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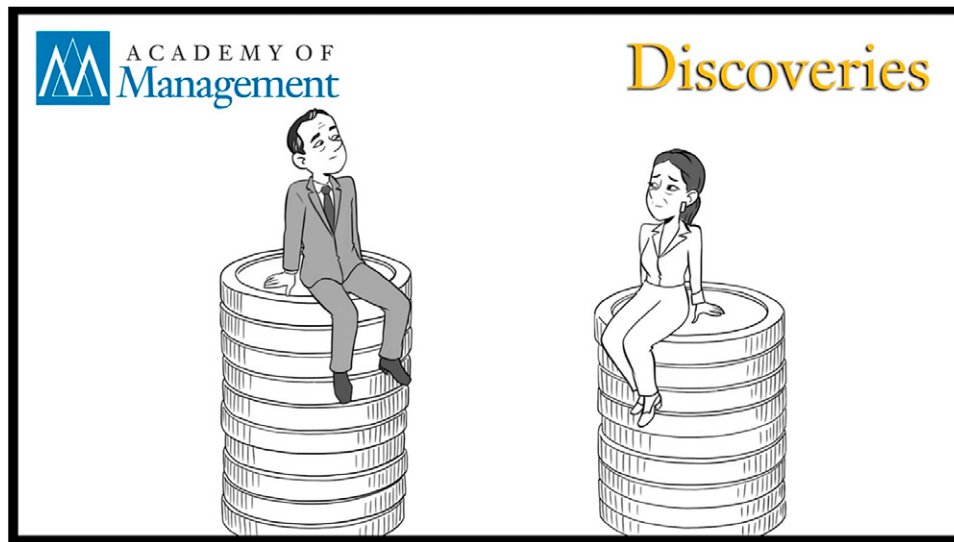
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NOW, WOMEN DO ASK: A CALL TO UPDATE BELIEFS ABOUT THE GENDER PAY GAP

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For over two decades, gender differences in the propensity to negotiate have been thought to explain the gender pay gap. We ask whether a “women don’t ask” pattern holds today among working adults. We compare estimates of gender differences in negotiation propensity (Study 1) with actual patterns from master’s in business administration students ($n = 1,435$) and alumni ($n = 1,939$) from a top U.S. business school (Studies 2A and 2B). Contrary to lay beliefs, women report negotiating their salaries more (not less) often than men. We then reanalyze meta-analytic data on self-reported initiation of salary negotiations to reconcile our findings with prior work (Study 2C). While men reported higher negotiation propensity than women prior to the 21st century, the gender difference has grown neutral and then reversed since then. Negotiation propensity rose across time for both men and women, although to differing degrees. Finally, we explore the consequences of the now-outdated belief that “women don’t ask,” finding that it increases gender stereotyping, even on dimensions unrelated to negotiation, and it is associated with both greater system justification and weaker support for legislation addressing pay equity (Studies 3 and 4). Our research calls for an updating of beliefs about gender and the propensity to negotiate for pay.

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A gender pay gap continues to emerge in the United States. In 2019, the median salary for women was roughly 15% lower than for men. Women earned less than men at every income level, and the gap widened as the income level increased, with women earning roughly 30% less than men at the 95th percentile of the wage distribution (Gould, 2020). While these statistics describe the general population, the trends are no better in elite populations. Studies of people with master's in business administration degrees (MBAs) have shown that women earn 88% of what men earn following degree completion, but only 63% of what men earn 10 years later (Bertrand, Goldin & Katz, 2010; Lee & Kray, 2021). In dollar terms, this means that the average man earns \$400,000 compared to \$250,000 for the average woman nine years after completing the degree (Bertrand et al., 2010). Bertrand et al. (2010: 236) note,

The median female MBA starts her career at the thirty-fourth percentile of the male distribution, but after 15 years has fallen to the nineteenth percentile. The woman at the seventy-fifth percentile of the female earnings distribution begins at the 66th percentile of the male distribution but winds up at the thirty-seventh percentile by year 15.

The pay gap among MBA students is especially notable considering the nearly identical skills and qualifications held by men and women at the time the degree is conferred.

Multiple factors contribute, from differences in training, number of hours worked, time taken off from work (Bertrand et al., 2010) and industry and job functions (Blau & Kahn, 2007), to discrimination against women (Joshi, Son & Roh, 2015; Judge & Livingston, 2008; Lips, 2003, 2013; Lyness & Heilman, 2006).

One factor that has received significant attention and endorsement is women's approach to negotiating (Bowles, Thomason & Macias-Alonso, 2022). If wages reflect how well workers negotiate, as commonly assumed, then women's lower wages relative to men's might reflect a lower negotiation propensity among women. For example, Mazei, Hüffmeier, Freund, Stuhlmacher, Bilke and Hertel (2015: 85) state, "Tangible negotiation outcomes indicate that women may be placed at a systematic disadvantage vis-à-vis men in negotiation, which may contribute to persistent outcome differences such as the gender pay gap where men's salaries typically surpass those received by women." In the same vein, Kugler, Reif, Kaschner and Brodbeck (2018: 198) state, "Addressing gender differences in the initiation of negotiation might ultimately help to minimize unequal distributions of resources between men and

women (e.g., gender wage gap)." A search for the keywords "gender" and "negotiation" on Google Scholar produces Babcock and Laschever's (2003) popular book titled, *Women don't ask: Negotiation and the gender divide*, as the most highly cited entry,¹ suggesting that a book written for a popular audience has also heavily influenced the scientific literature.

The empirical evidence of a gender difference in negotiation propensity is nuanced. Typically, gender differences favor the propensity and outcomes of men (Mazei et al., 2015; Small, Gelfand, Babcock & Gettman, 2007), with important details that qualify the findings. The two meta-analyses mentioned above (Kugler et al., 2018; Mazei et al., 2015) both conclude that a single, overall gender difference does not exist on either measure because of the context dependency of gender differences. One key moderator is negotiating experience; a gender difference in negotiation outcomes only emerged for undergraduate research participants who lacked experience. Even one prior negotiation in the laboratory or the real world allowed men and women to achieve similar negotiation outcomes. Numerous studies highlight the situational impact of gender triggers on negotiation outcomes. For instance, Kray, Thompson and Galinsky (2001) highlight the negative impact of implicitly but not explicitly activated gender stereotypes. When negative stereotypes are explicit, women self-negate them. Bowles, Babcock and McGinn (2005) highlight situational ambiguity as a moderator. When the negotiation situation is less ambiguous, such as when the upper and lower limits of the bargaining range are known (Bowles et al., 2005) and when the appropriateness of negotiating is clear (Kray & Gelfand, 2009), women and men attain similar outcomes. Additionally, gender-triggering aspects of the negotiation, such as representation role (negotiating for self vs. on behalf of another), impact women's outcomes more than men's outcomes (Bowles et al., 2005).

Other work suggests that a gender difference in negotiation propensity does not exist in real-world data and therefore cannot account for the gender pay gap (Schneider, 2017). While women are asking as much as men, they are not getting as much as men. In perhaps the earliest empirical investigation into gender differences in employment contract negotiations, Gerhart and Rynes (1991) found no evidence of gender differences in negotiation propensity among MBA graduates. Instead, they traced bargaining outcomes to structural factors, including the presence of alternative offers and the attractiveness of the

¹ The citation count was 2,109 on Google Scholar as of May 15, 2023.

employer's first offer. O'Shea and Bush's (2002) investigation of salary outcomes among college graduates also found no gender difference in the propensity to negotiate. Similarly, Artz, Goodall and Oswald (2018) surveyed a representative sample of all Australian employees and workplaces from 2013–2014 and did not find a gender difference in negotiation propensity; instead, they found that women's negotiating attempts were especially likely to be rejected by their employers. Additionally, a recent survey conducted by LeanIn.org and McKinsey (2018) reports that women are asking for promotions and raises at the same rate as men. Most recently, Exley, Niederle and Vesterlund (2020) conducted laboratory experiments to examine negotiation propensity and whether individuals, especially women, would benefit from negotiating more. Their findings do not show significant gender differences in negotiation propensity and suggest that women are instead well-calibrated in diagnosing whether to enter or avoid negotiations given the circumstances, appropriately approaching situations that are likely to yield positive outcomes and avoiding those that are likely to yield negative returns. Taken together, a reasonable conclusion from this body of research is that small, variable gender differences in laboratory simulations are unlikely to explain large, robust gender differences in economic outcomes in society.

Despite growing evidence that a gender difference in negotiation propensity may not help to explain the gender pay gap, a simplified message continues to resonate with researchers and the public: Women do not ask, and therefore do not get as much as men. As one popular press article states, "It's commonly assumed—and accepted as fact—that women don't ask for raises as often as men do and so they don't get them" (Wasserman, 2019). This notion is sticky, emerging in both scholarly and popular literature. In this work, we ask whether beliefs are dissonant with current reality and aim to understand the impact of potentially outdated beliefs on the endorsement of gender stereotypes and support for policies designed to promote pay equity.

THEORY

The Persistence of Negotiation Propensity Explanations for the Gender Pay Gap

Men and women are typically more similar than different, and trait levels vary widely within each gender (Hyde, 2014). Nevertheless, researchers at the intersection of organizational behavior, social psychology, and behavioral economics frequently compare qualities using averages across men and women, resulting in some significant differences

that render plausible a gender difference in negotiation propensity. For example, men are typically less averse to risk (Croson & Gneezy, 2009) and tend to feel more entitled (Bylsma & Major, 1992; Major, 1989; Major, McFarlin & Gagnon, 1984) than women, on average. Gender differences in entitlement have been explained in terms of differential social comparison. If women receive less than men and women compare themselves to other women while men to other men, a gender difference in expectations will perpetuate (Chesler & Goodman, 1977; Hartmann & Treiman, 1981). Other research has identified women as more reluctant to enter competitions than men under some conditions (Croson & Gneezy, 2009; Niederle & Vesterlund, 2011; Walters, Stuhlmacher & Meyer, 1998). One explanation is that women sometimes value interpersonal relationships and monetary gain differently than men do (Crosby, 1982; Kray & Gelfand, 2009; Rubin & Brown, 1975). Relatedly, both articles in the popular press (Kay & Shipman, 2014) and recent behavioral economic research (Exley & Kessler, 2019) claim that women's humility could be holding them back. All this research characterizes average behavior, not the behavior of individual men and women (which varies widely). Still, if women tend to be more risk averse, feel less entitled, compete less, and display more humility compared to men, on average, then a potential gender difference in the propensity to negotiate is plausible as an explanation for gender gaps in income. It sounds even more plausible considering the backlash directed at women who negotiate (Bowles, Babcock & Lai, 2007). If women receive more social penalties than men for negotiating, then it seems only rational for them to negotiate less often than men do (although this downstream effect has not been demonstrated empirically).

The laboratory evidence for a gender difference in negotiation propensity (Small et al., 2007) is limited by methodological issues. There, women were rated as initiating negotiations less often than men following a laboratory task, which translated into lower earnings. Among the studies meta-analyzed in Kugler et al. (2018), Small and colleagues' (2007) research has the largest effect size (i.e., among their five studies, Study 1 had an effect size six times larger than the average meta-analytic effect size), and therefore is often cited as evidence for a gender difference in negotiation propensity causing the gender pay gap. However, this evidence must be interpreted with caution because the research design did not utilize a double-blind procedure. The behavioral protocol in the "Boggle paradigm" involved an experimenter who indicates that pay is variable and then offers undergraduate research participants payment at the low end of the stated range. The key

dependent measure was based on a judgment by the experimenter involved in this face-to-face, dyadic interaction. Because experimenters were aware of participant gender, we cannot rule out the possibility of demand effects: Experimenters' perceptions or beliefs may have unconsciously and nonverbally conveyed expectations that could have impacted participants' behaviors (Kennedy & Kray, 2015). We are aware of one replication study of the Boggle experiment, and it did not find a gender difference in negotiation propensity (Montag-Smit, Sanborn-Overby & Batz, 2019).

More broadly, the belief that a gender gap in negotiation propensity is a key factor in explaining the gender pay gap may be an instantiation of gender stereotypes relating to our understanding of what determines success in the workplace. The business world, and particularly negotiation, has traditionally been considered a realm where masculine qualities reign and feminine qualities put people at a disadvantage (Bowles & Kray, 2013; Thompson, 1998). Lay theories of what negotiations entail suggest that stereotypically masculine traits (e.g., competitiveness, assertiveness) support negotiation effectiveness while stereotypically feminine traits (e.g., cooperativeness, accommodation) do not (Kray & Thompson, 2004). The notion that women are less prone to negotiate than men is consistent with cultural stereotypes about gender and with lay theories of what is ineffective in negotiations, allowing for ease of persistence.

Holding the belief that negotiation propensity can explain gender difference in pay may help to legitimize the pay gap as fair and just. Stereotypes can persist to make sense of social reality (Jost & Banaji, 1994), including existing divisions of labor with men occupying breadwinner roles and women occupying caretaking roles (Eagly & Steffen, 1984). The positive stereotype of male negotiators legitimizes their success as well-deserved and justified; the negative stereotype of female negotiators suggests that their plight is well-deserved and justified. By implying that people get what they deserve, the notion that women are reluctant negotiators who do not get what they do not ask for is consistent with the belief that the world is just (Lerner, 1980) and the system is fair (Jost & Banaji, 1994). Generally, highlighting choice as a concept reduces concern about inequality (Savani & Rattan, 2012).

In the same vein, explanations for the gender pay gap that are rooted in human capital theory look for gender differences in workers' knowledge and skills that could impact productivity (e.g., Lips, 2013; Olson, 2013). By this approach, the gender pay gap is more likely to seem fair and legitimate, especially when differences in human capital (e.g., hours worked, time taken away from work for child-

rearing) are attributable to individual choices. Still, even human capital theory-based explanations leave room for fairness-based explanations. Men and women can differ in human capital because women lack identical opportunities for networking, training, or skill development. If women negotiate less well or less frequently than men, the question remains as to whether this is by choice (i.e., they dislike negotiating) or due to fairness issues (i.e., they do not have access to negotiation training or they are discouraged by poor treatment when they do negotiate). The research by Bowles et al. (2007) on backlash provides a plausible explanation for why women could theoretically initiate negotiation less frequently than men, making it more acceptable for egalitarian minds to accept. The backlash effects could even justify the protection of women from negotiation experiences and suggest men should be willing to negotiate on women's behalf. We note that, while we use the label "choice" to reflect recent literature (e.g., Connor & Fiske, 2019), it is consistent with broader human capital explanations (Lips, 2013), including qualifications, skills, and immutable characteristics associated with biological sex such as childbearing. The range of human capital-based reasons for the gender pay gap, whether emphasizing women's choices, preferences, or opportunities are likely imperfectly but positively associated with the belief that the gender system is fair.

Legitimizing Gender Income Inequality through the Negative Stereotyping of Women Negotiators

Relative group status influences the attributions that are made about the differential distribution of resources in society between social groups, with high-status group members tending to favor individualistic explanations and low-status group members tending to favor structural explanations (Kluegel & Smith, 1986). In the case of gender income inequality, this implies that men, as historically higher-status members of society, are more likely than women, as historically lower-status members of society, to explain the gender pay gap in terms of women's choices and personal deficiencies, while women are more likely to explain the gender pay gap in terms of discrimination. Indeed, recent research has found evidence supporting this ideological polarization in how gender income inequality is explained in contemporary U.S. society (Connor & Fiske, 2019).

We posit that explanations citing gender differences in negotiation propensity may be an exception to this gendered pattern of endorsement. The existence of a negative stereotype about women negotiators (Kray et al., 2001) and the abundance of popular

messages indicating that women do not ask for more pay (Babcock & Laschever, 2003) may lead women to be as likely as men to attribute the gender pay gap to women's negotiating deficits. This would be consistent with social psychological theories that explain why empirically unsound beliefs continue to exist. Social dominance theory refers to "legitimizing myths" as the set of attitudes, beliefs, and practices that provide moral and intellectual justification to enable dominant groups to fare better than subordinate groups (Sidanius, Pratto & Bobo, 1994). Others have referred to the legitimizing ideologies adopted by both dominant and subordinate group members to justify unequal shares of societal resources (Major et al., 2002). System justification theory addresses why subordinate group members at times hold beliefs that run counter to their personal and group interests. Believing that women are paid less than men because they are not prone to negotiate their pay may help people make sense of otherwise hard-to-explain disparities in income. If it serves an ideological function, belief in a gender gap in negotiation propensity may continue to exist even if it is empirically untrue. People have a fundamental need to believe that the world that they live in is fair and just (Jost & Banaji, 1994; Lerner & Miller, 1978). Especially for women, believing that the gender pay gap is attributable to women's negotiating shortcomings may be an instantiation of *false consciousness* (Jost & Banaji, 1994), a state marked by holding negative beliefs about one's social group that are epistemologically false but useful for preserving existing social arrangements (Jost, 1995).

Here, we explore whether a gap exists between the beliefs that people hold about a gender difference in negotiation propensity and current reality. For women in particular, expecting a larger gender gap in negotiation propensity than actually exists today would be consistent with false consciousness (Crosby, 1982; Jost & Kay, 2005). The original *Women Don't Ask* book (Babcock & Laschever, 2003) was clearly undertaken with the positive intention of promoting gender equality, and it is consistent with the feminist zeitgeist during the 21st century encouraging women to "lean in" and try harder (e.g., Sheryl Sandberg's [2015] message). It is possible that popular messages across the last two decades encouraging women to be more assertive have contributed to a closing, or even a reversal, of historical gender gaps in negotiation propensity.

Consequences of Outdated Beliefs about Negotiation Propensity and the Gender Pay Gap

Lay beliefs about gender income inequality could determine real-world decisions and outcomes.

Beliefs about the right remedies for the gender pay gap may depend on its perceived causes. Indeed, empowerment messages such as "lean in" lead people to attribute more responsibility for gender inequality to women themselves (Kim, Fitzsimons & Kay, 2018). In contrast, research has found that gender differences in negotiation outcomes often occur because women are especially likely to be treated worse at the bargaining table. For instance, both field and experimental evidence indicate that men often receive better offers than women. One study examined offers to sellers on eBay, finding that for an identical product, women received roughly 80 cents for every dollar men received (Kricheli-Katz & Regev, 2016). Even for gift cards with the same monetary value, people were willing to pay less to a female seller than to a male seller. In a field experiment, female confederates attempting to negotiate the purchase of cars were given worse deals by car salespeople compared to male confederates (Ayres & Siegelman, 1995). A study examining pay (but not negotiation) found that women rated as having high potential were more highly compensated than men under some conditions (Leslie, Manchester & Dahm, 2017). In consumer industries and when diversity goals were present, high-potential women were paid more than high-potential men. However, for typical women, a gender pay gap favoring men continued to emerge. Notably, this research did not examine women's negotiation attempts per se (Leslie, Manchester & Dahm, 2017); thus, the role of negotiation propensity in this instance of a pay gap reversal is unknown.

To combat unequal treatment, some legislation prohibits employers from asking for salary histories. The salary history ban legislation generates a structural change to limit perpetuation of women's unequal compensation. Given that women have been disadvantaged in receiving equal pay in the past (and still in the present), the purpose of a salary history ban is to eliminate the possibility of inequality carrying over into new salary negotiations. Whatever men and women were earning previously, a salary history ban aims to give everyone a fair wage offer upon receipt of a new job offer. As of 2023, a total of 21 states in the United States have passed laws instituting salary history bans (HR Dive, 2022), and the U.S. House of Representatives passed the Paycheck Fairness Act of 2022, which includes a section regarding salary history bans. Research has found that a salary history ban improves outcomes for women (as well as other underrepresented groups) (Bessen, Meng & Denk, 2020; Hansen & McNichols, 2020; Sinha, 2019).

We ask whether support for salary history bans could covary with beliefs about the causes of the

gender pay gap. Attributing the gender pay gap to women's lower negotiation propensity could be associated with lower levels of support for a salary history ban policy. If negotiation-based explanations imply that women's lower wages are justified, then people who hold these beliefs might see less reason to support policies designed to amend the broader system.

OVERVIEW OF STUDIES

Study 1 explores people's predictions about the negotiating behavior of women and men—in general, and among those who hold MBA degrees. We draw from a nationally representative pool, selecting adults who might offer a diverse set of incentive-compatible predictions. The estimates made in Study 1 correspond to the data in Studies 2A and 2B, enabling a comparison of predicted to actual differences. We ask for overall estimates of propensity to negotiate and for more specific estimates of compensation-related events in the workplace.

Then, we explore in MBA datasets whether any gender difference in negotiation propensity emerge and, if so, in what direction. Doing so enables us to compare real-world patterns of data with lay beliefs. We examine data in the context of the highly educated, upper echelon of the income spectrum—namely, men and women who have MBA degrees. We believe that focusing on this subset of the population is appropriate for two reasons. First, as mentioned in the introduction, the gender pay gap is pronounced at the higher end of the earnings spectrum, which is generally where MBA graduates tend to be. Therefore, if women's lower propensity to negotiate is indeed a reason for the gender pay gap, we should find it where the gap is greatest. Second, men and women with MBAs have received the same formal advanced education in business-related skills, and therefore finding that gender differences in the propensity to negotiate exist even in this population would suggest that the negotiation propensity gap observed in laboratory settings among undergraduate students extends to working professionals.

Studies 2A through 2B present real-world data from a population of current and former MBA students at a top U.S. business school. We examine self-reported negotiating behavior in an exit survey among graduating MBA students (Study 2A) and compensation-related experiences from a survey administered by an MBA alumni office (Study 2B). Having data from students and alumni of the same MBA program provide a unique opportunity to examine whether negotiation-related behavioral tendencies can provide explanatory insights into the gender pay gap within the same population. We test

for a gender pay gap among this elite sample to replicate findings from prior research (Lee & Kray, 2021) and consider the possibility that women in this population could command a pay premium due to their high levels of potential combined with the diversity goals now common in some fields of business (Leslie et al., 2017).

Study 2C reanalyzes data from a recent meta-analysis (Kugler et al., 2018) to understand how our findings from Studies 2A and 2B square with its conclusion that, although the size of the gender difference in negotiation propensity varies widely, women typically negotiate less than men. We focus on the self-reported initiation of salary negotiations and explore gender differences along with the dimension of time (i.e., publication year) because we are curious whether changes in salary negotiation propensity over time are similar or different for women and men.

Study 3 further measures people's lay beliefs about the underlying causes of the gender pay gap. This study examines negotiation-based explanations relative to a subset of popular choice-based and fairness-based explanations (Connor & Fiske, 2019), enabling us to quantify the relative size of the gender pay gap that educated adults attribute to women's negotiating skills. This study also examines correlates of beliefs that “women don't ask” by measuring gender-specific system justification (Jost & Kay, 2005) and levels of support for legislation designed to promote pay equity. Finally, Study 4 experimentally induces beliefs that “women don't ask” and investigates the consequences for system justification. We explore changes in the endorsement of gender stereotypes and attributions of gender income inequality to choice, fairness, and negotiation-based explanations as outcomes of exposure to the “women don't ask” message. Taken together, our studies reveal a mismatch between beliefs about women's relative negotiation propensity and the actual pattern compared to men's, and document consequences of these potentially outdated beliefs. We preregistered Studies 1, 3, and 4, and share stimulus materials and data here: <https://osf.io/jmvba/>

STUDY 1

We first examined lay beliefs about gender differences in negotiation propensity by asking for overall estimations, specific estimations for compensation-related events in the workplace, and finally, offer amounts in a negotiation scenario.

Method

Participants. Participants comprised 300 respondents obtained from Prolific. We selected a

nationally representative sample. We excluded four people who missed a question checking for reading comprehension. The final sample ($n = 296$) included 145 men, 147 women, and four gender nonbinary people ($M_{\text{age}} = 45.7$, $SD = 16.2$). Participants had an average of 22.2 years of work experience ($SD = 14.5$), and 67% reported being currently employed. In terms of ethnicity, 11% were African American, 7% were Asian, 73% were Caucasian, 6% were Hispanic, 1% were Native American, and 2% identified with “other” categories.

Procedure. The order in which participants responded to the tasks was randomized. Participants were incentivized by a bonus payment to make accurate estimates. Bonus payments were awarded for estimates that were within five percentage points of the actual figures. Base pay for the study was \$0.65 and potential bonus pay was up to \$2.80, meaning participants could earn nearly five times their base pay for estimating accurately.

Negotiation propensity estimates. Participants read that we had surveyed women and men in an MBA program on whether they negotiated their job offer (actual results reported in Study 2A). Participants were asked to estimate the percentage of women and men that responded that they had negotiated their job offer. Participants were given two sliders ranging from 0 to 100, one for estimating a percentage for women and one for men. The order in which the “men” and “women” sliders were presented was randomized. Participants were offered a bonus for each estimate within 5 points of the actual percentage (determined by percentages from Study 2A).

Compensation-related events estimates. Participants were then told that we had surveyed working adults who were alumni of an MBA program on compensation-related events during their work experiences. Participants were asked to estimate the percentage of women and men with MBAs that reported having experienced seven types of events in the workplace. The seven events fell into four categories drawn from Artz et al. (2018): *positive outcomes from asking events*, *negative outcomes from asking events*, *positive outcomes from no-asking events*, and *negative outcomes from no-asking events*. Participants were offered a bonus for each estimate within 5 points of the actual percentage. Actual percentages for this measure were measured and determined using the data in Study 2B.

Results

Negotiation propensity estimates. Participants estimated that a lower percentage of women ($M = 46.80$, $SD = 21.92$) than men ($M = 63.99$, $SD = 20.46$) negotiated their job offer, $t(294) = -15.24$, $p < .001$, $d = 0.89$. The results indicate acceptance of the “women don’t ask” adage among a population of people representative of the U.S. adult population, suggesting that this belief is widely accepted throughout American society.

Compensation-related events estimates. Participants made different estimates for women versus men for each of the event estimates. Table 1 shows means and comparison statistics.

Participants estimated that a greater percentage of women than men reported having negative

TABLE 1
Compensation-Related Events Estimates in Study 1

	Men Estimate	Women Estimate	
Specific Event	<i>M (SD)</i>	<i>M (SD)</i>	Estimate Comparison
Positive Asking Events			
Successfully asked for and achieved a promotion	62.18% (19.88)	40.07% (20.13)	$t(294) = -22.22, p < .001, d = 1.29$
Successfully negotiated for better compensation	63.34% (19.30)	41.48% (20.83)	$t(294) = -20.71, p < .001, d = 1.21$
Negative Asking Events			
Attempted to attain a promotion but was unsuccessful	37.90% (18.02)	51.09% (21.73)	$t(294) = 10.17, p < .001, d = 0.59$
Attempted to negotiate for better compensation but was unsuccessful	36.45% (18.74)	49.54% (22.81)	$t(294) = 9.89, p < .001, d = 0.58$
Positive No Asking Event			
Received better compensation without asking for it	52.93% (21.44)	31.22% (18.64)	$t(294) = -20.28, p < .001, d = 1.18$
Negative No Asking Events			
Never attempted to attain a promotion	30.88% (20.09)	46.86% (24.77)	$t(294) = 11.85, p < .001, d = 0.69$
Never attempted to attain better compensation	28.90% (19.30)	43.62% (23.95)	$t(294) = 11.91, p < .001, d = 0.69$

no-asking events (e.g., women not asking). Participants estimated that more women than men reported never attempting to negotiate for better compensation. Estimates of never attempting to attain a promotion were similar, with more women estimated to not attempt than men.

Interestingly, lay beliefs have a level of complexity: in addition to the belief that women are not asking as much as men, participants estimated that even in cases where women do ask, they face less success and more failure. People held a baseline expectation of more positive treatment of men than of women. Participants estimated that fewer women than men reported having successfully negotiated for better compensation. Participants also estimated that more women than men reported being unsuccessful at negotiating for better compensation. A nearly identical pattern emerged for promotions, with fewer women than men expected to have successfully negotiated for a promotion. Participants also estimated that more women than men reported being unsuccessful at negotiating for a promotion. Finally, more men were thought to have received better compensation without asking for it than women.

Discussion

Study 1 measured lay beliefs regarding a gender difference in negotiation propensity. People believe that “women don’t ask”—that is, they negotiate their salaries less often than men and they are more likely than men to have never negotiated their compensation. The estimates of compensation-related events indicate additional nuance: people not only estimated that fewer women successfully negotiated for better compensation and promotions than men, but also estimated that women faced less success and more failure when they did ask. Men, in contrast, were estimated as being more likely to receive better compensation without even asking for it. The results reflect two types of lay beliefs: Women are understood to approach promotions and compensation differently than men (i.e., by not asking), and people are understood to react differently to men versus women both when they ask and when they do not. In the next set of studies, we examine whether “women don’t ask” reflects recent trends among MBA and working adult populations. We also explore how often men and women experience the compensation-related events estimated here.

STUDY 2A

Study 2A examined the actual negotiation propensity of women and men who hold MBAs. Negotiating is a critical skill within this population and a large

pay gap emerges within it, increasing over time (Bertrand et al., 2010; Lee & Kray, 2021), making it an interesting context in which to test for gender differences in negotiation propensity. Specifically, we analyzed archival data from an exit survey conducted by a career management office with graduating MBA students on whether they had negotiated their job offers for their first jobs out of the MBA program.

Method

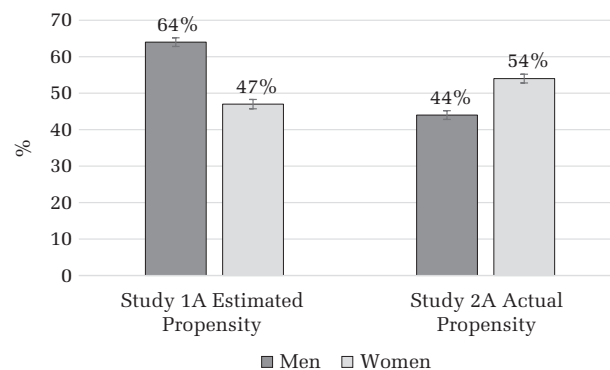
Participants. Participants included $n = 990$ MBA students (596 men and 394 women) in their final year graduating between the years of 2015 and 2019. This represents 79% of the graduating classes. We were not privy to any other demographic information of the respondents, but materials on this MBA program’s website state that MBA classes are 40% women, 29% U.S. underrepresented students, and 39% international students.

Procedure. Graduating students were asked to share information regarding their job search process and outcomes in a general exit survey conducted by the career management office. The question of interest to our research is, “Did you negotiate your offer?” referring to the offer they received for the job they accepted upon graduation. Students responded using a binary choice response with either “Yes” or “No.”

Results and Discussion

The percentage of women who reported that they had negotiated their offer (54%) was greater than that of men (44%), $\chi^2(1) = 11.21, p = .001$. These results are inconsistent with the notion that “women don’t ask” as, in this sample, women negotiated at an even higher rate than men—a pattern that cannot be explained by existing theory. Figure 1 compares the

FIGURE 1
Comparing Estimated with Actual Gender Differences in Propensity to Negotiate Salaries



Note: Error bars indicate + or – one standard error.

difference in men's and women's actual negotiation propensity in Study 2A with participants' estimations from Study 1. In the actual data, a greater percentage of women than men reported negotiating their job offers.

We also examined whether negotiating tendencies increased over the five years in which the data were collected (between 2015 and 2019). However, we did not find evidence to support this possibility, $\chi^2(1) = 2.88, p = .58$.

The results of Study 2A suggest that, contrary to existing theory and the gender similarities hypothesis (Hyde, 2014), women in this MBA program exhibited a greater negotiation propensity compared to their male counterparts when seeking their first job after their MBA graduation. If their negotiating propensities were greater than men's, then the data cast doubt on the ability of women's negotiation propensities to explain gender differences in pay that typically exist in this population (Bertrand et al., 2010; Lee & Kray, 2021). Our findings could explain the results of Leslie et al. (2017), where high-potential women were paid more than men in some industries and when diversity goals were active. Perhaps those women are negotiating their offers more frequently. In the following study, we test more directly whether negotiating behavior is a viable explanation for the gender pay gap in this MBA population.

STUDY 2B

Study 2B took advantage of a data collection opportunity through the MBA alumni office from the same business school as in Study 2A. We measured both compensation and the occurrence of events affecting compensation, such as negotiating for higher compensation or asking for a promotion, to examine whether gender differences in these behaviors could explain the gender pay gap. This alumni office conducts a "compensation survey" every few years to gather data on the outcomes of their graduates. For their 2019 collection, the alumni office included a multi-pronged question borrowed from Artz et al. (2018) on compensation-related events, along with a broader collection of compensation and job characteristics data. These data allowed us to examine the relation between these events and earned compensation. In this way, we could examine whether gender income inequality existed in this population and, if so, whether it corresponded with a pay gap favoring men, as previously documented among MBA program graduates (Bertrand et al., 2010; Lee & Kray, 2021), or with a pay gap favoring women, as documented among the highest-potential employees in some industries (Leslie et al., 2017). More importantly, the data allowed us to test

whether the pay gap could be explained by women's lesser tendencies to negotiate, as past research has suggested.

Method

Participants. In total, 2,191 MBA graduates (71% male, 28% female, 1% declined to state, 1% nonbinary) completed the survey.² Due to our interest in comparing male and female respondents, and since some participants did not respond to all survey questions, the sample size in our analyses included data from 1,939 (72% male, 28% female) respondents.

Procedure. An online survey was sent to alumni through the alumni relations office to assess compensation levels of graduates along their career trajectories. The survey was collected in the autumn of 2019. The alumni office sent out an e-mail to their entire alumni database with a link to the survey.

Negotiating behaviors. The question taken from Artz et al. (2018) asked respondents about the same seven compensation-related events from Study 1. Participants indicated whether they had experienced the four types of events (*positive outcomes from asking events*, *negative outcomes from asking events*, *positive outcomes from no-asking event*, and *negative outcomes from no-asking events*) throughout their employment with their current employer (average length of employment: $M = 3.30$ years, $SD = 2.08$). Specifically, the question stated, "Which of the following best describes the actions you have taken in relation to your wage/salary since you commenced your employment with your employer?" Participants were asked to indicate each event that applied to them ($M = 1.32$, $SD = 0.59$; range: 1–4).

The events included two types of *positive outcomes from asking events*, where asking behavior resulted in a positive outcome: (1) successfully attained a promotion, and (2) successfully negotiated better compensation; two types of *negative outcomes from asking events*, where an asking behavior resulted in a negative outcome: (1) attempted to attain a promotion but was unsuccessful, and (2) attempted to negotiate better compensation but was unsuccessful; one type of *positive outcome from no-asking event*, where a positive outcome occurred without an action taken: received better compensation without asking for it; and finally, two types of *negative outcomes from no-asking events*, where a negative outcome occurred without an action taken: (1) did not attempt to attain a promotion, and (2) did

² All alumni who had graduated between 1990 and a year prior to the survey year, for whom the school had e-mail addresses, and who had not opted out of e-mails from the alumni office received the invitation. The response rate was 22%.

not attempt to attain better compensation. The exact wording of the compensation-related events appears in Appendix A in the Additional Materials.

Compensation. Respondents provided details about their current compensation, including their annual base salary and annual bonus. The combination of these two elements was used as a measure of compensation.

Results and Discussion

Gender pay gap. To measure the size of the gender pay gap, compensation was log-transformed for ease of interpretation, where the coefficients approximate percentage changes, in line with prior research (e.g., Bowles et al., 2005). Compensation was regressed on gender (coded 0 for male, 1 for female). The coefficient for gender was significant, $b = -0.22$, $SE = 0.03$, $p < .001$, indicating that women's compensation was 22% less than men's compensation.

Negotiating behaviors. Table 2 presents responses to each item as well as across category types, by gender.

The only significant gender difference among the seven compensation-related events to emerge was a greater tendency for women than for men to report unsuccessful attempts to negotiate raises within their current roles. Overall, replicating the previous study, collapsing across both positive and negative asking attempts revealed a *greater* (not lesser) propensity to ask by women than men, in contrast to lay beliefs in Study 1, which comported with existing theory about women's lower propensity to negotiate.

Figure 2 further compares the difference in men's and women's actual negotiation propensity in Study

2B with participants' estimations from Study 1. In the actual data, a greater percentage of women than men reported negotiating their job offers.

Negotiating behaviors explaining the gender gap. Given women's greater, not lesser, tendency to ask, a gender difference in negotiation propensity cannot account for the gender pay gap found in these alumni data, wherein women earned less, not more, than men. We formally tested the extent to which asking propensity accounts for the gender pay gap by rerunning ordinary least squares (OLS) regression analysis of the gender pay gap, including dummy variables for whether an individual engaged in asking behavior and for gender (coded 0 for male, 1 for female). The coefficient of the asking variable was positive and significant, $b = 0.07$, $SE = 0.03$, $p = .010$, indicating an overall positive effect of asking behavior on total compensation. However, the coefficient on the gender variable remained unchanged, $b = -0.23$, $SE = 0.03$, $p < .001$.

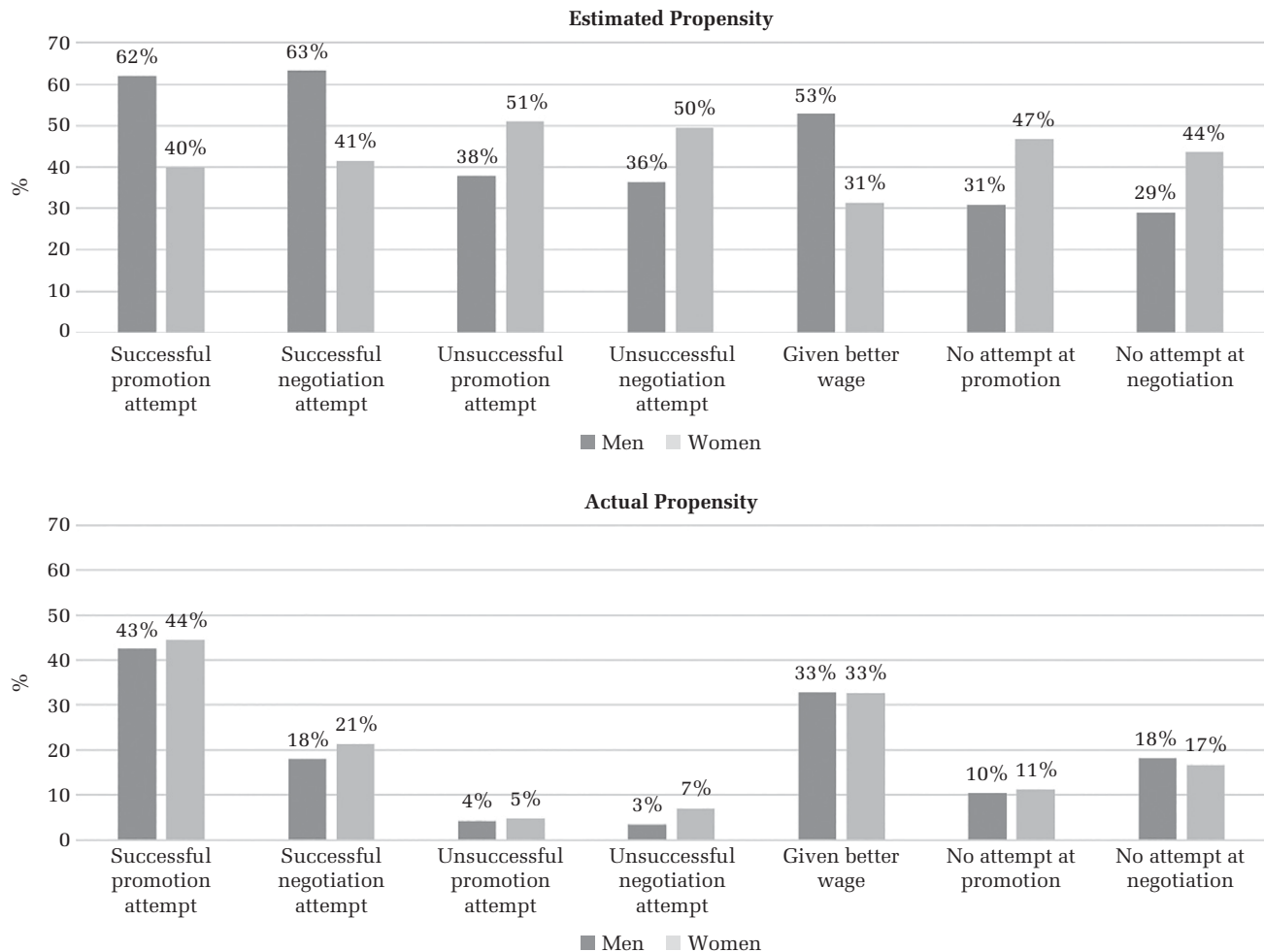
We emphasize that the takeaway of these results is not that asking behavior is not beneficial: Asking behavior was associated with consequential outcomes, as evidenced by successful asking correlating positively with compensation ($r(1937) = .09$, $p < .001$) and unsuccessful asking correlating negatively with compensation ($r(1937) = -.10$, $p < .001$). While approximately one-third of respondents indicated they were given higher wages by their employers without asking, and this was associated with higher compensation ($r(1937) = .06$, $p = .01$), it was also the case that failing to ask for raises ($r(1937) = -.11$, $p < .001$) and promotions ($r(1937) = -.07$, $p < .001$) were negatively correlated with compensation. Individuals, both men and

TABLE 2
Compensation-Related Events of MBA Alumni in Study 2B

Asking Category	Specific Event	MBA Alumni		Gender Comparison	Correlation with Compensation
		Men ($n = 1,388$)	Women ($n = 551$)		
All Asking Events		59.15%	64.07%	$\chi^2 = 3.99$, $p = .046$	$r(1937) = .05$, $p = .031$
Positive Outcome from Asking Events					
	Successful promotion attempt	42.58%	44.46%	$\chi^2 = 0.57$, $p = .450$	$r(1937) = .09$, $p < .001$
	Successful negotiation attempt	18.08%	21.42%	$\chi^2 = 2.84$, $p = .092$	$r(1937) = .01$, $p = .677$
Negative Outcome from Asking Events					
	Unsuccessful promotion attempt	4.25%	4.90%	$\chi^2 = 0.39$, $p = .531$	$r(1937) = -.05$, $p = .028$
	Unsuccessful negotiation attempt	3.46%	6.90%	$\chi^2 = 11.00$, $p = .001$	$r(1937) = -.09$, $p < .001$
All No Asking Events		55.04%	52.63%	$\chi^2 = 0.92$, $p = .336$	$r(1937) = -.02$, $p = .364$
Positive Outcome from No Asking Event					
	Given better wage	32.85%	32.67%	$\chi^2 = 0.01$, $p = .938$	$r(1937) = .06$, $p = .008$
Negative Outcome from No Asking Events					
	No attempt at promotion	10.45%	11.25%	$\chi^2 = 0.27$, $p = .604$	$r(1937) = -.07$, $p < .001$
	No attempt at negotiation	18.16%	16.70%	$\chi^2 = 0.58$, $p = .448$	$r(1937) = -.11$, $p < .001$

Notes: Collapsed categories were coded 0 and 1. The compensation measure was a combination of base salary and bonus.

FIGURE 2
Comparing Estimated with Actual Gender Differences in Compensation-Related Events



women, should thus be encouraged to ask, as doing so predicts higher compensation. However, the results of this study suggest that women's failure to ask does not explain the gender pay gap, and, when women do ask, they may be turned down more often than men in getting what they asked for.

Discussion

The results of Study 2B show that women in this MBA alumni population were more likely to negotiate or to ask than men, in line with the findings in Study 2A. In contrast to lay beliefs, women had *more*, not fewer, instances of trying to achieve better compensation through negotiation. Importantly, differences in negotiating behavior did not account for the gender gap in compensation.³ The gender gap in

compensation in this MBA population remained, with women earning less than men, despite the evidence suggesting that women attempted to negotiate more than men did. This pattern of women asking but not getting builds on recent work by Artz et al. (2018) by showing that this same pattern occurs

base salary, bonus, and shares using the *Name Your Price* negotiation exercise (Hall, Malhotra & Bennett, 2008). Men ($M = \$116,052$, $SD = 19,221$) and women ($M = \$118,673$, $SD = 22,192$) did not significantly differ in their request for salary, $t(440) = -1.282$, $p = .20$, $\eta_{p2} = .004$. Bonus requests also did not differ across men ($M = \$52,396$, $SD = 71,847$) and women ($M = \$54,761$, $SD = 90,532$), $t(430) = .295$, $p = .77$, $\eta_{p2} = .000$. Finally, the number of shares requested by men ($M = 15,115$, $SD = 18,908$) and women ($M = 14,167$, $SD = 13,942$) did not significantly differ, $t(432) = .534$, $p = .59$, $\eta_{p2} = .001$. The results suggest that men and women are similarly ambitious in their requests.

³ In a separate study of MBAs ($n = 445$), we tested whether women and men asked for different quantities of

among a sample wherein a pay gap exists that disfavors women. Our results suggest that both lay theories and the gender similarities hypothesis (Hyde, 2014) require updating in the realm of negotiation propensity. Although these studies do not account for differences in job characteristics (e.g., industry, function), this limitation also holds for all of the self-reported negotiation propensity studies included in the Kugler et al. (2018) meta-analysis.

STUDY 2C

Studies 2A and 2B found that women negotiated their salary more often than men did among samples of people holding MBA degrees. On its face, this finding appears to be at odds with the results of Kugler et al. (2018), whose meta-analysis reported a small, heterogeneous pattern whereby women negotiate less often than men (Hedges' $g = 0.20$), on average. Their results combined four types of measures of negotiation propensity: actual behavior (laboratory), retrospective or prospective self-reports, scenario responses, and dispositional measures. A common issue affecting meta-analyses is the averaging of incomparable dependent measures (Simonsohn, Simmons & Nelson, 2022). To minimize the potential impact of this issue on our understanding of the relationship between gender and negotiation propensity, Study 2C reports a reanalysis of the Kugler et al. (2018) data. We focus the reanalysis on the dependent measure that is most comparable to our dichotomous measures from Studies 2A and 2B: self-reported negotiation propensity about salary.

A secondary goal of Study 2C was to examine more closely the pattern of negotiation propensity for each gender over time. Kugler et al. (2018) predicted and found evidence for a decrease in the magnitude of the gender difference in negotiation propensity over time, reasoning that the degree of inconsistency between female and male gender roles has declined over time. We expand on their analysis by examining changes in negotiating rates of women and men separately. If women's increase in negotiation propensity over time exceeds that of men, then it suggests that the findings of Studies 2A and 2B are potentially explained by a broader reversal of the historic pattern in recent years. We reasoned that a variety of factors could have impacted women's negotiation propensity such that it rose over time, including changes in gender stereotypes, knowledge of the gender pay gap, women's potential desire to self-negate (i.e., react against, Kray et al., 2001) negative stereotypes in the realm of negotiations, women's advancement in terms of educational and career achievements, and popular messages by leading executives encouraging assertiveness and agency

from women (e.g., Sheryl Sandberg's [2015] *Lean In* messaging). Therefore, the gender difference in negotiation propensity might have not only decreased in magnitude but also disappeared or even reversed. Prior analyses left unclear whether the gender gap has remained statistically significant in recent years and, if so, in what direction. We aimed to both replicate the moderation of the gender difference in negotiation propensity by year, following Kugler et al. (2018), and to further specify the pattern. As a final step, we added our data to test robustness.

Method

Inclusion criteria. From Kugler et al.'s (2018) review of retrospective or prospective studies ($k = 18$; $n = 8,695$), we identified the subset of studies that measured self-reported initiation of salary negotiations using a dichotomous measure to ensure comparability with Studies 2A and 2B.⁴ Kugler et al. (2018) noted the significance of focusing on salary and career negotiations because the effect size for gender was smaller when studies were limited to this subset. As a final step, we added our data from Studies 2A and 2B to the analysis of gender and salary negotiation propensity over time. Kugler et al.'s (2018) meta-analysis included nine studies measuring self-reported initiation of salary negotiations, published between 1982 and 2015.⁵

Statistical methods. Following Kugler et al. (2018), we used Comprehensive Meta-Analysis Software⁶ to compute a Hedges' g -statistic effect size for the gender difference in the propensity to negotiate salary (Borenstein, Hedges, Higgins & Rothstein, 2011). We also report Z -values, standard errors, and confidence intervals (CIs) for the effects, utilizing a

⁴ We thank the authors for generously volunteering their retrospective/prospective data to facilitate this analysis. While reanalyzing their full results is beyond the scope of our investigation, we hope our analyses help to shed light on the specific pattern underlying the heterogeneity found in their results. After first confirming that we could reproduce their result of a Hedges' $g = .13$ for the $k = 18$ retrospective/prospective studies, we excluded the studies with dependent measures incomparable to ours, including self-reported assertiveness on Likert scales, open-ended self-reported time since last negotiation (any topic), negotiations over grades, and studies drawing from teenage populations.

⁵ To explore whether additional studies with a comparable dependent measure were published between 2015 and 2023, we conducted a literature search on Web of Science using the identical search terms used by Kugler et al. (2018: 11). While our search generated 50 articles within this timeframe, none of them had dependent measures that fit our inclusion criteria.

⁶ Retrieved from <https://www.meta-analysis.com/>

random-effects model that accounts for both participant-level and study-level sampling errors. An advantage of traditional meta-analysis is that it is unbiased by sample size, as Kugler et al. (2018: 15) note.

Results

Meta-analysis of gender differences in salary negotiation propensity. A meta-analysis of Kugler et al.'s (2018) studies of self-reported initiation of salary negotiation ($k = 9$; $n = 5,108$) yielded no evidence of a statistically significant gender difference (Hedges' $g = -.01$, $SE = .05$, $Z = -0.21$, $p = .84$, 95% CI: -0.11 , 0.67). Table 3 describes the publications included in our analyses. Next, we added our data from Studies 2A and 2B ($k = 11$, $n = 8,037$). The pattern for gender remained statistically nonsignificant, indicating that women and men had initiated salary negotiations to similar degrees (Hedges' $g = -.02$, $SE = .06$, $Z = -0.33$, $p = .74$, 95% CI: -0.13 , 0.09).

Meta-regression of gender differences in salary negotiation propensity over time. We next conducted a meta-regression within the Comprehensive Meta-Analysis Software with the year of publication predicting the Hedges' g approximating the gender difference in the propensity to negotiate. The year of publication served as a proxy for time (min. = 1982, max. = 2015). Using an unrestricted maximum likelihood model, we found that the gender difference significantly declined over time ($k = 9$, $B = -.01$, $Q(1) = 4.19$, $p = .04$, 95% CI: $-.02$, $-.00$). This pattern is consistent with results reported by Kugler et al. (2018) based on their entire dataset ($k = 55$, $n = 17,504$). Figure 1 in the Additional Materials depicts the results. We next reconducted the analysis including the data from our two studies. Again, the gender difference decreased over time per the analysis ($k = 11$, $B = -.01$, $Q(1) = 13.57$, $p < .001$, 95% CI: $-.02$, $-.01$).

Logistic regression predicting salary negotiation propensity over time by gender. As a final step, exploring changes in negotiation propensity over time separately for women and for men, we conducted logistic regression analyses predicting salary negotiation propensity with gender, year of publication (as a proxy for time), and the interaction term. We mean-centered the predictor variables to reduce multicollinearity. We first analyzed the self-reported data from the Kugler et al. (2018) meta-analysis described above ($n = 5,108$). Three statistically significant effects emerged. First, the odds of negotiating increased over time, $OR = 1.01$, Wald $\chi^2 = 3.84$, $p = .050$ (OR refers to odds ratio). Second, the odds of negotiating were 29% higher for women than men, on average, $OR = 1.29$, Wald $\chi^2 = 18.53$, $p < .001$. Finally, a time-by-gender interaction emerged,

TABLE 3
Summary of Studies Included in Reanalysis of Kugler et al.'s (2018) Meta-Analysis with Self-Reported Initiation of Salary Negotiation in Study 2C

Study	Journal	Sample	Negotiation Type	Study Total n	Men Who Negot./Total	Women Who Negot./Total	Direction	χ^2	p -Value
1. Crothers et al. (2010)	<i>Psychologist-Manager Journal</i>	Employees	Salary	303	78/114	123/189	M > W	0.36	.55
2. De Riemer, Quarles and Temple (1982)	<i>Research in Higher Education</i>	Employees	Salary	444	125/337	34/107	M > W	1.00	.32
3. Gerhart and Rynes (1991)	<i>Journal of Applied Psychology</i>	MBA students	Salary	205	35/153	8/52	M > W	1.31	.25
4. Holliday, Griffith, De Castro, Stewart, Ubel and Jagsi (2015)	<i>Journal of General Internal Medicine</i>	Employees	Salary	1,256	244/680	247/576	W > M	6.42	.01
5. McLaughlin and Hesli (2013)	<i>Political Science and Politics</i>	Employees	Salary	1,399	190/1,049	70/350	W > M	0.62	.43
6. O'Shea and Bush (2002)	<i>Journal of Business and Psychology</i>	Employees	Salary	211	10/65	32/146	W > M	1.20	.27
7. Probert (2005)	<i>Gender, Work, and Organization</i>	Employees	Salary	181	116/141	30/40	M > W	1.06	.30
8. Simmer (2013) ^a	<i>Unpublished manuscript</i>	Mixed sample	Salary	1,011	204/402	307/609	M > W	0.01	.92
9. Traavik (2008) ^a	<i>Unpublished manuscript</i>	Employees	Salary	98	9/51	5/47	M > W	0.98	.32

^aIndicates manuscript was unpublished at time of meta-analysis publication, and the year of the unpublished manuscript is reported here.

indicating that the relationship between negotiation propensity and time depended on gender, $OR = 1.03$, Wald $\chi^2 = 17.54$, $p < .001$. Examining each gender's negotiating trend over time reveals that women ($OR = 1.02$, Wald $\chi^2 = 15.43$, $p < .001$) appear to have increased their negotiation propensity over time, but men have not ($OR = 0.99$, Wald $\chi^2 = 2.52$, $p = .11$).

We then added our data from Studies 2A and 2B ($n = 8,037$) to the Kugler et al. (2018) studies described above. Results were similar in both sets of analyses. Again, three statistically significant effects emerged. First, the odds of negotiating increased over time, $OR = 1.02$, Wald $\chi^2 = 57.41$, $p < .001$. Second, the odds of negotiating were 31% higher for women than men, on average, $OR = 1.31$, Wald $\chi^2 = 32.57$, $p < .001$. Finally, a time-by-gender interaction emerged, indicating that the relationship between negotiation propensity and time depended on gender, $OR = 1.03$, Wald $\chi^2 = 20.18$, $p < .001$. Examining each gender's negotiating trend over time reveals that both men ($OR = 1.01$, Wald $\chi^2 = 11.57$, $p = .001$) and women ($OR = 1.04$, Wald $\chi^2 = 52.78$, $p < .001$) appear to have increased their negotiation propensity over time, but the change could be greater for women ($r [3053] = .14$, $p < .001$) than for men ($r [4980] = .05$, $p = .001$), $Z = -3.82$, $p < .001$. A scatterplot (see Figure 3) shows the predicted probabilities for propensity to negotiate salary for men and women across the Kugler et al. (2018) timespan of 1982–2015 and including our 2023 data. The results suggest that men reported a greater propensity to negotiate than did women early in the era, but the

gender difference may have disappeared around 1994 and then reversed beginning around 2007, and this trend appears to have continued growing since then.

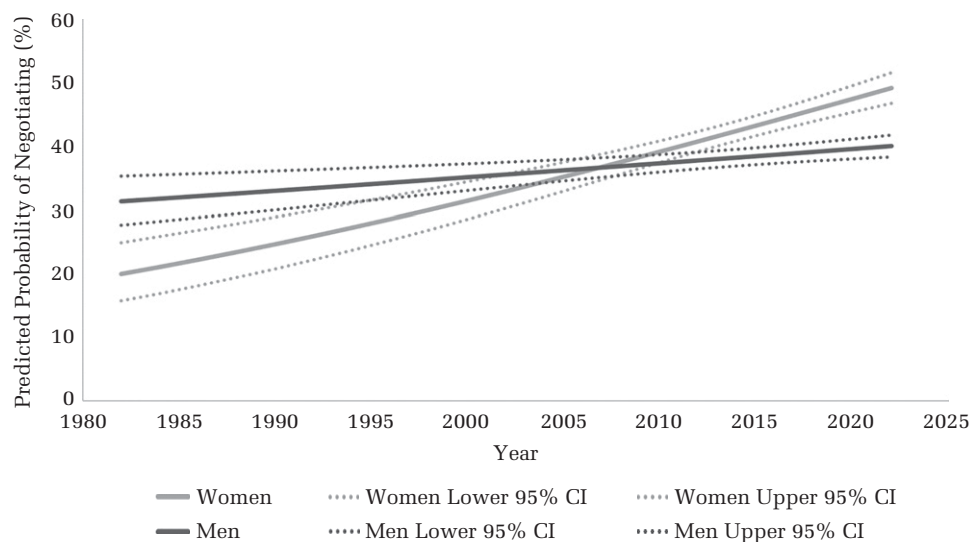
Discussion

Our analysis suggests that, when it comes to salary negotiations within the past two decades, women do ask—now, potentially at a rate even greater than men. Accordingly, it could be time to update beliefs about gender differences in negotiation propensity. While Study 2B found no evidence of a change in relative negotiation propensity by gender over time, it examined only recent years (2015–2019). Our analysis of a longer timespan suggests that women may have increased their salary negotiation propensity to a greater extent than men over time, shedding some light on the reversal observed in Studies 2A and 2B. We highlight these trends carefully because many factors changed over the last few decades that may have impacted gender gaps in negotiation propensity, and more work is needed to explain the pattern. However, the reversal might point to the value of promoting women's agency, possibly contributing to women negotiating salaries more often in the modern era than in the past.

STUDY 3

The initial set of studies provides evidence that, among an elite population of MBAs experiencing a significant gender pay gap, women were more likely

FIGURE 3
Gender Difference in Negotiation Propensity over Time (Individual Participant-Level Data, Study 2C)



Note: Depicts nine studies from 1982–2015, as reported in Kugler et al. (2018), and two studies from 2023 (current Studies 2A and 2B).

than men to attempt to negotiate their job offers. Study 1's results paired with Studies 2A and 2B suggest that the belief that, among MBA graduates, women negotiate salary less often than men runs *contrary* to current empirical reality.

The present study extends our investigation by examining the extent to which people believe that a gender difference in the propensity to negotiate is responsible for the gender pay gap, comparing the prevalence of this negotiation-based explanation with two previously identified explanations for the gender pay gap (i.e., choice and fairness). We examine these beliefs in two formats: first, we look for spontaneous mentions of each type of explanation to assess their popularity; second, we test comparative judgments that force participants to rank the relative importance of each category of explanation. Taking both approaches enables us to gain a nuanced understanding of the perceived importance of negotiation propensity in contributing to the gender pay gap.

This study also tests whether the belief in a gender gap in negotiation propensity corresponds with less support for salary history bans through greater gender-specific system justification. If so, then it may suggest that holding now-outdated beliefs is a barrier to closing the gender pay gap. Finally, we explored whether men and women differed in their beliefs about negotiation propensity as an explanation of the gender pay gap. Prior work has shown that women and men explain the gender pay gap differently, with women endorsing explanations that emphasize individual choice less compared to men, and explanations that emphasize unfairness more compared to men (Connor & Fiske, 2019). This is consistent with trends for higher-status people to explain inequality in terms of choice whereas lower-status people explain it in terms of fairness (Kluegel & Smith, 1986). On one hand, because the negotiation propensity explanation cites women's own choices about their behavior, women may endorse it less than men. On the other hand, the seemingly widespread permeation of this explanation suggests that perhaps women endorse it as much as men. If so, then this pattern would meet both criteria for false consciousness whereby (a) people hold inaccurate beliefs that (b) sustain existing social arrangements (Jost, 1995).

Method⁷

Participants. Participants ($n = 503$) were U.S.-based adults from Prolific who held at least a

bachelor's degree and reported having managerial experience. They received \$1.50 for participating. Following our preregistration, we excluded those who missed at least one of three reading comprehension checks, leaving a final sample of 449 people. The sample included 216 women (48%), 220 men (49%), 12 nonbinary (3%) persons, and one who preferred not to say. The average age was 42.8 years ($SD = 13.4$).

Procedure. Participants completed an online survey. First, information about the size and trend in the gender pay gap among the general population was presented. Participants read a short paragraph describing that women make on average \$0.84 for every dollar earned by men, and saw a graph from Pew Research depicting the pay gap's size since 1980. Then, they answered a reading comprehension check and the dependent variables in the order listed below. After completing the questions addressing the gender pay gap in the general population, they read a short paragraph describing how the gender pay gap expands in the years after people complete an MBA degree. A graph taken from Bertrand et al. (2010) displayed the size of the gender pay gap by years since the MBA. Then, the same dependent variables appeared addressing the pay gap within this elite population. Next, participants read an excerpt from the Paycheck Fairness Act (2022) prohibiting employers from using an employee's wage history to set compensation (the excerpt appears in Appendix B of the Additional Materials). After reading the excerpt, participants responded to a reading comprehension check, questions measuring support for the legislation, and statements endorsing gender-specific system justification. To ensure that we adequately captured variation in the extent to which participants considered negotiation propensity to be a driver of the gender pay gap, we elicited both spontaneous mentions of this factor and endorsement compared to popular choice and fairness explanations, which we describe below.

Explanations for the gender pay gap (spontaneous mentions). After viewing the statistics regarding the gender pay gap, participants were asked to indicate what they thought drives it using an open-ended format. The question invited respondents to indicate

⁷ The Additional Materials describe a pilot study ($n = 697$) conducted to establish negotiation-based explanations for the pay gap as distinct from choice and

fairness-based explanations (Connor & Fiske, 2019). This study examined support for the endorsement of 22 explanations for the gender pay gap that were drawn from both the academic literature and the popular press on a 7-point scale with endpoints of 1 ("entirely untrue") to 7 ("entirely true"). Replicating Connor and Fiske's (2019) results, we observed distinct choice and unfairness clusters. Additionally, negotiation propensity constituted a third factor.

multiple reasons. We coded responses by asking three independent raters to read a subsample of the responses and score them. Each response received scores along three dimensions from two of the raters. First, raters indicated whether the explanation discussed gender differences in negotiating, asking for a higher salary, or assertiveness (1 = yes, 0 = no). This indicated inclusion in the negotiation-based category of explanations. Second, raters indicated whether the explanation discussed gender differences in personal factors that contribute to one's economic value (e.g., education, work experience, hours worked) (1 = yes, 0 = no). This indicated belief in human capital gender differences, summarized as the choice-based category, to be consistent with labels from prior research (Connor & Fiske, 2019). Third, raters indicated whether the explanation discussed gender differences in advantages and disadvantages due to prejudice, discrimination, bias, or structural barriers (e.g., access to power, information, or enforcement of laws) (1 = yes, 0 = no). If at least one of the raters scored the response as being non-codable ($n = 49$), it was excluded from the analysis. These comments, upon review, were either gibberish, a nonanswer (e.g., "I have no idea"), a refutation of the facts (e.g., "I don't believe there is a gender pay gap"), a restatement of the problem (e.g., "the larger salaries men receive," or "men make more from the start"), or provided too little information to be comprehensible (e.g., "society is the reason," "the way employers respond to them"). The two ratings of the 400 remaining responses were averaged to form a scale for the negotiation-based ($\kappa = .81$), choice-based ($\kappa = .59$), and unfairness-based ($\kappa = .65$) scale categories. A value of 1.00 indicated that both raters thought the item represented the category of explanation; a value of 0.50 indicated that one of the raters included the item in the category, and a value of 0.00 indicated that neither of the raters included the item as representative of the category.

Explanations for the gender pay gap (comparative judgments). Participants indicated what percentage (from 0% = *none* to 100% = *all*) of the gender pay gap they thought was explained by each set of three statements. Although no labels were given for the categories, one set of statements addressed choice-based explanations, a second one addressed fairness-based explanations, and a third one addressed negotiation-based explanations. Each set of statements appeared in counterbalanced order. The choice-based explanations included: "Women are less ambitious than men," "Men are more qualified for high-paying jobs than women are," and "Women don't work as many hours as men." The fairness-based explanations included: "An 'old boy's network' ensures men are given the best

opportunities for career advancement," "Employers are biased against working mothers," and "A glass ceiling exists that prevents women from achieving the highest-paying jobs." The negotiation-based explanations included: "Women don't negotiate compensation as effectively as men do," "Women typically don't negotiate terms when they receive a job offer," and "Women don't ask for better pay from employers." Percentages across the three categories were required to sum to 100%.

Support for the legislation. Two questions measured attitudes toward the salary history ban legislation prohibiting the use of historical wages in setting compensation. Participants indicated the extent to which they supported this legislation using a scale from 1 (*strongly oppose*) to 7 (*strongly support*) and whether they would be willing to sign a petition supporting the legislation using a scale from 1 (*no*) to 7 (*yes*). The two items were averaged to form a reliable scale ($\alpha = .82$).⁸

Gender-specific system justification. Eight questions from Jost and Kay (2005) measured gender-specific system justification using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include: "Everyone (male or female) has a fair shot at wealth and happiness," and "Society is set up so that men and women usually get what they deserve." Items were averaged to form a reliable scale ($\alpha = .90$).

Results

Table 4 provides descriptive statistics and zero-order correlations among variables.

Explanations for the gender pay gap (spontaneous mentions). The results of coding open-ended responses indicated that 15% ($SD = 0.34$) of respondents spontaneously mentioned gender differences in negotiation tendencies when explaining the pay gap, a figure significantly greater than 0, $t(401) = 8.77$, $p < .001$, $d = 0.44$. Virtually all statements referred to women negotiating less often or being less assertive than men. A total of 47% ($SD = 0.44$) of participants mentioned choice-based explanations ($t(399) = 21.19$, $p < .001$, $d = 1.06$), and 64% ($SD = 0.44$) mentioned fairness-based explanations ($t(399) = 29.06$, $p < .001$, $d = 1.45$). Mentions of the

⁸ Acknowledging that our attitudinal measure of willingness to sign a petition implies behavior given the endpoints of "no" and "yes," we considered whether it was appropriate to combine this measure with the support measure by analyzing them separately. The two items were highly correlated ($r(449) = .72$, $p < .001$), and all results for the support for legislation measure were virtually identical in both pattern and statistical significance when examining the two items separately.

TABLE 4
Descriptive Statistics and Zero-Order Correlations Among Variables in Study 3

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Choice (general population)	17.54	23.04	—						
2. Fairness (general population)	56.38	30.50	-.76***	—					
3. Negotiation (general population)	26.09	20.01	-.00	-.66***	—				
4. Choice (elite population)	17.24	22.69	.79***	-.65***	.09 [†]	—			
5. Fairness (elite population)	60.24	31.40	-.67***	.85***	-.51***	-.80***	—		
6. Negotiation (elite population)	22.52	19.13	.17***	-.62***	.74***	.12**	-.70***	—	
7. Support for salary history ban legislation	5.36	1.55	-.33***	.30***	-.07	-.31***	.31***	-.14**	—
8. Gender-specific system justification	3.59	1.40	.56***	-.61***	.29***	.52***	-.59***	.36***	-.38***

[†] $p < .10$

** $p < .01$

*** $p < .01$

negotiation-based explanations were uncorrelated with mentions of the choice-based explanations ($r(400) = -.00, p = .98$) and negatively correlated with mentioning fairness-based explanations ($r(400) = -.23, p < .001$).

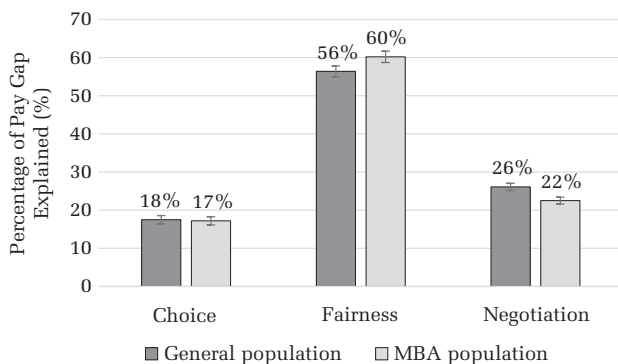
Explanations for the gender pay gap (comparative judgments). We first assessed the degree to which each category of statements was perceived to explain the gender pay gap. In both the general population and the elite group of MBAs, the choice-, fairness-, and negotiation-based explanations were perceived to explain significant variance (see Figure 4). As in the coding of spontaneous mentions of the three categories of pay gap explanations, all percentages were significantly higher than 0 ($ts > 16.09, ps < .001, ds > 0.75$). Also consistent with the pattern of spontaneous mentions, negotiation-based explanation was uncorrelated with the choice-based explanation for the general population ($r_{general}(447) = -.00, p = .98$); however,

a positive relationship emerged for the elite population, perhaps because they are understood to have undergone negotiation training ($r_{elite}(447) = .12, p = .01$). Endorsement of negotiation-based explanations showed a large, negative correlation with fairness-based explanations ($r_{general}(447) = -.76, p < .001$; $r_{elite}(447) = -.70, p < .001$) populations.

Support for legislation. We next examined how endorsing each category of explanations predicted attitudinal support (or opposition) to the salary history ban legislation. Because multicollinearity issues resulted in the expulsion of one predictor from the analysis, we entered predictors individually, in separate analyses. First, examining explanations for the gender pay gap in the general population, choice explanations negatively predicted support ($B = -0.02, \beta = -.33, t(447) = -7.35, p < .001$), fairness explanations positively predicted support ($B = 0.02, \beta = .30, t(447) = 6.53, p < .001$), and negotiation explanations did not predict support ($B = -0.01, \beta = -.07, t(447) = -1.51, p = .13$) for the legislation. Next, examining explanations for the gender pay gap among the elite sample of MBA holders, choice explanations ($B = -0.02, \beta = -.31, t(447) = -6.86, p < .001$) and negotiation explanations ($B = -0.01, \beta = -.14, t(447) = -3.05, p = .002$) negatively predicted support, and fairness explanations positively predicted support ($B = 0.02, \beta = .31, t(447) = 6.89, p < .001$) for the legislation.

Gender-specific system justification. We then examined gender-specific system justification using the same approach as above. Using predictors for the pay gap in the general population, choice ($B = 0.03, \beta = .56, t(447) = 14.22, p < .001$) and negotiation ($B = 0.02, \beta = .29, t(447) = 6.49, p < .001$) explanations positively predicted system justification, whereas fairness ($B = -0.03, \beta = -.61, t(447) = -16.45, p < .001$) explanations negatively predicted system justification. Using predictors for the pay gap

FIGURE 4
Lay Beliefs about Causes of the Gender Pay Gap in Two Populations (General and Among MBAs, Study 3)



Note: Error bars indicate + or - one standard error.

in the MBA population, nearly identical results emerged. Choice ($B = 0.03$, $\beta = .52$, $t(447) = 12.92$, $p < .001$) and negotiation ($B = 0.03$, $\beta = .36$, $t(447) = 8.03$, $p < .001$) explanations positively predicted system justification, whereas fairness ($B = -0.03$, $\beta = -.59$, $t(447) = -15.57$, $p < .001$) explanations negatively predicted system justification.

Mediation. We also explored whether gender-specific system justification could mediate the relation between negotiation-based explanations for the gender pay gap and support for the legislation. The analysis involved a bootstrapping analysis of mediation with Model 4 of PROCESS (Hayes, 2013) and 10,000 samples. For both the general (95% CI: -0.005 , -0.013) and elite (95% CI: -0.007 , -0.015) population gender pay gaps, system justification mediated the relationship between negotiation-based explanations and lower support for the legislation.

Gender differences. Finally, we tested for gender differences along each variable. Relative to men, women perceived a greater percentage of the pay gap in both the general and elite populations to be explained by fairness-related issues. Men, relative to women, perceived choice-related issues to explain a larger percentage of the gender pay gap in both populations. No gender differences emerged for the perception of negotiation-related explanations. Women and men equally believed that, even among an elite population of people who hold MBA degrees, women exhibit a lower negotiation propensity than do men. Finally, women supported the salary history ban legislation more than men did, and showed less evidence of gender-specific system justification—a pattern that mediated the relation between gender and legislation support (95% CI: 0.282 , 0.588). Table 1 in the Additional Materials summarizes the results.

Discussion

Over and above known choice-based and fairness-based explanations for the gender pay gap, men and women expected negotiation propensity to be a significant contributor to the gender pay gap. While only a minority of participants spontaneously attributed the gender pay gap to negotiation propensity, when they were asked to judge its comparative contribution to the pay gap relative to several popular choice and fairness explanations, negotiation propensity emerged as more important than choice explanations but less important than fairness explanations. We also note that the gender differences in support for choice and unfairness explanations were in the expected directions—with men more strongly endorsing choice explanations than women, and

women more strongly endorsing unfairness explanations than men—yet the fact that both men and women similarly endorsed the negotiation explanation suggests that this line of reasoning may be system-justifying. In addition to being positively correlated with a measure of gender-specific system justification, endorsement of the negotiating explanations is consistent with false consciousness, given its acceptance by women as much as men. This is an important discovery that runs counter to trends for higher-status people to endorse choice explanations for inequality whereas lower-status people endorse fairness explanations (Connor & Fiske, 2019; Kluegel & Smith, 1986).

Furthermore, we found that endorsement of the negotiating explanations was associated with *less* support for legislative interventions meant to help women when considering the elite population of MBAs. While the response scale was Likert, not behavioral, the measure of intentions to support the policy likely captured naturally occurring variation in degree of support, opposition, and apathy. Still, future research could replicate the results with a behavioral measure to validate the results. Overall, these findings are suggestive of a negative relation between endorsement of the belief that “women don’t ask” and support for a policy designed to reduce the gender pay gap. Though such a law would implement a relatively small change in hiring processes—the exclusion of one question—the consequences can be substantial.

Why endorsing negotiating explanations for the gender pay gap among the MBA population corresponded with decreased support for salary history bans, yet in the general population it was unrelated to support for salary history bans, remains an outstanding question. Endorsing negotiating explanations had a significant, negative indirect effect on salary history ban support through gender-specific system justification for both populations, but no direct effect for the general population. This pattern suggests that believing women in the general population are less likely to negotiate than men exerts a negative effect on salary history ban support via some other mechanism that is yet to be discovered. It is possible that people believe that not everyone has the bargaining power or education required to negotiate, or that negotiating is simply less important in determining pay in jobs at lower ends of the income distribution.

STUDY 4

The previous study offered correlational evidence linking notions of a gender gap in negotiation propensity with system justification. In the final study,

we extend knowledge by asking how a popular, real-world message might influence support for both negotiation-based and choice-based explanations for the gender gap, both of which were negatively correlated with fairness-based explanations in the previous study. We compared exposure to the “women don’t ask” message with an alternative, control message that similarly highlighted the importance of negotiating, but without mentioning gender differences. Recent research has found that “gender-blind” approaches that downplay gender differences increase women’s confidence in male-dominated environments relative to approaches that embrace gender differences (Martin & Phillips, 2017). We thought it possible that the “women don’t ask” message could affect system justification tendencies, including promoting outdated beliefs about negotiation propensity and the pay gap, and other outcomes such as the endorsement of gender stereotypes. Study 3 measured endorsement of negotiation propensity explanations both in terms of spontaneous mentions and in a task that forced participants to assign relative importance to each type of explanation, which may have been cognitively demanding for laypeople. Study 4 utilized a Likert scale, which allowed us to measure endorsement of each type of explanation without requiring participants to make comparative judgments. By corroborating the results of Study 3 using another approach, we aim to further establish the reliability of our findings.

Method

Participants. Participants ($n = 402$) were recruited using Amazon’s Mechanical Turk. A total of 46 participants were excluded for missing attention check questions. The final sample ($n = 356$) included 210 men and 146 women with an average age of 36.6 years ($SD = 10.5$). They received \$0.50 for completing the study. In terms of ethnicity, 15% were African American, 5% were Asian American, 7% were Hispanic, 73% were Caucasian, and 1% were Native American.

Procedure. Participants read an excerpt from one of two popular textbooks on negotiations, depending on the condition to which they were randomly assigned. Those in the “women don’t ask” condition read an excerpt from the introduction of the book *Women Don’t Ask* by Babcock and Laschever (2003). Participants in the control condition read an excerpt from the introduction of the book *Mind and Heart of the Negotiator* by Thompson (1998) (see Appendix C in the Additional Materials for the excerpts).⁹

Participants were then told that we were interested in their beliefs about a current social issue in the United States—specifically, the pay gap between men and women. We provided participants with a description of what the gender pay gap is, stating, “The gender pay gap is a summary statistic for gender differences in compensation at work, and it reflects differences in the median amount of pay that women earn relative to men.” We also provided a statistic, stating that women are paid roughly 20% less than men. Our two dependent variables of interest appeared next in counterbalanced order: endorsement of gender stereotypes and system-justifying reasons (e.g., choice, negotiation propensity) for the pay gap. Finally, participants answered demographic questions.

Endorsement of gender stereotypes. We used a 20-item measure from Brescoll and LaFrance (2004). Participants rated how the average man and the average woman compare to each other on each trait using a scale from 1 (*men extremely more*) to 9 (*women extremely more*), with the midpoint labeled as *men and women the same*. The 20 items included 10 stereotypes about men and 10 about women, and within those 10 stereotypes, five positive and five negative ones. We reverse-scored the masculine items so that higher values indicated greater stereotype endorsement ($\alpha = .83$). For instance, one masculine item was “competitive.” Before reverse-scoring, lower numbers indicated perceptions of men as relatively more competitive than women. One feminine item was “nurturing,” and higher numbers indicated perceptions of women as relatively more nurturing than men. To combine these measures into one scale, masculine items such as “competitive” were reverse-scored so that higher ratings indicated greater gender stereotyping (e.g., “men are more competitive than women, and women are more nurturing than men”).

Explanations for the gender pay gap. Participants were asked to indicate the degree to which they believed that the gender pay gap could be explained by

persuasiveness, writing clarity, and accuracy (all $ps > .16$). The “women don’t ask” essay was rated as more novel than the control essay, $t(400) = 3.06, p < .001$. A second pretest ($n = 201$) with MTurk workers ensured the essays did not differ in the extent to which they communicated the importance of negotiating skills in the workplace (all $ps > .56$). However, participants’ beliefs that men and women negotiate differently ($t(200) = 2.05, p = .04$) and women especially need to learn how to negotiate better ($t(200) = 2.14, p = .03$) were greater after exposure to the “women don’t ask” essay compared to the control essay and a no-essay control. The control essay did not differ from the no-essay control on any measures.

⁹ We conducted a pretest ($n = 402$) with MTurk workers to ensure that the articles were rated equivalently in

10 different potential explanations on a Likert scale from 1 (*entirely untrue*) to 7 (*entirely true*). Three statements offered choice-based reasons for the pay gap, including: “Women are less ambitious than men,” “Women are less committed to their jobs due to raising children,” and “Women are less competitive than men are” ($\alpha = .80$). Five statements offered unfairness-based reasons for the pay gap, including ($\alpha = .89$): “Employers are biased against women,” “A glass ceiling exists that prevents women from achieving the highest-paying jobs,” “Employers are biased against working mothers,” “Employers endorse gender stereotypes indicating men are more capable of leadership than women are,” and “Men use their greater power and status in organizations to increase their own compensation.” Two statements offered negotiation-based reasons for the pay gap ($\alpha = .82$): “Women don’t negotiate compensation as effectively as men do,” and “Women don’t ask for additional compensation.” Items were presented in counterbalanced order.

Results

Endorsement of gender stereotypes. We conducted a 2 (condition: “women don’t ask” or control) $\times$ 2 (participant gender: male or female) between-subjects analysis of variance (ANOVA). Endorsement of gender stereotypes was greater after exposure to the “women don’t ask” message ($M = 6.01$, $SD = 0.76$) than the control message ($M = 5.77$, $SD = 0.72$), $F(1, 352) = 9.10$, $p = .003$, $\eta_p^2 = .03$. No other effects were significant ($ps > .74$). In other words, people came to perceive greater differences between men and women along many other stereotypical dimensions when they were told that “women don’t ask” relative to a control condition.

In an exploratory analysis (i.e., not preregistered), we examined whether the “women don’t ask” messaging had a differential impact on gender stereotyping for masculine versus feminine attributes. To test this, we ran a mixed-model ANOVA with type of attribute (masculine, feminine) as a within-subject factor and experimental condition (“women don’t ask,” control) as a between-subject factor. We found a significant interaction between the two experimental factors, $F(1, 354) = 9.23$, $p = .003$, $\eta_p^2 = .025$. To understand the source of this interaction, we examined simple effects within each type of attribute (masculine vs. feminine) separately. For endorsement of masculine traits, the “women don’t ask” message ($M = 3.95$, $SD = 1.14$) caused women to be perceived as less masculine relative to men compared to the control condition ($M = 4.26$, $SD = 1.06$), $t(354) = 2.63$, $p = .009$. For endorsement of feminine traits, the “women don’t ask” message ($M = 5.99$, $SD = .86$) caused, to a marginal degree, women to be

perceived as more feminine relative to men compared to the control condition ($M = 5.81$, $SD = .86$), $t(354) = -1.89$, $p = .06$. See Figure 2 of the Additional Materials for depiction.

Explanations for the gender pay gap. We conducted three separate ANOVAs for choice-based, unfairness-based, and negotiation-based explanations for the gender pay gap, including participant gender and experimental condition as between-subject factors.

Choice-based explanations. Two effects emerged as significant. First, replicating the previous study, men ($M = 3.37$, $SD = 1.47$) endorsed choice explanations more than did women ($M = 2.78$, $SD = 1.46$), $F(1, 352) = 15.22$, $p < .001$, $\eta_p^2 = .04$. Second, participants in the “women don’t ask” condition ($M = 3.36$, $SD = 1.43$) more strongly endorsed choice-based reasons than participants in the control condition ($M = 2.88$, $SD = 1.52$), $F(1, 352) = 10.45$, $p = .001$, $\eta_p^2 = .03$.

Fairness-based explanations. Women ($M = 4.92$, $SD = 1.45$) endorsed unfairness explanations more than men did ($M = 4.54$, $SD = 1.41$), $F(1, 352) = 5.74$, $p = .017$, $\eta_p^2 = .02$. No other effects were significant ($ps > .62$). Again, this replicated the results of Study 3 and indicates that the endorsement of the “women don’t ask” explanation may operate independent of support for fairness-based explanations.

Negotiation-based explanations. Two significant effects emerged. First, participants in the “women don’t ask” condition ($M = 4.76$, $SD = 1.30$) more strongly endorsed negotiation-based explanations than did participants in the control condition ($M = 3.60$, $SD = 1.68$), $F(1, 352) = 58.48$, $p < .001$, $\eta_p^2 = .14$. This main effect was qualified by an interaction with participant gender, $F(1, 352) = 5.69$, $p = .018$, $\eta_p^2 = .02$.

Simple effects analyses revealed a significant effect of the “women don’t ask” message in shifting the beliefs of both men and women ($ps < .001$). In the control condition, men ($M = 3.76$, $SD = 1.62$) more strongly endorsed negotiation-based explanations than did women ($M = 3.37$, $SD = 1.75$) to a marginally significant degree, $t(352) = 1.69$, $p = .093$. After exposure to the “women don’t ask” message, a marginally significant trend emerged whereby women ($M = 4.97$, $SD = 1.20$) more strongly endorsed negotiation-based explanations than did men ($M = 4.60$, $SD = 1.34$), $t(352) = -1.69$, $p = .092$. The “women don’t ask” message led both men and women to endorse a potentially outdated belief about the gender pay gap significantly more than they endorsed it under baseline conditions.

Discussion

In this study, exposure to a passage from a book designed to promote gender equality instead

prompted greater endorsement of gender stereotypes, relative to a control condition. This strengthening of gender stereotypes was particularly strong for masculine attributes, which makes sense given that negotiations are a masculine-stereotyped task (Kray & Thompson, 2004). Gender stereotypes play an important role in justifying existing social arrangements, including inequalities between men and women (Jost & Kay, 2005). Perhaps more surprisingly, exposure to the “women don’t ask” message promoted greater endorsement of choice-based explanations for the gender pay gap, suggesting that it is part of a broader set of system-justifying beliefs.

GENERAL DISCUSSION

We investigate whether it is currently the case that, among working professionals, women are less prone to negotiate salary than men. We find that women do ask as much as, if not more than, men. While the literature offers conflicting evidence for whether women historically had a lower propensity to negotiate than men or no gender difference existed, we find with recent data that women negotiate for a higher salary *more*, not less, often than men. We know of no theory to date that can account for this discovery, although prior research has documented heterogeneity in negotiation propensity by gender (Kugler et al., 2018). Our research highlights the importance of focusing on comparable dependent variables when studying gender differences in negotiation propensity and outcomes. The findings of Kugler et al. (2018) are important given that they reveal aggregated patterns from a diverse set of studies, but the general conclusion of this recent meta-analysis—that women have a lower negotiation propensity than men—changes when only comparable dependent variables pertaining to salary negotiations are studied. While some recent research has shown a pay premium for high-potential women (Leslie et al., 2017), our data show women were paid significantly *less*, not more, than men, despite their attempts to negotiate. Therefore, the pay gap in this population disfavoring women cannot logically be due to women not asking.

In contrast to the current empirical evidence that women do ask, the belief that women are relatively low in the propensity to negotiate continues to be held by laypeople. Study 1 explored lay beliefs about MBA students’ negotiating propensities and Studies 2A and 2B explored the negotiation behavior of MBA men and women using field data. Whereas a nationally representative sample predicted that, among an elite MBA population, women would be less likely to negotiate their job offers than men, this is not what we found among MBA graduates. In fact, when we meta-

analyzed an array of studies gathered across multiple decades that measured gender differences in salary negotiation propensity (Study 2C), we found some evidence in support of our discovery in those earlier data as well. Time matters for the direction of the gender difference, with an increasing propensity to negotiate salary over time that is greater for women than it is for men. As a result of these changes over time, it appears that, while women may have negotiated their salaries less often than men before the 21st century, they now appear to do so more often than men.

We suggested that holding the belief that women are relatively low in the propensity to negotiate may be useful in rationalizing the status quo. Following Jost’s (1995) two criteria of false consciousness, we found that beliefs regarding women’s low negotiation propensity contradict current evidence and yet members of the disadvantaged group (i.e., women) hold the belief, despite its incompatibility with their interests. Although women and men differed in their endorsement of choice- and fairness-based explanations for the gender pay gap, they endorsed negotiation-based explanations similarly. Furthermore, these beliefs were associated with less support for salary history bans, a policy intervention meant to address the gender pay gap. Finally, exposing people to the message that “women don’t ask” increased endorsement of other gender stereotypes and strengthened attributions of gender income inequality to women’s choices and low negotiation propensity, further establishing the system-justifying role of this belief. Overall, our research suggests that macrolevel trends in pay between women and men cannot be explained by the microlevel factor of gender differences in propensity to negotiate.

Theoretical Contributions

We discover a mismatch between lay beliefs and current empirical findings about the negotiation propensities of women compared to men. Our research suggests that women’s negotiation propensity is unlikely to be a key contributor to the gender pay gap. In contrast to the long-running hypothesis that “women don’t ask,” our data suggest that, at least in this century, women negotiate their salaries more (not less) frequently than men. Despite the empirical trends, both women and men continue to consider negotiation-related explanations as viable explanations for the gender pay gap. This tendency is consistent with system justification tendencies, as people with worse outcomes are often derogated along the traits believed to predict those outcomes (Kay, Jost & Young, 2005).

More generally, we believe that topics regarding gender in the workplace likely require more frequent updates, given the speed of change and progress that

women have experienced in modern organizational life. Social expectations and norms have continued to change, and behaviors that may have carried greater social penalties for women in past decades no longer have the same implications. In the case of women's behavior in negotiations, we encourage an update to the heuristic that women differ from men. Similarly, while small differences can have large cumulative effects over time (Martell, Lane & Emrich, 1996), it is important to remember that this analysis holds for differences in how men and women are treated (not just how they act). By shifting emphasis to issues of fairness that women face at the bargaining table, policies to level the playing field may be more likely to be enacted.

Our research suggests that attributing the gender pay gap to gender differences in negotiation propensity may be system-justifying. However, we acknowledge that the intentions behind a "women don't ask" message may reflect an empathetic recognition of the unique challenges and social environment faced by women. Yet, we suspect that this complexity is more commonly understood by academics than by laypeople, or else the common phrase might be "Women can't ask" or "Women are punished for asking"—a nuance that may get lost in translation to the public. Given that benevolent sexism is highly correlated with hostile sexism (Glick & Fiske, 2001), and hostile sexism promotes choice-based explanations for the gender pay gap (Connor & Fiske, 2019), it is important to exercise caution in making broad claims about gender differences.

Limitations and Future Directions

Our research has a few limitations that leave open directions for future research. First, our Studies 2A, 2B, and 2C rely on self-report measures of initiated negotiation. While our studies are strong for using mature samples and there is reason to think people know accurately whether they attempted negotiation, future research could aim to replicate our findings using measures of behavior. Notably, those studies need to use a double-blind procedure where the gender of the negotiator is unknown, possibly based on anonymized transcripts of compensation discussions between human resources and prospective employees, a highly precise type of data heretofore unseen in the negotiation literature. At a minimum, laboratory-based investigations of gender differences in negotiation propensity need to transcribe conversations and anonymize participants' gender before coding their behavior to minimize the potential for experimenters' stereotype endorsement to color judgments. Second, our findings do diverge from the patterns reported in large-scale studies

conducted by LeanIn.org and McKinsey (2017, 2018), where they found no gender difference in negotiation propensity, and more research is necessary to understand why. While their analysis tested for moderation by race and ethnicity and sexual orientation, they did not appear to account for cultural variation in negotiation propensity in their global sample. It could be that women and men are more similar when they have more advanced education, identical degrees, or are further along in their careers, and reside in the same cultural context. Third, Studies 2A and 2B were not able to control for all potential alternative explanations. These limitations hold across the literature on gender and negotiation propensity, suggesting that additional research controlling for factors such as industry, hierarchical rank, age, and other factors could help to delineate boundaries or generality for our findings.

Future research is needed to identify the contexts under which believing that "women don't ask" could theoretically prompt greater endorsement of fairness-based explanations (i.e., discrimination) if people attribute women's allegedly lower negotiation propensity to backlash (Bowles et al., 2007; Dannals, Zlatev, Halevy & Neale, 2021; Kray et al., 2014), or believe it can prompt a reversal of the typical gender gap in negotiation outcomes (Bowles et al., 2005; Kray et al., 2001; Kray, Galinsky & Thompson, 2002). However, in practice, we find no evidence for this attribution. Instead, people who believe that "women don't ask" tend to root the cause of the gender pay gap more heavily in women's (presumed) lesser human capital in the labor market (e.g., claiming that women are categorically less competitive and assertive, without recognizing the wide variation across people and situations).

Future research could also apply our approach to testing the validity of "women don't ask" beliefs to the other two categories of explanation for the gender pay gap. It was notable that fairness-based explanations were perceived to be stronger accounts of the gender pay gap than choice-based and negotiation-based explanations combined. Researchers could test the validity of this perception, although, according to human capital approaches, it means finding ways to reduce the residual (i.e., unexplained portion) in regression analyses predicting the pay gap, which is typically interpreted as the potentially discriminatory component (Altonji & Blank, 1999). While discrimination and issues of fairness were long denied, people could have overcorrected their beliefs, now perceiving the issues to be more pervasive than they are, potentially to preserve their well-being (Crocker & Major, 1989; Major, Kaiser & McCoy, 2003). Whether the tendency to attribute women's unsuccessful negotiation attempts to

discrimination has protective or beneficial effects for women is an important direction for future research (see also Major & O'Brien, 2005).

To resolve remaining disagreement on the existence of gender differences in negotiation propensity, we recommend that researchers from different camps adopt an approach of adversarial collaboration (e.g., Bateman, Kahneman, Munro, Starmer & Sugden, 2005). The scientific process works best when people who endorse competing theories come together to agree upon competing hypotheses and a convincing operationalization of the constructs of interest (Clark, Costello, Mitchell & Tetlock, 2022). By doing so, scholars cannot insulate their favored theories from rejection, and knowledge is advanced as contradictory claims can no longer coexist. Moving from competitive rivalry to cooperation typically requires (1) establishing a joint goal of advancing truth, and (2) assuming the scientific competence and good intentions of proponents of rival theories (Ellemers, Fiske, Abele, Koch & Yzerbyt, 2020). While the result may not be total rejection of one set of views, it will likely spur fuller evidence that results in converging perspectives (Cowan et al., 2020).

Practical Contributions

Our research highlights the importance of rectifying now-outdated beliefs in the scientific literature. To this day, prestigious literature reviews on the field of negotiations (Boothby, Cooney & Schweitzer, 2023) continue to rely on the Kugler et al. (2018) meta-analysis as the gold standard for interpreting gender differences in negotiation propensity. It is important to apprise outdated beliefs about gender differences in negotiation propensity both in the scientific literature and in the broader population because only then are equity-promoting policies related to closing the gender pay gap likely to be supported. One way to achieve this is for business school professors and media outlets to adopt a more nuanced view (i.e., "it depends") in communicating about this body of research, and to invite business students and the public to update their beliefs in line with the facts. Annual industry reports (e.g., LeanIn & McKinsey, 2017, 2018) can help by continuing to measure and report women's and men's negotiation propensities using very large and diverse samples. Further, they could add measures to track fairness-related issues, to inform organizational and public policies designed to promote greater equity around non-promotable tasks (Babcock, Recalde, Vesterlund & Weingart, 2017), gender differences in span of control (Lee & Kray, 2021), networking and advancement opportunities, and equal support for mothers

and fathers. However, if our theorizing is correct about the ideological function served by "women don't ask" beliefs, education and documentation of the facts are likely to be insufficient to alter what may be an entrenched view. It may be necessary for organizations to create conditions that reward epistemic motivation (i.e., desire to know the truth) and discourage other motives (see also Mandel & Tetlock, 2016). When presented with alternative routes to satisfying pragmatic goals (e.g., advancing women's careers) and ideological needs (e.g., believing in a just world), people's need to cling to outdated views may subside. Organizations could have the greatest impact on the gender pay gap by setting fair and transparent pay policies and tracking and disclosing terms that are negotiated by men and women. This type of approach could help to ensure that managers are not unconsciously perpetuating the "women ask, but don't get" pattern we observed, consistent with recent findings by Artz et al. (2018).

CONCLUSION

The U.S. Bureau of Labor Statistics (2021) found that women's median earnings for full-time work were 82% of men's earnings. If society does nothing differently to address this gap and the rate of change mirrors the last 50 years, then gender parity in pay will not be achieved in the United States until 2059 (Institute for Women's Policy Research, 2020). Women appear open to doing their part to close the gap, given their increasing rates of initiating negotiations, but this is not sufficient since it is not clear that the pay gap is due to the tendency to initiate negotiations. The current research urges researchers and society more broadly to think differently about what levers could meaningfully impact the gender pay gap. Perpetuating the narrative that women's lower negotiation propensity can account for a macrolevel pay gap may help to maintain the belief that society is fair and just, but it may not improve women's outcomes.

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