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Wage Delegation in the Field

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Abstract

By conducting a natural field experiment, we analyze the managerial policy of allowing employees to self-determine their wages. We find that this policy enhances performance significantly, which is remarkable since allocated wage premiums of the same size have no effect at all. Observed self-imposed wage restraints and absence of negative peer effects speak in favor of wage delegation, although the chosen wage premium levels severely dampen its effectiveness. Additional experimental and survey data provides important insights into employees' underlying motivations.

JEL Classifications: C91, C93, J33, M52, M54

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I Introduction

In the presence of incomplete contracts, it is now considered a standard practice for employers to pay workers high wages with the intent of eliciting effort above the minimal level. This is feasible inasmuchas considerable evidence from laboratory experiments illustrates that performance increases together with the size of the wage offer, therewith underlining the importance of reciprocity in employment relations. Recent field experiments have challenged this perspective by demonstrating that the idea of positive reciprocity cannot necessarily survive a robustness test outside the laboratory (e.g. Gneezy and List 2006; Hennig-Schmidt, Sadrieh, and Rockenbach 2010; Kube, Maréchal, and Puppe 2012). These studies, however, have implemented unilateral wage decisions by the employer and have thereby neglected the possibility of employees' wage codetermination. Depending on whether employees have a say in the wage-setting process, the same payment may have different effects.

The present paper is the first to analyze the managerial policy of delegating the wage choice to employees in a naturally occurring work environment. In a controlled field experiment, we test whether granting employees the right to decide about their remuneration promotes performance. If so, at least two related questions occur and may diminish potential positive effects: will employees exploit such a policy by choosing maximum wages? And, if only part of the workforce is given this right, how will those who are not allowed to set their own wage respond when they know that others are given this right?

In line with the idea that employees value decision rights even beyond their intrinsic value (Bartling, Fehr and Herz 2014), previous empirical research (e.g. Falk and Kosfeld 2006; Fehr, Herz, and Wilkening 2013) suggests that treating employees fairly in terms of expanding their discretionary power may lead to better organizational outcomes, such as increased effort provision. Accordingly, it is only reasonable that some pioneering companies such as Ebay, Virgin, or Netflix experiment with advancements of ordinary empowerment strategies, leaving the working time, supervisors or the said wage determination to employees' discretion. Brazilian manufacturer Semco, for example, allows its employees to set their own wages (Semler 1993). Individuals can choose between different options, varying not only by wage level but also by payment structure. Similarly, a German hotel called Schindlerhof delegates wage determination: At the time of recruitment and promotion, employees are asked what they

think their work should cost the employer. If this sum is in the job's predetermined interval, no further negotiation takes place.

Companies using wage delegation report this policy to be highly successful: employees are highly satisfied with work relations,[1] do not exploit the granted autonomy,[2] and seem to perform well, as measured by high revenues or customer satisfaction. However, the evidence is more anecdotal than clean, given the vagaries of completely uncontrolled field data (Harrison 2004). Furthermore, since the managerial policy of self-determined wages is usually embedded in a more complex strategy of overall worker empowerment, i.e. giving employees the freedom to make decisions about their jobs in autonomous ways, observational data does not allow the isolation of single triggering factors.

Economic experiments account for these facts by building upon tight control. By conducting a real-effort experiment on workplace democracy, Mellizo, Carpenter, and Matthews (2014) provide support for the notion that it sometimes pays for employers to refrain from allocating payments unilaterally. Their results suggest that groups of workers who voted for their preferred compensation scheme provided significantly more effort than groups that had no say. To the contrary, Franke, Gurtoviy, and Mertins (2014) report no such positive effect of participation in the wage determination process on effort by systematically varying the degree of workers' involvement in the wage setting process using a laboratory gift-exchange game.

So far, the impact of delegating the overall wage choice to employees has been investigated in two recent laboratory gift-exchange experiments. Given self-determined wages, workers chose higher effort levels, which even led to Pareto improvements (Charness et al. 2012). Charness et al. (forthcoming) report that these findings are robust in relation to increases in the size of the workforce and robust against stated versus real effort.

[1] Both companies report extremely low turnover intentions and regularly high numbers of applicants. Furthermore, they have been awarded numerous prizes for employee treatment. The Schindlerhof has been chosen four times since 2007 as "best place to work" in the hospitality industry in Europe. The *Wall Street Journal's* Latin American magazine named the founder of Semco "Latin American businessman of the Year" in 1990.

[2] In both companies, employees are provided with some relevant information to figure out their individual adequate salary. This information includes market wages, co-workers earnings, and the company's financial situation. As a wage disciplining device, everyone at Semco knows that if their own wage demand is too high, a department may decide not to buy their work anymore (Semler 1993). The hotel management also relies on high transparency and on some kind of social pressure as well: The rather small size of the company makes it easy for anyone to grasp the undesirable consequences of exaggerated wage claims in relation to insufficient performance.

To examine the impact of wage delegation in the context of a real labor market setting, we exploited the fact that a research institute had to file its collection of business reports to make them accessible for research purposes. In September 2013, one hundred and fifty employees were hired for a half-day data entry job. We used this real employment situation to collect controlled data by building upon a research setting that combines the advantages of both the lab and the field, leading to a natural field experiment (Harrison and List 2004).

The job advertisement promised workers a flat wage of 30 EUR. To implement treatment variations, a random sample of workers received the right to set their own wage after one hour of work. Employees in two additional treatments were not allowed to set their wage, but were randomly allocated to receive the same set of wages which other individuals in the wage choice treatment had chosen for themselves. These treatments differed in one dimension only: workers either did or did not know that their co-workers in previous shifts had the right to set their wage. We implemented the additional group of employees who were aware that they were being treated worse than some of their peers to study an important real-world scenario where workers with different contracts (e.g. fixed-term vs. permanent contracts or – as at Semco – only part of a company's workforce is allowed to set wages) work side by side. A baseline treatment in which workers simply received the announced wage served as a further control. The resulting output measures and the information from two post-experimental questionnaires contribute to a rich data set that allows us to study employees' behavior and their underlying motivations in a real-world setting of increased worker empowerment through autonomy over their own remuneration.

By keeping any potentially intervening factors such as the work task, its duration and the whole working environment constant, our results show that this managerial policy clearly motivates employees: Output increases by about 10 percent. At the same time, a pure monetary bonus has no effect at all, thereby underlining the importance of nonmonetary gifts such as the right to set one's own wage. The wage choice policy, however, increases not only performance, but also wage costs, the latter by about 20 percent. Although claimed wage premiums are far from exhausting all possibilities, they are sufficiently high to make the occurrence of Pareto improvements depending on employers' particular profit and production functions. The negative performance effects on discriminated workers ─which would additionally weaken the overall outcome─ do not, however, materialize.

II Study Design

A Background

To investigate the performance effect of granting the right to self-determine one's wage, we exploited the happenstance that a German research institute had, over decades, collected but not systematically archived annual business reports from a broad range of national as well as international companies. This collection, located in one of the campus buildings, is called the *Business Archive*. In order to use the reports for prospective research purposes, they had to be filed first. This need offered the opportunity to conduct a natural field experiment (Harrison and List 2004) in which we were able to observe employees, who have not been told that they were taking part in an experiment, in a controlled working environment.

We spread the job advertisement via regional online platforms and posters on the campuses of the two local universities. In that offer, we announced a job for three and a half hours and with a fixed payment of 30 EUR. It was made clear that it was a one-time job because of the unique assignment of building up a database on business reports. Prospective workers applied using an online interface by providing some personal data (gender, birth date, nationality, highest educational degree, and field of study/actual employment), individual time constraints and contact information. In conjunction with entering that information, the potential employees agreed to terms and conditions regarding their privacy rights (as is required by German law), allowing us to use their personal data. To avoid a selection bias due to different working time preferences, applicants agreed to pick only those days on which they were available for the whole day and to provide as many days as possible. These restrictions helped to ensure the random allocation of workers into shifts and treatments. Out of 227 applicants, we picked 70 males and 70 females at random. Due to some cancellations on short notice and invitations to workers from the waiting list, the gender composition changed slightly and resulted in 56 percent females. In the acceptance email, we invited applicants to participate in the filing project and reminded them once again of the job's one-time character and of the payment. The filing project was conducted at the end of September 2013 over seven consecutive working days with three shifts per day.

B Implementation

Arriving at the arranged place and time, employees were welcomed and shortly told about the background of the project from a detailed script (see Appendix A.1). The task consisted of catching a report from a pile, recording relevant data (such as company name, year and the report's quality) by entering them into a web interface (see Appendix A.2) using the URL of the Business Archive, and afterwards, depositing the report on another pile. After having filed ten reports, workers placed a colored piece of paper in between them to keep an overview of the amount of work done. By conducting a pretest with ten additionally hired workers (paid with the announced flat wage of 30 EUR) one week before the actual project start, we learned that, on average, workers are able to file 145 business reports during three hours of working time. In the main archiving project, we informed all workers casually about the number of reports that had been filed by previous shifts.[3]

To rule out peer effects, everybody received a different meeting time and place. Furthermore, employees worked alone in single offices (for pictures, see Appendix A.3) without the presence of any co-workers or supervisors. We equipped the offices completely identically with a desk, two office chairs, shelves, a phone to call in case of any technical problems, and approximately 600 reports. We provided such a large number of reports in order to make it clear that filing all of them would be impossible and, hence, workers would not feel obliged to try to master it. Work stations had highly comparable working memory capacity and installed software (standard office software and an Internet browser). Furthermore, we used identical input devices. Since we cannot completely rule out the possibility that one of the factors would systematically effect workers' performance, for example, if a button on a key board did not work very well, we perfectly randomized equipped offices over the treatments and controlled for their appearance in the regressions.

An instructor briefed one worker at a time on the task by assisting in filing three report examples. Before leaving the office at the end of the briefing —which lasted about 10 to 15

[3] This was done for two reasons. First, workers in treatment WAGE CHOICE needed a reference point in order to know what was possible to achieve during a shift so that they could determine an adequate payment with regard to their performance. Second, such a reference point might lower variance and limit performance. Hence, our design is rather conservative inasmuch as the observed performance effects are even more reliable.

minutes—, instructors told workers that they would probably not manage to tell anyone when their individual shift was over and therefore a timer had been installed on the data entry mask to inform each employee of the remaining working time. After three hours, employees could leave without giving notice of departure. Payment and related paper work would take place during the shift. Breaks could be taken whenever necessary. Given these particular circumstances, we ensured that workers would feel as fully self-responsible for the managed work load as possible. After a working time of 60 minutes, which served as an individual performance indicator, the treatment variation took place (see Appendix A.4 for exact wording). The verbal implementation of treatments was explicitly practiced to ensure equivalency and authenticity. Overall, we conducted four treatments. The sequence of running the treatments was given by design:

First, in the treatment BASE, we simply paid workers the announced 30 EUR. Afterwards, we conducted the treatment WAGE CHOICE in which workers could pick any wage up to 42 EUR. To identify the clean performance effects of granting the right to self-determine wages, we conducted the additional treatment CONTROL, in which workers did not know about the special treatment of their co-workers, but received exactly the same set of wages chosen in treatment WAGE CHOICE and ranging from 30 EUR to 42 EUR. This means that we replicated the wage distribution resulting from the choices in the treatment WAGE CHOICE by randomly allocating these wages to the workers in the treatment CONTROL. We used the same procedure for the last treatment NO WAGE CHOICE, which investigates the effect of a discriminating treatment of a group of employees within the same organization. The single difference between CONTROL and NO WAGE CHOICE was that workers were informed that previous workers had determined their own wages, but that this right had been withdrawn. It was made clear that the decision to change the organization's policy would be the same for all upcoming shifts and did not depend on the particular worker.

Subsequent to the treatment variation, employees received their payment in cash. Afterwards, workers filed business reports for another two hours. Five minutes before the working time ended, an instructor handed over a very short feedback questionnaire (see Appendix A.5 and A.6) about the working conditions and potential improvements. Table 1 provides an overview of the sequence of events.

TABLE 1 - SEQUENCE OF EVENTS AND TREATMENT VARIATION

<table>
<tr><th colspan="2">Process</th><th colspan="4">Treatment</th></tr>
<tr><th>Step</th><th>Sequence</th><th>BASE
[$N = 20$]</th><th>WAGE CHOICE
[$N = 40$]</th><th>CONTROL
[$N = 40$]</th><th>NO WAGE CHOICE
[$N = 40$]</th></tr>
<tr><td>1</td><td>Welcome</td><td colspan="4">Employee arrives</td></tr>
<tr><td>2</td><td>Instruction</td><td colspan="4">Explanation of working task [approx. 10 min]</td></tr>
<tr><td>3</td><td>Performance indicator</td><td colspan="4">1 hour working time</td></tr>
<tr><td>4</td><td>Intro treatment</td><td colspan="4">Apology for interruption</td></tr>
<tr><td rowspan="3">5</td><td rowspan="3">Wage determination and payment</td><td rowspan="3">Payment of preannounced wage [30 EUR]</td><td>Wage choice</td><td>No wage choice</td><td>No wage choice</td></tr>
<tr><td></td><td>+ No information about others' wage choice</td><td>+ Information about others' wage choice</td></tr>
<tr><td colspan="3">+ Payment of wages between 30 and 42 EUR</td></tr>
<tr><td>6</td><td>Performance measurement</td><td colspan="4">2 hours working time</td></tr>
<tr><td>7</td><td>Feedback</td><td colspan="4">Short feedback sheet [approx. 5 min]</td></tr>
</table>

Shortly after the end of the filing project, we contacted the workers to take part in an online survey (see Appendix A.7) in order to gain some scientific insights into their recent work experience. Participants received a flat fee of 5 EUR and the opportunity to earn further money in incentivized experiments so that participants earned on average 10.97 EUR for a processing time of roughly 42 minutes. Taken together, the study design provides four sources of information: application form, observed working behavior, feedback sheet, and follow-up online survey. This rich data set allows us to investigate how employees respond to wage delegation and to identify potential underlying channels of their actual behavior.

III Behavioral Predictions

In order to evaluate the efficiency of the wage delegation policy, we first consider corresponding wage costs.[4] Neoclassic thinking suggests that all workers would ask for the maximum wage. Decades of experimental research, however, have shown that deviations from the predictions derived from the entirely self-interested *Homo economicus* model are the rule

[4] Note that Pareto improvements can only arise if the employers' original valuation of the output relative to wage costs is large enough so that the (expected) performance increase outperforms the (expected) wage increase.

rather than the exception (see e.g. Dawes and Thaler 1988, Henrich et al. 2001). Among others, pure own-payoff maximizing behavior might be mitigated by the concern that one could appear greedy in a face-to-face context, especially if a high wage claim cannot be justified by correspondingly high performance. Moderate wage setting would also be in line with the anecdotal evidence from managements' observations at Semco and Schindlerhof. Alltogether, we expect rather moderate wage claims.

While the fair wage-effort model —which suggests a robust and positive influence of monetary gifts on effort provision— has large predictive power in the laboratory (Fehr, Kirchsteiger, and Riedl 1993; Fehr, Kirchler, Weichbold, and Gächter 1998; Fehr and Falk 1999; Charness 2000), this is not true for field settings. Indeed, recent field experiments showed that positive reciprocity does not always survive outside the laboratory (Gneezy and List 2006; Kube, Maréchal, and Puppe 2012, 2013). In particular, the existence of a positive wage-effort relation in actual employment relationships seems to depend on two crucial conditions which are not necessarily given in the present setting: First, only if explicit cost and surplus information are provided, allowing employees to calculate their employer's surplus from the work contract, do workers have a reference point for being reciprocal (Hennig-Schmidt, Sadrieh, and Rockenbach 2010). Second, to reciprocate the wage increase, employees need to feel rather underpaid at the base level since adequately or overpaid workers have been reported to show no wage-effort sensitivity since overpayment might be seen as a signal for an altruistic gift that need not to be reciprocated (Charness, Frechette, and Kagel 2004; Gneezy and List 2006; Cohn, Fehr, and Goette, 2015). This is also basically in line with the classic fair wage-effort hypothesis (Akerlof and Yellen 1990) which postulates that there will be no additional effort in case of overpayments. As the base wage was indeed generous compared to typical alternative employment opportunities for occasional jobs, we do not expect to observe evidence in favor of the standard gift-exchange hypothesis. We test this suggestion in order to get an impression of the comparability of our results to previous monetary gift-exchange studies in the field. Furthermore, a monetary gift represents a substantial part of both treatments WAGE CHOICE and NO WAGE CHOICE, and hence, analyzing the role of a monetary gift helps to disentangle the pure nonmonetary treatment effects of granting and denying the wage choice in the proceeding steps.

By comparing WAGE CHOICE and CONTROL, we keep the sum of labor costs constant and analyze the pure performance effects of wage delegation. Given previous evidence from laboratory experiments (Charness et al. 2012, forthcoming), we expect the wage choice policy to increase the produced output and thus to generalize to a real labor market. While standard economic theory predicts that workers will choose the lowest effort, two competing motivations could explain a positive performance effect: *positive reciprocity* and the *transfer of responsibility* (Charness 2000, Charness et al. 2012). On the one hand, just like (or even better than) a monetary gift, the nonmonetary gift of wage delegation may trigger an urge to reciprocate by exerting higher efforts. On the other hand, employees are said to behave more generously when they bear the full responsibility for the final outcome. Our comprehensive data set allows us to shed some light on these competing explanations.

Last, we consider the possibility that only part of the workforce is allowed to set their own wage, while others know about this right without themselves having it. Although we know that peer comparisons play a major role in the monetary domain, it is not clear what happens if nonmonetary goods, such as the right to self-determine wages, are unequally distributed. Both *negative reciprocity* and *conformity* might evoke a performance drop. First, unfavorable peer information could lead to a decrease in effort if employees perceive the discriminatory treatment as an unkind or distrusting signal on behalf of the employer, therewith triggering a negative reciprocal reaction (see e.g. Falk and Kosfeld 2006, Kube, Maréchal, and Puppe 2013), Second, by withdrawing a right others have had, the employer might signal the impression that many people are not trustworthy. As a result, conformists adjust their performance to their environment, which seems to perform poorly (Sliwka 2007).

On the other hand, a high level of satisfaction with the overall working conditions including the wage might dampen any potential negative effect. Additionally, workers in the treatment NO WAGE CHOICE have been given an explanation for the change in the organization's policy —a plausible behavior of an employer who does not want to explicitly antagonize workers. Accordingly, workers receive both *information* and *recognition* from their employer which has been shown to be highly valued by workers, even in the case of bad news (see, e.g., Kosfeld and Neckermann 2011, Brandes and Darai 2015). Besides, not necessarily every employee values wage delegation as a signal of benevolence from the employer: psychological and economic research (see, e.g., Iyengar and Lepper 2000; Irons and Hepburn 2007) has shown

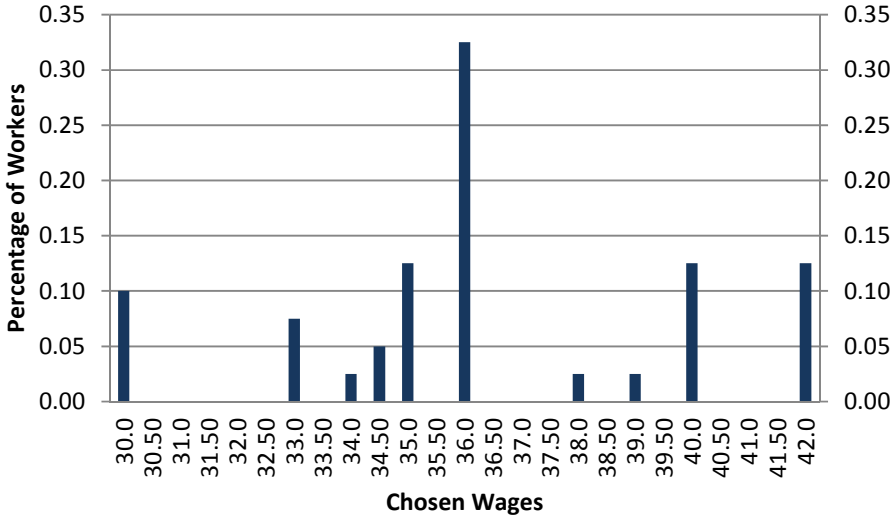
that an individual's desire for choice is sometimes limited so that the choice might therefore be seen as a burden rather than a gift. To sum up, predictions are ambiguous in this case since the knowledge that others were allowed to determine their own wage while they were not can trigger adverse reactions.

IV Results

A Employees' Wage Choices

Figure 1 provides an overview of the wages set by the forty workers in the treatment WAGE CHOICE. The average wage is 36.33 EUR. A small but significant portion of employees sticks to the announced wage of 30 EUR, and a similar proportion (12.5%) chooses the maximum wage premium. The majority of workers take 36 EUR. Presumably, the medium wage seems to work as some kind of focal point.

FIGURE 1: WAGES CHOSEN IN TREATMENT WAGE CHOICE



Two obvious reasons are most likely to explain workers modest claims: the particular setting and alignment of wage premium and individual performance.

The decision situation here closely resembles the interpersonal environment present at workplaces: workers assert their claims via face-to-face communication, facing a low degree of anonymity. In order to reveal workers unbiased payment preferences in an anonymous setting,

we designed a simple incentivized[5] experiment implemented in the follow-up survey (for details of the wage choice game, see Appendix A.7). Although the anonymous decision situation would have allowed them easily to ask for a higher amount, we again observe moderate choices by employees, with an average of 37.38 EUR. Compared to the average actual wage choice (36.33 EUR), we do not find a significant difference here (p = 0.254, Wilcoxon matched-pairs signed rank test, two-sided), making it likely that the moderate wage choice in the field is not due to the particular setting but rather reflects employees' true preferences.

A second explanation for moderate wage choices involves the inspection of the relation between workers' performance and their claims. Descriptive results already reveal a potential relationship. For example, the highest possible wage is taken by 12.5 percent, and even though exploiting the scope of possible wages, their choice is not inappropriate given those workers' high level of initial performance (mean = 50.6) compared to the whole sample (mean = 44.8).

TABLE 2 - ANALYSIS OF WAGE CHOICES

	(1)	(2)	(3)
Initial performance	0.093***	0.084***	0.116**
	(0.033)	(0.047)	(0.057)
Female		-2.058*	--
		(1.109)	
Initial performance *X* female			-0.049*
			(0.027)
Controls	No	Yes	Yes
Constant	2.086	3.135	1.694
	(1.542)	(3.811)	(3.523)
Observations	40	38	38
Adjusted R^2	0.069	0.081	0.101

Notes: The dependent variable is the wage premium. The table reports OLS coefficient estimates (standard errors in parentheses). The sets of control variables include age, dummies for being foreign and the educational background. Levels of statistical significance are: * p < 0.1, ** p < 0.05, *** p < 0.01.

OLS regression results in Table 2 clearly show that workers incorporate their previous performance in setting their wage. Even controlling for the socio-demographic information for gender, age, nationality and workers' educational background in specification (2), we observe a highly significant relationship between initial performance and the chosen wage premium. Since the influence of the initial performance is large in size and strikingly robust, this seems

[5] We randomly picked 3 participants who received the chosen payment between 30 EUR and 42 EUR.

to be the driving force behind workers' wage choices. Both pieces of evidence lead to our first result:

> **Result 1: On average, workers wage choices are moderate, with only a few employees asking for the maximum. This behavior seems to be driven by adapting the requested wage premium to their individual performance.**

A related question of interest refers to heterogeneity in wage claims, particularly with respect to gender differences. Do women ask for less and if so, why? Indeed, from Table 2 we can conclude that significant gender differences in the requested wage premium exist, and it seems to be a robust and sizeable effect. While observing a gender wage gap is not surprising *per se*, observing it in such a particular setting of self-determined wages is particularly meaningful since the usual explanations cannot apply. Here, we can completely rule out the possibility that women earn less than men because of gender discrimination or lower voluntary tendency to engage in competitive environments (Gneezy, Niederle, and Rustichini 2003; Niederle and Vesterlund 2007; Niederle 2007). Furthermore, the wage differential is not attributable to differences in productivity, since initial performance is not different between genders (Wilcoxon rank sum test, p=0.357, two-sided). Instead, the correlation between initial performance and the wage claim is significantly lower (see specification (3) in Table 2) and, hence, women simply seem to ask for lower remuneration than men.

It has recently been argued that women could shrink the gender pay gap by negotiating more effectively for higher wages (Bowles, Babcock, and Lai 2007; Bowles and Babcock 2013). The factors that are said to prevent women from negotiating, however, are also largely eliminated here ―such as the burden of taking the initiative on their own, the social risk of asking, the perception of driving a hard bargain, or negotiating with men (instructors who brought the money were even female)― and still, female employees' modest behavior persists. Hence, it seems likely that it is not the fear of social consequences but satisfaction with lower payments that could be a driving force (due to e.g. different moral standards or reference points than men), therewith offering an alternative perspective on the gender pay gap.

Result 2: Females ask for significantly lower wages, even in the present low-barrier setting. This finding about their voluntary and volitional modest behavior can therefore contribute to explaining the gender pay gap.

B Wage Effort Sensitivity

To test the validity of the fair wage-effort hypothesis, we start with comparing the treatments BASE and CONTROL, which differ only in the payment level. While all individuals in BASE received the prearranged 30 EUR, employees in CONTROL were randomly paid a wage premium of 0 to 12 EUR out of the set of wages chosen in treatment WAGE CHOICE, resulting in an average payment of 36.33 EUR. This means that, on average, workers in treatment CONTROL received a monetary gift of more than 20 percent of the base pay, while workers in BASE did not. Descriptive statistics already indicate that a monetary gift does not increase the average workload done: workers in treatment BASE file on average 100.75 business reports, while workers in treatment CONTROL file 97.65 reports. This result is highly robust using regression analysis with various specifications (see Appendix B.2).

One might argue that, on average, we do not find any evidence on reciprocal gift giving since workers have been aware of the fact that we were able to pay up to 42 Euro. In consequence, especially the workers who did only receive a small wage premium or none at all could perceive the treatment as kind of a wage cut rather than a gift —which might damage work morale as suggested by Kube et al. (2013) and Cohn et al. (2014). To test this assertion, we look at the correlation between the wage and the average per-hour performance change after treatment variation.[6] If the former line of reasoning were true, we would expect a positive correlation between the two, in both treatment CONTROL and NO WAGE CHOICE, with an especially poor performance of workers with only small wage premiums. As can be seen in the following Figure 2, the correlation, however, is even slightly negative for all three treatments, but statistically insignificant (WAGE CHOICE: Spearman's *rho* = -0.226, $p = 0.162$; CONTROL: *rho* = -0.113, $p = 0.487$; NO WAGE CHOICE: *rho* = -0.111, $p = 0.494$). Hence, we find neither any evidence for the wage-cut hypothesis nor for performance enhancing wage effects in this field setting.

[6] The average per-hour performance change is calculated as (*performance in minutes 60-180*)/2) divided by *initial performance*.

FIGURE 2 - WAGE PREMIUM AND PERFORMANCE CHANGE

Finally, we check for potential reasons for the non-existence of monetary gift exchange. As discussed before, recent studies identified two necessary conditions: First, employees need cost and surplus information to have a reference point for being reciprocal and, second, they should not feel overpaid at the base level. Since we informed employees that an average co-worker managed 145 reports and was paid 30 EUR, this first prerequisite is obviously given and is therefore not suitable to explain the missing effect. Additionally, given that individuals could check their own previous performance at a glance, it is hard to imagine that they were not able to adapt their effort to paid wages if they would have been willing to do so. The second condition, however, is a likely candidate to explain the non-existence of monetary gift exchange at the workplace under study. Three pieces of evidence suggest that the fairness perception of the payment is key for our understanding: workers seem to feel rather over- than underpaid. First, the base wage was indeed generous compared to typical alternative employment opportunities for occasional jobs. Second, in the online survey (see Appendix A.7), workers rate the fairness of the paid wage as very high, and fairness perceptions do not differ significantly (Wilcoxon rank-sum test, $p = 0.831$, two-sided) between treatment BASE (mean = 6.143) and CONTROL (mean = 6.484). Third, roughly 94% in the treatment BASE state exactly the paid wage or even less as the fair wage. Taken together, these facts lead us to the following conclusion:

Result 3: A pure monetary gift has no impact at all on employees' performance. A likely reason is employees' positive fairness perception toward the base wage.

C Performance Effects of Wage Delegation

In this subsection, we examine whether granting additional autonomy enhances performance in a work setting in which even a monetary gift has no significant impact. The descriptive results already suggest that wage delegation is likely to affect employees' performance. Average output after treatment variation is approximately 10 percent higher for those who had the right to self-determine their wage (mean = 108.33) compared to the control group (mean = 98.83). This is in line with the hypothesis that employees react positively to such a signal of benevolence. By using regression analysis, we see that the observed performance effects are highly robust. Controlling for (1) initial performance and the paid wage, (2) socio-demographics (i.e. age, gender, nationality and the educational background[7]) and the Big Five personality traits[8], and (3) organizational variables (allocated shift and office) shows that the estimated performance effects of the treatment WAGE CHOICE stays highly significant at the 1 percent level and even increases slightly, as summarized in Table 3.[9][10]

Even though we did not find any evidence on a performance enhancing effect of a monetary gift, one might argue that individuals who asked for higher wages also work harder subsequently, so that the wage delegation effect would still be a kind of wage effect. Figure 2 (on page 14), however, illustrates the development of workers' performance after the treatment intervention as a function of the chosen wage, proposing that the former line of argument does not explain the positive effect of wage delegation. Finally, we also checked whether our

[7] The educational background has been clustered according to the classification of the Federal Statistical Office of Germany.

[8] We measured the Big Five with a 40-item version (Saucier 1994; Weller and Matiaske 2009) of the well-established NEO-FFI by Costa and McCrae (1989). The measure meets all conventional reliability standards with Cronbach's alpha ranging from 0.77 to 0.86 (see Appendix B.1).

[9] The results are also highly robust with regard to the estimation technique. Neither using the absolute number of filed reports instead of their logarithmic values nor exploiting the panel data structure of our data (5-minute time intervals available) and controlling for non-linear time trends, resulting from learning or exhaustion, alters our results.

[10] As regards the remaining control variables, we find a statistically and, above all, economically significant impact of the Big Five personality trait conscientiousness: A one point increase on a 7-point Likert scale is associated with a roughly 8 percent higher output of filed business reports. Employees' gender, age, and education, as well as organizational background variables, on the contrary, do not correlate with performance.

findings might be influenced by the fact that there is some variation as regards individual ability. Including interaction terms between the treatment and being an above average performing worker before treatment intervention shows that the treatment effect remains stable and that there is no significant difference between high and low ability performers.[11]

TABLE 3 - MAIN REGRESSION ANALYSIS

	(1)	(2)	(3)
CONTROL	*Ref.*	*Ref.*	*Ref.*
WAGE CHOICE	0.085***	0.114***	0.105***
	(0.029)	(0.041)	(0.039)
NO WAGE CHOICE	0.062**	0.058	0.053
	(0.028)	(0.036)	(0.040)
Initial performance	0.657***	0.669***	0.677***
	(0.051)	(0.062)	(0.064)
Wage	-0.002	0.002	0.002
	(0.004)	(0.005)	(0.006)
Constant	2.184***	1.750***	1.829***
	(0.223)	(0.363)	(0.391)
Further Controls:			
Socio-demographics & Big Five	-	✓	✓
Organizational variables	-	-	✓
Obervations	120	94	94
Adjusted R^2	0.632	0.613	0.617

Notes: The dependent variable is the log of the number of filed reports. The table reports OLS coefficient estimates (robust standard errors in parentheses). Data received from the treatment BASE is excluded here. Levels of statistical significance are:
* p < 0.1, ** p < 0.05, *** p < 0.01.

Given the roughly 10 percent performance increase, Pareto improvements are generally possible in the case of delegating the wage choice, but they depend on the employers' valuation of the output since wages also rise by about 20 percent. Hence, the original valuation of the output relative to the cost in wages has to be greater than 2.[12] Here, the filed reports were not intended for sale so that there is no market price which might compensate the increase in labor costs. This, however, is not the standard case and, hence, we come to the following conclusion:

[11] Complete results are available upon request.
[12] This can be shown by looking at an employer's utility function. By defining p as the valuation of the output, y as the quantity of the output and w as the wage, the employer receives the utility $u = p*y-w$. Under delegation, the output may change to y' and the wage to w'. Hence, the employer profits from the wage delegation if $p*y'-w' > p*y-w$. Rearranging this inequality yields $\frac{py}{w} > (\frac{w'-w}{w})/(\frac{y'-y}{y})$.

Result 4: In line with predictions, delegating the wage choice to employees significantly increases performance. Since wages also increase, the profitability of wage delegation depends on the employer's valuation of the output.

To shed light on workers' underlying motivations leading to the significant performance increase, we analyze the additional data from the follow-up survey. As discussed before, two competing rationales, positive reciprocity in response to the nonmonetary gift of setting the own wage or the transfer of responsibility, might explain the performance increase in WAGE CHOICE. For participants' reciprocal inclinations, we have one behavioral and one survey measure. First, we applied a simple incentivized trust game (Berg, Dickhaut, and McCabe 1995) using the strategy method with all participants playing in both roles and second, individuals were asked six questions about positive and negative reciprocity based on the measure developed by Perugini et al. (2003) (see Appendix A.7). Splitting the sample into workers with low and high reciprocal inclinations (median split), both measures yield the same results: it turns out that highly reciprocal workers do not behave significantly differently from less reciprocal ones in the treatment WAGE CHOICE using a Wilcoxon rank sum test (p = 0.756 and p = 0.741, respectively, two-sided).[13]

To investigate whether the increased responsibility is the key to understanding workers' behavior, we implemented three relevant questions in the follow-up survey (see Appendix A.7). We use the answers to create an index to indicate employees' sense for responsibility. Applying a median split reveals that employees in WAGE CHOICE with a stronger perception of increased responsibility show a significantly (p = 0.018, Wilcoxon rank sum test, one-sided) higher performance increase of 28.34 percent than the remaining workers (17.63 percent), as predicted by the *responsibility* effect. Both findings support previous laboratory evidence and lead to the following conclusion:

Result 5: The positive performance effect of the treatment WAGE CHOICE can be explained by the transfer of responsibility rather than by positive reciprocity.

[13] Since most of the following experimental measures are not available for all treatment groups, we cannot employ regression analysis in all cases. Hence, we decided to employ solely within-treatment comparisons in this subsection by using the average per-hour performance changes after treatment variation (see also footnote 8, p. 13).

We now turn to treatment NO WAGE CHOICE, which resembles a workplace situation in which some employees are excluded from the opportunity to set their own wage. We find that any concern about negative peer effects are not justified. At first sight, the explicit denial even seems to result in higher performance (mean = 107.02) compared to the control group, somewhat similar to the effect of wage delegation. Controlling for workers' individual characteristics in specification (2) shows, however, that this effect is not robust but the point estimate keeps its positive sign. Hence, we do not find any evidence on negative reciprocity or conformity that might explain workers' behavior. Instead, one might suspect that workers' satisfaction with the wage and the overall working conditions have dampened a potential performance drop. Comparing workers' stated fair wage with the actually paid wage in the treatment NO WAGE CHOICE, we find that approximately 65 percent of workers felt adequately paid and 30 percent would have even been pleased even with a lower wage. Hence, paid wages seem to exceed a certain threshold, with the result that they probably compensate for the discriminating treatment the workers receive. To evaluate this assertion, we simply asked employees in the follow-up survey to record their thoughts when they became aware that others have had the right to self-determine their wage. A total of 20 out of 36 participants explain that they were angry or upset at first, but because they received a good wage at the end, they were able to overlook this obviously unfair treatment. In the context of good working conditions (overall job satisfaction: *mean* = 6.450 on a 7-point Likert scale; satisfaction with employment conditions: *mean* = 6.447), workers indeed claim to have a certain understanding for employers who do not trust their new employees enough to delegate the wage choice (*mean* = 5.971 on a 7-point scale with 7 indicating complete agreement). These facts together might form a possible explanation why workers' performance does not collapse after being informed about the ongoing discrimination in this short-run employment relationship.

> **Result 6: Informing employees that co-workers were allowed to set their own wage (while they were not) has no impact on performance. The perception of a fair wage and overall good working conditions seems to make employees overlook a clearly discriminating treatment, at least in the short run.**

Since an increase in output —or a nondecrease in the case of discriminatory treatment such as NO WAGE CHOICE— might be related to a higher error rate, we finally checked a random sample of 10 percent of all entries for correctness. The average rate of correct entries across all

treatments was as high as 93.38 percent (see Appendix B.3). Using a chi-square test, we find that the error rate is independent of treatments ($p = 0.284$), suggesting that output in WAGE CHOICE or NO WAGE CHOICE are not at the expense of a decrease in quality.

V Concluding Remarks

Exploiting the happenstance that several thousand business reports had to be filed by temporary personnel, we were able to implement a research design that combines a natural workplace environment with a highly controlled experimental setting. Besides collecting a wider array of socio-demographic data compared to a standard student subject pool, the study design is able to provide more reliable insights into field behavior than conventional laboratory experiments, since the hired employees accomplish a valuable task and had not been told that they were taking part in an experiment. In this way, our study sheds light on workers' wage choices in the context of real work contracts, on performance effects through wage delegation, and on potential detrimental effects caused by workers' knowing that others were allowed to set wages while they were not.

Our findings suggest that self-determination of wages by employees leads to a significant performance increase which is likely due to the transfer of responsibility rather than positive reciprocity. The rise in performance is particularly remarkable given that a pure monetary gift has no effect at all. While the performance increase amounts to a considerable 10 percent, labor costs grow faster by approximately 20 percent, even though the wage increase can still be considered moderate since workers were allowed to claim a bonus of up to 40 percent. Under the given conditions, Pareto improvements were less likely to occur. In the context of particular profit and production functions (e.g., if the product is highly valuable and production cannot be arbitrarily extended), however, a bilaterally beneficial situation is conceivable. This study indicates, at the very least, that the average individual is able to handle increased responsibility. Even those who do not want to bear it perform at least as well as non-empowered individuals.

At the same time, concerns about negative reactions by those who were excluded from the wage choice policy were not justified. Our data indicates that the combination of a generous wage and overall good working conditions made employees overlook a clearly discriminating treatment. Thus, our results suggest that a discriminating treatment is not a problem per se. A

newly hired employee, for example, might accept starting a job with fewer rights than permanent staff, at least for a certain amount of time.

In conclusion, our results challenge assumptions about the primacy of monetary motivation yet again. They suggest instead that employee participation plays a key role. The influence of wage delegation strategies may even go beyond performance and have positive effects on job satisfaction, turnover intentions or employee theft as well. In that case, our setting would underestimate the impact of the examined empowerment strategy. It is unclear, however, whether factors not thus far considered may be important. Since the wage delegation strategy shares its core feature with "pay-what-you-want" (PWYW) pricing by companies explicitly exposing themselves to financial risks, the effectiveness of both strategies may depend on similar conditions. According to recent research on PWYW (Gneezy et al. 2010), these conditions include the customer's (employee's) desire to get the product (job) or their desire to support the company. The conditions in turn are likely to vary according to whether customers (employees) simply like the company (Gneezy et al. 2012) or consider the company in need of help (Regner and Barria 2009). As a result, less popular and/or highly profitable companies probably have to pay higher wages, thereby dampening the strategy's effectiveness. Furthermore, PWYW is theorized to work better if customers are surprised by the pricing strategy (Gneezy et al. 2012). This may hold for employees as well: as long as only a few employers apply this payment strategy, companies can use it as part of their image campaign to mark themselves off from competitors.

In that case, however, another potentially important concern is sorting. It has been shown that fewer consumers choose to buy a product under PWYW than when the price is fixed and low due to individuals' identity and self-image considerations (Gneezy et al. 2012). In consequence, opt-out behavior could also be observed in the labor market: Individuals who simply dislike deciding (Schmidt, Spann, and Zeithammer forthcoming) or who would feel bad when they demand more than the "appropriate" wage might refrain from applying at all, thereby changing the application pool. Similarly, both strategies may particularly attract people who do not prioritize fairness, i.e. greedy consumers and employees with a poor wage-to-performance ratio, which is another potential source of limited effectiveness. Investigating these additional effects remains a project for future research.

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APPENDIX
Appendix A: Experimental Design and Procedures

A.1 INTRODUCTORY SCRIPT [ORAL INSTRUCTIONS FOR ALL WORKERS]

[The original (German) scripts are available from the authors upon request. Note that we present the scripts here in written vernacular in order to more accurately represent our attempts to maintain greatest possible authenticity in this situation.]

The *Business Archive* has existed for circa 20 years. It is supposed to be a unique and comprehensive collection of annual reports from a wide range of companies, covering quite small ones as well as large ones that are listed on the stock market. In order to promote the collection to local, national, and international students and researchers, we need a more comprehensive and easy-to-access data base. To do so, we applied for and received additional funding that is enabling us to hire data entry helpers like you in order to collect the necessary data.

[Your task]

So you can see that we've set you up with a shelf full of reports. The reports aren't in any particular order so you can just take them one after the other and enter the data into the system, and put the finished reports on the empty shelf. To help you keep track of your progress, we've got colored pieces of paper that you should put in the stack after every tenth report. Our archive really wants to provide accurate information to the people that will be accessing this data so we're counting on you to do clean work.

[Organization]

We're hoping to have this done before the next term starts and there isn't much time left, so we're running on a tight schedule here. We figured the best solution would be to have as many work stations and helpers working parallel as possible but we can only book these offices during the semester break. We also got lucky that so many people applied and instead of just hiring a few for several weeks, we decided to bring in as many as possible in a one-time deal to get the opportunity to earn some money. Even though you're only gonna be doing this today, we've noticed that even after a few hours the concentration starts to slip. That's the reason you'll be working a three hour shift. Before you really get started though we wanted to let you a little tutorial with the software and the process, entering three reports should get you acquainted. Once you've done that, you can start your three hours but we need you to stay in the schedule. We've got a lot to organize, so we won't be checking in on you. There's a

timer on the screen to help you keep track and as soon as you hit the three hour mark just stop typing. The next shift could already be waiting.

[Previous Performance]

The last people that were working here seemed to average around 145 reports in three hours, but that's just by the by.

[Payment]

For the instruction, short training and the following three hours you'll be getting 30 euros. I probably won't have time to stop in right before your shift is over but I will be back to bring you your payment sometime during the shift. I'll probably pop by in about an hour. If you have any questions or if any technical problems arise, please *immediately* call the project coordinator, the phone number is right next to the phone.

A.2 SCREENSHOT OF THE ONLINE-SURFACE

A.3 PICTURES OF A REPRESENTATIVE WORKPLACE

A.4 TREATMENT SCRIPTS

[The original (German) script is available from the authors upon request.]

[All]

Hey, sorry to interrupt but with all that's going on, I'm not sure if I'll be able to come by again before you're done with your shift. Just in case, I brought your pay with me.

[Additionally for treatments WAGE CHOICE/CONTROL/NO WAGE CHOICE]

I've got news, the project coordinator was running the numbers and it turns out we can actually pay between 30 and 42 euros for the job and so I've been told to…

[Additionally for the treatment WAGE CHOICE only]

…allow our helpers to tell us what they think they've earned. It's up to you to tell me how much you'd like to be paid, between 30 and 42 EUR. I mean, you know best how much you've been able to get done and the project coordinator believes that you can pick a suitable wage for your efforts. So, just let me know what you personally think your work should cost us, and it's yours.

[Additionally for the treatment CONTROL only]

… inform you that the project coordinator has decided to pay x EUR.

[Additionally for the treatment NO WAGE CHOICE only]

…talk with you about our special payment policy. I don't know if you've talked to anybody who's done this job. Last week, our helpers got to choose what they thought an adequate wage would be between 30 and 42 EUR. The project coordinator thought that people would know best what they could get done during their shift, so they got to decide what an adequate payment would be. Then the project coordinator's boss caught wind of the idea and said that it's a poor idea to trust random people. I hope you don't take it personally, I mean it's got nothing to do with you, the coordinator's boss is just a pessimist when it comes to people. Since they won't be going back to the old model, the project coordinator has decided to pay x EUR.

[All] Workers were paid out in cash and signed a receipt.

A.5 FEEDBACK SHEET SCRIPT

[The original (German) script is available from the authors upon request.]

[Five minutes before the end]

Hey, I made it back! I just wanted to drop off a very short feedback sheet for you, since we, as your employer, care what you think about your job and what we could maybe do better. We'd appreciate getting your feedback. Just leave the questionnaire on the table when you leave the room. Thanks!

A.6 FEEDBACK SHEET

[The original (German) sheet is available from the authors upon request.]

Feedback Sheet

Dear Employee,
Thank you very much for your work effort! As we, as your employer, are still willing to learn and to improve our employer-employee relationships, we are highly interested in your opinion. Thus, we kindly ask you to carefully fill in the following feedback sheet. Thank you!

1. How satisfied have you been with your job altogether?
Very satisfied ○ ○ ○ ○ ○ ○ ○ not satisfied at all

2. How satisfied have you been with the conditions of employment?
Very satisfied ○ ○ ○ ○ ○ ○ ○ not satisfied at all

3. How interesting did you find the task?
Very interesting ○ ○ ○ ○ ○ ○ ○ not interesting at all

4. How exhausting did you find the task?
Very exhausting ○ ○ ○ ○ ○ ○ ○ not exhausting at all

5. How do you assess your own work performance?
Very good ○ ○ ○ ○ ○ ○ ○ not good at all

6. Which wage would have been appropriate, given your performance?

7. According to your opinion, can we improve something? If yes, please provide any suggestions:_____

8. Did this job meet your expectations? ○ Yes ○ No
If not, why?_____

A.7 FOLLOW-UP QUESTIONNAIRE AND EXPERIMENTS

[The original (German) questionnaire is available from the authors upon request. The original questionnaire contains additional items not used in the analyses. Annotations in brackets are comments only and were not part of the original questionnaire.]

The Business Archive project is now finished. Today, we conduct a scientific survey and would like to ask you to contribute to it by answering some questions, given your valuable recent working experience. You will receive 5 Euro for a completed questionnaire. Additionally, you can earn some more money by making decisions.

[Beliefs and rationale on wage choices: workers in WAGE CHOICE only]

- What do you think: Which wage did the other employees choose? _____
- What do you think: Which wage choice did your employer expect? _____
- Please indicate how you came up with a decision about your own wage level and which criteria you used to determine your wage:_____

[Payment: workers in NO WAGE CHOICE]

Please indicate your thoughts when you learned that your coworkers were allowed to determine their own wages while you were not?

_____
_____
_____
_____

[Questions concerning the fairness of the wage: all workers]

Please indicate on a 7-point Likert scale how strongly you agree with the following statements.

	Completely disagree (1)						Completely agree (7)
The paid wage was fair.	□	□	□	□	□	□	□
The paid wage was higher than expected.	□	□	□	□	□	□	□
I felt a large degree of distrust by the employer toward me.	□	□	□	□	□	□	□

[Questions on positive and negative reciprocity: all workers]

Please indicate on a 7-point Likert scale how strongly you agree with the following statements.

	Completely disagree (1)						Completely agree (7)
If someone does me a favor, I am prepared to return it.	□	□	□	□	□	□	□
If I suffer a serious wrong, I will take revenge as soon as possible, no matter what the cost.	□	□	□	□	□	□	□
If someone puts me in a difficult position, I will do the same to him/her back.	□	□	□	□	□	□	□

I go out of my way to help somebody who has been kind to me before.	□	□	□	□	□	□	□
If somebody offends me, I will offend him/her back.	□	□	□	□	□	□	□
I am ready to undergo personal costs to help somebody who helped me before.	□	□	□	□	□	□	□

[Responsibility alleviation: workers in WAGE CHOICE and NO WAGE CHOICE]
Please indicate on a 7-point Likert scale how strongly you agree with the following statements.

	Completely disagree (1)						Completely agree (7)
The determination of my own wage involves a huge responsibility.	□	□	□	□	□	□	□
I like taking on the responsibility involved when setting my own wage.	□	□	□	□	□	□	□
The wage choice involves a high level of responsibility.	□	□	□	□	□	□	□

[Wage Choice Game: played by participants in treatments WAGE CHOICE and NO WAGE CHOICE]
Imagine you can choose between a fixed payment and payment you determine on your own. As you can see below, we ask you to make 13 decisions. The choices vary in the level of the fixed payment ranging from 30 EUR to 42 EUR. Three participants will be randomly determined. For each winner, one out of 13 options is randomly chosen. The winning participants receive—depending on their own choice—either the fixed payment or are allowed to pick any amount between 30 EUR and 42 EUR. Note that the money transfer will proceed in a completely anonymous manner.

Please make your decisions now by ticking the appropriate boxes:

□ Fixed payment of 30 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 31 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 32 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 33 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 34 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 35 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 36 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 37 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 38 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 39 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 40 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 41 EUR	□ self-determined payment between 30 EUR and 42 EUR
□ Fixed payment of 42 EUR	□ self-determined payment between 30 EUR and 42 EUR

[Trust Game: played by all participants]

Please read the following instructions carefully. Your additional payment depends on your own decisions and those of another anonymous participant.
You are going to play a two-person-game either in the role of a **Sender** or **Receiver**. In both cases, you get an endowment of 1.20 EUR. When the game is over, your role will be randomly determined. Furthermore, you will be randomly assigned to another participant. The assignment will be anonymous, allowing no one to know at any point which other participants he or she is assigned to.

Since you do not know your role yet, you **need to decide in both roles**, as Sender and as Receiver. Please make careful decisions in both roles, as each role can be relevant to the payoff.

Decision as **Sende**r:

You have the opportunity to transfer nothing, everything, or part of your endowment to the other player. You can choose between the following transfer amounts:

0.00 EUR
0.20 EUR
0.40 EUR
0.60 EUR
0.80 EUR
1.00 EUR
1.20 EUR

The amount you send to the Receiver will be subtracted from your endowment. The amount you send will be tripled before the Receiver receives it. Examples:

You send 0.40 EUR, the Receiver receives 3*0.40 EUR = 1.20 EUR.
You send 1.00 EUR, the Receiver receives 3*1.00 EUR =3.00 EUR.

Decision as **Receiver**:

Now you have the opportunity to send an amount back to the Sender. Since you do not know yet at this point in time which amount the Sender has sent to you, you need to make a decision for any feasible amount sent. You can choose any amount between "sending back nothing" up to the maximum available amount (i.e., your endowment of 1.20 EUR plus the tripled amount received from the Sender).

Your final payment depends on your role and is made up as follows:

Payment Sender = the amount you keep + the amount returned by the Receiver
Payment Receiver = the amount you have received by Sender – the amount you sent back to the Sender

Please decide now in the role of a Sender: Which amount do you want to send?
Please tick the appropriate box.

□ 0.00 EUR
□ 0.20 EUR
□ 0.40 EUR
□ 0.60 EUR
□ 0.80 EUR
□ 1.00 EUR
□ 1.20 EUR

Please decide now in the role of a Receiver: Which amount do you want to send back? Note the maximum available amount you are allowed to send. Please make a decision for all 7 feasible cases.

Imagine that you have received:	Maximum amount to be sent back:	Your decision:
0.00 EUR	3*0.00 + 1.20 = 1.20 EUR	_____
0.20 EUR	3*0.20 + 1.20 = 1.80 EUR	_____
0.40 EUR	3*0.40 + 1.20 = 2.40 EUR	_____
0.60 EUR	3*0.60 + 1.20 = 3.00 EUR	_____
0.80 EUR	3*0.80 + 1.20 = 3.60 EUR	_____
1.00 EUR	3*1.00 + 1.20 = 4.20 EUR	_____
1.20 EUR	3*1.20 + 1.20 = 4.80 EUR	_____

Appendix B: Further Empirical Results

B.1 DESCRIPTIVE STATISTICS

A OVERALL

	Scale	Mean	Standard Deviation	Minimum	Maximum
N° of filed reports during 1st hour (performance indicator)	quantity	44.800	11.285	21	79
N° of filed reports after treatment variation	quantity	104.643	21.991	56	155
Socio-demographics					
Female	0/1	0.557	0.499	0	1
Age	years	25.486	3.882	18	43
Foreigner	0/1	0.121	0.328	0	1
Educational background:					
Language & cultural studies	0/1	0.331	0.472	0	1
Law, economics, & social sciences	0/1	0.316	0.467	0	1
Mathematics & natural sciences	0/1	0.213	0.411	0	1
Engineering	0/1	0.066	0.250	0	1
Arts	0/1	0.074	0.262	0	1
Big Five Personality Factors – CRONBACH'S α					
Openness	0.77				
Conscientiousness	0.83				
Extraversion	0.86				
Agreeableness	0.79				
Neuroticism	0.84				

B BY TREATMENT

	BASE [$N = 20$]	WAGE CHOICE [$N = 40$]	CONTROL [$N = 40$]	NO WAGE CHOICE [$N = 40$]	*p-value* (Kruskal-Wallis test)
Output after treatment variation	100.75	109.25	97.65	108.975	0.066
Output during 1st hour	41.35	43.55	45.70	46.88	0.263
Paid wage	30.00	36.33	36.33	36.33	
Socio-demographics:					
Female	0.600	0.550	0.525	0.575	0.946
Age	26.300	25.975	25.45	24.625	0.187
Foreign	0.100	0.150	0.103	0.125	0.915
Educational background:					
Language & cultural studies	0.350	0.231	0.395	0.359	0.454
Law, economics & social sciences	0.400	0.205	0.342	0.359	0.348
Mathematics & natural sciences	0.200	0.359	0.105	0.179	0.050
Engineering	0.050	0.128	0.053	0.051	0.497
Arts	0.000	0.077	0.105	0.051	0.466
Big Five personality factors:					
Openness	4.625	4.923	4.863	4.936	0.651
Conscientiousness	4.589	4.742	4.504	4.711	0.130
Extraversion	3.741	3.815	3.933	3.886	0.533
Agreeableness	4.938	5.161	4.958	5.018	0.431
Neuroticism	3.929	3.637	3.775	3.861	0.557

B.2 TREATMENT BASE VS. CONTROL

	(1)	(2)	(3)
CONTROL	*Ref.*	*Ref.*	*Ref.*
BASE	-0.030 (0.068)	-0.030 (0.052)	-0.063 (0.078)
Initial performance		0.770*** (0.054)	0.761*** (0.084)
Wage		-0.005 (0.007)	-0.005 (0.009)
Constant	4.584*** (0.057)	1.899*** (0.244)	1.864*** (0.438)
Further Controls:			
Socio-demographics & Big Five	-	-	✓
Adjusted R²	0.000	0.724	0.647
Observations	60	60	44

Notes: The dependent variable is the log of the number of filed reports. The table reports OLS coefficient estimates (robust standard errors in parentheses). Levels of statistical significance are: * p < 0.1, ** p < 0.05, *** p < 0.01.

B.3 QUALITY CHECKS

	ALL	BASE	WAGE CHOICE	CONTROL	NO WAGE CHOICE	*p-value* (Chi²-test)
Correct entries	1974	451	412	454	657	
Wrong entries	150	42	22	38	48	
Share of wrong entries	0.076	0.085	0.077	0.051	0.068	0.284