



Gender Differences in Asking for Pay Raises: The Role of Explicit Rules

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Abstract

Social norms tend to discourage women from negotiating higher pay and cause gender pay gaps in the long run. Drawing on social norm theory and role congruency theory, we expected that explicitly stating rules to determine pay raises would help remove social barriers that may cause women to steer away from the bargaining table. Using an experimental approach, we examined how explicit pay raise rules affect men's and women's initiations of salary negotiation differently. Our results show that when pay raise rules are explicitly stated, women are less reluctant to ask for a pay raise. In contrast, men's decisions to ask are not impacted by this factor. This explicit rule effect is particularly salient for women whose task performance is above average. Our study confirms that social norms for men and women play a role in asking for pay raises, and shows that explicitly stating pay raise rules helps to remove barriers that prevent women from asking by creating an environment in which internalized gender biases due to social norms are mitigated.

Keywords: Salary Negotiation, Gender Gap, Labor Market, Social Norms

1. Introduction

The enduring gender gap in labor market outcomes has drawn attention in both academic fields and among practitioners worldwide. According to the World Economic Forum, the gender pay gap occurs in nearly all industries and occupations. Globally, women made only \$0.68 for every dollar men made in 2020, with the lowest female-male pay ratio around 40% in countries with the least gender parity (World Economic Forum, 2020). How to deal with the challenges that are “holding women back” is imperative not only for women but also for economies and societies altogether (Sandberg and Grant, 2015; Meeussen, Veldman, and Van Laar, 2016). Traditional explanations of gender pay gaps include social and economic issues such as workplace discrimination against women (Bishu and Alkadry, 2017), occupation segregation (Blau, Brummund, and Liu, 2013), and women's work force interruptions due to pregnancy and child-rearing (Blau and Kahn, 2017).

In addition to traditional explanations for gender pay gaps, the expected gender roles induced by social norms comprise an important factor for the gender difference in labor market participation and outcomes (Bursztyn, Fujiwara, and Pallais, 2017; Heilman and Kusev, 2017). Studies have shown that, compared to men, women are less likely to initiate salary negotiations and ask for a higher pay (e.g., Small et al., 2007). According to gender role congruency theory, the female gender role is inconsistent with the negotiator role so that women may believe asking for higher pay would violate the social expectations that “good girls don't ask” (Babcock and Laschever 2003; Eagly and Sczesny, 2019). Women's reluctance in asking for higher pay results in low starting salaries. The gender gap in starting salaries is then amplified over years through pay raises that mostly use starting salaries as a base and consequently lead to larger gender pay gaps in the long run.

Previous studies on gender difference in initiating salary negotiation find that, compared to men, women are more likely to feel anxious and less entitled during negotiations (Bowles, Babcock and McGinn, 2005) and tend to regard negotiation as a social disapproval behavior that violates the expected gender role prescribed by social norms (Greig, 2010). The impacts of social norms vary across negotiation contexts. For instance, recent research shows that women are less likely to ask for higher pay when there is no explicit statement that wages are negotiable (Leibbrandt and List, 2014). Also, the gender gap in salary negotiation initiation is larger in masculine contexts (Reif, Kugler and Brodbeck, 2020) and when negotiations take place virtually compared to face-to-face (Stuhlmacher et al., 2007).

These studies demonstrate that contextual framing modifies the level of congruency between the expected gender roles and negotiations and consequently affect men's and women's initiations of salary negotiations.

In the real world, pay raises are expected to be associated with one's performance. Individuals with higher performance who ask for a pay raise are more likely to receive it. Some organizations prefer to clearly state how pay raises are determined, while others may leave it vague to retain more managerial discretion. In this study, we explore whether or not an explicit statement about pay raise rules affects gender differences in salary negotiation initiations. A possible underlying mechanism could be that an explicitly stated rule reduces concerns that the pay raise determination may be affected by social norms and that behaviors that are incongruent with social norms will be penalized. With an explicitly stated rule, employees are less likely to be impacted by internalized gender roles prescribed by social norms. Furthermore, women would also experience less internal conflicts about role incongruencies between gender roles and negotiations. Therefore, we expect that an explicit statement of pay raise rules has a significant effect on women's asking decisions.

Our study contributes to literature in two ways. First, our study shows that when pay raise determining rules are explicitly stated, women are less likely to steer away from asking for a pay raise. In contrast, men's decisions to ask are not impacted by this factor. This finding highlights an important factor that can be addressed to mitigate gender gaps in salary negotiation initiations and correspondingly expands the literature that considers the effects of negotiation contexts on gender differences in salary negotiation initializations (Leibbrandt and List, 2014; Stuhlmacher et al., 2007). Second, our findings show that an explicit rule effect is particularly salient for women whose task performance is above average. We find that the effect is stronger for high-performing women than for high-performing men and low-performing women. This finding echoes research that finds a larger gender pay gap at the top end of pay distributions (Blau and Kahn, 2017; Xiu and Gunderson, 2014) and provides a potential novel explanation to the glass ceiling effect in the gender pay gap literature.

The remainder of this paper is organized as follows. In section 2, we present the literature review and hypothesis. Then, in section 3, we introduce the design of the experiment. In section 4, we show the results of the experiment, and we conclude in section 5.

2. Literature Review and Hypothesis Development

2.1 No Statement vs. Explicit Statement about Pay Raise Rules

Previous research suggests that women are less likely to ask for higher pay because, compared to men, women tend to feel anxious during negotiations (Mazei et al., 2015), often use less skillful negotiation tactics (Kaman and Hartel, 1994), and expect less success from salary negotiations (Säve-Söderbergh, 2019). Extending these explanations on the basis of individual differences, recent studies tend to suggest that although personal characteristics related to gender may lead to gender gaps in the initiations of salary negotiations, factors associated with social norms drive gender gaps in salary negotiation initiations (e.g. Reif et al., 2020).

A social norm is a rule of behavior that is enforced by social sanctions (Elster 1989; Schultz et al., 2007). Social norms play important roles in people's economic behaviors (Kray, Galinsky, and Thompson, 2002; Li, De Oliveira, and Eckel, 2017). Traditional social norms prescribe that women are generally expected to demand and accept less and give away more (Bowles, Babcock, and Lai, 2007). In a study that examined general attitudes toward men and women negotiators, Solnick (2001) found that both men and women make less generous offers to female than to male participants. In addition to economic costs, women who ask may encounter social costs. Simply a suspicion that someone dislikes one's behavior may constitute a significant social cost for somebody who considers disobeying a social norm (Rege and Telle, 2004). Literature suggests that women who negotiate could be perceived as more pushy and demanding than those who do not (Olekalns, 2014). Bowles et al. (2007) found that when a female candidate initiated a salary negotiation, it had a significant negative effect on an interviewer's willingness to work with her, but when a male candidate negotiated, it had no significant effect.

The incongruence between expected gender roles for women (e.g. communal) and salary negotiations (e.g. confrontational) can be enhanced or mitigated by factors in the negotiation context (Eriksson and Sandberg, 2012; Kolb, 2009; Leibbrandt and List, 2014; Leibbrandt, Wang, and Foo, 2018; Small et al., 2007). Changing the context will affect the salience of particular social norms as well as individuals' intrinsic motivation to conform to the norms (Chhaochharia and Niessen-Ruenzi, 2022; Meier 2006). For example, Small et al. (2007) find that when initiating salary negotiation is framed as opportunities to negotiate, gender difference in negotiation initiations appears because negotiation is inconsistent with norms for politeness among women; yet when situations are framed as opportunities to ask, the gender difference is eliminated. In fact, women tend to react more strongly to changes in the negotiation context. For example, a study shows that women cooperate more when a prisoner's dilemma is framed as a community game as opposed to a stock market game, whereas male participants do not behave differently under these two options (Ellingsen et al., 2012). In the salary negotiation setting, this difference was previously illustrated in Leibbrandt and List (2014) who find that, when there is no explicit statement that wages are negotiable, men are more likely than women to initiate salary negotiations, yet when the possibility that wages are negotiable is made explicit, the gender difference disappears.

Extending this line of thought, we further examine the roles of explicit statements of pay raise rules in salary negotiation by comparing participants' asking decisions in two contexts (no statement vs. explicit statement about pay raise determining rules). We expect that an explicit statement has significant effect on women's asking decisions for at least two reasons. First, a clearly stated rule frees women from concerns that their asking decisions might be perceived as socially less acceptable and that starting salary negotiations conflicts with their internalized social norm. Second, an explicitly stated pay raise rule helps to reduce women's concerns over the possibilities of taste-based discrimination or mistreatments. As such, when pay raise rules are explicitly communicated, social norms would have less impact. The explicit rule helps to increase women's trust in the organizations' pay raise process and outcomes, which encourages women to initiate salary negotiations. Therefore, we expect that when there is an explicit statement of pay raise rules, women are less constrained from asking for higher pay. In contrast, we do not expect that an explicit statement will have an impact on men's asking decisions because social norms do not inhibit men from asking in the first place.

Hypothesis 1: Women are more likely to ask for higher pay when the organization has an explicit statement about how pay raises are determined.

Hypothesis 2: Men's asking decisions are not affected by the explicit statement.

2.2 The Role of Task Performance

Individuals who believe their performance is better than others are more likely to ask for a pay raise. Equity theory suggests that people compare their own input/outcome ratios with others' input/outcome ratios, and would try to restore the balance if their ratios are higher than others (Huseman, Hatfield and Miles, 1987). An effective way to gain balance would be asking for a pay raise. Therefore, individuals whose performance is above average should be more likely to ask regardless of gender. However, high-performing women are faced with a dilemma that high-performing men do not experience. Although their above-average performance provides support for asking for higher pay, high-performing women may still encounter constraints that their male counterparts do not experience. Moreover, studies have consistently shown gender disparities are larger in high-paying jobs and at the top end of pay distributions (i.e., glass ceiling). In addition, female leaders are expected to lead with both agentic characteristics (e.g., dominant, self-confident) and traditional female traits (e.g., warmth, relationship-orientation). High-achieving women, compared to high-achieving men, tend to have concerns about violating the norms for politeness and humbleness among women when making decisions on salary negotiation initiations. To reduce this barrier and free high-performing women from worrying that asking may be perceived as violating the social norms, as well as fearing that asking may lead to social and economic backlashes, an explicitly stated rule that clarifies the basis for pay raises would help. We expect that for above-average performers, there is a gender difference in the explicit rule effect. Compared to high-performing men, high-performing women's asking decisions are more influenced by an explicit statement of pay raise rules.

Furthermore, we expect that the effect of the explicit rule on women's decisions to ask is greater for high-performing than for low-performing women. Compared to high-performing women, low-performing women might be less likely to tie the asking decisions to their performance and therefore less sensitive to explicit pay raise rules. Whether or not the rules are clear would not have a significant impact on their asking decisions. At the same time, high-performing women may have experienced larger gender disparities (e.g., glass ceiling) in the past and become more sensitive to gender norms. Therefore, their asking decisions are more contingent on the contexts that are related to social norms, so that reducing the impact of social norms by explicitly stating the rules will have a strong effect on them. With explicit pay raise rules, high-performing women are motivated to ask for a pay raise since the rules provide them with legitimate bases for initiating a salary negotiation. Accordingly, we have Hypothesis 3 and Hypothesis 4.

Hypothesis 3: Compared to high-performing men, the positive effect of an explicit statement on salary negotiation initiation is stronger for high-performing women.

Hypothesis 4: Compared to low-performing women, the positive effect of an explicit statement on salary negotiation initiation is stronger for high-performing women.

3. Experimental Design

We conducted a laboratory experiment using a 2 (explicit statement of pay raise policy vs. no statement of pay raise policy) X 2 (gender) design at a public university in the Midwest US. Participants were college students who were randomly recruited on campus. There were 25 gender-balanced sessions of six participants with three women and three men in each session, i.e., in total 150 participants were recruited.

3.1 Two Tasks with Flat Payments

When all six participants arrived at the lab, they were randomly assigned an experiment ID number. A female experimenter led them to a large classroom where six tables were placed at the four corners and in the middle of the two longer sides of the room. Each participant was asked to sit at a numbered table that matched the last digit of the associated ID. The experiment was conducted using paper and pencils. All instructions were sealed in separate envelopes. Participants were asked to work on the tasks and make decisions independently. The experimenter’s responsibilities included distributing and collecting envelopes, tracking time, and answering potential questions. Participants were informed that they would finish several tasks and receive payments based on their decisions.

In both Task 1 and Task 2, participants were asked to calculate the sum of four two-digit numbers for five minutes without using a calculator. Each participant received 40 identical questions in a booklet. At the end of the five minutes, participants were asked to put the booklet back in the envelopes. Then the experimenter collected the envelopes and left them on a desk placed right outside of the classroom for a grader.

After completing each task, participants were asked to make negotiation decisions, i.e., Decision 1 and 2. They were told to open another envelope that contained instructions about payment and negotiation. Participants learned that the payment for completing Task 1 or Task 2 was \$3 for everyone in the room regardless of how many questions were correctly answered. If the payment did not meet the participant’s expectation, there was an available option to negotiate for a 50% raise of the payment. The participants were informed that their applications would be reviewed by the grader who sat in another room and did not know their identities. If the application was approved, the participant would earn an additional 50% or a \$1.50 for the completed task. If the application was not approved or if the participant chose not to ask for a raise, the payment would remain at \$3 for each task. If participants chose to negotiate for a raise, they needed to fill out a negotiation form where they need to put their experiment ID and initials. After making the decision, each participant put the form back to the envelop, which was then collected by the experimenter and placed outside of the classroom for the grader to review. The instruction for Task 2 was not given until all the participants in the session completed Decision 1.

3.2 Non-Explicit Rule vs Explicit Rule

The difference between Decision 1 and 2 involved how the pay raise determination was reached. In Decision 1 (Non-Explicit Rule), the factors to determine whether a pay raise request would get approved were not mentioned to the participants. In contrast, in Decision 2 (Explicit Rule), participants were explicitly informed that only individuals who correctly solved more problems (than at least three other participants in the room) would receive pay raises if they asked for them. In the case of a tie, the ranking would be randomly determined. This setting avoided that participants would be concerned that one individual’s decision might affect another individual’s pay.

After Decision 2, the experimenter gave the participants a survey. The grader then entered the room and announced the IDs of participants who received pay raises for each task. Participants were then paid privately and dismissed. Since the grader did not enter the room until the end of the experiment, the grader did not associate the booklets (e.g., task performance and decision to ask for a pay increase) with individual participants. Figure 1 summarizes the structure of the experiment.

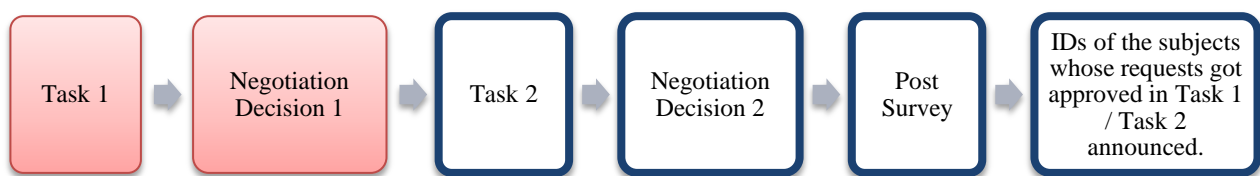


Figure 1. Structure of Experiment

4. Results

Our participants were college students with an average age of 19.96. Out of the participants, 98.65% of males and 93.24% of females had work experience. Table 1 presents their characteristics (age, school years and work experience) by gender. There was no statistically significant difference in the observable characteristics between males and females.

	Male	Female
Age	20.14(3.13)	19.78(1.23)
School Years	2.22(1.04)	2.38 (1.05)
Work Experience	98.65%	93.24%

Table 1. Summary Statistics

Note: Standard deviations in the brackets.

We checked whether the tasks used in the experiment were gender-neutral. There was no significant difference in the numbers of questions correctly solved by men and women within the tasks (P-value=.1257 for Task 1; P-value=.1269 for Task 2). This is similar to findings in previous studies that used number addition tasks (Leibbrandt, Wang and Foo, 2018).

4.1 Impact of Explicit Rule

In this experiment, when the rule for pay raises was not clearly stated, we found that not all the participants initiated the negotiation even though there were no economic costs associated with asking for a raise. After completing Task 1, 58.67% of female and 57.33% of male participants initiated the negotiation. There was no significant gender difference (P-value=1.000).ⁱ

When the rule for pay raises was made clear and participants knew that pay raises were determined solely by performance, the Explicit Rule increased the propensity for salary negotiations. For men, the proportion of asking increased by 13.34 percentage points (from 57.33% to 70.67%), though the difference was not significant (P-value=.125). For women, the proportion increased by 14.66 percentage points (from 58.67% to 73.33%), and the difference was significant at the 10% level (P-value = .084). Furthermore, there was no statistically significant gender difference in terms of asking behaviors (P-value=.856) in the Explicit Rule treatment (Decision 2).

Our main research interest was the effect of the Explicit Rule on participants’ negotiation decisions and the role gender may play in this process. Therefore, we conducted regressions that estimated the treatment effects for male and female participants on initiation decisions. If individuals chose to initiate the negotiation, the dependent variable took a value of 1; otherwise, it was 0. We used dummy variables, Male and Explicit, to control for participants’ gender and the Explicit Rule treatment. An interaction term of Explicit*Male was included in the equation to check whether or to what extent the effect of Explicit Rule on asking decisions differs between male and female participants. Various sets of controls such as the number of questions corrected solved in the tasks, participants’ social economic status, as well as their experiences were added in the regression separately. As Ai and Norton (2003) suggested, the estimated coefficients of interaction terms in Logit/Probit models are biased and could contain the opposite sign. We used OLS analysis to estimate the effects. Results are shown in Table 2, and for convenience purposes, we calculated the marginal effects of treatments and listed them at the bottom of the table.

	Pooled				Female				Male			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Explicit	.162**	.120*	.120*	.118*	.162**	.139*	.136*	.130*	.135	.081	.080	.091
	[.044]	[.049]	[.050]	[.049]	[.044]	[.054]	[.054]	[.057]	[.090]	[.093]	[.093]	[.091]
Male	-.014	-.035	-.050	-.034								
	[.063]	[.065]	[.074]	[.072]								
Explicit*Male	-.027	-.030	-.030	-.032								
	[.100]	[.102]	[.102]	[.101]								
# of Questions Solved		.017**	.017**	.017*		.009	.011	.012		.021**	.021**	.020**
		[.006]	[.006]	[.006]		[.010]	[.010]	[.012]		[.006]	[.006]	[.007]
School year, work experience, financial status			P	P			P	P			P	P
Efforts, anxious, exhausted				P				P				P
Explicit vs. Non-Explicit (female)	.162**	.120*	.120*	.118*	.162**	.139*	.136*	.130*				
Explicit vs. Non-Explicit (male)	.135	.098	.091	.086					.135	.081	.080	.091
Observations	296 ⁱⁱ	296	296	296	148	148	148	148	148	148	148	148

Table 2. OLS Results on the Initiation Decisions, Explicit Rule effects.

Note: Standard errors (cluster at the session level) in squared brackets. **p-value<0.01, * p-value<0.05, +p-value<0.10.

As shown in column [1], without controlling for any variables, the Explicit Rule treatment is associated with a significant increase in female participants’ propensity to initiate the negotiation. For male participants, the treatment effect is not significant, and there is no gender difference in terms of the magnitudes of the effects. In column [2], the absolute performance, i.e., the number of questions that participants correctly solved in the task, was further included in the regression. In general, participants who solved more questions were more likely to ask for pay raises. This result is not surprising especially given that the raise was determined by performance in Task 2. In column [3], we further controlled for demographic variables including participants’ school year, work experience and self-reported financial status. None of these factors had significant impacts and the main results remained. In column [4], we also included participants’ experiences in the experiment, such as amounts of effort, anxiety and exhaustion as controls, and the main results remained the same. To further support the results, we split the participants by their genders and conducted the similar analysis. The results are shown in columns [5] - [12]. The impact of the Explicit Rule treatment is similar to what we have observed, i.e., significant for women but not men. Furthermore, it is interesting to observe

that males' decisions, but not females' decisions, are significantly affected by their absolute performance. We also duplicated all the analysis in Table 3 using Logit regression, and these results holdⁱⁱⁱ.

	Pooled				Female				Male			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Explicit	.736**	.543*	.545*	.539*	.736**	.635*	.624*	.584*	.588	.363	.355	.428
	[.204]	[.233]	[.231]	[.236]	[.204]	[.254]	[.250]	[.261]	[.406]	[.434]	[.439]	[.437]
Male	-.055	-.152	-.226	-.151								
	[.257]	[.275]	[.317]	[.313]								
Explicit*Male	-.147	-.137	-.138	-.133								
	[.464]	[.486]	[.487]	[.494]								
Solved Questions		.084**	.084**	.086*		.043	.050	.058		.110**	.014**	.113*
		[.031]	[.032]	[.035]		[.047]	[.048]	[.057]		[.040]	[.042]	[.046]
School year, work experience, financial status			P	P			P	P			P	P
Efforts, anxious, exhausted				P				P				P
Explicit vs. Non-Explicit (female)	.162**	.115*	.113*	.112*	.162**	.139*	.136*	.125*				
Explicit vs. Non-Explicit (male)	.135	.091	.091	.089					.135	.078	.075	.089
Observations	296	296	296	296	148	148	148	148	148	148	148	148

Table 3. Logit Results on the Initiation Decisions, Explicit Rule effects.

Note: Standard errors (cluster at the session level) in squared brackets. **p-value<0.01, * p-value<0.05, +p-value<0.10. The marginal effects are evaluated at the observed values of the other explanatory variables in the sample.

In a sum, we find that simply making the rules for pay raises explicit encourages females to initiate negotiation. In contrast, such an effect is not significant for males. Therefore, H1 and H2 are supported. This result extends research findings in Leibbrandt and List (2014) that women are more likely to apply for jobs and negotiate salaries when it is explicitly mentioned that wages are negotiable.

As the next step, we are interested in which subgroup is likely to be more affected by the treatment effects. We estimated each participant's ranking in their group and divided the participants into two groups: upper/lower performers whose performance ranked above/below the median in the session. Recalling that male and female participants solved a similar number of questions, we also find there was no gender difference in participants' performance rankings: upper performers in task 1 were 46.5% women and 53.5% men and in task 2 they were 45.3% women and 54.7% men. There was no statistically significant difference in the gender proportions in the upper performance category. For the purpose of analysis, we split the participants into upper and lower performer groups based on their average rankings and then conducted the same analysis as in Table 2. Results for the upper performer group and the lower performance group are shown in columns [1] - [4] and columns [5] - [8] in Table 4¹, respectively.

As shown in columns [1] - [4] in Table 4, women who on average ranked the top 50% in their group were significantly more likely to ask for a raise when they were clearly informed of the rule on which the pay raise would be determined. In contrast, these effects were not significant for males. Furthermore, significant gender difference existed in terms of the magnitudes of the treatment effect in the upper performer group on average, as the interaction term of Explicit*Male was significant in columns [1] - [4]. However, for the lower performer group, i.e. column [5] - [8], we did not observe the treatment effect that we have observed in the pooled data. Therefore, we were able to conclude that the Explicit Rule effect is stronger for better performing women than for better performing men. This finding supported H3.

¹ Since we were interested in the interaction terms in this section, we chose to report OLS regression results as opposed to Logit results because the estimation of the interaction terms in Logit could be biased (Ai and Norton, 2003).

	Upper				Lower			
	[1]	2]	3]	4]	5]	6]	7]	8]
Explicit	.310**	.291**	.283**	.283**	.067	.015	.014	-.014
	[.080]	[.082]	[.088]	[.088]	[.058]	[.075]	[.076]	[.081]
Male	.115	.111	.160	.160	-.163 ⁺	-.161 ⁺	-.198*	-.167
	[.109]	[.108]	[.105]	[.105]	[.092]	[.092]	[.094]	[.098]
Explicit*Male	-.191 ⁺	-.209*	-.224*	-.224*	.090	.124	.124	.175
	[.099]	[.100]	[.105]	[.105]	[.163]	[.156]	[.155]	[.149]
Solved Questions			011	010		019	019	025
			.008]	.008]		.015]	.016]	.015]
School year, work experience, financial status Efforts, anxious, exhausted								
Explicit vs. Non-Explicit (female)	.310**	.291**	.283**	.283**	.067	.007	.014	.014
Explicit vs. Non-Explicit (male)	.119	.082	.059	.059	.156	.139	.139	.160
Observations	42	42	42	42	54	54	54	54

Table 4. OLS Results on the Initiation Decisions, Gender Differences for Upper and Lower performers

Note: Standard errors (cluster at the session level) in squared brackets. **p-value<0.01, * p-value<0.05, ⁺p-value<0.10

To further explore this effect, we tested whether or to what extent Explicit Rule affected decisions of upper and lower performers differently. For individuals whose average performance was below the median, the dummy variable, Lower, took a value of 1; otherwise, it was 0. The results are shown in Table 5. Columns [1] - [4] show the results for female participants, and columns [5] - [8] contain the results for male participants. For female participants, the interaction term of the Explicit*Lower was negative and significant, which means the marginal effect of Explicit Rule for upper performing women was higher than for lower performing women. Furthermore, the effect was only significant for upper performing women, but not for lower performing women, same as reported in Table 4. Therefore, H4 is supported. The effect of the Explicit Rule had no impact on both upper and lower performing men.

	Female				Male			
	1]	2]	3]	4]	5]	6]	7]	[8]
Explicit	.310**	.297**	.291**	.288**	.119	.057	.057	.050
	[.080]	[.079]	[.078]	[.084]	[.089]	[.093]	[.094]	[.100]
Lower	.048	.085	.104	.107	-.229 ⁺	-.131	-.137	-.134
	[.119]	[.168]	[.178]	[.188]	[.113]	[.133]	[.128]	[.120]
Explicit*Lower	-.244*	-.248*	-.250*	-.264*	.037	.085	.085	.116
	[.104]	[.107]	[.109]	[.114]	[.138]	[.127]	[.131]	[.131]
Solved Questions		006	010	011		016 ⁺	016 ⁺	.016 ⁺
		.015]	.016]	.018]		.007]	.008]	[.007]
School year, work experience, financial status Efforts, anxious, exhausted								P
Explicit vs. Non-Explicit (upper performers)	.310**	.297**	.291**	.288**	.119	.057	.057	.050
Explicit vs. Non-Explicit (lower performers)	.067	.049	.041	.024	.156	.142	.142	.165
Observations	48	48	48	48	48	48	48	148

Table 5. OLS Results on the Initiation Decisions, Performance Differences for Female and Males.

Note: Standard errors (cluster at the session level) in squared brackets. **p-value<0.01, * p-value<0.05, ⁺p-value<0.10

5. Discussion

We found that with no external social and economic costs, women's salary negotiation decisions are significantly influenced by the Explicit Rule effect but men's negotiation decisions are not. When pay raise determining rules are explicitly stated, women are less reluctant to ask for a pay raise. This explicit rule effect is particularly salient for women whose performance is above average. A gender difference exists in terms of magnitude of such effects between high-performing women and high-performing men. Furthermore, comparing upper and lower performers, we also find that women who are upper performers respond more to the Explicit Rule more than women who are low performers. These results show that when pay raise rules are not clear, high-performing women may experience most disadvantages when asking for a pay raise compared to high-performing men and low-performing women. This finding echoes research that identified larger gender pay gaps at the top end of pay distributions (Blau and Kahn, 2017) and provides a potential novel explanation to the glass ceiling effect in gender gap literature (Bishu and Alkadry, 2017).

Our findings have implications for policies designed to help reduce gender differences in the initiation of salary negotiations. We find that women, especially high-performing women, are more likely to be affected by an explicit statement of pay raise rules. Our findings echo pay transparency literature that shows positive effects of pay transparency on employees' job satisfaction, motivation, and performance as well as reduced gender pay gaps (Caulfield, 2021; Belogolovsky and Bamberger, 2014). Our study joins requests for more pay transparency in organizations' compensation practices (Kim, 2015). Firms should provide explicit rules to determine pay raises as an important approach to institutionalizing a level playing field for all employees.

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ⁱ We used Fisher's exact test to account for the relatively small sample size.

ⁱⁱ Two participants did not fill out the survey. To make the regressions consistent, we dropped these two participants' data (four observations) in the regressions. Our primary findings remained robust with these four observations included.

ⁱⁱⁱ As Williams (2012) has suggested that in Logit/Probit regression, the estimation for the marginal effect of the interactions between variables is econometrically incorrect, we followed the steps recommended by Williams (2012) and focus on the adjusted predictions and marginal effects of signal variables when holding other variables at the observe value.