

“Shirking from Home?”: The Effects of Remote Work on Overstatement of Working Hours

Myrna Modolon Lima

Universidade de São Paulo

Andson Braga de Aguiar

Universidade de São Paulo

ABSTRACT

This study investigates the effect of remote work and the moderating effect of social norms on workers' self-reporting behavior regarding working hours. Our first research question explores whether remote work affects the overstatement of working hours. Our second research question explores the combined effect of remote work and social norms on the overstatement of working hours. We also explore two factors that might explain the relationship between remote work and overstatement of working hours: auditing likelihood and social pressure. We use an experimental case scenario where we manipulate physical distance (remote work vs. office) and peers' social norms (honest vs. dishonest). Our results show that remote work does not exert any significant effect on participants' overstatement of working hours. Additionally, our results also show that the combined effect of remote work and social norms does not exert any significant effect on the overstatement of working hours. Our results show a mediating effect of auditing likelihood on remote workers' overstatement of working hours. Additionally, our results show a mediating effect of social pressure on office workers' overstatement of working hours. Both mediations have opposite effects over the effects of remote work on the overstatement of working hours. Overall, our results suggest that a company's information and social pressure are interpreted differently accordingly to physical distance. Our study contributes to both literature and practice. Specifically results from our study can increase companies understanding of the differences between remote workers' and office workers' self-reporting behavior and the role of the company's information and social pressure on the issue.

Keywords: Performance misreporting, Remote Work, Informal Controls, Social Norms.

1 INTRODUCTION

Remote work represents a flexible work arrangement where the employee can work from home or another remote location outside the office (Groen, van Triest, Coers, & Wtenweerde, 2018). In this study, we investigate the effects of remote work on overstatement of working hours. Specifically, we explore whether remote work can affect the overstatement of working hours and whether the combination of remote work and social norms exert different effects on remote workers' and office workers' overstatement of working hours. Moreover, we explore how remote work affects the overstatement of working hours through perceptions of auditing likelihood and the company's social pressure.

For managers, the physical distance between employees and the company represents a challenge, given that the lack of direct monitoring allows employees to engage in pernicious behavior, such as misreporting or social loafing (Blaskovich, 2008; Lill, 2020). In terms of agency costs, it becomes harder and more costly for companies to monitor their employees without seeing them promptly (Jensen & Meckling, 1976). Therefore, the main concern is whether employees are indeed working when they are out of managers' sight, which is corroborated by frequent comments about remote work, such as “working from home is shirking from home” (Bloom, 2020).

São Paulo 27 a 29 de julho 2022.

Most of all, managers wanted to be aware of their employees' behavior either through software, apps, or simple timesheets. Because of the increased physical distance between the employee and the company and the diminished monitoring possibility, remote work creates an ideal opportunity for employees to misreport aspects such as their working hours. However, in light of contradicting research (Brüggen, Feichter, & Haesebrouck, 2020), remote work might not cause individuals to misreport but instead offers an opportunity for individuals that would misbehave despite their location. Therefore, due to this conflicting evidence and (possible) behavioral changes that arose during the pandemic, our first research question focuses on examining whether remote work affects employees' overstatement of working hours.

In companies, it is common to see the influence of peers on individuals' behavior through the enactment of social norms (Brunner & Ostermaier, 2019). One important aspect of the enactment of social norms is salience (Smith & Louis, 2008). This means that individuals can only be influenced by peers when peers' behavior is salient enough to become a norm (Cialdini, Reno, & Kallgren, 1990). This might suggest that in an environment where information about peers is less salient, such as in remote work, individuals might be less likely to conform to peers' social norms. However, there are several technological tools that allow individuals to communicate with one another and see each other's activities (Zoonen et al., 2021). These communication tools, like instant messaging and videocalls, are meant to avoid employees' isolation from their supervisors and their peers (Rudolph et al., 2020).

Moreover, research has shown that distance can enhance individuals' adoption of social norms (Ledgerwood & Callahan, 2012). By improving their ability to think more abstractly – distancing themselves from the situation – individuals at a higher distance conformed more to the group's opinion compared to individuals at a lower distance (Ledgerwood & Callahan, 2012). Along with the amount of information that employees have from peers, these findings suggest that the physical distance from remote work environments might not impair individuals' ability to infer about peers' social norms. Therefore, our second research question investigates the moderating effect of peers' social norms on the effects of remote workers on overstatement of working hours.

Research on the effects of physical distance on misreporting showed that individuals have different perceptions over monitoring (Lill, 2020). So, on the one hand, based upon the perspective that individuals that work remotely are more distant compared to individuals that work in the office, the expectations of lower monitoring could drive individuals to misreport more. On the other hand, research from remote work during the pandemic showed an increase in employees' perception of monitoring (Delfino & van der Kolk, 2021; Hafermalz, 2020). Because of the number of technological tools that allowed remote workers to work, individuals also were more visible, by their own choice or by the company's choice (Hafermalz, 2020). This means that research conducted before COVID-19 might not reflect the shift in employees' monitoring perceptions. Therefore, our first hypothesis predicts the mediating role of auditing likelihood in the effects of remote work on the overstatement of working hours.

Research also shows that company's incentives can lead employees to engage in opportunistic behavior (Sauer, Rodgers, & Becker, 2018). This happens because incentives are not properly aligned with companies' goals or because, when combined with other controls, incentives can have an undesired effect on employees' behavior (Sauer et al., 2018). Moreover, employees justify these acts of pernicious behavior to companies' pressure to do so given that rewards are generally attached to unachievable goals (KPMG Forensic, 2013). This pressure that leads to misreporting can become even more challenging to be disregarded if employees believe that this is a social norm from the company. Therefore, our second hypothesis predicts



São Paulo 27 a 29 de julho 2022.

the mediating role of a company’s social pressure, in the form of employees’ incentives to work extra hours, in the effects of remote work on the overstatement of working hours.

To assess these research questions and hypotheses, we conduct a 2 x 2 between-participants web-based experiment. We use Prolific Academic to select our participants and to conduct the experiment. WE manipulate the physical distance in two levels: Remote and Office. we also manipulate Peers' social norms on two levels: honest and dishonest. We find no significant results from the remote workers' and office workers' overstatement likelihood. WE also see no significant difference between honest or dishonest peers' influence on participants' overstatement. Moreover, wE find no significant results for the interaction between physical distance and social norms.

Our results from the mediating variables posit that remote workers show a higher auditing likelihood than their office counterparts. Accordingly, our results show that the influence of auditing likelihood on overstatement was only significant to remote workers. Additionally, our results show that office workers have higher perceptions than remote workers that the company's social pressure is to work extra hours, which subsequently creates higher overstatement. Finally, our results show that auditing likelihood and social pressure are significant to performance misreporting. Then, both mechanisms help explain RQ1 and RQ2 since remote work indirectly affects overstatement through auditing likelihood and the company's social pressure. While auditing likelihood reduces overstatement, the company's social norms increase, which do not suppress each other but work in different directions.

This study contributes to the literature in several ways. First, we build on Lill (2020) and Brügger, Feichter, & Haesebrouck (2020), to extend the findings on honest reporting by exploring the impact that the reduction of direct monitoring on account of flexible work arrangements have on employees' self-reporting behavior. Our results show that, regardless of their location, individuals behave relatively similarly. In addition, our results show that auditing likelihood influences remote workers' overstatement of hours.

Second, building on Brunner & Ostermaier (2019), we add to the accounting literature on social norms by exploring how peers' influence plays a role in employees' behavior. Prior accounting studies have investigated how control system design affects social norms and the consequent behavioral change (e.g. Cardinaels & Yin, 2015). However, there's still a lot to investigate about these effects on employee behavior when there's a diminished opportunity for controls to enact, such as flexible work arrangements (Groen et al., 2018).

Third, we contribute to management control systems literature on the role of audit adoption as mitigators of pernicious behavior (Cardinaels & Jia, 2016). Our results show that the link between auditing and behavioral change is not always straightforward, specifically in environments with incentives (company's social norms) and external influence (peers' social norms). Additionally, our results contribute to the new stream of literature that explores COVID-19's effects on employees' perception of monitoring and surveillance (Delfino & van der Kolk, 2021; Hafermalz, 2020; Lee, 2021), which consequently affected their auditing perceptions.

The study has practical implications. Since the COVID-19 outbreak, companies have been forced to adapt and discover how to control employees when working remotely. Several companies announced that they would not return to the office after the pandemic (Levy, 2020). Based on the study's results, companies could use their current technology-based control systems more effectively. Nonetheless, companies must design their control systems based on the amount of interaction they want employees to experience. In other words, even though interaction among employees can be beneficial for employees' work, it can also be harmful in dishonest environments, as seen in the comparison between remote workers and office workers.

São Paulo 27 a 29 de julho 2022.

Our results show that auditing likelihood is fundamental to remote workers' overstatement but that it mainly comes from the company's messaging rather than peers' influence. Additionally, our results also show that the incentives that the company provides to ensure employees' effort might backfire when combined with peers' reported behavior for office workers. Companies can consider that remote workers and office workers have different perceptions from the company's messaging, especially when peers' interactions can highlight pervasive behavior.

2 THEORY AND HYPOTHESES

2.1 The economic aspect of the relationship between physical distance and misreporting

The economic aspect of the relationship between physical distance and misreporting¹ is in line with classic economic theory in the figure of the economic human (i.e., *homo economicus*), and, more specifically, with companies' agency concerns, in which companies expect employees to act upon their interests and not in companies' interests (Jensen & Meckling, 1976). Mainly, companies need to ensure appropriate incentives and incur monitoring costs to guarantee that employees will engage in activities that align with companies' interests (Jensen & Meckling, 1976).

One of the critical aspects of remote work is the distance between employees and the company. In terms of remote work, due to the diminished possibility for monitoring, companies' expectations rely on employees optimizing their utility by engaging in activities that are not consistent with companies' interests, such as expectations of performance misreporting (Blaskovich, 2008; Lill, 2020; Weisner & Sutton, 2015). Moreover, the benefits of physical proximity extend to facilitating information transferring and monitoring (Choi, Kim, Qiu, & Zang, 2012). Therefore, the primary expectation from economic theory would be that there is a direct relationship between distance and misreporting. In which, in a higher distance, without any monitoring (or without the right amount of monitoring), individuals would likely maximize their own utility by misreporting their performance.

2.2 The psychological aspect of the relationship between physical distance and misreporting

The economic theory still does not fully explain the underlying mechanism that would lead individuals to have different behaviors according to the distance, relying on the psychological aspect. Physical distance is part of a broader construct that affects remote work. We borrow the concept of physical distance (i.e., spatial distance) from Trope and Liberman's (Trope & Liberman, 2010) Construal Level Theory of psychological distance. The theory posits that individuals can only experience situations and objects that are proximate to them, whether by distance or by time (Trope & Liberman, 2010). Nevertheless, they can still imagine different experiences and put themselves in different situations (Trope & Liberman, 2010). This happens because individuals can form “abstract mental construals of distal objects” (Trope & Liberman, 2010, p. 440).

According to Trope and Liberman (2010, p. 441), “we view high-level construals as relatively abstract, coherent, and superordinate mental representations, compared with low-level construals”. Moreover, “CLT contends that people use increasingly higher levels of construal to represent an object as the psychological distance from the object increases” (Trope & Liberman, 2010, p. 441). This abstractness of mental representation, created by the psychological distance, affects individuals' predictions, evaluations, and behavior (Trope, Liberman, & Wakslak, 2011).

¹ One typical employee's misconduct is misreporting of working hours (Taylor Jr., 2019). For example, individuals might overstate their working hours or increase their billable hours to inflate their performance, such as those seen in accounting or law firms. Therefore, performance misreporting consists of misrepresenting, a proxy used to appraise performance.

São Paulo 27 a 29 de julho 2022.

Remote work is an example of a phenomenon that might encompass the four dimensions² of psychological distance (Weisner & Sutton, 2015). Even though remote work might be closely related to only physical distance or a combination of the four dimensions (Weisner, 2015), the theoretical expectations from Trope and Liberman (2010) suggest that there is an interrelationship between the four dimensions. Therefore, in this study, WE only focus on the physical distance dimension of psychological distance as the conceptual aspect of remote work.

2.3 The link between the economic and psychological aspects of physical distance and the possible effects on performance misreporting

On the one hand, there is a number of examples in literature that display individuals’ opportunistic behavior when presented with physical distance. Part of the literature shows that physical distance can increase misreporting since information asymmetry between the employee and the company offers more opportunities to be dishonest and a smaller probability for the employee to get caught (Lill, 2020). This is consistent with the different levels of CLT and the relationships between the dimensions, in which the individuals in a higher physical distance have different perceptions over hypothetical distance (i.e., audit probability), which leads to higher performance misreporting.

On the other hand, there is also research that does not show the connection between physical distance and misreporting, such as Nagin, Rebitzer, Sanders, and Taylor (2002). Additionally, Brüggem et al. (2020) discuss whether the location (i.e., the physical distance) influences individuals’ behavior and find that these effects are bounded to selection effects. In other words, individuals that already had opportunistic intentions saw this situation as a means to act upon it. These results also show that remote work (i.e., physical distance) might not be what is driving opportunistic behavior but rather working as a way to accomplish this behavior.

Finally, in addition to the conflicting results in the literature, part of the literature from the COVID-19 pandemic explores another crucial change that might affect the relationship between physical distance and misreporting: monitoring perceptions (Delfino & van der Kolk, 2021; Hafermalz, 2020). If, before the COVID-19 pandemic, individuals had lower perceptions of monitoring when working remotely (Bradner & Mark, 2002; Lill, 2020), it seems that this might not be the case during and after the pandemic. Research on monitoring during the pandemic shows that a great part of employees experienced an increase in their monitoring perceptions (Delfino & van der Kolk, 2021). Companies not only increased the amount of monitoring technology with apps, software, instant messaging, and videocalls but also increased the number of interactions between the employees and their managers or supervisors (Delfino & van der Kolk, 2021).

This means that prior expectations from the effect of physical distance on individuals’ performance misreporting might not hold after the pandemic. Overall, what literature seems to point is that, even before the pandemic, the results were not a consensus, in which the physical distance would not unequivocally lead to performance misreporting. Additionally, the shifts in monitoring perceptions and the data on remote workers’ productivity also seem to point that this relationship is not as straightforward as expected. Therefore, we posit Research Question 1 as follows:

RQ1: Does remote work affects individuals’ overstatement of working hours?

² Four dimensions constitute psychological distance: temporal distance (i.e., the when), spatial distance (i.e., the where), social distance (i.e., the whom), and hypothetical distance (i.e., the whether) (Liberman & Trope, 1998).

2.4 Remote work, social norms, and performance misreporting

Social norms³ are important to companies because they are able to inform, either through example or by other types of informal controls (e.g., mission statement, value statement) what is the accepted behavior (Abernethy et al., 2020; Cialdinwe & Goldstein, 2004; Fischer & Huddart, 2008). Mostly, social norms can also be harmful to the company if the norm is not aligned to the company’s interests (Emett, Guymon, Tayler, & Young, 2019). The engagement in self-interested behavior consistent with the conformity to dishonest social norms is dependent on the degree that individuals identify themselves to the observed group (Wenzel, 2005). This suggests that, given their identification with their peers, individuals are more inclined to conform to dishonest social norms when observing that this is a norm among peers. In addition to that, conformity to social norms is not symmetrical since individuals tend to conform more to social norms that are more self-interested to them than norms that are more socially interested (Emett et al., 2019). The asymmetrical conformity to social norms is related to how salient these norms are to the individual, enabling dishonest social norms to be perceived more strongly (Cialdinwe & Trost, 1998).

The conformity to social norms becomes less clear in environments where peers' behavior is not so transparent to the individual. Moreover, when individuals do not have this information or, more precisely, when this information is bounded to a phenomenon such as physical distance, individuals tend to be less influenced by their peers (Brucks, Reips, & Ryf, 2007). In terms of operationalization, the physical distance could have an effect on a key aspect of social norms: interaction. Nevertheless, to ensure remote work’s success, companies massively adopted Information and Communication Technology (ICT) (e.g., software and Apps) (Coelho, Faiad, Rego, & Ramos, 2020). Overall, ICTs provide interaction to employees and supervisors (OECD, 2021). Interaction can be achieved through several technological tools that enable the employee to engage with her peers and supervisors (Sewell & Taskin, 2015; Tokarchuk, Gabriele, & Neglia, 2021).

Reinforcement of workplace relationships in remote work environments is also crucial to knowledge sharing, paramount to several organizational structures (Cascio & Aguinis, 2008). These workplace relationships among peers are also highly dependent on the intensity of remote work; moreover, literature from before the pandemic showed that the frequency that an employee works remotely is negatively associated with coworker relationships (Gajendran & Harrison, 2007).

On the one hand, this established connection might still be less powerful than the ones that are made personally. Despite acknowledging the importance of these technological tools, remote workers, before the pandemic, believed that they were still incomparable to face-to-face interaction (Richardson & Mckenna, 2014). This suggests that the physical distance from remote work also brings fewer interactions between employees and the company, even with the adoption of ICTs. If that is the case, the adoption of social norms, whether for honesty or dishonesty, would be much harder since employees would be less aware of what are the norms that are in place.

On the other hand, companies increased their amount of interactions during the pandemic at exceptional levels. The ICTs generally used for interaction before the pandemic were emails, calls, and instant messaging, which are less-rich mediums of communication than, for example, a video chat (Fonner & Roloff, 2012). With the increasing use of ICTs, companies

³ Social norms can be differentiated as what people commonly do (i.e., descriptive norms) and what is commonly approved (i.e., injunctive norms) (Cialdini, Kallgren, & Reno, 1991). This literature has also shown that norms can influence people’s behaviors. In this study, as in others in the accounting literature, social norms are seen as norms of what people (i.e., peers) do in the company.

were able to interact with employees in a more synchronous manner, with richer mediums, and at a much higher rate (Zoonen et al., 2021). This suggests that the interaction issue might be less straightforward as prior literature expected.

Social norms literature also does not have a consensus about the combined role of physical distance and norm conformity. Research shows that increasing individuals' distance would lead to higher abstraction (i.e., as proposed on CLT), which, in consequence, would allow individuals to adapt to the demands of a situation, such as the conformity to social norms (Ledgerwood & Callahan, 2012). This suggests that, such as the interaction issue, the physical distance might not have the expected effect in relation to social norms conformity. Finally, when facilitated by ICTs, individuals might have a sufficient amount of information to comply to the social norms that are in place. Social norms are endogenous, which means that the process of understanding and complying with the norms is within the individual (Fischer & Huddart, 2008).

Overall, literature is conflicting in terms of the effects of social norms on performance misreporting when individuals are physically distant from each other. Since the literature is not consistent about the effects of peers' social norms on physically distant individuals' performance misreporting, we posit Research Question 2 as follows:

RQ2: Does the effect of social norms differ between remote workers' and office workers' overstatement of working hours?

2.4 Mediating roles of auditing likelihood and company's social pressure on remote workers' reporting

Rational economic theory and Construal Level Theory posit that the control problem over remote work is that the location conveys perceptions of (lower) monitoring that entails opportunistic behavior (Blaskovich, 2008; Lill, 2020). In sum, participants that feel less monitored believe that the possibility of getting caught lying (Lill, 2020) or social loafing (Blaskovich, 2008) is lower compared to the ones that feel more monitored.

Nevertheless, as mentioned before, during COVID-19, there was a shift in employees' monitoring perceptions regarding remote work due to the increase in the use of ICTs that facilitated managers' monitoring and interaction (Delfino & van der Kolk, 2021). Moreover, remote workers were feeling much more monitored than when not working remotely, which led a great part of them to report feelings of anxiety (Lee, 2021)

Generally, companies adopt probabilistic audits to avoid misreporting, using a sample of the information provided by ICTs (Ewelt-Knauer, Schwering, & Winkelmann, 2021; Lill, 2020). Prior literature posits that when individuals believe that they might be audited, they tend to refrain from misreporting (Cardinaels & Jia, 2016). The underlying principle behind this reasoning in remote work is the different monitoring perceptions caused by the likelihood of the event to happen (i.e., getting caught) (Blaskovich, 2008; Trope et al., 2011).

In a way, individuals can behave opportunistically due to lower monitoring perceptions. However, the increase in ICTs adoption might lead to individuals' different perceptions on monitoring. Therefore, the assumption that individuals with higher physical distance from the company would have lower monitoring perceptions that would lead to lower perceptions in auditing likelihood is not straightforward.

Still, both streams of literature focus on the different monitoring perceptions, as in, the physical distance will decrease (increase) individuals' monitoring perceptions, which will consequently decrease (increase) their perceptions of auditing likelihood, affecting their performance misreporting. However, there is no consensus on the literature as to whether office workers or remote workers might have higher monitoring perceptions compared to their counterparts. Therefore, despite not directing whether remote work will increase or decrease



São Paulo 27 a 29 de julho 2022.

individuals’ overstatement of working hours through perceptions of auditing likelihood, there is a strong expectation from the literature that this effect will happen. In line with that, we posit our first hypotheses as follows:

H1: There is a mediating effect of auditing likelihood between remote work and the overstatement of working hours.

Additionally, literature has also explored the role of social pressure on performance misreporting (Fiolleau, Libby, & Thorne, 2018). This pressure can come from all sorts of sources, such as peer pressure or organizational pressure in the figure of the supervisor or the CEO (Chief Executive Officer), for example (Bishop, Dezoort, & Hermanson, 2017; Hartmann & Maas, 2010). This perceived pressure leads to the development of a social norm that individuals understand as the behavior that they should perform or not perform (Fishbein & Ajzen, 2011).

These norms, however, are not always from the same source and not interpreted on the same manner, which classifies them differently (Cialdine & Trost, 1998). For example, individuals can see their peers misreporting and understand that it is acceptable behavior, justifying their misreporting based on that (Cardinaels & Jia, 2016). This is based on the belief that this is a behavior generally accepted or “what people do” and, as mentioned before, is consistent with descriptive norms (Cialdine et al., 1990). Additionally, individuals can also perceive or be informed about what type of behavior they should do, which is consistent with injunctive norms (Jacobson, Mortensen, & Cialdini, 2011). For example, a CFO (Chief Financial Officer) might justify her misreporting, given that the CEO is pressuring her to meet expected results (Bishop et al., 2017).

In terms of organizational pressure, companies can also pressure to other types of misreporting, such as overstatement of hours (Murphy, Wynes, Hahn, & Devine, 2019). Several companies tend to develop social norms in which working overtime is a sign of dedication, rewarding employees for doing it or punishing employees for not doing it (Cha, 2013; Feldman, 2002). Since misreporting often happens motivated by financial or social pressures (Murphy et al., 2019), when this is also an established norm from the company (Cha, 2013), employees might not only feel compelled to do so, but they might also justify their misreporting on the matter due to the company’s pressures.

In terms of remote work, this pressure might lead to two situations. On the one hand, since literature shows that the effect of social norms might be higher or lower on performance misreporting when individuals are physically distant, the company’s social norms might also (not) be an explanation to individuals’ behavior. On the other hand, the literature also shows that remote workers frequently have to work more hours compared to their in-office colleagues because companies tend to have higher expectations from them (Coelho et al., 2020).

Therefore, expectations rely on the fact that a company’s social norms, in the figure of pressure to work extra hours, will be able to explain individuals’ performance misreporting either when they are physically distant or when they are physically closer. In line with that, we posit our second hypothesis as follows:

H2: There is a mediating effect of social pressure between remote work and the overstatement of working hours.

São Paulo 27 a 29 de julho 2022.

3 METHOD

3.1 Research instrument – The case scenario

We run a 2x2 between-participants experimental scenario⁴ specially developed for this study. Experimental scenarios are commonly used in accounting literature to inquire about the likelihood of behavior (e.g., Hartmann & Maas, 2010). Participants had to decide on their working hours' report based on the presented situation in the case scenario beforehand. In their decision, participants faced a trade-off between reporting their actual working hours and not harming the company due to improper financial earnings (i.e., compensation based) or overstating (i.e., misreporting) their working hours, displaying consistent behavior over previous working hours and willingness to *go the extra mile* for the company. Regardless of their decision, participants are paid equally, solely with their participation fee.

The experimental scenario depicted a situation where the business analyst (i.e., the participant) works for an IT company named TJS. The background story portrayed information about its year of foundation, size, locations worldwide, products, and services. It also characterized the business analyst's function in the company and the number of other business analysts who work in similar positions under the firm's local management.

After this introduction, we assigned participants to one of the two Physical Distance manipulations. Both Physical Distance' and Social Norms' manipulations are embedded in the scenario. In addition to the standard part of the case scenario, participants assigned to the Remote condition read that they work from home and do not interact with colleagues daily. At the same time, participants assigned to the Office condition read that they work from the local company headquarters building and interact with colleagues daily.

Specifically, participants in the Remote Condition read the following: “In this industry is very common that people work in the office, however, like other business analysts from the company, **you work from home**⁵. This means that you and your colleagues **do not interact with each other on a daily basis**.”. While, participants in the Office condition read the following: “In this industry is very common that people work from home, however, like other business analysts from the company, **you work from the local company headquarters building**. This means that you and your colleagues **interact with each other on a daily basis**.”.

Going forward, participants read more information about their work requirements, alongside colleagues' work requirements, such as budget and forecasting for new products. In that instance, it is explicitly stated that both their work and their colleagues' work require an equivalent amount of time and effort to finish. This means that they can infer about their colleagues' working hours with their amount of hours.

It is also explicit that the company relies on project completion and self-reports of weekly working hours to evaluate employees. On that note, the company's culture assumes that working hard means working a lot of hours. Employees who overcommit to the company's culture (i.e., work extra hours) are preferable for raises and promotions over the ones that do

⁴ In this study, the scenario's adoption was a design choice to avoid internal validity issues. We wanted to ensure no reduction of control in the experiment since otherwise the condition that explores physical distance - the Remote condition - would require participants to complete the task in a different place.

⁵ The manipulations were also highlighted in the experiment to ensure that they were salient for participants.

⁶ We decided to clarify to the participant the amount of interaction they had with colleagues to control for possible problems associated with participants' perception of their interactions or knowledge of what other colleagues were doing. Additionally, participants' past experiences working remotely alone and/or with a group of people could influence their decision. Therefore, the clear statement of (zero) interaction emulated a more precise scenario to participants. This design choice is also in line with the aspect mentioned above of remote work (i.e., Trope and Liberman's CLT) that involves a more significant concept than physical distance. Higher interaction with peers could mainly decrease participants' perception of their physical distance (Bradner & Mark, 2002). Hence, to guarantee the study's internal validity, we chose not to leave it to participants' interaction perceptions.

not work as many hours. We also informed participants that their compensation at the company is based upon contract hours (i.e., 40 hours per week) with a fixed salary plus the variable compensation - paid at the end of the month - based on the amount of weekly extra working hours. This establishes the motivation for employees to report extra hours since it results in better prospects for their future in the company and more money at the end of the month.

Since working hours are crucial for TJS, employees were asked to input their weekly amount of working hours (contract hours + extra hours) into TimemanagementTJS, the company's system. They were also given a baseline of their average weekly working hours (55 hours per week, or 40 contract hours + 15 extra hours⁷). This was a design choice to ensure that participants understood the variability of their extra working hours on that particular week. Furthermore, participants also read that, despite the report, it's improbable that participants' and colleagues' working hours would be audited later.

Previous research focused on presenting descriptive norms' manipulation (i.e., peers' information) as descriptive information about peers' past behaviors, giving participants enough data to compare their behavior with what is presented (Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007). Accounting research also employs the same procedure of active manipulations of peers' honesty or dishonesty by conveying messages about peers' behavior to participants (Cardinaels & Jia, 2016). We borrowed the idea of explicitly informing the participant about peers' behavior (i.e., *the majority of your colleagues are overstating their actual working hours*, and *the majority of your colleagues are reporting their actual working hours*) from previous research.

3.4 Dependent Variable

The dependent variable – Likelihood to overstate – was measured by asking participants to indicate their (hours) overstatement likelihood over the situation described in the case scenario with the following statement: "It is now Friday afternoon, and you need to enter this week's number of hours worked into TimemanagementTJS, the company's system. In an average week, you work 55 hours, so 15 hours more than the minimum specified in your contract. However, this week you were working on a less demanding project and put in only 42 hours of work, or just 2 more extra hours. **You are considering whether you should input a larger amount of working hours than the ones you actually worked this week.**

From 1 to 7, where 1 is "Definitely not do it" and 7 is "Definitely do it", how likely would you overstate your number of worked hours in this situation?"

4 RESULTS AND DISCUSSION

4.1 Participants

We recruited participants⁸ on Prolific for the experiment. Participants read on the study's description that they would participate in a decision-making study based on a presented case scenario. Participants were randomly assigned to different experimental conditions.

The demographics showed that 46.15% of participants had an undergraduate degree, with the remaining participants holding an MBA (17.95%), an MSc (29.49%), and a Ph.D. (6.41%). Participants had an average age of 31.41 years (SD=8.13), and 63 (40.38%) were female, and one did not want to disclose their gender. They had an average of 9.48 years of work experience and 3.83 years in their current position. We found no significant effects when using participants' characteristics as controls (i.e., age, gender, average work experience, time

⁷ This amount of extra hours could be a limitation to the study's results, considering that several countries' legislations establish a maximum of weekly working time.

⁸ We prescreened for participants that 1) were fluent in English, to avoid possible language-related misunderstandings, and 2) with at least an undergraduate-level education, and 3) that marked "WE sometimes work from a central place of work and sometimes remotely" in their work characteristics.

São Paulo 27 a 29 de julho 2022.

in the current position). Participants were mainly from European countries, with the majority of them from the United Kingdom (25.64%), Portugal (16.03%), and Poland (10.90%). Despite not being evenly distributed across conditions, participants’ nationalities did not significantly affect results⁹.

The experiment was conducted twice, with 45 participants¹⁰ in the first round and 139 participants in the second round, with 184 participants. We assured that participants¹¹ are evenly distributed through the experimental conditions, with 51.09% (48.91%) of participants in the High (Low) Peers’ dishonesty manipulation, and with 51.63% (48.37%) in the Remote (Office) conditions in the Physical distance manipulation. Finally, participants in the first round of the experiment received an average of £4.73 per hour, while participants in the second round received £5.24 per hour¹².

4.2 Results

4.2.1 Does remote work affects the overstatement of working hours?

Our first research question inquires whether physical distance, in the figure of remote work, affects performance misreporting, in the figure of overstatement of working hours. Descriptive statistics show that participants assigned to the Remote condition had, on average, a lower likelihood to overstate their working hours compared to the Office condition (2.82, *SD* = 1.74 vs. 3.01, *SD* = 1.96). These results, however, were not statistically significant between conditions ($t = -0.63$, $p > 0.1$, two-tailed). The descriptive statistics results show that participants in the Remote condition reported lower intention to overstate their working hours. However, since the difference between remote workers and office workers' overstatement of hours was not significant, the results point to the fact that remote work might not have a main effect on participants decision to overstate (or not) their working hours.

We conducted an ANOVA to investigate the effects of remote work on the overstatement of working hours. Table 1, Panel A depicts the ANOVA results.

Table 1 – ANOVA examining the effects of Physical Distance on Performance Misreporting

Panel A: Main Effects				
Source	df	MS	F	p-value
Physical Distance (Remote x Office)	1	1.34	0.39	0.531
Residual	154	3.43		
Panel B: Simple Effects				
	df	MS	F	p-value
Simple effect of Physical Distance in the Honest Condition of Peers Norms	1	1.33	0.38	0.542
Simple effect of Physical Distance in the Dishonest Condition of Peers Norms	1	0.18	0.05	0.815

⁹ We used *Nation* both as a covariate with the overall sample and also tested all four clusters separately. We did not find any significant effect of *Nation* on the dependent variable in these conditions.

¹⁰ This first round was conducted beforehand for a pretest and was added later for further analysis. Notably, our results are similar if we exclude the first round.

¹¹ We only excluded participants who failed at least two manipulation checks or two attention checks from the sample, resulting in 156 participants total. We chose to only exclude participants that were in this situation since We detected that some participants might have failed it by mistake (e.g. clicking on the wrong button). To ensure that this was the case, we asked participants, after their payment, whether they had any points of clarification, and several of them confirmed that they clicked on it by mistake. Excluded participants were evenly distributed in all experimental conditions, with 14 in the remote manipulation, 14 in the office manipulation, 13 in the dishonest condition, and 15 in the honest condition.

¹² Participants` fees are different in both rounds since they are calculated according to the median completion time of the experiment by Prolific.

Our results show no significant effects from Remote Work on the dependent variable, overstatement of working hours. Mainly, we found that the participants in the remote condition behaved similarly to participants in the office condition. The increased physical distance between themselves and the company did not make their answers significantly different from their office counterparts. Moreover, simple effects results shown in Panel B are also in line with the results of the main effects, showing that remote work is not significant to the overstatement of working hours.

This is in line with Brügger et al.'s (2020) findings since less honest individuals tend to look for a less monitored environment (i.e., remote work). Still, when controlled for the selection effect, the location has no significant impact on individuals' honesty. Brügger et al.'s (2020) data was also collected after the COVID-19 outbreak, corroborating our reasoning and results about fundamental changes that might have occurred in individuals' perceptions about remote work. Additionally, the results are also in line with several research that show how the economic human reasoning might not be a consensus in situations where monitoring might be impaired or limited, such as in Nagin et al. (2002).

Finally, even though the results are not significantly different, the mean scores for overstatement of working hours from participants that are in the remote condition are lower than the ones that are in the office condition. This suggests that participants in the remote condition might have shifted their perceptions over monitoring not only to have similar perceptions to the participants in the office condition but rather to show higher monitoring perceptions, as shown in Delfino and van der Kolk (2021). We investigate this suggestion further in our mediation analysis.

4.2.2 Do social norms exert different effects on remote workers?

Our second research question inquires about the effects of social norms on remote workers' and office workers' overstatement of hours. Descriptive statistics showed that both in the Remote and Office Conditions, participants that were in the Dishonest Peers Condition reported lower overstatement of working hours than participants that were in Honest Peers Condition. Specifically, remote workers with dishonest peers had lower mean scores for overstatement of working hours than remote workers with honest peers (2.79, $SD=1.73$ vs. 2.89, $SD=1.97$). This difference, however, was not significant between conditions ($t= -0.23, p> 0.1$). Additionally, office workers with dishonest peers also had lower mean scores for overstatement of working hours compared to office workers with honest peers (2.86, $SD=1.78$ vs. 3.13, $SD=1.98$). Yet, this difference was also not significantly different between conditions ($t= -0.61, p> 0.1$).

The connection of social norms on performance misreporting was extensively explored in the literature, with overall findings that show how honest and dishonest peers might affect individuals' decision making, as seen in Cardinaels and Jia (2016) and Maas and van Rinsum, (2013). Nevertheless, the literature has not given enough attention to these effects while accounting for physical distance. Mainly, we are interested in how the interaction between physical distance and social norms affects performance misreporting.

In order to answer RQ2, we run an ANOVA to test for the interaction between remote work and peers' social norms on overstatement of working hours. Our results show no significant effect from the interaction, as shown in Table 2 Panel A.

Table 2– ANOVA examining the effects of Physical Distance and Peers Norms on Performance Misreporting

Panel A: Main Effects				
Source	df	MS	F	p-value
Physical Distance (Remote x Office)	1	0.19	0.05	0.817

São Paulo 27 a 29 de julho 2022.

Peers Norms (Honest Peers x Dishonest Peers)	1	0.09	0.03	0.868
Physical Distance * Peers Norms	1	0.28	0.08	0.776
Residual	152	3.47		
Panel B: Simple Effects				
	df	MS	F	p-value
Simple effect of Peers Norms in the Remote Condition of Physical Distance	1	1.33	0.38	0.542
Simple effect of Physical Distance in the Dishonest Condition of Peers_Norms	1	0.18	0.05	0.815

Additionally, the simple effects of peers social norms for remote workers and office workers for overstatement of working hours are also not significant, as seen on Table 2, Panel B. Overall, our results show that not only remote work does not affect the overstatement of working hours, but also the interaction of remote work and peers' social norms has no significant effect on it. Mainly, results are consistently showing that there is no moderating effect of peers' social norms on the relationship between remote work and participants' overstatement of working hours. When taken together with descriptive results, our results become even more counterintuitive, given that, regardless of being remote workers or office workers, participants in the dishonest peers' condition report lower mean scores for overstatement of working hours compared to participants in the honest condition.

One possible explanation for this phenomenon is linked to participants' monitoring perceptions and to the way that peers social norms are conveyed. Literature shows that the influence of social norms on individuals' decision making is not symmetrical, in which bad social norms (i.e., dishonest peers) exert a higher effect compared to good social norms (i.e., honest peers) (Emett et al., 2019). Nevertheless, particularly in our study, participants are not aware of social norms by observation but rather by the company's email. The email conveys peers' overall reporting behavior but also informs participants of the company's possible monitoring.

So, in a sense, while participants might be more influenced by the fact that their peers are overstating their overstatement of working hours – and be able to justify their own overstatement because of it - they might also see the information about dishonest peers as a stronger warning of the possibility of getting caught. As well as the opposite, since, in a way, peers' honest social norms can influence them to not overstate their working hours but can also allow them to believe that peers might be overstating their working hours but are not getting caught. This is consistent with Brunner and Ostermaier (2019), that show that, when relying on partial transparency, individuals tend to assume that their peers are being dishonest rather than honest.

4.4. Mediation Analysis

4.4.1 The role of auditing likelihood and company's social norms on overstatement of working hours

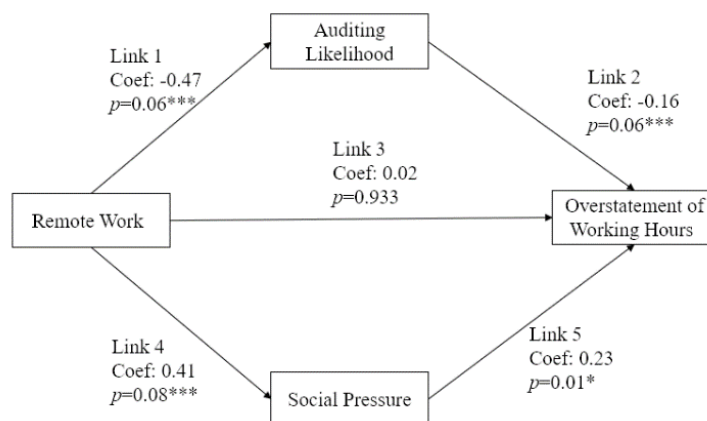
Our model assesses the mediating roles of two variables – auditing likelihood and company's social pressure - and their effects on the overstatement of working hours. We investigate the first hypothesis, which states that there is a mediating effect of auditing likelihood¹³ between remote work and overstatement of working hours. To examine this, we investigate whether their auditing likelihood can explain their overstatement of hours decisions. On a seven-point Likert scale, we asked participants post experimentally to indicate their agreement level to the sentence "I believe that there's a great likelihood that our hours will be audited".

¹³ To avoid any misconceptions on auditing likelihood and capture only the participants' perception over it, we explicitly told them that "you also know that it is very unlikely that yours and your colleagues' working hours would be audited later" in every condition. Hence, their auditing likelihood is based solely on their perception of Physical Distance manipulation.

São Paulo 27 a 29 de julho 2022.

We use structural equations-based path analysis to test the indirect effects of remote work on the overstatement of working hours through Auditing likelihood. Figure 1 shows the path analysis. The goodness of fit is confirmed with a root mean square of error approximation (RMSEA) below the threshold of 0.06, standardized root mean square of approximation (SRMR) of 0.015, below the cutoff value of 0.08, and Comparative Fit Index (CFI) above the threshold of 0.95 (Hu & Bentler, 1999).

Figure 1 – Indirect effects of Remote Work on Overstatement on working hours through Auditing Likelihood and Social Pressure



* $p < 0.01$, ** $p < 0.05$, *** $p < 0.1$

Consistent with expectations in H1, we find that remote work is significant to participants' perceptions of auditing. Results show that the effect of *remote work* on *auditing likelihood* is significant (Link 1 of Figure 1, $\beta = -0.47$, $z = -1.83$, $p < 0.1$), and that the effect of *auditing likelihood* on *overstatement of working hours* is also significant (Link 2 of Figure 1, $\beta = -0.16$, $z = -1.84$, $p < 0.1$). Results from the indirect effect of remote work on the overstatement of working hours are also significant ($\beta = 0.17$, $t = 1.93$, $p < 0.05$), confirming the mediating role of auditing likelihood.

Moreover, the descriptive results showed that participants in the remote condition showed higher auditing likelihood compared to participants in the office condition (3.85, $SD = 0.19$ versus 3.37, $SD = 0.17$), with a significant difference between these results ($t = 1.85$, $p < 0.05$). These results explain why remote workers presented lower overstatement of working hours compared to office workers. Mainly, consistent with current literature from the pandemic, participants in the remote condition had a higher perception of monitoring than in the office condition. Furthermore, consistent with theory (Cardinaels & Jia, 2016), participants that have higher (lower) auditing likelihood displayed lower (higher) overstatement¹⁴ of working hours, mean scores confirm that this difference is significant (3.19, $SD = 0.21$ versus 2.61, $SD = 0.19$, $t = 1.99$, $p < 0.05$). In sum, participants that had greater perceptions of being audited were less likely to overstate their working hours.

Additionally, when divided by the Physical Distance conditions, participants in the remote work condition were significantly influenced by whether they had a higher (lower) auditing likelihood to display lower (higher) overstatement. Mean scores results showed a significant difference between remote workers with lower perceptions about auditing than remote workers with higher perceptions on overstatement decisions (3.31, $SD = 0.29$ versus 2.39, $SD = 0.24$, $t = 2.44$, $p < 0.01$). Results from office workers are in the same direction, with

¹⁴ We used the mean score of auditing likelihood (3.62, $SD = 0.13$) to create a dummy variable with 0 as low auditing likelihood and 1 as high auditing likelihood.

São Paulo 27 a 29 de julho 2022.

office workers with higher (lower) auditing likelihood overstating less (more). However, results are not significantly different (3.09, SD=0.31 versus 2.90, SD=0.32, $t=0.40, p>0.10$).

Again, these results explain why remote workers had a lower overstatement of working hours than office workers since remote workers not only believed more in their likelihood of being audited but were also the only ones that significantly reduced their overstatement because of it. These results show that, while office workers had the same behavior (i.e., mean scores are in the same direction) from their remote counterparts, their perception of the likelihood of auditing was not significantly influential to their overstatement of working hours.

One possible explanation for this shift in auditing likelihood is how the second manipulation (i.e., peers' social norms) affected participants. Since peers' social norms are a source of information about how one should behave (or, in the case of dishonest peers, could behave), social norms could also influence participants' perceptions over auditing. More specifically, when participants receive the information about peers' behavior, they can either see that as (a) a warning to not overstate since they might be caught or (b) justify their overstatement tendencies. In sum, individuals might show higher (lower) auditing likelihood due to their physical distance while also experiencing a higher (lower) influence from auditing due to peers' social norms. Moreover, this shift might also explain the difference in perception between remote and office workers towards their perceptions over auditing likelihood.

To test this possibility, we also explore how participants behaved when segregated by the physical distance and the peers' social norms manipulation. Mean scores results show that consistently with the previous results, remote workers still showed higher perceptions over auditing likelihood compared to office workers. When faced with honest peers, remote workers showed significantly higher auditing perceptions than office workers (3.78, SD=0.27 vs. 3.26, SD=0.21, $t=1.53, p<0.1$). When faced with dishonest peers, participants showed higher perceptions over auditing likelihood compared with honest peers, with remote workers again displaying higher scores (3.90, SD=0.27 vs. 3.48, SD=0.27, $t=1.08, p>0.1$); however, results are not significantly different. Again, these results suggest that remote workers and office workers saw the peers' social norms information as a warning, specifically when faced with dishonest peers.

Additional results show no significant difference between remote workers with dishonest peers' information and honest peers' information (3.90, SD=0.27 vs. 3.78, SD=0.27, $t=0.32, p>0.1$). The same results were consistent with office workers (3.48, SD=0.27 vs. 3.26, SD=0.21, $t=0.64, p>0.1$). Again, these results show that the company's information increased (decreased) participants' auditing likelihood. However, it also suggests that, due to the lack of significance, participants were affected by the company's information on their peers' behavior and not by the peer behavior per se.

Overall, this exploratory analysis suggests that remote workers might interpret the company's information about peers more strongly than their counterparts. Remote workers could be analyzing any information from the company as surveillance that captures peers' reported information. This information may be more substantial to remote workers due to the lack of other information that they receive from their peers, as in, the company provides the only information about their peers.

Another complementary possibility is that participants in the remote condition feel less trusted, which is consistent with prior literature from before (Weisner & Sutton, 2015) and after (Delfino & van der Kolk, 2021; Hafermalz, 2020) COVID-19. The reasoning would be that remote workers already feel less trusted than their counterparts (a perception that is not controlled or explored in our design) and, alongside the lack of interaction with peers, would see the company's information as a reassurance that they are being closely monitored.

4.4.2 Company's social pressure and overstatement of working hours

As mentioned before, our second hypothesis investigates whether their perception of the company's social pressure can explain their overstatement of working hours, more specifically, whether they believe that the company wants them to work extra hours. On a seven-point Likert scale, we asked participants post experimentally to indicate their agreement level to the sentence "I believe that the company wants me to work a great number of hours".

On the same model presented in Figure 1, we explore the indirect effects of the remote work on the overstatement of working hours through participants' perceptions of social pressure. Consistent with the expectations in H2, we find that remote work is significant to participants' perceptions of social pressure. Results show that the effect of remote work on social pressure is significant (Link 4 of Figure 6, $\beta=0.41$, $z=-0.47$, $p<0.1$), and that the effect of social pressure on overstatement of working hours is also significant (Link 5 of Figure 6, $\beta=0.23$, $z=2.42$, $p<0.05$).

Again, consistent with the previous explanation, mean scores results show that participants in the remote condition had lower perceptions that the company required them to work extra hours compared to their office counterparts (5.23, $SD=0.17$ vs. 5.64, $SD=0.16$, $t=-1.72$, $p<0.05$). At the same time, participants with lower perceptions of social pressure declared lower overstatement of working hours than participants with higher perceptions¹⁵ (2.48, $SD=0.19$ vs. 3.23, $SD=0.20$, $t=-2.54$, $p<0.01$).

These results partly explain the lower mean scores from office workers on auditing likelihood compared to remote workers. They suggest that office workers were more concerned about the company's social pressure to work extra hours than about the possibility of auditing. Results are in the same direction when divided by the peers' social norms. With an increase in the company's social pressure effects on office workers when receiving information about dishonest peers compared to honest peers (5.88, $SD=0.18$ vs. 5.42, $SD=0.26$, $t=1.44$, $p<0.1$).

These results are consistent with prior social norms literature that shows that descriptive norms can enhance the effect of supportive injunctive norms (Smith et al., 2012). More specifically, both peers' dishonest social norms and the company's social norms are directed to enhance the overstatement of working hours, which might contribute to participants' justification process. Not only are they reading that their peers are overstating, allowing them to justify their overstatement (i.e., "everybody is doing it"), but they are also aware that their bonuses and promotions are based on working extra hours (i.e., "the company is forcing me to overstate").

Contrary to that, remote workers are not significantly affected by their peers' social norms (5.06, $SD=0.25$ vs. 5.43, $SD=0.23$, $t=-1.04$, $p>0.1$) in their perceptions of company's social pressure, which is consistent with results found over auditing likelihood. This is in line with part of the social norms literature that focuses on the possibility of higher influence of social norms on office workers than remote workers on overstatement of working hours. One of the underlying theories behind this reasoning relates to the constitution of social norms; specifically that social norms are bounded to individuals' identification with the group that presents the norm (Lapinskwe & Rimal, 2005). Social identification is also more salient in organizational environments that allow individuals to interact with each other easily, such as in situations with higher proximity (lower physical distance) (Hinds & Kiesler, 2002, p.173). Since participants in remote condition do not have interactions with colleagues, it is less likely

¹⁵ We used the mean score of *Social_Pressure* (5.37, $SD=0.11$) to generate a dummy variable with 0 as low pressure and 1 as high pressure.

São Paulo 27 a 29 de julho 2022.

that they are able to identify themselves with their peers. This would explain why the social norms were only significant to office workers.

To test for this explanation, on a seven-point Likert scale, we asked participants post experimentally to indicate their agreement level to two sentences, adapted from De Cremer & Van Vugt (1999), "*How much do you identify yourself with your colleagues?*" and "*Do you consider yourself as belonging to your group of colleagues?*". Mean scores show that remote workers significantly identify less with colleagues (3.39, SD=0.16 vs. 3.85, SD=0.18, $t=-1.89$, $p<0.05$) and consider themselves less belonging to the group of colleagues (3.50, SD=0.18 vs. 4.41, SD=0.17, $t=-3.61$, $p<0.01$). In sum, these results suggest that remote workers were not affected by peers' social norms and the company's social pressure due to their lack of identification and belongingness to their colleagues.

Finally, since both variables – auditing likelihood and social pressure - were mediating physical distance effects on overstatement, it is important to investigate how the interplay of these variables affected the overstatement of working hours. More specifically, whether both variables (collectively or solely) were suppressing or enhancing participants' overstatement of working hours. To test for that, we regress¹⁶ auditing likelihood and social pressure on the overstatement of working hours. Untabulated results show that, as expected from prior results, both variables are significant to participants' overstatement of working hours, which is consistent with the different responses from remote workers and office workers to their effects. Moreover, their effects are counteracting each other, with auditing likelihood decreasing ($\beta=-0.16$, $t=-1.85$, $p<0.1$) and social pressure increasing ($\beta=0.23$, $t=2.43$, $p<0.05$) overstatement, but not suppressing one another (i.e., both relationships are significant). This is also consistent with the previous results that these mediating variables were significant to different relationships, with auditing likelihood to remote workers and social pressure to office workers.

5 CONCLUSION

In this study, we explored the effects of remote work on overstatement of working hours. To do that, we developed our first research question, which inquired about the effects of remote work on employees' overstatement of working hours. Next, we developed our second research question, inquiring whether peers' social norms exert different effects on remote workers' and office workers' overstatement of working hours. Finally, to understand the underlying explanations behind the effects of remote work on employee's overstatement of working hours, We explored the role of auditing likelihood and social pressure. We posited the first hypothesis that there was a mediating effect of auditing likelihood between remote work and overstatement of working hours, and we posited the second hypothesis that there was a mediating effect of social pressure between remote work and the overstatement of working hours.

Our results from the first research question showed no significant difference between remote workers' and office workers' overstatement likelihood. The results, although not significantly different, also showed that remote workers had lower scores on overstatement of working hours compared to office workers. Additionally, our results from the second research question also showed no significant difference in the combined effect of remote work and peers' social norms on overstatement of working hours. Moreover, we found that both remote and office workers displayed lower scores on overstatement of working hours with dishonest peers compared to honest peers.

Our results showed that auditing likelihood was significant to remote workers, decreasing their overstatement likelihood. These results were a possible indication that, due to the lack of interaction with peers, the company's information about peers' reporting behavior

¹⁶ WE used a OLS regression instead of an ANOVA for this test given that WE was using ordinal variables (Likert scale points).

São Paulo 27 a 29 de julho 2022.

was much more influential to remote workers than to office workers. Future research should explore how remote workers with different degrees of interaction would react to the company's message about peers' overstatement.

Further, our results show that social pressure only significantly mediated the effect of office workers on the overstatement of working hours. We interpreted this in the light of social norm theory, which states that the interplay between an injunctive norm (company's social pressure) and a descriptive norm (peers' norms) increases the directed behavior. These results add to a very broad stream of literature about the detrimental effects of incentives, showing that even non-financial incentives, such as the one from the study, can increase employees' pernicious behavior. We also explored why the company's social norm was not significant to remote workers and found that consistent with theory, social identification plays a role in social norms effectiveness and that remote work aspects make it harder for individuals' social identification. Future research could investigate how individuals' interactions over technology-based controls affect principal-agent relationships differently. Another stream of future research could also focus on the extent of change in auditing likelihood and monitoring perceptions in remote work environments.

Our study has some limitations. First, several remote work aspects were affected by COVID-19, changing employees' behavior and perceptions dramatically. On that, perceptions on monitoring, social identification, and social norms have also dramatically changed in remote work. Future research could investigate whether this tendency from remote work will continue if companies remain with remote or hybrid employees.

Second, we chose to conduct an experimental scenario to answer our research questions. When developing the scenario, we tried to balance the right amount of mundane realism to experimental realism. Nevertheless, experimental scenarios can be noisy, especially when trying to convey a credible scenario for participants. Therefore, given that a group of individuals might have different perceptions from the same scenario, participants might have overlooked more important information and focused on less important information from the scenario. Finally, due to the nature of experiments, we cannot extrapolate our results to other types of misreporting. Given that, future research could look into the effects of remote work in different types of misreporting, such as slack creation.

REFERENCES

- Abernethy, M. A., Bouwens, J., Hofmann, C., & Lent, L. van. (2020). *Altruism, Social Norms, and Incentive Contract Design*.
- Bishop, C. C., Dezoort, F. T., & Hermanson, D. R. (2017). The effect of CEO social influence pressure and CFO accounting experience on CFO financial reporting decisions. *Auditing*, 36(1), 21–41. <https://doi.org/10.2308/ajpt-51507>
- Blaskovich, J. L. (2008). Exploring the Effect of Distance : An Experimental Investigation of Virtual Collaboration, Social Loafing, and Group Decisions. *Journal of Information Systems*, 22(1), 27–46.
- Bloom, N. (2020). Stanford professor on the new remote work economy : A "productivity disaster " and “ ticking time bomb for inequality.” Retrieved from CNBC make it website: <https://www.cnbc.com/2020/10/07/stanford-professor-not-optimistic-about-work-from-home-economy-ticking-time-bomb-for-inequality.html>
- Blumenfeld, S., Anderson, G., & Hooper, V. (2020). Covid-19 and Employee Surveillance. *New Zealand Journal of Employment Relations*, 45(2), 42–56. <https://doi.org/10.24135/nzjer.v45i2.28>
- Bradner, E., & Mark, G. (2002). Why Distance Matters : Effects on Cooperation , Persuasion and Deception. *Proceedings of Computer Supported Cooperative Work*, 226–235.
- Brucks, W. M., Reips, U. D., & Ryf, B. (2007). Group norms , physical distance , and ecological efficiency in common pool resource management. *Social Influence*, 2(2), 112–135.

São Paulo 27 a 29 de julho 2022.

- <https://doi.org/10.1080/15534510701193436>
- Brüggen, A., Feichter, C., & Haesebrouck, K. (2020). *Home office: Causal Evidence on Selection and Location Effects from Telecommuting*.
- Brunner, M., & Ostermaier, A. (2019). Peer Influence on Managerial Honesty: The Role of Transparency and Expectations. *Journal of Business Ethics*, 154(1), 127–145. <https://doi.org/10.1007/s10551-017-3459-9>
- Cardinaels, E., & Jia, Y. (2016). How Audits Moderate the Effects of Incentives and Peer Behavior on Misreporting. *European Accounting Review*, 25(1), 183–204. <https://doi.org/10.1080/09638180.2015.1042889>
- Cardinaels, E., & Yin, H. (2015). Think Twice Before Going for Incentives: Social Norms and the Principal’s Decision on Compensation Contracts. *Journal of Accounting Research*, 53(5), 985–1015. <https://doi.org/10.1111/1475-679X.12093>
- Cascio, W. F., & Aguinis, H. (2008). Staffing Twenty-first-century Organizations. *The Academy of Management Annals*, 2(1), 133–165. <https://doi.org/10.1080/19416520802211461>
- Cha, Y. (2013). Overwork and the persistence of gender segregation in occupations. *Gender & Society*, 27(2), 158–184. <https://doi.org/10.1177/0891243212470510>
- Choi, J., Kim, J.-B., Qiu, A., & Zang, Y. (2012). Geographic Proximity between Auditor and Client : How does it Impact Audit Quality? *Auditing: A Journal of Practice and Theory*, 31(2), 43–72.
- Cialdini, R. B., & Goldstein, N. J. (2004). Social Influence: Compliance and Conformity. *Annual Review of Psychology*, 55(2004), 591–621. <https://doi.org/10.1146/annurev.psych.55.090902.142015>
- Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A Focus Theory of Normative Conduct: A Theoretical Refinement and Reevaluation of the Role of Norms in Human Behavior. *Advances in Experimental Social Psychology*, 24(C), 201–234. [https://doi.org/10.1016/S0065-2601\(08\)60330-5](https://doi.org/10.1016/S0065-2601(08)60330-5)
- Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A Focus Theory of Normative Conduct: Recycling the Concept of Norms to Reduce Littering in Public Places. *Journal of Personality and Social Psychology*, 58(6), 1015–1026. <https://doi.org/10.2307/2037635>
- Cialdini, R. B., & Trost, M. R. (1998). Social Influence: Social Norms, Conformity, and Compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 151–192). McGraw-Hill.
- Coelho, F. A., Faiad, C., Rego, M. C. B., & Ramos, W. M. (2020). What Brazilian workers think about flexible work and telework? *International Journal of Business Excellence*, 20(1), 16–31. <https://doi.org/10.1504/IJBEX.2020.104842>
- De Cremer, D., & Van Vugt, M. (1999). Social identification effects in social dilemmas: A transformation of motives. *European Journal of Social Psychology*, 29(7), 871–893. [https://doi.org/10.1002/\(SICI\)1099-0992\(199911\)29:7<871::AID-EJSP962>3.0.CO;2-I](https://doi.org/10.1002/(SICI)1099-0992(199911)29:7<871::AID-EJSP962>3.0.CO;2-I)
- Delfino, G. F., & van der Kolk, B. (2021). Remote working , management control changes and employee responses during the COVID-19 crisis. *Accounting, Auditing and Accountability Journal*, (March). <https://doi.org/10.1108/AAAJ-06-2020-4657>
- Emett, S. A., Guymon, R., Tayler, W. B., & Young, D. (2019). Controls and the Asymmetric Stickiness of Norms. *Accounting Horizons*, 33(4), 119–143. <https://doi.org/10.2308/acch-52487>
- Ewelt-knauer, C., Schwering, A., & Winkelmann, S. (2021). Probabilistic Audits and Misreporting – the Influence of Audit Process Design on Employee Behavior. *European Accounting Review*. <https://doi.org/10.1080/09638180.2021.1899014>
- Feldman, D. C. (2002). Managers’ propensity to work longer hours: A multilevel analysis. *Human Resource Management Review*, 12(3), 339–357. [https://doi.org/10.1016/S1053-4822\(02\)00064-5](https://doi.org/10.1016/S1053-4822(02)00064-5)
- Fiolleau, K., Libby, T., & Thorne, L. (2018). Dysfunctional behavior in organizations: Insights from the management control literature. *Auditing*, 37(4), 117–141. <https://doi.org/10.2308/AJPT-51914>
- Fischer, P., & Huddart, S. (2008). Optimal contracting with endogenous social norms. *American Economic Review*, 98(4), 1459–1475. <https://doi.org/10.1257/aer.98.4.1459>
- Fishbein, M., & Ajzen, I. (2011). Perceived norms and their determinants. In *Predicting and Changing Behavior: The Reasoned Action Approach* (Vol. 7). Taylor & Francis Group.

São Paulo 27 a 29 de julho 2022.

- Fonner, K. L., & Roloff, M. E. (2012). Testing the Connectivity Paradox: Linking Teleworkers' Communication Media Use to Social Presence, Stress from Interruptions, and Organizational Identification. *Communication Monographs*, 79(2), 205–231. <https://doi.org/10.1080/03637751.2012.673000>
- Gajendran, R. S., & Harrison, D. A. (2007). The Good, the Bad, and the Unknown About Telecommuting: Meta-Analysis of Psychological Mediators and Individual Consequences. *Journal of Applied Psychology*, 92(6), 1524–1541. <https://doi.org/10.1037/0021-9010.92.6.1524>
- Groen, B. A. C., van Triest, S. P., Coers, M., & Wtenweerde, N. (2018). Managing flexible work arrangements: Teleworking and output controls. *European Management Journal*, 36(6), 727–735. <https://doi.org/10.1016/j.emj.2018.01.007>
- Hafermalz, E. (2020). Out of the Panopticon and into Exile: Visibility and control in distributed new culture organizations. *Organization Studies*, (1966). <https://doi.org/10.1177/0170840620909962>
- Hartmann, F. G. H., & Maas, V. S. (2010). Why business unit controllers create budget slack: Involvement in management, social pressure, and Machiavellianism. *Behavioral Research in Accounting*, 22(2), 27–49. <https://doi.org/10.2308/bria.2010.22.2.27>
- Hinds, P. J., & Kiesler, S. (2002). *Distributed work*.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Jacobson, R. P., Mortensen, C. R., & Cialdini, R. B. (2011). Bodies Obligated and Unbound: Differentiated Response Tendencies for Injunctive and Descriptive Social Norms. *Journal of Personality and Social Psychology*, 100(3), 433–448. <https://doi.org/10.1037/a0021470>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of The Firm Managerial Behaviour, Agency Costs and Ownership structure. *Journal of Financial Economics*, 3, 305–360. Retrieved from http://uclafinance.typepad.com/main/files/jensen_76.pdf
- KPMG Forensic. (2013). *KPMG Integrity Survey*. Retrieved from <https://home.kpmg/cn/en/home/insights/2013/07/integrity-survey-2013-o-201307.html>
- Lapinski, M. K., & Rimal, R. N. (2005). An explication of social norms. *Communication Theory*, 15(2), 127–147. <https://doi.org/10.1093/ct/15.2.127>
- Ledgerwood, A., & Callahan, S. P. (2012). The Social Side of Abstraction: Psychological Distance Enhances Conformity to Group Norms. *Psychological Science*, 23(8), 907–913. <https://doi.org/10.1177/0956797611435920>
- Lee, H. (2021). Changes in workplace practices during the COVID-19 pandemic: the roles of emotion, psychological safety and organisation support. *Journal of Organizational Effectiveness: People and Performance*, 97–128. <https://doi.org/10.1108/joep-06-2020-0104>
- Levy, A. (2020). Work from home is here to stay after coronavirus. Retrieved July 19, 2020, from <https://www.cnbc.com/2020/05/11/work-from-home-is-here-to-stay-after-coronavirus.html>
- Lieberman, N., & Trope, Y. (1998). The Role of Feasibility and Desirability Considerations in Near and Distant Future Decisions: A Test of Temporal Construal Theory. *Journal of Personality and Social Psychology*, 75(1), 5–18. <https://doi.org/10.1037/0022-3514.75.1.5>
- Lill, J. B. (2020). When the Boss is far away and there is shared pay: The effect of monitoring distance and compensation interdependence on performance misreporting. *Accounting, Organizations and Society*, (xxxx), 101143. <https://doi.org/10.1016/j.aos.2020.101143>
- Maas, V. S., & Rinsum, M. Van. (2013). How Control System Design Influences Performance Misreporting. *Journal of Accountig Research*, 51(5), 1159–1186. <https://doi.org/10.1111/1475-679X.12025>
- Murphy, P. R., Wynes, M., Hahn, T.-A., & Devine, P. G. (2019). Why are People Honest? Internal and External Motivations to Report Honestly. *Contemporary Accounting Research*, 53(9), 1689–1699. <https://doi.org/10.1017/CBO9781107415324.004>
- Nagin, D. S., Rebitzer, J. B., Sanders, S., & Taylor, L. J. (2002). Monitoring, motivation, and management: The determinants of opportunistic behavior in a field experiment. *American Economic Review*, 92(4), 850–873. <https://doi.org/10.1257/00028280260344498>

São Paulo 27 a 29 de julho 2022.

- OECD. (2021). Teleworking in the COVID-19 pandemic: Trends and prospects. *OECD Policy Responses to Coronavirus (COVID-19)*, (September), 1–12. Retrieved from <http://dx.doi.org/10.1787/72a416b6-en>
- Richardson, J., & Mckenna, S. (2014). Reordering Spatial and Social Relations: A Case Study of Professional and Managerial Flexworkers. *British Journal of Management*, 25, 724–736. <https://doi.org/10.1111/1467-8551.12017>
- Rudolph, C. W., Allan, B., Clark, M., Hertel, G., Hirschi, A., Kunze, F., ... Zacher, H. (2020). Pandemics: Implications for Research and Practice in Industrial and Organizational Psychology. *Industrial and Organizational Psychology: Perspectives on Science and Practice*.
- Sauer, S. J., Rodgers, M., & Becker, W. J. (2018). The Effects of Goals and Pay Structure on Managerial Reporting Dishonesty. *Journal of Accounting, Ethics and Public Policy*, 19(3), 377–418.
- Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The constructive, Destructive, and Reconstructive Power of Social Norms. *Psychological Science*, 18(5), 429–434. <https://doi.org/10.1111/j.1467-9280.2007.01917.x>
- Sewell, G., & Taskin, L. (2015). Out of Sight , Out of Mind in a New World of Work ? Autonoour , Control , and Spatiotemporal Scaling in Telework. *Organization Studies*, 36(11), 1507–1529. <https://doi.org/10.1177/0170840615593587>
- Smith, J. R., & Louis, W. R. (2008). Do as we say and as we do: The interplay of descriptive and injunctive group norms in the attitude-behaviour relationship. *British Journal of Social Psychology*, 47(4), 647–666. <https://doi.org/10.1348/014466607X269748>
- Smith, J. R., Louis, W. R., Terry, D. J., Greenaway, K. H., Clarke, M. R., & Cheng, X. (2012). Congruent or conflicted? The impact of injunctive and descriptive norms on environmental intentions. *Journal of Environmental Psychology*, 32(4), 353–361. <https://doi.org/10.1016/j.jenvp.2012.06.001>
- Taylor Jr., J. C. (2019). Our employee may be fabricating work hours on their timesheet . What should WE do ? Ask HR. Retrieved December 22, 2021, from USA TODAY website: <https://www.usatoday.com/story/money/careers/career-advice/2019/01/29/timesheet-cheater-how-deal-employee-fabricating-work-hours/2656368002/>
- Tokarchuk, O., Gabriele, R., & Neglia, G. (2021). Teleworking during the COVID-19 crisis in Italy: Evidence and tentative interpretations. *Sustainability (Switzerland)*, 13(4), 1–12. <https://doi.org/10.3390/su13042147>
- Trope, Y., & Liberman, N. (2010). Construal-Level Theory of Psychological Distance. *Psychological Review*, 117(2), 440–463. <https://doi.org/10.1037/a0018963>.Construal-Level
- Trope, Y., Liberman, N., & Wakslak, C. (2011). Construal Levels and Psychological Distance: Effects on Representation, Prediction, Evaluation, and Behavior. *Journal of Consumer Psychology*, 17(2), 83–95. [https://doi.org/10.1016/S1057-7408\(07\)70013-X](https://doi.org/10.1016/S1057-7408(07)70013-X).Construal
- Weisner, M. M. (2015). *Using Construal Level Theory to Motivate Accounting Research: A Literature Review*. 27(1), 137–180. <https://doi.org/10.2308/bria-51063>
- Weisner, M. M., & Sutton, S. G. (2015). When the world isn’t always flat: The impact of psychological distance on auditors’ reliance on specialists. *International Journal of Accounting Information Systems*, 16, 23–41. <https://doi.org/10.1016/j.accinf.2014.11.001>
- Wenzel, M. (2005). Misperceptions of social norms about tax compliance: From theory to intervention. *Journal of Economic Psychology*, 26(6), 862–883. <https://doi.org/10.1016/j.joep.2005.02.002>
- Zoonen, W. Van, Sivunen, A., Blomqvist, K., Olsson, T., Ropponen, A., Henttonen, K., & Vartiainen, M. (2021). Factors Influencing Adjustment to Remote Work : Employees ’ Initial Responses to the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 18.