efficacy, and negotiation performance. *International Journal of Conflict Management, 19*(1), 36–56. <https://doi.org/10.1108/10444060810849173/FULL/XML>
- Pfeifer, C., & Stephan, G. (2018). Why women don't ask: Gender differences in fairness perceptions of own wages and subsequent wage growth. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3129264>
- Reif, J. A. M., & Brodbeck, F. C. (2014). Initiation of negotiation and its role in negotiation research. *Organizational Psychology Review, 4*(4), 363–381. <https://doi.org/10.1177/2041386614547248>
- Reif, J. A. M., & Brodbeck, F. C. (2017). When do people initiate a negotiation? The role of discrepancy, satisfaction, and ability beliefs. *Negotiation and Conflict Management Research, 10*(1), 46–66. <https://doi.org/10.1111/ncmr.12089>
- Reif, J. A. M., Kugler, K. G., & Brodbeck, F. C. (2020). Why are women less likely to negotiate? The influence of expectancy considerations and contextual framing on gender differences in the initiation of negotiation. *Negotiation and Conflict Management Research, 13*(4), 287–303. <https://doi.org/10.1111/ncmr.12169>
- Reif, J. A. M., Kugler, K. G., & Brodbeck, F. C. (2022). Gender differences in motives for initiating and avoiding negotiations. *Negotiation and Conflict Management Research, 15*(4), 1. <https://openurl.ebsco.com/EPDB%3Aagcd%3A14%3A16258254/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Aagcd%3A161784552&crl=c>

- Reif, J. A. M., Kunz, F. A., Kugler, K. G., & Brodbeck, F. C. (2019). Negotiation contexts: How and why they shape women's and men's decision to negotiate. *Negotiation and Conflict Management Research, 12*(4), 322–342. <https://doi.org/10.1111/ncmr.12153>
- Ren, Y., Xiu, L., & B. Hietapelto, A. (2022). Dare to ask in front of others? Women initiating salary negotiations. *Journal of Economic Psychology, 92*. <https://doi.org/10.1016/j.joep.2022.102550>
- Sczesny, S., Nater, C., & Eagly, A. H. (2018). Agency and communion: Their implications for gender stereotypes and gender identities. In *Agency and Communion in Social Psychology*. <https://doi.org/10.4324/9780203703663>
- Small, D. A., Gelfand, M., Babcock, L., & Gettman, H. (2007). Who goes to the bargaining table? The influence of gender and framing on the initiation of negotiation. *Journal of Personality and Social Psychology, 93*(4), 600–613. <https://doi.org/10.1037/0022-3514.93.4.600>
- Smit, B. W., & Montag-Smit, T. (2019). The pay transparency dilemma: Development and validation of the pay information exchange preferences scale. *Journal of Applied Psychology, 104*(4), 537–558. <https://doi.org/10.1037/apl0000355>
- Toosi, N. R., Mor, S., Semnani-Azad, Z., Phillips, K. W., & Amanatullah, E. T. (2019). Who can lean in? The intersecting role of race and gender in negotiations. *Psychology of Women Quarterly, 43*(1), 7–21. <https://doi.org/10.1177/0361684318800492>
- van den Bos, K., Vermunt, R., & Wilke, H. A. M. (1997). Procedural and distributive justice: What is fair depends more on what comes first than on what comes next. *Journal of Personality and Social Psychology, 72*(1), 95–104. <https://doi.org/10.1037/0022-3514.72.1.95>
- van Yperen, N. W., van den Bos, K., & de Graaff, D. C. (2005). Performance-based pay is fair, particularly when I perform better: differential fairness perceptions of allocators and recipients. *European Journal of Social Psychology, 35*(6), 741–754. <https://doi.org/10.1002/ejsp.273>
- Vroom, V. (1964). *Work and motivation*. <https://psycnet.apa.org/record/1964-35027-000>
- Werner, S., & Ones, D. S. (2000). Determinants of perceived pay inequities: The effects of comparison other characteristics and pay-system communication. *Journal of Applied Social Psychology, 30*(6), 1281–1309. <https://doi.org/10.1111/j.1559-1816.2000.tb02521.x>
- Zhao, K., Ferguson, E., & Smillie, L. D. (2017). Politeness and compassion differentially predict adherence to fairness norms and interventions to norm violations in economic games. *Scientific Reports, 7*(1), 3415. <https://doi.org/10.1038/s41598-017-02952-1>

Author Bios

Tamara Montag-Smit is an Assistant Professor of Management at University of Massachusetts Lowell. She earned her Ph.D. and M.S. in Industrial-Organizational Psychology from Saint Louis University. Her research focuses on applying basic psychological theory and research to understanding Human Resource Management and Organizational Behavior, with a particular focus on compensation practices, telecommuting outcomes and understanding how workplace contexts impact and motivate creative work performance.

Cassandra Batz-Barbarich is an Assistant Professor Business in the Department of Economics, Business, and Finance at Lake Forest College. She earned her Ph.D. and M.S. in Industrial-Organizational Psychology at Purdue University, and her B.S. in psychology at Loyola University Chicago. She has been actively engaged as both a researcher and practitioner in her field. At Lake Forest, she teaches courses such as organizational behavior, human resources, diversity in the workplace, happiness at work, and principles of management.

Karoline Evans is an associate professor of management in the Department of Management at the University of Massachusetts Lowell. She received her Ph.D. in organizational behavior from Washington University in St. Louis. Her research focuses on how team dynamics and leadership processes affect team performance, decision making and innovation, particularly how perceptions of leadership and the environment shape key team processes.

Ursula Sanborn-Overby is an Assistant Professor of Psychology and chair of the Psychology department at SUNY Oneonta. She received her Ph.D. and M.S.-R at Saint Louis University. She researches the development of gender cognitions: how do people learn about gender and how do peoples' ideas about gender change over time.

Appendix A. Coding of open-ended reasons for initiating negotiation

Code	Definition	Sample quote(s) from Study 1	Sample quote(s) from Study 2
(1)Good performance	Participant referenced some aspect of their performance, typically a perception of good performance warranting higher payment	“Because of the score that I had received” “I received a score of 83 and it was clear that other participants that scored in the 80's and specifically 83 received \$9 as payment so when asked if I was okay receiving \$3 I was not.”	“The quality of my work was high, so I deserve more than the minimum raise available” “Because, I performed my job well.”
(2)Unfair/Dissatisfied with offer	Participant referenced that they were dissatisfied with the amount they were offered or found the offer unfair.	n/a	“because 3% raise was not satisfying” “The offered raise does not reflect my performance, and is unfair when compared to past figures.”
(3)Transparency	Participants referenced the performance or pay information that they received during the experiment	“Seeing that other players who had gotten 50 points had received more than \$3 in pay which was the starting reward made me want to ask for more money.” “the chart I was shown gave most players \$4.00 for getting a score of 21 points and I was only offered \$3.00.”	“My numbers and performance indicated a better raise based on overall company numbers of other employees.” “My performance summary clearly stated exemplary work, that I believe is a lot more deserved of a pay raise on the higher end of the spectrum, not the lowest.”
(4)Need	Participants referenced a need for the money uncontrolled by the experiment/scenario.	“I was relying on the ten dollars and am broke.”	“due to my family situation”

Appendix B. Coding of open-ended reasons for NOT initiating negotiation

Code	Definition	Sample quote(s) from Study 1	Sample quote(s) from Study 2
(1)Poor performance	Participant referenced some aspect of their performance as the reason for not negotiating, typically a perception of poor performance not warranting higher payment	<p>"I assumed I was being paid correctly in correspondence to my performance in the game."</p> <p>"My score was not that great and I had a feeling I deserved \$3."</p>	
(2)Fair/Satisfied with offer	Participant referenced the fact that they were satisfied with the amount that they were offered and perceived it as fair.	<p>"I have only been here for 20 minutes and 3 dollars for 20 minutes of work equates to 9 dollars an hour and that's better pay than I've had at any other job."</p> <p>"I volunteered to do this study, receiving any money is a gift."</p>	<p>"Because it is better to have a raise than nothing at all. Sometimes we need to be contented on what we are getting."</p> <p>"Because it [the offer] was appropriate"</p>
(3)Authority	Participant referenced the researcher/manager and their knowledge and experience as the reason why they did not negotiate for higher pay. That is, participants had the expectation that the researcher/manager would know how much their performance was worth, and they deferred to their expertise.	<p>"I trusted that I was paid the fair amount based on the score I received."</p> <p>"I just felt that it was the researcher's choice to give me money to begin with, so whatever she felt she wanted to give me, I wasn't going to question it."</p>	<p>"because the manager knows my performance more than me"</p> <p>"He has already made up his mind and decided based on the data. I will make sure my data looks better next year."</p>
(4)Social	Participant referenced some social reason such as not wanting to be rude or pushy for not asking for a higher payment.	<p>"I did not want to go against what was expected of me."</p> <p>"I thought it might be rude."</p> <p>"I would feel bad trying to get more money."</p>	<p>"Because I thought whether my negotiation may bring negative thought about me to the supervisor"</p> <p>"i think the 3 percent was beneficial enough. i dont want to push it and sound ungrateful."</p>
(5)Lack of awareness	Participants stated that they did not negotiate for higher pay because they did not realize that negotiation was an option.	<p>"I didn't think I could, but also \$3 is better than nothing"</p> <p>"I didn't think that it was a negotiable quantity (even though in retrospect, the tester did ask me if that was an all right amount)"</p>	N/A
(6)Lack of need	Participants referenced the fact that \$3 was sufficient and they did not need more because of their existing financial situation.	<p>"My family is fairly well financially situated, so I am not in any dire need for every dollar I can get."</p>	<p>"Because I don't care"</p>

Appendix C
Study 2 Manipulation Materials

High Transparency for Pay

At Wotzi we believe that salary information should be available to all inquiring team members. Wage transparency helps promote inclusiveness and ensures our compensation system is fair. The following is a summary of the pay raises given to your cohort last year.

When pay raises were given last year, they generally ranged from a 3% to a 10% increase in annual salary.

SALES REP	YEAR	# CLIENTS CONTACTS JUNE '18-'19	# CLIENTS SIGNED JUNE '18 - JUNE '19	SALES TOTAL JUNE '18 - JUNE '19	TOTAL # OF CLIENTS SIGNED FROM START	2018 PAY	2019 PAY	RAISE %
ROBERTS, L.	2	11	4	\$324,000	10	\$51,000	\$53,040	4%
YATES, M.	2	16	6	\$408,000	15	\$51,500	\$53,045	3%
ADAMS, J.	2	13	7	\$415,000	15	\$52,000	\$53,560	3%
PETERS, O.	2	14	6	\$384,000	13	\$51,500	\$53,560	4%
BETZELL, K.	2	21	14	\$608,000	27	\$53,000	\$55,650	5%
LAWSON, G.	2	24	12	\$617,000	22	\$52,500	\$55,650	6%
GARMEN, F.	2	26	15	\$640,000	29	\$53,500	\$56,175	5%
HANOVE, A.	2	24	14	\$663,000	28	\$53,000	\$56,710	7%
STEVENS, J.	2	42	24	\$980,000	49	\$54,000	\$58,320	8%
DEEDS, A.	2	44	23	\$1,005,000	49	\$54,500	\$59,405	9%
LYNDON, C.	2	56	25	\$1,100,500	54	\$54,500	\$59,950	10%
JOHNSON, D.	2	45	27	\$1,423,000	51	\$55,000	\$60,495	9%

Low Pay Transparency

At Wotzi we believe that pay raise ranges should be available to all inquiring team members. Raise range transparency helps promote inclusiveness and ensures our compensation system is fair. The following is a summary of the pay raises given to your cohort last year.

When pay raises were given last year, they generally ranged from a 3% to a 10% increase in annual salary.

High Transparency for High Performance

Annual Performance Review

Employer Name: Wosti Advertising Department: Sales & Marketing
 Job Title: Sales Representative Supervisor: Quinn Johnston
 Years with Company: 2 Current Salary: \$53,000

Summary of Performance:	Performance Definitions
5 Outstanding	Performance is superior on a consistent and sustained basis
4 Exceeds Expectations	Performance exceeds normal job requirements.
3 Meets Expectations	Performance meets position requirements.
2 Needs Improvement	Performance meets some of position requirements, objective and expectations.
1 Unsatisfactory	Performance does not meet position requirements, objective and expectations. Immediate attention to improvement is required.

Quality of Work: Sales records and customer record management databases are complete, accurate, and in an acceptable format.	E
Individual Effectiveness: Displays cooperative attitude at work, exhibits integrity and sincerity with others to achieve set objectives	E
Communication: Expresses ideas and information in sales presentations that are complete, clear, concise, and organized. Conveys information to supervisors, team members, and customers in a timely, clear, and concise manner. Actively listens to others.	E
Service Focus: Takes a personal interest in both customers' satisfaction, creates a positive environment for interaction and takes appropriate action to meet their needs.	E
Judgement and Decision Making: Realistically weighs and evaluates information, separates important from unimportant, assesses probable consequences and takes appropriate action, and demonstrates the ability to make sound and timely decisions. Accountable for results and makes decisions that meet the objectives of the department.	E
Team Building: Contributes positively to the team's culture. Achieves group participation to improve the performance of the entire team.	E
Job Knowledge: Demonstrates comprehension of sales and presentation techniques and skills, as well as system processes and procedures necessary to perform the job.	E
Initiative: Generates ideas and initiatives action to seek information to solve problems. Proposes innovative ideas. Follows through with plans and tasks; self-starter.	E

Number of Potential Clients Contacted: 46

Number of New Clients Signed: 26

Sales Total for New Clients: \$1,230,000

Number of Clients Signed To-Date: 52

Comments: You did an outstanding job this year. Your work was superior on a number of different levels and you maintained this quality of work throughout the year.

Low Transparency for High Performance

Annual Performance Review

Employer Name: Wozti Inc.

Department: Sales & Marketing

Job Title: Sales Representative

Supervisor: Quinn Johnston

Years with Company: 2

Current Salary: \$53,000

Summary of Performance:

You did an outstanding job this year. Your work was superior on a number of different levels and you maintained this quality of work throughout the year.

High Transparency for Moderate Performance

Annual Performance Review

Employer Name: Wosti Advertising Department: Sales & Marketing
 Job Title: Sales Representative Supervisor: Quinn Johnston
 Years with Company: 2 Current Salary: \$53,000

<p>Summary of Performance:</p> <p>5 Outstanding</p> <p>4 Exceeds Expectations</p> <p>3 Meets Expectations</p> <p>2 Needs Improvement</p> <p>1 Unsatisfactory</p>	<p>Performance Definitions</p> <p>Performance is superior on a consistent and sustained basis</p> <p>Performance exceeds normal job requirements.</p> <p>Performance meets position requirements.</p> <p>Performance meets some of position requirements, objective and expectations.</p> <p>Performance does not meet position requirements, objective and expectations. Immediate attention to improvement is required.</p>
--	---

Quality of Work: Sales records and customer record management databases are complete, accurate, and in an acceptable format.	3
Individual Effectiveness: Displays cooperative attitude at work, exhibits integrity and sincerity with others to achieve set objectives	3
Communication: Expresses ideas and information in sales presentations that are complete, clear, concise, and organized. Conveys information to supervisors, team members, and customers in a timely, clear, and concise manner. Actively listens to others.	3
Service Focus: Takes a personal interest in both customers' satisfaction, creates a positive environment for interaction and takes appropriate action to meet their needs.	3
Judgement and Decision Making: Realistically weighs and evaluates information, separates important from unimportant, assesses probable consequences and takes appropriate action, and demonstrates the ability to make sound and timely decisions. Accountable for results and makes decisions that meet the objectives of the department.	3
Team Building: Contributes positively to the team's culture. Achieves group participation to improve the performance of the entire team.	3
Job Knowledge: Demonstrates comprehension of sales and presentation techniques and skills, as well as system processes and procedures necessary to perform the job.	3
Initiative: Generates ideas and initiatives action to seek information to solve problems. Proposes innovative ideas. Follows through with plans and tasks; self-starter.	3

Number of Potential Clients Contacted: 23
 Number of New Clients Signed: 13
 Sales Total for New Clients: \$615,000
 Number of Clients Signed To-Date: 26

Comments: You meet expectations this year. Your work met the position requirements on a number of different levels.

Low Transparency for Moderate Performance

Annual Performance Review

Employer Name: Wozti Inc.

Department: Sales & Marketing

Job Title: Sales Representative

Supervisor: Quinn Johnston

Years with Company: 2

Current Salary: \$53,000

Summary of Performance:

You met expectations this year. Your work met the position requirements on a number of different levels.

Appendix D
Additional Results (Study 1 & 2)

Table D1. Study 1 regression results without control variables

Variable	Mediator: Perceived Discrepancy						DV: Negotiation Initiation			DV: Initiation Amount		
	Model 1 (2-way)			Model 2 (3-way)			Model 3			Model 4		
	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI
Intercept	3.131**	2.756	3.506	3.428**	2.863	3.994	-4.941**	-6.26	-3.62	-1.191**	-1.983	-.400
Performance	0.019**	.013	.025	0.015**	.006	.025	0.006	-.008	.021	0.012*	.001	.023
Full Transparency	-1.493**	-2.187	-.799	-2.203**	-3.434	-.972						
Female				-0.533	-1.288	.222						
Discrepancy x Full Transparency	0.025**	.014	.036	0.037**	.017	.060						
Discrepancy x Female				0.006	-.006	.017						
Full Transparency x Female				0.968	-.546	2.483						
Discrepancy x Full Transparency x Female				-0.018	-.044	.007						
Perception							0.658**	.350	.966	0.561**	.365	.758
Pseudo R² / R²		.267**			.278**			.154**			.155**	

Note. 95% confidence intervals for all confidence intervals; CI = Confidence Interval; LLCI = Lower limit of confidence interval; ULCI = upper limit of confidence interval
N = 333; * $p < .05$; ** $p < .01$

Table D2. Study 2 regression results with loosened exclusion criteria

Variable	Mediator: Perceived Discrepancy						DV: Negotiation Initiation			DV: Initiation Amount		
	Model 1 (2-way)			Model 2 (3-way)			Model 3			Model 4		
	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI
Intercept	11.532	11.022	12.042	11.766	11.041	12.49	-2.340	-3.361	-1.320	-.524	-1.56	.520
Performance	2.080**	1.366	2.795	2.364**	1.336	3.393	-0.013	-.511	.485	.340	-.182	.862
Transparency	-1.171**	-1.916	-.425	-1.361*	-2.417	-.305						
Female				-0.440	-1.471	.592						
Discrepancy x Transparency	1.340**	.282	2.398	1.523	-0.004	3.050						
Discrepancy x Female				0.212	-1.230	1.654						
Transparency x Female				0.435	-1.072	1.942						
Discrepancy x Transparency x Female				-0.336	-2.480	1.809						
Perception							0.217**	.128	.306	0.465**	.374	.555
Pseudo R² / R²		.243**			.242**			.112**			.302**	

Note. 95% confidence intervals for all confidence intervals; CI = Confidence Interval; LLCI = Lower limit of confidence interval; ULCI = upper limit of confidence interval
N = 353; * $p < .05$; ** $p < .01$

Table D3. Study 2 regression results without control variables

Variable	Mediator: Perceived Discrepancy						DV: Negotiation Initiation			DV: Initiation Amount		
	Model 1 (2-way)			Model 2 (3-way)			Model 3			Model 4		
	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI
Intercept	11.299	10.779	11.819	11.436	10.704	12.17	-2.623	-3.923	-1.323	-.964	-2.19	.259
Performance	2.593**	1.851	3.336	2.364**	1.336	3.393	-0.087	-.731	.557	.286	-.324	.896
Transparency	-0.943**	-1.732	-.153	-0.900	-2.032	.232						
Female				-0.247	-1.296	.802						
Discrepancy x Transparency	1.354**	.225	2.484	0.940	-0.685	2.565						
Discrepancy x Female				0.447	-1.049	1.942						
Transparency x Female				0.011	-1.584	1.606						
Discrepancy x Transparency x Female				0.716	-1.567	2.999						
Perception							0.268**	.151	.386	0.526**	.419	.634
Pseudo R² / R²		.335**			.339**			.309**			.370**	

Note. 95% confidence intervals for all confidence intervals; CI = Confidence Interval; LLCI = Lower limit of confidence interval; ULCI = upper limit of confidence interval
 N = 266; * $p < .05$; ** $p < .01$