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Time and Money Incentives: Effects on Psychological and Interpersonal Outcomes

Author

Lee-Yoon, Alice Jihyun

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Time and Money Incentives: Effects on Psychological and Interpersonal Outcomes

A dissertation submitted in partial satisfaction of the

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in Management

by

Alice Jihyun Lee-Yoon

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ABSTRACT OF THE DISSERTATION

Time and Money Incentives: Effects on Psychological and Interpersonal Outcomes

by

Alice Jihyun Lee-Yoon

Doctor of Philosophy in Management

University of California, Los Angeles, 2024

Professor Sanford E. DeVoe, Chair

The prevailing incentive within organizations often comes in the form of money. While extensive research has studied the effectiveness of monetary incentives, the psychological and interpersonal consequences of these incentives remain relatively underexplored. This dissertation aims to fill this gap by exploring the effects of monetary performance incentives on people's perceptions and social interactions. We then propose a novel alternative: time-based performance incentives, suggesting that this type of incentive has better implications for psychological well-being compared to traditional monetary incentives.

First, we examine the impact of monetary performance incentives on people's perceived instrumentality, and how they shape social interactions (Studies 1-5). Across five studies, we find evidence that exposure to monetary performance incentives encourages individuals to spend more time with work colleagues, even if it prevents them from spending time with friends and family. We document perceived instrumentality as a mechanism for these results: monetary

performance incentives lead individuals to perceive their work relationships as more instrumental. We then explore a related construct, perceived objectification, exploring how this perception diminishes the authenticity of social interactions among colleagues (Studies 6-8). We find consistent evidence that people who are exposed to monetary performance incentives perceive themselves and their colleagues as instrumental objects, which is one mechanism that leads people to perceive themselves as less authentic and engage in less authentic social interactions. Finally, in Studies 9-11, we examine aspects of 'time' as a performance incentive that enhances people's feeling of humanness. We find that people who receive a bonus of vacation days experience greater humanness than people who receive an equivalent monetary bonus. One reason is because vacation bonuses, compared to traditional monetary bonuses, are uniquely positioned to allow temporal segmentation from the objectifying work contexts, which then increases feelings of humanness. This work provides important implications for organizations by demonstrating the psychological well-being benefits of rewarding employees with more time off in lieu of more money.

The dissertation of Alice Jihyun Lee-Yoon is approved.

Sherry J. Wu

Eugene M. Caruso

Cassie Mogilner Holmes

Sanford E. DeVoe, Committee Chair

University of California, Los Angeles

2024

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PREFACE

Chapter 1: Introduction

I am the primary author of this chapter, with intellectual contributions from S. DeVoe. One version of this chapter is being prepared for publication: **Lee-Yoon, A.** & DeVoe, S. A humanizing separation from work: Benefits of rewarding people with vacation over money. I designed the studies in collaboration with S. DeVoe, collected the data, conducted the analyses, and prepared the manuscript. S. DeVoe provided intellectual contributions and edited the manuscript. Another version of this chapter is being prepared for publication. **Lee-Yoon, A.,** J., & Whillans, A. Performance incentives decrease perceived authenticity through greater objectification. I designed the surveys and the experiment in collaboration with J. Hur and A. Whillans; I collected the data, conducted the analyses, and prepared the manuscript. J. Hur and A. Whillans provided advice and edited the manuscript.

Chapter 2: The effect of monetary incentives on socialization

This chapter is published: Hur, J., D.,* **Lee-Yoon, A**.,* & Whillans, A.* (2021). "Who is more useful? The impact of performance incentives on work and personal relationships." *Organizational Behavior and Human Decision Processes, 165,* 103-114. As equal first authors, we all contributed to conceptualizing the research question, study designs, and preparing the manuscript.

Chapter 3: The effect of monetary incentives on objectification and authenticity

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Chapter 4: The contrasting effects of time (vs. money) bonuses on humanization

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Chapter 5: Conclusion

I am the primary author of this chapter.

CURRICULUM VITAE

ALICE LEE-YOON

EDUCATION

University of California, Los Angeles
▪ PhD Candidate in Management and Organizations

University of British Columbia Sept 2013 - May 2017
▪ Bachelor of Arts, Psychology

PUBLICATIONS

Hur, Julia D.,* **Alice Lee-Yoon**,* and Ashley V. Whillans* (2021). "Who is more useful? The impact of performance incentives on work and personal relationships." *Organizational Behavior and Human Decision Processes, 165,* 103-114. (* *indicates shared first authorship*)

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CHAPTER 1

Introduction

1.1. Overview

The aftermath of the Covid-19 pandemic has prompted people to re-evaluate the value of their personal time and flexibility (Stein et al., 2021; Subramanian & Washington, 2022). People are yearning for more time with loved ones, the freedom to go out for lunches with friends, or the opportunity to attend their children's recital on weekdays. This may reflect a desire to have more intrinsic, personal fulfillment in their daily lives. However, the modern workplace often fails to meet these desires. Dating back all the way to the industrialization era, where laborers were mechanized within factory settings, employees have frequently felt relegated to the status of mere cogs in the organizational machinery. This perception persists today, with employees reporting themselves to be treated like objects in the workplace (vs. personal) settings (Belmi & Schroeder, 2021).

One factor contributing to this phenomenon may be attributed to the prevalence of incentives schemes within organizations. While incentives exist in diverse forms, money have emerged as the predominant form thus far, such as a sign-in bonus, holiday bonus, stocks, and other cash payments (Glassdoor, 2021). The first part of this dissertation investigates how these common monetary incentives shape people's perceptions and interpersonal interactions. Although less conventional, it is important to recognize that incentives can also come in the form of *time*. People rarely think 'time' as something that can be given to others in everyday contexts (Whillans et al., 2017), yet it is more commonly given in the workplace, such as through paid

vacation days and breaktimes. The second part of this dissertation considers time-based incentives as an alternative to reward employees' performance while minimizing adverse social consequences associated with monetary incentives. Demonstrating the distinct psychological effects of monetary vs. time performance incentives will help managers and organizations use these rewards more effectively based on their goals. Throughout my studies, I examine *performance-based* time and monetary rewards, which I refer to as monetary vs. time incentives for simplicity.

1.2. Psychology of Monetary Performance Incentives

Performance incentives can be defined as rewards given for meeting or exceeding a specific standard in a target task (Allen & Griffeth, 2001; Lazear, 2000; Shomstein & Johnson, 2013), and the most common reward is money (Glassdoor, 2021). Monetary incentives have been used to align employees' interest to that of an organization and motivate them to invest their best effort (Stroh, Brett, Baumann, & Reilly, 1996), ultimately benefitting the organization (Lazear, 2000). Considering that monetary incentives have been developed as a means to increase organizational profits, it is not surprising that their consequences have been studied by management scholars with a heavy focus on two issues—whether they actually improve performance (Jenkins Jr, Mitra, Gupta, & Shaw, 1998) and affect intrinsic motivation (Cameron, Pierce, Banko, & Gear, 2005). That is, a number of studies have investigated the effect of pay-for-performance on employees' work motives, attitudes, and productivity (Eisenberger, Rhoades, & Cameron, 1999; Harrison, Virick, & William, 1996; Lazear, 2000; Miceli, Jung, Near, & Greenberger, 1991).

However, there has been an increasing body of research suggesting that exposure to monetary incentives can fundamentally shape one's value systems, in general (Richins & Chaplin, 2015). For example, compared to other types of incentives, receiving monetary performance incentives tends to fixate one's attention to maximizing monetary rewards (Hur & Nordgren, 2016) and increase desire and value attached to money (Devoe, Pfeffer, & Lee, 2013). Salient financial rewards can in turn lead individuals to adopt a goal-oriented mindset because every action or decision at work becomes tied to their potential earnings (Bachorowski & Newman, 1990; Hofmann et al. 2012; Hur, Lee-Yoon, & Whillans, 2021). In essence, people who are compensated based on their performance may start to seek "instrumental" behaviors, acting in ways that best serve their interests in maximizing rewards. We will first demonstrate that exposure to monetary incentives lead people to engage in instrumental behaviors in a way that impacts social interactions. Specifically, people who receive monetary incentives will start to seek relationships that are useful for earning them greater success at work (i.e., colleagues vs. friends and family).

1.2.1. Perceived Instrumentality and Socialization

Based on previous literature, we expect that being exposed to monetary incentives at work affect interactions, not only with one's work ties, but also with personal ties, such as friends and family. Past studies have indicated that employees receiving monetary performance incentives tend to focus more on the goal of earning money compared to those receiving alternative forms of compensation, such as fixed salaries (Hur & Nordgren, 2016). For instance, salespeople earn bonuses for each car sold, which reinforces their goal of earning more money. We contend that this emphasis on reward-seeking, induced by monetary incentives, shapes social

interactions in a goal-oriented manner by influencing how people perceive the usefulness of different relationship partners. Perceived instrumentality, which refers to the extent to which another person is viewed as 'useful' in achieving one's primary goal, is crucial in understanding relationship dynamics (Belmi & Pfeffer, 2018; Gruenfeld, Inesi, Magee, & Galinsky, 2008). Individuals may perceive others as valuable for various reasons, such as their access to resources (Shea & Fitzsimons, 2016) or provision of emotional support to persist in goal pursuit (Brunstein, Dangelmayer, & Schultheiss, 1996). Once individuals perceive others as instrumental in achieving their goals, they tend to prioritize and evaluate them in a more positive manner (Gruenfeld et al., 2008; Fitzsimons & Shah, 2008).

Following this research, we hypothesize that exposure to monetary incentives will *increase* the amount of time and resource people invest to interact with work relationships who are more instrumental for achieving financial success at work, but simultaneously *decrease* the amount of resource people invest to socialize with their non-instrumental personal ties, such as friends and family.

1.3. Objectification

Monetary incentives could shape how employees perceive and interact with each other in multiple ways. In addition to instrumentality, we explore a related perception called *objectification*, whereby individuals are treated or perceived as tools to facilitate self or collective goal achievement (Belmi & Schroeder, 2020; Gruenfeld et al., 2008; Poon, Chen, Teng, & Wong, 2020; Wang & Krumhuber, 2017). This will further illuminate how monetary incentives play a critical role in shaping employees' view of others in their social world. Prior research by Vaes, Loughnan, and Puvia (2014) has conceptualized objectification as perceiving

oneself or others as objects, with one of the major components involving instrumentality (i.e., viewing people as instruments for goal attainment). Therefore, instrumentality and objectification have a major conceptual overlap, with instrumentality being a component of objectification. While our initial focus centered on people's perceptions of others' instrumentality and its influence on socialization, we broaden our scope to examine how people perceive both themselves and others as *objects* at the workplace. This perception goes beyond merely thinking about others' usefulness, and it further captures the degree to which people reduce others into mere objects. Drawing on previous literature on money and instrumentality, we hypothesize that monetary incentives will lead individuals to perceive *both* themselves and others as objects.

First, we theorize that monetary incentives foster objectification of *others* by encouraging individuals to view their social interactions through the lens of instrumentality. For instance, interacting and spending more time with work colleagues may be perceived as beneficial for achieving one's financial goals, as it enables network expansion, knowledge sharing (Connelly & Kelloway, 2003), and stronger team performance and compensation (Berger, Herbertz, & Sliwka, 2011). Consequently, colleagues may be seen as means to achieve greater success at work, rather than as social entities. In fact, Belmi and Shroeder (2021) found evidence for the idea that organizations today may feel more transactional because the work context can lead people to objectify others more and feel a lower sense of belonging as compared to the non-work context.

Exposure to monetary incentives should also lead to objectification of the *self*. Monetary rewards can evoke a reminder of the economic exchange relationship that individuals have with their employers (Gallus et al., 2022). Consequently, receiving monetary incentives may induce

individuals to perceive themselves as participants in a purely economic relationship, where they provide labor and receive monetary compensation in return. This perception could reduce people to instrumental means for the organization to gain profit, therefore diminishing their perceived warmth, competence, human-like attributes, and elevating their object-like characteristics (Loughnan, Baldissarri, Spaccatini, & Elder, 2017). Therefore, we hypothesize that exposure to monetary incentives will lead people to regard both themselves and their colleagues as objects by intensifying the instrumentality associated with themselves and their colleagues.

1.3.1. Perceived Objectification and Authenticity

Based on previous literature showing how monetary incentives lead people to see oneself and others as objects at work (Belmi & Shroeder, 2021; Wang & Krumhuber, 2017), it is likely that this perception will have a subsequent impact on people's feelings during workplace interactions. Specifically, we suggest that people who receive monetary incentives are more likely to see themselves and other people as "tools" to maximize their personal rewards, and in turn undermine how *authentic* people feel when interacting with their colleagues.

Scholars have defined authenticity in numerous ways, but they commonly assume that authenticity is "the unobstructed operation of one's true- or core-self in one's daily enterprise" (Kernis & Goldman, 2006, p. 294). Thus, a specific behavior is deemed authentic when it is aligned with one's core values, beliefs, self-representations, and motivations (Caza et al., 2018; Cha et al., 2019; Deci and Ryan, 2000; Erickson, 1995; Lehman et al., 2019). Relatedly, Wood and colleagues (2008) posit that authenticity involves the congruence between the conscious awareness and actual experience, and behaving and expressing emotions in such a way that is consistent with the conscious awareness of physiological states, emotions, and beliefs. We build

on these conceptualizations of authenticity, which encompass both the *internal* sense of self and the *external* expression of self. In this dissertation, we primarily focus on the former – the perception of authenticity which can be described as the sense "that one is being their real self" (Sedikides, Slabu, Lenton, & Thomaes, 2017, p. 521). This conceptualization views authenticity as a self-reflective emotional experience (Vannini & Franzese, 2008). We refer to this as 'perceived authenticity' at workplace – the extent to which people *feel* they are being authentic at work. How would exposure to performance incentives shape people's feeling of authenticity through objectification? Recent research identifies a causal link between feeling objectified and decreased authenticity (Cheng et al., 2022), indicating that participants who experienced more objectification in general or who recalled a past objectifying experience in the lab felt less authentic as compared to their counterparts. Previous work on conformity also implies a negative association between objectification and authenticity: For example, Andrighetto and colleagues (2018) found that participants who completed highly objectifying computer tasks (vs. control tasks) in the lab were more likely to perceive themselves as objects (i.e., lacking human capacities), which led them to conform more with the judgments of unfamiliar, similar others.

Understanding the relationship between monetary incentives and perceived authenticity is important for two critical reasons. First, monetary incentives are ubiquitous—recent statistics revealed that 84% of U.S. businesses spend $176 billion on these incentives (Incentives Federation Inc., 2022). Second, perceived authenticity critically predicts employee well-being. Employees who feel more authentic in the workplace report enhanced self-esteem (Heppner et al., 2008), intrinsic motivation (Emmerich & Rigotti, 2017) and are more likely to have their basic needs met in the workplace, such as by reporting a higher sense of autonomy over their daily work (Yang et al., 2023). In turn, when employees feel more authentic and happier at work,

they are less likely to quit (Van den Bosch & Taris, 2014a). In addition to the well-being and retention benefits of perceived authenticity, employees who feel more authentic at work also have better social interactions. For example, research on cost and benefits of authenticity demonstrated that feeling inauthentic during networking led employees to feel dirty and less willing to purse these relationships in the future (Casciaro et al., 2014). Thus, research on individual behavior underscores the significant influence of perceived authenticity on critical outcomes like socialization, motivation, and performance, while also revealing the detrimental effects of inauthenticity on these outcomes (Cable et al., 2013; Kim et al., 2023). Building upon this body of research, we recognize perceived authenticity as a crucial outcome in the workplace and explore a novel antecedent—the organizational payment system—that may have an unintended negative effect on perceived authenticity.

1.4. Examining the Benefits of Time Incentives

Thus far, I detailed our theoretical framework on how monetary incentives may have negative social consequences (i.e., socialization and authenticity) through heightened perceived instrumentality and objectification. In this section, we propose one way that incentives can contribute to psychological wellbeing by looking at the role of 'time' bonuses. Although the incentives most frequently offered take the form of money (Glassdoor, 2021), incentives can also take the form of time (Cutter, 2021). For example, an employee may receive additional breaks through paid vacation days and paid time offs (PTOs). Central to our inquiry is the examination of the effects of paid vacation *as performance bonuses* on employee experiences. Vacation bonuses can be conceptualized as additional break from work, defined as "a period of time

[given to people] during which work-relevant tasks are not required or expected" (Trougakos & Hideg, 2009).

How will people feel when they are rewarded for performance with either vacation or money? While any form of reward is likely to be positive, we argue that the greater work-life segmentation engendered by receiving a vacation bonus will cause people to feel greater humanness compared to an equivalent reward in the form of money. Thus, breaks such as vacations offer temporal separation of the employee from their work and function as a boundary between work and non-work related activities – referred to broadly in the literature as work-life segmentation (Kreiner, 2006; Powell & Greenhaus, 2010). We will describe this fundamental feature of vacations as "perceived segmentation," and this associated separation from work makes an employee feel treated as a full human-being.

1.4.1. Perceived Humanness

Past research suggests that humanness encompasses a distinctive set of traits, including emotions, social adeptness, and cognitive abilities (Haslam, Loughnan, & Holland, 2013). Humanness has also been conceptualized as the capacity to act intentionally and exert control over one's environment, have thoughts, feelings, and subjective experiences (Gray et al., 2007; Waytz et al., 2013). These form the “mental state” of a person. Researchers posit that perceived humanness requires the recognition of this mental state, and that the denial of these aspects in others results in dehumanization (e.g., Gray et al., 2007; Haslam & Loughnan, 2014; Waytz et al., 2013). Indeed, people use fewer mental state terms when describing targets who are perceived to have low warmth and competence, such as homeless people (Harris & Fiske, 2011); and Canadians viewed refugees as more barbaric and lacking in sophistication and prosocial

values (Esses et al., 2008). Similarly, Kozak and colleagues (2006) found that disliked individuals tend to be denied mental capacities. In line with this prior research, humanness can be defined as having one's full humanity recognized and experienced, inclusive of mental and emotional states and intrinsic worth as a human being.

Humanness becomes particularly intriguing within the context of the workplace. Research demonstrates that the minds, thoughts, and feelings attributed to others can be systematically less complex and intense—a phenomenon termed the "lesser mind problem" (Epley & Waytz, 2010). This may be a pervasive phenomenon especially at work. For example, the minds that managers attribute to their employees, may be a diminished version of what managers recognize in themselves, particularly when the employees are viewed as a faceless collective, resulting in the reduction of employees to mere "cogs" in the organizational machinery. The workplace provides a context where people are easily stripped of humanness because people engage in more calculative thinking, such as making decisions by analyzing the costs and benefits (Belmi & Shroeder, 2020). Indeed, there is a widespread perception that business is solely about profit and that business people should focus on their self-interested goals, constantly competing against others for success (Freeman & Ginena, 2015). Employees, who are hired to work and earn money from these businesses, may therefore perceive themselves as means to an end with negative consequences. Indeed, when employees feel more objectified at work, such as feeling they are treated as an expendable and replaceable tool, they are more likely to be dissatisfied with their job, exhibit less prosociality and more incivility towards others, report greater turnover intentions, and demonstrate weaker organizational commitment (Belmi & Shroeder, 2020; Valtorta & Monaci, 2023). A logical question is whether providing a *separation* from this objectifying work context will lead individuals to feel more human. While past

research has addressed the negative organizational consequences associated with felt objectification at work, our study aims to explore the positive outcomes resulting from the provision of an individual's disconnection from this work environment. Specifically, we focus on how human they feel—the degree to which individuals recognize themselves as possessing human qualities (e.g., complex mental and emotional states).

We hypothesize that provision of a vacation bonus over an equivalent money bonus increases how human people feel. This hypothesis is rooted in the notion that vacations afford individuals the opportunity to shift their focus away from work-related obligations towards their personal lives. In our subsequent discussion, we explore this theoretical mechanism.

1.4.2. Segmentation and Humanness

We posit that vacation bonuses, compared to equivalent monetary bonuses, will significantly enhance how human people feel because they serve the purpose of segmenting personal life from objectifying work contexts. Extant research supports this notion, indicating that receiving time shifts the employee-employer relationship out of a purely market exchange associated with extrinsic values and instrumental relationships into the domain of social exchanges (Gallus et al., 2022). In contrast, money is more fungible in nature and fails to provide a distinction between work and life. Studies have shown that even subconscious thoughts about money suppress the application of the social exchange model in terms of communion and cooperation (Vohs, Mead, & Goode, 2006). Thus, receiving a monetary equivalent bonus may work as a reminder of the instrumental relationship one has with the organization (Teng et al., 2016), leading individuals to focus on work and economic gains and to focus less on their personal lives and relationships (Vohs, 2015). As such, different rewards activate distinct relational models, which lead to

diverging effects on the recipients' perception, well-being, and motivation (Gallus et al., 2022). Notably, recent findings from the gift-giving literature provide initial insights into the contrasting effects of time and money on emotional well-being. For example, Lee-Yoon et al. (2020) demonstrated that individuals who received a gift that was framed to save time experienced greater positive self-conscious emotions (i.e., pride) and weaker negative self-conscious emotions (i.e., shame) than individuals who received the same gift that was framed to save money.

Building upon this research, we aim to examine how vacation bonuses increase how human individual feel compared to receiving an equivalent monetary bonus by segmenting the focus on their personal life from the objectifying work context.

1.5. Dissertation Overview

Past research has examined the effectiveness of monetary performance incentives, such as whether they increase employees' performance and motivation on a given task. The current dissertation extends research in this area by focusing on how monetary and time incentives shape people's perceptions of instrumentality, objectification, and humanness—and discuss their social and well-being consequences.

Overall, this dissertation aims to answer three guiding questions: First, does exposure to monetary incentives shape people's perceived instrumentality of others, which then shapes their social interactions? Second, does exposure to monetary incentives lead people to view themselves and others as instrumental objects, which then undermines authenticity during workplace interactions? Finally, can performance rewards in the form of 'time' separate people

from this objectifying work contexts, restoring their feeling of humanness? To this end, my dissertation presents 11 studies, organized into three manuscript-style research chapters.

Studies 1-5 examine whether exposure to monetary incentives (vs. fixed pay) lead people to perceive their work colleagues as more instrumental, and therefore spend more time with them at the expense of spending time with their personal relationships (Chapter 2). Across three experiments, one survey, and one large-scale archival data set (N = 77,302), we show that exposure to monetary incentives encourage individuals to spend more time with their work colleagues, even at the expense of spending time with their friends and family (Study 1). We propose a potential mechanism: the increased perceived instrumentality of work ties (Study 2). Then, we further examine the role of perceived instrumentality by testing whether task interdependence moderates the effect of monetary incentives (Study 3). We also test the effect of monetary incentives using a decision-making measure—the number of minutes that participants allocate toward interacting with work ties (Study 4). Lastly, we replicate the main social interaction findings in an ecologically valid context by using a nationally representative sample of working adults in the United States (American Time Use Survey; Study 5).

Studies 6-8 examine how exposure to monetary incentives lead people to perceive themselves and others as objects, which then undermines their authenticity when interacting with colleagues at work. We test this question with one survey and two experiments (N = 1,663; Chapter 3). First, we test whether the natural variation in people's exposure to monetary incentives in real life predict perceived workplace authenticity—as defined by how authentic people felt they were with others at work and how authentic others in their workplace were (Study 6). We then test our proposed mechanism, objectification, in a vignette experiment (Study 7). Lastly, we test one potential moderator, employee-manager fit (Study 8).

The studies in Chapter 2 and 3 test the negative effects of monetary incentives on people's perceptions and social interactions. Studies 9-11 examine the beneficial effects of time incentives on people's perception of humanness (Chapter 4). Across three experiments (N = 2,206), we demonstrate that participants who receive a bonus of vacation days experience greater humanness than participants who receive an equivalent monetary bonus (Study 9). We find the test of perceived work-life segmentation as the mediator to be significant and not explained by the perceived novelty of the bonus (Study 10). Lastly, we directly manipulate perceived work-life segmentation to test causality on felt humanness as well as many other indicators of employee well-being (Study 11).

CHAPTER 2

The Effect of Monetary Incentives on Socialization

2.1. Introduction

Socializing with friends and family is one of our happiest activities (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004; Mogilner, Whillans & Norton, 2018). However, many working adults spend very little time with loved ones. In an average week, employees in the United States spend less than an hour of quality time per day with their family (Paul, 2018) and less than an hour per day with their friends (U.S. Department of Labor Statistics, 2015). Why is this the case? One potential answer could lie in a ubiquitous circumstance that the majority of workers cannot avoid—incentive systems. We argue that the way people are paid for their performance at work can shape how they think about and interact with various relationship partners, such as colleagues, friends, and family. We inspect the role of one of the most common incentive systems, monetary performance incentives, in shaping everyday social interactions.

In a monetary performance incentive system, people receive rewards if they meet or exceed a specific standard of performance on a task (Rusbult, Campbell, & Price, 1990; Shomstein & Johnson, 2013). Research has examined whether being paid for performance impacts performance (Jenkins Jr, Mitra, Gupta, & Shaw, 1998), intrinsic motivation (Eisenberger, Rhoades, & Cameron, 1999), and attention (Beilock & Carr, 2005) compared to other non-performance incentive systems, such as fixed salaries. Building on this line of work, we suggest that this common incentive system also shapes the way people think about their different relationship partners and influences their social interactions within and outside of

organizations. Specifically, we predict that exposure to monetary incentives[1] will increase the perceived instrumentality of work relationships and increase the amount of time allocated to these relationships—often at the expense of spending time with personal relationship partners like friends and family.

These propositions are built on two lines of research that appear to predict opposing effects of performance incentives on social interactions. One line of research suggests the possibility of monetary incentives decreasing people's motivation to socialize with others by focusing their attention on money. Focusing on money can promote self-sufficient behavior (Bianchi & Mohliver, 2016; Lea & Webley, 2006; Vohs, Mead, & Goode, 2006), which encourages people to work more and socialize less (Hershfield, Mogilner, & Barnea, 2016; Whillans & Dunn, 2018; Whillans, Weidman & Dunn, 2016). In contrast, another line of research suggests the opposite—monetary incentives will increase people's motivation to socialize with others. For example, employees who were paid for their team's performance engaged in more frequent interactions with their colleagues (Dur & Sol, 2010). Exposure to monetary performance incentives have also been found to increase people's tendency to connect and cooperate with others working on the same task (Berger, Herbertz & Sliwka, 2011).

In this chapter, we attempt to reconcile this diverging literature by examining the role of perceived instrumentality of interaction partners. We argue that monetary incentives should lead people to evaluate whether a relationship partner is 'instrumental' to their financial goals, and therefore *increase* people's time spent with work colleagues, who are instrumental, but *decrease* the amount of time spent with personal ties like friends and family, who are deemed non-

[1] Throughout the studies in this chapter, we refer to monetary performance incentives as 'monetary incentives' for simplicity. All of our designs and measures for monetary incentives are performance-based.

instrumental. This chapter has been published: Hur, J., Lee-Yoon, A., & Whillans, A. (2021). Who is more useful? The impact of performance incentives on work and personal relationships. *Organizational Behavior and Human Decision Processes*. I am the equal first author on this paper. We pre-registered the sample sizes, measures, hypotheses, and analyses for the three experiments and one survey through the Open Science Framework (https://osf.io/q7f9u/?view_only=21aebc2a9a3d42a3b2ad3a4c6baf57b6).

2.2. Study 1: Dilemma Scenarios

2.2.1. Introduction

In Study 1, we tested the effect of monetary incentives on the prioritization of work ties. Specifically, we tested whether employees who received monetary incentives at their job were more likely to prioritize their work ties over personal ties. We set the two types of social ties against each other to test the effect of monetary incentives on the direct trade-off between work and personal ties. We administered scenarios that contained realistic dilemmas in which respondents had to choose between spending time with their work ties versus spending time with their personal ties. For example, respondents were asked questions like: Would you go to a happy hour with colleagues or go to your friend's birthday party? Would you go to a networking event or go to your child's piano recital? We predicted that respondents who received monetary incentives at work would be more likely to choose to spend time with relationship partners who were relevant to the incentivized task (i.e., work ties) instead of those who were not (i.e., personal ties) as compared to respondents who received fixed salaries.

To create realistic dilemmas, we conducted a pilot study with 595 working adults recruited from Amazon's Mechanical Turk (M_{age} = 37.61, SD_{age} = 10.74, 36% female). We aimed for a rather large sample size to ensure that we obtained the common, representative dilemmas that employees encountered on a regular basis. We created five scenarios based on the most common dilemmas that we observed from respondents' answers.

2.2.2. Participants

We aimed to recruit respondents via Amazon's Mechanical Turk until we reached at least 200 respondents per group (monetary incentive vs. fixed salary). Because there was a greater proportion of respondents who did not receive monetary incentives, we ended up recruiting 545 respondents to achieve 200 respondents from each group (M_{age} = 36.69, SD_{age} = 10.27, 41% female, 40% performance incentives).

2.2.3. Procedure

Respondents first read the five dilemma scenarios and made a choice between spending time with work versus personal ties. Respondents received a score of 1 each time they chose work ties. We summed the scores such that respondents received an overall score from 0 to 5. A higher score indicated that respondents were more likely to choose to spend time with work ties at the sacrifice of personal ties (M = 1.86, SD = 1.25). This measure was our dependent variable.

Respondents then answered questions about their current job. Most importantly, they reported on whether they received monetary performance incentives (1 = monetary incentive) or fixed salaries (0 = fixed salary) at work. We asked the incentive questions after our dependent measure to rule out potential order effects (Krosnick & Alwin, 1987). Respondents also

answered standard questions that we used as control variables including age, gender, education, marital status, income, household size, number of children, work hours, tenure, occupation type, and hourly pay (Pai, DeVoe, & Pfeffer, 2020). We also measured and controlled for subjective social status (McArthur Scale of Subjective Social Status; Adler et al., 2000), perceived money scarcity (adapted from Roux, Goldsmith, & Bonezzi, 2015; e.g., "I don't have enough money"), and social desirability (adapted from Reynolds, 1982; e.g., "Are you always willing to admit when you make a mistake?").

2.2.4. Results

Relationship trade-offs. We found supporting evidence for our central hypothesis. Respondents who received monetary incentives chose to spend time with work ties at the sacrifice of spending time with personal ties more frequently (M = 2.25; SD = 1.29) than respondents who did not receive monetary incentives (M = 1.29; SD = 1.00), b = 0.97, SE = 0.10, $p < .001$, R^2adj = .14. These results held controlling for our pre-registered set of demographic and work-related covariates, b = 0.49, SE = 0.12, $p < .001$, R^2adj = .27. See Table 1 for detailed results.[2]

2.2.5. Discussion

When contrasting work relationships with personal ones, people operating within a monetary performance incentive system showed a higher propensity to socialize with their work

[2] On an exploratory basis, we examined whether there was an interaction between SES and monetary incentives on the trade-offs that respondents made. The interaction was not significant for subjective SES, b = 0.09, SE = 0.05, p = .111 or for objective SES (a standardized composite of education and income), b = -0.05, SE = 0.07, p = .474.

peers, even if it resulted in less time spent with friends and family. These findings suggest that exposure to monetary incentives can influence people’s prioritization of professional connections over personal ones, even when the incentive structure isn't salient during decision-making. However, due to the correlational design of this study, it is difficult to establish causality. Hence, in Study 2, we conducted an experiment where participants' incentive systems were deliberately manipulated.

Table 1
Study 1 Respondents' Choice between Work vs. Personal Ties

Variable	(1)	(2)
PFP	0.97***	0.49***
	(.10)	(.12)
Age		-.01*
		(.01)
Gender		.15
		(.10)
Education		.14**
		(.05)
Marital status		.17
		(.13)
Household income		-.08
		(.05)
Household size		-.12*
		(.06)
Number of children		.15*
		(.07)
Work hours		-.32***
		(.08)
Tenure		.10
		(.10)
Hourly status		-.23*
		(.11)
Occupation		YES
Subjective social status		.11***
		(.03)
Perceived money scarcity		.09**
		(.04)
Social desirability		.02
		(.17)
F Statistic	$F(1,544) = 91.40$	$F(24,492) = 8.75$[a]
p-value	.001	.001
R^2	.14	.30

Note. $*p < .05$. $**p < .01$. $***p < .001$. The control variables were measured and coded as follows: age, gender (0 = male; 1 = female), education (from 1 = less than high school to 7 = doctoral degree), marital status (0 = not married; 1 = married or in a marriage-like relationship), household income (log), household size, number of children, work hours (log), tenure (log), hourly pay status (0 = non-hourly; 1 = hourly), and occupation (dummy: management, service, sales, farming, construction, production, government, retired, unemployed, self-employed).
[a]The decrease in degrees of freedom is due to missing or nonsensical answers included as part of the open-ended household income variable, resulting in listwise deletion.

2.3. Study 2: Vignette Experiment

2.3.1. Introduction

We experimentally manipulated participants' exposure to monetary incentives (vs. no incentives) and tested its effect on social intentions. We predicted that participants who expected to be paid for their performance would be more motivated to prioritize work ties over personal ties compared to participants who expected to receive fixed salary. Furthermore, we tested our proposed mechanism: the increased perceived instrumentality of work ties. We predicted that participants in the monetary incentive condition would perceive work ties to be more instrumental than those in the fixed salary (control) condition and that perceived instrumentality would mediate the effect of monetary incentives on the prioritization of work ties.

2.3.2. Participants

We recruited four hundred participants (M_{age} = 36.74, SD_{age} = 10.11, 38% female) via Amazon's Mechanical Turk. We had no data available to conduct an a priori power calculation as this study was the first to use this paradigm to test the effect of incentives on trade-offs between work and personal ties. We decided to terminate data collection at 400 participants a priori and ended up with 399 usable data points.

2.3.3. Procedure

We randomly assigned participants to one of two conditions (monetary incentive vs. fixed salary) in a between-subjects design. Participants imagined that they were employed at a marketing company where they worked on projects that involved developing various marketing

strategies. At the end of each project, a performance assessment took place where participants would be evaluated on their performance by peers, managers, and clients.

Participants were then told how they would be rewarded. In the *monetary incentive* condition (n = 196), participants were told that they would receive monetary rewards based on performance on top of their base salary. In the *fixed salary* condition (n = 203), participants were told that they would receive a fixed amount of pay for their participation regardless of performance. We told participants in both conditions that the expected amount of reward for each project would be $3,000 on average.[3] We employed participation-contingent incentive (i.e., fixed salary) as our control condition, following a number of prior studies that have compared the effect of different incentive systems while holding the task and reward constant (Bailey, Brown, & Cocco, 1998; Braun, Kirsch, & Yamamoto, 2011; Cadsby, Song, & Tapon, 2007; Hur & Nordgren, 2016). This design allowed us to provide participants with an identical task and reward amount, while only differing the way that the reward was earned.

After reading about each incentive system, participants first rated perceived instrumentality of their work relationships with five items on a scale from 1= *Strongly Disagree* to 7 = *Strongly Agree* (e.g., "My relationship with my team members would be useful for me to achieve my goals at this company."; adapted from Gruenfeld et al., 2008). Participants then indicated their willingness to prioritize work relationships over non-work, personal relationships with four items (e.g., "On occasion, I would prioritize spending time socializing with my team

[3]We also asked participants to indicate how much they expected to earn per project ("In the scenario, how much did **you** think *you* would earn on the project in total?") The expected reward amount varied between the performance- (M = 7.23, SD = 2.13) and participation-incentive conditions (M = 6.83, SD = 1.29), $t(334) = -2.28$, $p = .023$. The degrees of freedom were adjusted to 334 due to unequal variances (Levene's $F = 17.65$, $p < .001$). Both groups rounded to the mean of 7, which indicates the category of $3,000. We confirm that all of our results hold controlling for this variable. See SOM for the detailed results.

members over socializing with my friends and family"). We took the average of each scale to create composite measures of perceived instrumentality (α = .89) and prioritization of work ties (α = .91). The order of the instrumentality and prioritization measures was counterbalanced. Lastly, participants provided demographic information and were debriefed about the purpose of the study.

2.3.4. Results

Prioritization of work ties. First, we analyzed participants' willingness to prioritize work ties over non-work, personal ties. As predicted, a simple *t*-test yielded a main effect of the incentive-system manipulation: participants who were randomly assigned to the monetary incentive condition indicated greater willingness to prioritize socializing with work ties over personal ties (M = 5.02, SD = 1.25) than those in the fixed salary condition (M = 3.72, SD = 1.33), $t(397) = -10.01$, $p < .001$, $d = 1.01$. This result supports our prediction that performance incentives increase the extent to which individuals prioritize socializing with task-relevant work ties as opposed to non-task relevant personal ties.

Perceived instrumentality. Next, we analyzed participants' perception of the instrumentality of work ties. A simple *t*-test on the instrumentality measure yielded a main effect of the incentive-system manipulation: participants in the monetary incentive condition perceived their work relationships as more instrumental for achieving goals at work (M = 6.15, SD = 0.79) than those in the fixed salary condition (M = 5.28, SD = 1.13), $t(397) = -8.92$, $p < .001$, $d = 0.89$. This result supports our prediction that monetary incentives increase the perceived instrumentality of work ties.

Mediation. Lastly, we conducted a mediation analysis using the PROCESS Mediation Model 4 (Hayes 2013; Preacher and Hayes, 2004) with incentive system as the independent variable (1 = monetary incentive, -1 = fixed salary), perceived instrumentality as the mediating variable, and willingness to prioritize work ties as the dependent variable. The total effect of monetary incentives on willingness to prioritize work ties was significant, $b = 1.29$, $SE = 0.13$, $p < .001$, 95% CI [1.55, 0.90]. The confidence intervals for the indirect effect excluded zero for perceived instrumentality, $b = 0.45$, $SE = 0.07$, $p < .001$, 95% CI [0.31, 0.59]. The direct effect of monetary incentives on willingness to prioritize work ties was smaller, $b = 0.85$, $SE = 0.13$, $p < .001$, 95% CI [1.11, 0.59]. These results suggest that perceived instrumentality partially mediated the observed effect.

2.3.5. Discussion

These results provide further support for our central prediction: exposure to monetary performance incentives led participants to prioritize socializing with work ties over personal ties. These results also provide evidence for our proposed mechanism: monetary incentives increased the perceived instrumentality of work ties, which increased willingness to prioritize work ties over personal ties. Taken together, Studies 1 and 2 complement one another. While respondents in Study 1 were asked about their actual payment system at work, participants in Study 2 were told exactly how they would be paid in the scenario, which may be less realistic yet provides more control over whether one received incentives contingent on performance or not.

An open question is whether performance measurement plays a role in the effect of monetary incentives. In Study 2, we told participants that their performance was determined by peer, manager, and client evaluations, indicating that participants' pay in the monetary incentive

condition was heavily dependent on peer evaluation. In Study 3, we varied the degree to which incentives were determined by *task interdependence.*

2.4. Study 3: Moderation Experiment

2.4.1. Introduction

Employees might find their work ties instrumental for a variety of reasons: One can benefit from peers by exchanging tacit knowledge (Politis, 2003), receiving advice (Zagenczyk & Murrell, 2009), and communicating efficiently (Kashyap, 2019). In our conceptualization, any work structure that increases the instrumentality of work ties should amplify the effect of monetary incentives: the more that work colleagues are "useful" for maximizing incentives, the more that people should prioritize their work ties over personal ties. While participants in Study 2 depended on their peers via evaluation, we used task interdependence in Study 3 as a means to create this peer dependence. Specifically, we directly manipulated instrumentality by varying the level of task interdependence. We therefore predicted an interaction, such that the effect of monetary incentives on the prioritization of work ties would be moderated by the degree of task interdependence needed to earn more money.

2.4.2. Participants

We recruited eight hundred and one participants (M_{age} = 37.54, SD_{age} = 11.41, 40% female) via Amazon's Mechanical Turk. A priori we decided to collect 200 participants for each

condition and to terminate data collection at 800 participants. We ended up with 801 usable data points.

2.4.3. Procedure

We randomly assigned participants to one of four conditions in a 2 (incentive system: monetary incentives vs. fixed salary) × 2 (task interdependence: high vs. low) between-subjects design. Using a similar paradigm as in Study 2, participants first imagined that they worked in a marketing company and typically received assessments about how well their final product performed. We manipulated the perceived instrumentality of work ties by varying the degree of task interdependence. In the *high-interdependence* condition (n = 396), participants were told that 90% of their tasks would involve teamwork, while 10% would involve individual work. In contrast, in the *low-interdependence* condition (n = 405), participants were told that 90% of their tasks would involve individual work, while 10% would involve teamwork.

We then informed participants whether or not their monetary rewards would be contingent on their performance. In the *monetary incentive* condition (n = 401), we told participants that they would receive monetary rewards based on their performance, which made up half of their overall pay.[4] In the *fixed salary* condition (n = 400), we told participants that they would receive a fixed amount of money regardless of their performance. We told participants in all four conditions that, on average, the expected amount of payment for each project would be about $3,000.[5]

[4] We set our scenario for monetary performance incentives at 50% because this is a common rate in which monetary incentives make up employees' total pay (Lucero, 2019).
[5] As in Study 2, we also asked participants to indicate how much they expected to earn per project ("In the scenario, how much money did you expect you would earn per project?"). The

After reading about each incentive system, participants first rated the perceived instrumentality of their work relationships with five items on a scale ranging from 1= *Strongly Disagree* to 7 = *Strongly Agree* (α = .92; e.g., "My relationship with my team members would be useful for me to achieve my goal of making more money").[6] Participants then indicated their willingness to prioritize work relationships over non-work, personal relationships using the same four items from Study 2 (α = .93; e.g., "I would try not to miss opportunities to socialize with my team members outside of work, even when I miss opportunities to socialize with friends and family").

2.4.4. Results

Manipulation check. A t-test analysis confirmed that our manipulation was successful: participants in the high-interdependence condition (M = 5.35, SD = 1.43) perceived work ties as more instrumental for making money than those in the low-interdependence condition, (M = 4.75, SD = 1.69), $t(799) = -5.43$, $p < .001$, $d = 0.38$. Participants in the monetary incentive condition (M = 5.50, SD = 1.24) perceived work ties as more instrumental than those in the fixed salary condition (M = 4.59, SD = 1.77), $t(799) = -8.36$, $p < .001$, $d = 0.76$.

Prioritization of work ties. We conducted a 2 (incentive system) × 2 (task interdependence) ANOVA to analyze participants' willingness to prioritize work ties over personal ties. Confirming our hypothesis, the interaction was significant, indicating that the level

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expected reward amount did not significantly differ between the performance- and participation-incentive conditions, $t(799) = 0.45$, $p = .652$.

[6] While Study 2 asked participants to indicate instrumentality for their goals at work in general, Study 3 clarified exactly which goal that team members were instrumental for (i.e., money). We believe the two instrumentality measures complement each other, as Study 3 reduces the concern of not specifying which goal participants should consider when answering the instrumentality questions.

of task interdependence moderated the effect of incentive systems on willingness to prioritize socializing with work ties over personal ties, $F(3,797) = 6.58$, $MSE = 19.32$, $p < .001$, $\eta^2 = 0.04$.

Decomposing this interaction, when work tasks involved a high level of interdependence, participants in the monetary incentive condition ($M = 5.06$, $SD = 1.17$) were significantly more likely to prioritize work ties over personal ties as compared to those in the fixed salary condition ($M = 4.38$, $SD = 1.83$), $F(1,797) = 15.57$, $MSE = 45.73$, $p < .001$, $\eta^2 = 0.02$. In contrast, among participants whose tasks involved a low level of interdependence, there was no difference in the willingness to prioritize work ties between the two incentive conditions ($M_{\text{Monetary}} = 4.27$, $SD_{\text{Monetary}} = 1.84$; $M_{\text{Fixed}} = 4.22$, $SD_{\text{Fixed}} = 1.90$, $F(1,797) = 0.12$, $MSE = 0.35$, $p = .737$, $\eta^2 < 0.001$. See Figure 1 for a visualization of the results.

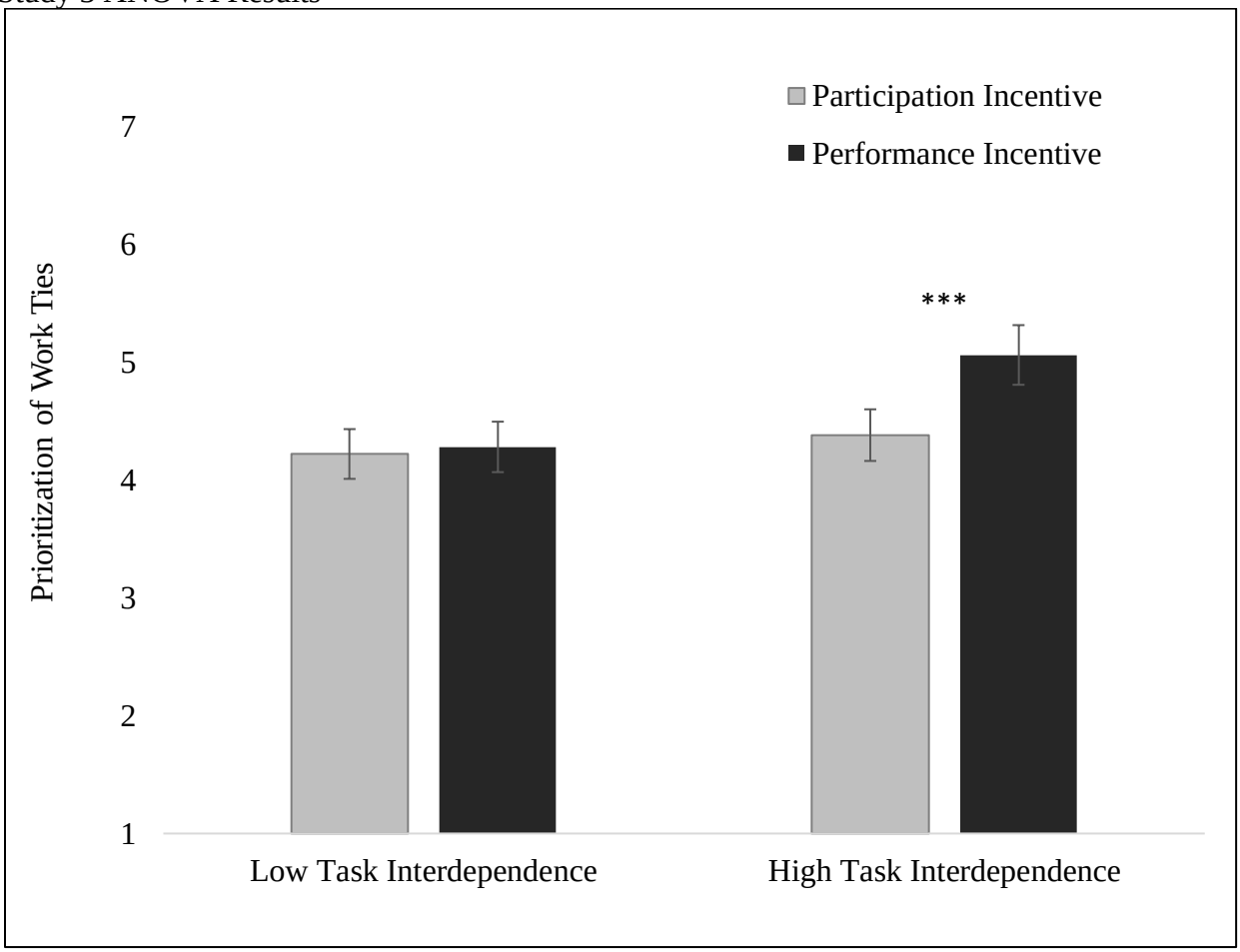
We also examined the effect of task interdependence within each incentive conditions. When participants expected to receive monetary incentives, those in the high task-interdependence condition ($M = 5.06$, $SD = 1.17$) were more likely to prioritize work ties over personal ties compared to those in the low task-interdependence condition ($M = 4.28$, $SD = 1.84$), $F(1,797) = 20.88$, $MSE = 61.34$, $p < .001$, $\eta^2 = 0.01$. In contrast, when participants expected to receive a fixed salary, there was no difference on willingness to prioritize work ties between the low and high task-interdependence conditions ($M_{\text{Monetary}} = 4.38$, $SD_{\text{Monetary}} = 1.83$; $M_{\text{Fixed}} = 4.22$, $SD_{\text{Fixed}} = 1.90$, $F(1,797) = 0.88$, $MSE = 2.59$, $p = .348$, $\eta^2 < 0.001$.

2.4.5. Discussion

Study 3 further bolsters the perceived instrumentality hypothesis. The impact of monetary incentives on the inclination to prioritize professional connections was influenced by the level of interdependence in work tasks. These findings underscore that the influence of monetary

incentives on social engagement with colleagues hinges on whether peers are seen as instrumental for attaining financial rewards. Studies 1–3 examined the extent to which participants said they would prioritize their work ties. A remaining question is whether we would observe the same effect with a decision-making measure, which could be less subject to social desirability concerns (Girard & Cohn, 2016; Hur, Ruttan, & Shea, 2020; Whillans, Weidman, & Dunn, 2016). Thus, in Study 4, we asked participants to allocate the amount of time that they would spend interacting with other participants in preparation for an upcoming task.

Figure 1
Study 3 ANOVA Results



Note. *$p < .05$. **$p < .01$. ***$p < .001$.

2.5. Study 4: Behavioral Intention

2.5.1. Introduction

The main goal of Study 4 was to replicate our previous results with a decision-making measure. Participants were told that they would work on a collaborative task with other participants as a team and then allocated the number of minutes that they would spend interacting with team members prior to working on the task. We predicted that participants who expected to receive monetary incentives for their performance would allocate more time toward interacting with team members than those who expected to receive fixed pay for participation. We also explored differences in the nature of these social interactions by examining whether participants in the monetary incentive condition would choose to allocate more time to team members on goal-relevant issues (i.e., task related) than those in the fixed pay condition.

2.5.2. Participants

To test these predictions, we recruited four hundred participants (M_{age} = 36.12, SD_{age} = 11.03, 38% female) online via Amazon's Mechanical Turk. All participants received $1.50 for their participation. A priori, we decided to terminate data collection at 400 participants and collected (n = 347) usable data points after excluding participants who did not pass our pre-registered attention check measure. Results were statistically equivalent when looking at the full sample.[7]

[7] The results remained the same in our earlier experimental studies after excluding participants who failed attention checks. We did not pre-register to exclude participants in Studies 1-3 but did so in Study 4 due to the more complex instructions provided to participants. Thus, Studies 1-4 all followed our pre-registered exclusion criteria.

2.5.3. Procedure

Participants were randomly assigned to one of two conditions: monetary incentives or fixed pay. Participants were first told that they would work on a computerized 3D Lego puzzle task and were shown several images of Lego models as examples. Participants were then told that they would be grouped with other workers on MTurk as a team and would work on the task together, interacting through an online chat platform called ChatPlat.

We told participants that the task would be divided into an observation period and a construction period. The observation period would require participants to prepare how to memorize the provided Lego model and plan how to put the pieces together. The construction period would require participants to put the Lego pieces together to build the model as accurately as possible. There would be five puzzles to solve in total (i.e., five Lego models). Participants were told that effective team communication would help them to succeed at their task.

Participants in the monetary incentive condition read that they would receive a bonus based on the number of puzzles their team solved. Each puzzle task was worth a bonus of $0.10 and participants could earn up to $0.50 if they solved all five puzzles correctly. In contrast, participants in the fixed pay condition read that their pay would not be contingent on performance and that they would receive a fixed bonus amount regardless of the number of puzzles that their team solved ($0.50). Participants in both conditions planned to work on the same task and expected to receive the comparable number of rewards, but the incentive system for receiving the rewards differed between the two conditions (Hur & Nordgren, 2016).

After reading the task instructions, participants were told that they had a 5-minute pre-work session and that they were responsible for deciding how their team would spend this time.

Participants could allocate the amount of time that they wanted to spend alone or to spend interacting with team members online. Participants had to allocate the five minutes of time to four different activities: interacting with team members on task-related matters, interacting with team members on non-task related matters, preparing for the task alone, and neither preparing for the task alone nor interacting with team members (i.e., relaxing alone). We collected data on the amount of time that participants allocated toward spending time relaxing without working on the task because it is possible that the incentive manipulation could systematically affect the amount of effort participants intended to exert on the task. If the two conditions do not differ in the amount of time that participants planned to spend relaxing, we can conclude that participants across the conditions intended to invest relatively similar levels of effort. These items served as our key dependent variables.[8]

2.5.4. Results

We first examined the main effect of monetary incentives on the time that participants planned to spend interacting with team members during the pre-work session. A *t*-test yielded a significant main effect of the incentive-system manipulation such that participants in the monetary incentive condition ($M = 2.00_{min}$, $SD = 1.49$) planned to spend more minutes with team members on task-related matters than participants in the fixed pay condition ($M = 1.62_{min}$, $SD = 1.32$), $t(345) = -2.48$, $p = .014$, $d = 0.27$. This result held when we used a log-transformed

[8] We told participants that they would work on the task, but they did not, following a widely-used practice to capture decision-making (e.g., Hur, Ruttan, & Shea, 2020). After debriefing, we asked participants whether the instruction about completing the task with other participants was believable. 92% of participants answered that it was believable. Our results held with and without the inclusion of the 8% of participants who answered that they did not believe that they would work on the puzzle task.

outcome measure to account for non-normality. This result fits our prediction that monetary incentives should increase the amount of time spent on instrumental relationships.

Participants in the monetary incentive condition (M = 0.56, SD = 0.76) planned to spend fewer minutes with team members on non-task related matters than in the fixed pay condition (M = 0.72, SD = 0.78), $t(345) = 1.97$, $p = .050$, $d = 0.21$. Participants did not differ in the amount of time that they planned to spend alone preparing for the task ($M_{performance}$ = 1.97, SD = 1.65; $M_{participation}$ = 2.18, SD = 1.62), $t(345) = 1.25$, $p = .211$, $d = 0.21$) or relaxing alone without preparing for the task ($M_{performance}$ = 0.48, SD = 0.98; $M_{participation}$ = 0.48, SD = 0.97), $t(345) = -0.06$, $p = .956$, $d = 0.001$. Given that there was no difference in time allocated to relaxing without working on the task between the two conditions, we can conclude that all participants intended to invest relatively similar levels of effort.

2.5.5. Discussion

Study 4 provides support for our prediction with a decision-based measure: the number of minutes that participants allocated toward interacting with team members. Moreover, exploratory analyses indicated that participants in a monetary incentive system planned to spend more time with team members on task-related matters as compared to those in a fixed pay system who planned to spend more time with team members on non-task related matters. These results provide further support for our instrumentality account. When people are working under monetary incentives, they plan to spend more time with colleagues who are instrumental for their money-making goal and to discuss topics that are instrumental for these goals.

It is worth noting that in Studies 2 and 3, the effect of monetary incentives on a composite measure of more work-related items was slightly stronger (e.g., socializing at work)

than the effect on a composite measure of less work-related items (e.g., socializing outside of work), but the difference between the two measures was not statistically significant. We speculate that the reason for the difference between these studies might have been driven by differences in the measurement and design (Poole, Hewes, VanLear, & Canary, 2017). Studies 2 and 3 used Likert scale measures, whereas Study 4 used a zero-sum measure where participants allocated a limited number of minutes to allocate between more vs. less work-related interactions. The work tasks also differed, such that participants in Study 4 thought that they were going to work with others in minutes, potentially encouraging them to talk about work to a greater extent.

Together, in Studies 1-4, we measured or manipulated the level of monetary incentive contingency, and asked participants to choose, rate, or plan how much time they would invest in interacting with work (vs. personal) ties in laboratory settings. However, it remains unclear whether the effect of monetary incentives exists in everyday life. In Study 5, we further expanded on these findings by exploring actual time spent on social interactions outside the lab.

2.6. Study 5: American Time Use Survey

2.6.1. Introduction

The main purpose of Study 5 was to test the relationship between monetary incentives and time spent on daily social interactions with work and personal ties. We used a large-scale, publicly available data set to examine whether exposure to monetary incentives shaped social interactions. We predicted that people who were paid for their performance would spend

proportionately more time interacting with work colleagues compared to friends and family.

Another objective of Study 5 was to explore the downstream consequences of interacting with work versus personal ties on subjective well-being. It is possible that employees who receive monetary incentives spend more time with coworkers because they enjoy these interactions more, given that these interactions could help employees achieve their reward-seeking goals (Fonner, 2015). However, based on abundant evidence showing that socializing with personal ties boosts happiness (Diener & Seligman, 2002), it is also possible that employees derive more happiness from interactions with friends and family, regardless of the incentive system that they are exposed to. We explored these competing possibilities.

2.6.2. Method

We analyzed data from the 2010-2015 waves of the American Time Use Survey (ATUS; Hofferth, Flood & Sobek, 2013). The ATUS is administered by the U.S. Census Bureau, which selects a large and diverse set of U.S. households from the Current Population Survey (CPS) and approximates a nationally representative sample (U.S. Department of Labor Statistics, 2015). The ATUS surveys a significant proportion of households with Black and Hispanic members, as well as households with children. It is the only existing federal survey that provides data on a large range of non-economic activities, from hobbies to social interactions. Full information about the survey is available at http://bls.gov/tus/home.htm.

We used the 2010-2015 waves because these waves contained our key variables of interest: incentive systems, type of social relationships, and time spent socializing with each type of relationship partner in the past 24 hours. Respondents were included if they had data for all of the key variables. The sample consisted of 75,210 respondents (M_{age} = 39.18, SD_{age} = 12.56, 47%

female) from diverse industries, such as professionals (26%), sales (14%), service (9%), and production (7%).

2.6.2.1. Key Measures

Incentive system. Respondents reported whether they received monetary performance incentives (e.g., commissions, bonus) or whether they received fixed salaries. Consistent with previous research on this topic (Hur & Nordgren, 2016), we dummy coded incentive system (1 = monetary incentive; 0 = fixed salary) as the independent variable. Within our sample, 12,467 respondents were paid with performance incentives and 62,743 were paid fixed salary. On average, respondents who received performance incentives were younger (M_{age} = 38.48 SD_{age} = 12.62), more likely to be male (59%) and less likely to live with a married spouse (53%) than those who received fixed salary.

Time spent on social interactions. Our main variable of interest was the amount of time that respondents spent socializing with work ties versus personal ties (i.e., friends and family) in the past 24 hours. These data were collected during 15 to 20-minute phone interviews. During these interviews, respondents reconstructed what they did on the previous day, episode by episode, as per the original Day Reconstruction Method (DRM; Kahneman et al., 2004). Respondents reconstructed a detailed account of all of their activities, starting at 4 a.m. the previous day and ending at 4 a.m. on the day of the interview. They described the activities in their own words, and these activities were later coded by at least two independent coders based on a broad range of activity categories. These descriptions included how long respondents spent on each activity, who accompanied them, and where the activity took place.

We focused on the time that respondents spent in the last 24 hours socializing with work ties (i.e., colleagues) vs. the time they spent socializing with personal ties (i.e., friends and

family). The time-use variables included a number of outliers, resulting in highly right-skewed distributions. To normalize the distributions, we took the square root of each variable (Cohen, Cohen, West, & Aiken, 2013). This is consistent with prior work on time-use (Bianchi & Vohs, 2016; Smeets, Whillans, Bekkers, & Norton, 2020). Our dependent variable represented prioritization of work- over personal ties, which was the percentage of time spent with work ties proportionate to the time spent with personal ties: number of minutes spent with colleagues divided by number of minutes spent with family and friends per day, multiplied by 100.

The variables that involved time spent with each type of social ties (colleagues, friends, and family) were constructed by ATUS, following the categorization that respondents provided. Respondents were asked, "who was in the room with you? Who accompanied you?" and answered from a list of relationship categories. Respondents defined their work relationships (colleagues) and non-work, personal relationships (friends and family), and their responses were categorized into two groups, allowing for a clear test of our hypotheses.

Happiness. The ATUS also measures the emotions that respondents experience during their daily activities. A computerized system randomly chooses three time-intervals from respondents' reconstructed day and reminds them of the activity they were engaging at the time. Respondents then rate how they felt engaging in the activity on a 7-point scale (1 = *Not at all*, 7 = *Extremely*). On an exploratory basis, we examined the effects of monetary incentives on happiness via their influence on social interactions—given that social interactions are a critical predictor of daily happiness (Mogilner, Whillans & Norton, 2018).

Control variables. Following from previous research on time use (Mogilner, 2010), we controlled for demographic information including respondents' gender, age, income, and relationship status. We also controlled for marital status and household size because these

variables could affect time spent on personal relationships (Whillans et al., 2016). Consistent with related research using this data set (Bianchi & Vohs, 2016), we included dummy coded variables that represented the survey year and day of the week that respondents completed the survey. We controlled for work hours (i.e., the amount of time worked in an average week) as people who are paid for their performance might spend more time with coworkers simply because they work longer hours. We also included hourly pay following past research showing that employees with hourly pay spend more time with colleagues (Pai, DeVoe, & Pfeffer, 2020). Lastly, we controlled for occupation because respondents who are paid for performance might prioritize work colleagues due to the nature of their jobs.

2.6.3. Results

Time spent on social interactions. First, we conducted an ordinary least squares (OLS) regression with incentive system as the independent variable and time spent interacting as the dependent variable. Consistent with our previous studies, respondents who received monetary incentives spent proportionately more time socializing with work colleagues than with friends and family, $b = 2.44$, $SE = 0.18$, $p < .001$, 95% CI [2.08, 2.80] (see model 1 of Table 2). This result held controlling for our set of covariates, $b = 1.13$, $SE = 0.17$, $p < .001$, 95% CI [0.80, 1.46] (see model 2 of Table 2) and when additionally controlling for occupation, $b = 0.90$, $SE = 0.17$, $p < .001$, 95% CI [0.56, 1.23] (see model 3 of Table 2).

Happiness. Next, on an exploratory basis, we tested the effect of relationship type (work vs. personal) on happiness. Because respondents rated their emotions at three random time points, we conducted hierarchical regression analysis to account for non-independence. We found that spending proportionately more time with work colleagues (vs. with friends and

family) was associated with lower happiness, b = -0.01 SE = 0.0004, p < .001, 95% CI [-0.01, -0.01]. These results held controlling for our set of covariates, b = -0.01, SE = 0.001, p < .001, 95% CI [-0.01, -0.01]. We then conducted the same regression analysis including the incentive system (1 = monetary incentive; 0 = fixed salary), relationship type, and the interaction between incentive system and relationship type. The main effect held, and the interaction was not significant, suggesting that interacting more with friends and family than with colleagues resulted in greater happiness, regardless of incentive system.

2.6.4. Discussion

Study 5 provides additional, ecologically valid support for our prediction that exposure to monetary performance incentives influences employees' social interactions not only within, but also outside organizations. In a large-scale, representative sample of U.S. working adults, people who were paid for their performance spent significantly more time interacting with work ties than with personal ties as compared to people who were not paid for their performance.

We also explored the downstream consequence on happiness when interacting with each type of relationship partner. Respondents in both the monetary incentive and fixed salary groups derived greater happiness from socializing with friends and family (vs. colleagues). However, respondents who received monetary incentives spent significantly more time with their colleagues and less time with their family and friends. These results suggest that, to the extent that monetary incentives encourage people to prioritize work over personal relationships, monetary incentives can undermine the happiness that people experience in their daily lives.

Table 2
Study 5 Regressions Estimating Prioritization of Colleagues to Family and Friends

Variable	(1)	(2)	(3)
Monetary incentive	2.44***	1.13***	0.90***
	(.18)	(.17)	(.17)
Age		6.11***	5.78***
		(.52)	(.52)
Gender		-1.99***	-2.03***
		(.13)	(.14)
Spouse Present			
Unmarried Spouse		3.97***	3.97***
		(.31)	(.31)
Married Spouse		-6.51***	-6.37***
		(.17)	(.17)
Household size		-14.03***	-14.54***
		(.48)	(.48)
Income		-2.80***	-1.69***
		(.42)	(.43)
Work hours		13.23***	13.57***
		(.43)	(.43)
Hourly status		2.17***	1.73***
		(.23)	(.14)
Day of week		YES	YES
Year		YES	YES
Occupation			YES
F Statistic	$F(1,75210) = 177.07$	$F(20,62138) = 1483.34$	$F(26,62133) = 1208.34$[a]
p-value	.001	.001	.001
R^2	.001	.33	.34

Note. $*p < .05$. $**p < .01$. $*** p < .001$. The control variables were measured and coded as follows: age (log), gender (0 = female; 1 = male), living with a married or unmarried partner (0 = not present; 1 = present), household size (log), work hours (log), hourly pay status (0 = non-hourly; 1 = hourly), occupation (dummy: service, sales, farming, construction, production, management, or professional services).

[a]The decrease in degrees of freedom from model 1 (n = 75,210) to model 2 and 3 (n = 62,138 – 62,133) is due to missing data in the covariates.

2.7. General Discussion

Across five studies using different methods, populations, and measures, exposure to monetary performance incentives had contrasting effects on social interactions with work and personal ties. In Study 1, people working under monetary incentives were more likely to choose to socialize with work colleagues at the sacrifice of spending time with friends and family. The effect of monetary incentives on the prioritization of work ties was partially driven by perceived instrumentality (Study 2) and was moderated by task interdependence – the extent to which people were dependent on work colleagues to maximize their rewards (Study 3). We further replicated these results using a time allocation decision measure that examined work interactions tied to a specific task (Study 4). Lastly, in Study 5, people who were subject to monetary incentives prioritized interacting with work colleagues over spending time with friends and family in their daily lives. People who worked under monetary incentives and who socialized less with family and friends (vs. colleagues) consequently experienced lower levels of happiness.

2.7.1. Theoretical Implications

The current studies provide support for our hypothesis that incentive systems – a crucial part of modern organizational structures – shape how people perceive and build social relationships. Specifically, we provide the first empirical examination of whether and how exposure to a specific incentive system – *how* one earns money – affects day-to-day social interaction patterns. Research has primarily focused on the effects of monetary rewards on social or prosocial motivation in general such as how a specific reward system shapes the degree to which someone is motivated to help other people, regardless of who those individuals are (Ariely, Bracha, & Meier, 2009). The present work demonstrates that the same contextual factor,

monetary performance incentives, can have varying effects on social interactions depending on the type and instrumentality of the relationship.

The quantity and quality of relationships with friends and family have far reaching well-being consequences. Positive close relationships are associated with greater physical and psychological health (Holt-Lunstad, Smith, & Layton, 2010; House, Landis, & Umberson, 1988; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Spending time with friends and family is the happiest part of most people's day (see Mogilner, Whillans, & Norton, 2018 for a review). Yet, people who work under monetary performance incentives spend more time with colleagues and less time with family and friends. Our results suggest that monetary incentives might have long-term negative consequences on well-being by decreasing the amount of time spent with close relationships. Future research should explore this and related possibilities.

The current work also contributes to an emerging literature that seeks to understand how organizational practices affect work-life balance (Goh, Pfeffer, & Zenios, 2015; Lockwood, 2003). Work-life balance is defined as the achievement of a satisfying experience across one's multiple life roles (Greenhaus & Beutell, 1985). Most employees feel that the pendulum swings more toward the side of 'work' than 'life' (Kelly et al., 2015; Schieman, Milkie, & Glavin, 2009). Our findings suggest that a ubiquitous incentive system – monetary performance incentives – might contribute to a lack of work-life balance by encouraging employees to prioritize work ties over personal ties. This lack of balance is particularly concerning when considering downstream consequences for organizational performance (Allen et al., 2000). Employees who experience greater work-life conflict report higher stress, lower job satisfaction, and greater turnover intentions (Anderson, Coffey, & Byerly, 2002; Ford, Heinen, & Langkamer, 2007).

Lastly, our results contribute to the literature on relationship formation. While prior research has traditionally conceptualized relationship formation as a function of similarity and proximity (McPherson, Smith-Lovin, & Cook, 2001; Nahemow & Lawton, 1975), an increasing body of research has examined the role of goal instrumentality in relationship formation and maintenance (Fitzsimons & Shah, 2008, Gruenfeld et al., 2008). The current findings add to this research by testing perceived instrumentality as a mechanism to explain how incentive systems affect the way that individuals allocate their resources to different relationship partners.

2.7.2. Limitations and Future Direction

The exploratory analysis in Study 5 showed that respondents who were paid money for their performance derived lower happiness from socializing with their work colleagues, despite spending *more* time engaged in these social interactions. Similarly, individuals working under monetary performance incentive systems might derive a lower level of happiness from work relationships because these interactions may be construed as 'strategic' socializing (Casciaro, Gino, & Kouchaki, 2014). The current research focused on the degree to which work relationships were instrumental for making money, which does not necessarily capture the quality of these social relationships. Thus, future research should examine how monetary performance incentives influence the perceived quality of social relationships by examining relationship satisfaction with both work ties and personal ties (Ingram & Zou, 2008).

Future studies should also explore individual, cultural, or occupational differences that moderate the effect of monetary performance incentives. Lower SES workers tend to find team work more enjoyable than higher SES workers (Dittmann, Stephens, & Townsend, 2020). Although we did not observe significant interactions between monetary performance incentives and SES to predict the quantity of social interactions, future research could explore whether low

(vs. high) SES workers experience less satisfaction with work ties while working under monetary performance incentives. Also, the effect of monetary incentives on prioritization of work ties may be stronger in the context of collectivist cultures where the norm of socializing with colleagues is stronger (e.g., Heinrichs et al., 2006) or in occupations where there is a greater need for teamwork (e.g., athletics, law enforcement). Future research should explore these possibilities.

Our dependent measures primarily focused on trade-offs between socializing with work ties vs. personal ties. However, people could make decisions to offset the time spent with coworkers with other non-socializing activities, such as exercising or sleeping less, to spend time equally with coworkers and family. While we looked at socializing as a zero-sum measure, which is consistent with a great deal of previous research (e.g., Kelly et al., 2015; Schieman et al., 2009; Whillans, et al., 2016), future research should explore the effect of monetary incentives on the absolute amount of time people spend on social and other, non-social activities.

Lastly, we believe a generative area for future research is to explore whether exposure to monetary incentives prompts the objectification of work colleagues. Prior research suggests that when a money-making goal is made salient, people tend to adopt a business decision frame, which entails cost-benefit analysis and the objectification of social relationships (Kouchaki, Smith-Crowe, Brief, & Sousa, 2013). People are also more likely to objectify other people in work contexts as compared to non-work contexts because they are more likely to think strategically (Belmi & Schroeder, 2020). Building on this line of work, in Chapter 3, we examine whether monetary performance incentives increase the tendency to objectify work colleagues by increasing their perceived instrumentality.

CHAPTER 3

The Effect of Monetary Performance Incentives on Objectification and Authenticity

3.1. Introduction

As discussed in Chapter 2, monetary incentives exert a profound influence on people's psychology, driving people to concentrate on reward attainment (Beilock & Carr, 2005; Hur & Nordgren, 2016; Markman, Maddox, & Worthy, 2006). Salient financial rewards can in turn lead individuals to adopt a goal-oriented mindset because every action or decision at work becomes tied to their potential earnings (Bachorowski & Newman, 1990; Henrichs et al., 2012; Hofmann et al. 2012; Hur, Lee-Yoon, & Whillans, 2021). Thus, people may start to act strategically to maximize their financial gains, concealing personal values that might imply incompetence or they might falsely conform to company norms and superiors to fake a better fit.

Chapter 3 provides evidence that exposure to monetary incentives[9] heighten perceived *objectification*, whereby people are treated or perceived as instruments to facilitate self or collective goal achievement (Belmi & Schroeder, 2020; Gruenfeld et al., 2008; Poon et al., 2020; Wang & Krumhuber, 2017). Specifically, we hypothesize that monetary incentives, which prompt individuals to contemplate the instrumentality of their actions and relationships (Chapter 2), may directly amplify their perceived objectification of both self and their colleagues. In the present investigation, we explore how this heightened sense of objectification results in lower perceived *authenticity* when interacting with work relationships. In other words, we look at

[9] As in Chapter 2, we refer to monetary performance incentives as 'monetary incentives' for simplicity throughout the studies in this chapter. All of our designs and measures for monetary incentives are performance-based.

authenticity as an important consequence variable resulting from the exposure to monetary incentives.

3.1.1. Boundary condition

Following our theory, monetary incentives motivate employees to portray themselves in a most instrumental manner to maximize their rewards. Thus, when revealing their authentic self is instrumental to maximize rewards, monetary incentives may not impede sense of authenticity. We test this question by building on research on manager-employee fit. This research shows that managers are more likely to reward and promote employees who share similar attitudes and behaviors. For example, Brown and colleagues (2023) showed that sharing demographic affinities with one's manager results in more equitable performance evaluations. Sharing similar attitudes also increases managers' commitment to mentoring their employees (Brown, Zablah, & Bellenger, 2008). Building on this research, we hypothesize manager-employee fit as a moderator of the effect of monetary incentives on authenticity.

3.2. Study 6: Survey

3.2.1. Introduction

In Study 6, we tested whether natural variations in people's incentives systems predicted their perceived authenticity at work. Specifically, we hypothesized that people who received monetary performance incentives, as opposed to a fixed salary, would perceive both themselves and their colleagues as being less authentic in their interactions.

3.2.2. Participants

Four hundred and thirty five respondents participated in this survey via Amazon's Mechanical Turk (age_{mean} = 37.46; female = 37%; full-time employees = 91%). To detect an effect size of $\eta^2 = 0.04$ with 80% power using an OSL regression, at least 314 respondents were required. We recruited 450 respondents following pre-registration (https://aspredicted.org/MTF_14N). We excluded 15 respondents who failed to provide correct answer to the pre-registered attention check measure. The attention check measure was a question unrelated to the rest of the survey content, asking respondents to select an option of "neither agree nor disagree" to show they were paying attention.

3.2.3. Procedure and Materials

At the beginning of the survey, respondents were told that they would answer several questionnaires related to their workplace experience. All respondents were asked to think about their main job throughout the survey. We asked them to answer questions about perception about themselves, perception about their colleagues, and incentives, as described below.

We also administered a 6-item measure of self-authenticity (adapted from Wood et al., 2008). Respondents rated their perceived authenticity at work (α = .72; e.g. "I am true to myself in most situations.") on a scale from 1 (does not describe me at all) to 5 (describes me very well). We then administered the same authenticity scale about work colleagues. Specifically, we measured respondent's perceived *authenticity of others*, where they rated the degree to which they viewed their coworkers as authentic using the same scale (α = .50; e.g. "My coworkers are true to themselves in most situations"). The self and other scales were presented to participants in a randomized order. We note that the reliability was relatively low for the authenticity of others

scale, which may be due to the potential difficulty of respondents correctly guessing their colleague's authenticity. The objectification and authenticity scales were presented in counterbalanced order.

We then examined how much respondents reported engaging in strategic socialization with their work colleagues by administering a 3-item scale adapted from Tang et al. (2013); (α = .60; e.g. "In this situation, I would… Socialize with team members in the company in order to learn how they behave and what they value") on a 1 (strongly disagree) to 5 (strongly agree) scale. Respondents' answers to the items comprising each scale were then averaged to get respective measures of authenticity and strategic socialization.

Next, respondents answered questions about their current job. Specifically, they reported whether they received performance-based pay at work in the form of commissions, bonuses, tips or incentives (1 = monetary incentive) or not (0 = fixed salary). We asked this question after the dependent measures to rule out potential order effects (Krosnick & Alwin, 1987). Lastly, following previous studies in Chapter 2, we controlled for demographic variables including age, gender, family income, household size, full-time, tenure, education, ethnicity, hourly pay, and occupation. We report the results both with and without these covariates.

3.2.4. Results and Discussion

Table 3 shows the means, standard deviation, and correlations of the key variables. Monetary incentive (vs. fixed salary) variable predicted lower perceived authenticity of the self (r = -.47, p < .001), lower perceived authenticity of others (r = -.37, p < .001), and higher tendency of strategic socializing (r = 0.09, p < .06). Following our pre-registered analysis plan,

we then conducted a series of regression analyses to examine the relationship between monetary incentives and these key outcome variables.

Regarding perceived authenticity of the self, we found supporting evidence for our pre-registered hypothesis: respondents reported lower perceived authenticity of the self under monetary incentives (M = 4.31, SD = 0.64) than fixed salary (M = 5.06, SD = 0.70), b = -0.75, SE = 0.06, $p < .001$, R^2 = 0.23. This result held controlling for the pre-registered set of covariates, b = -0.53, SE = 0.07, $p < .001$, R^2 = 0.34. Next, we examined the perceived authenticity of others. Under monetary incentives, respondents indicated lower perceived authenticity of others (M = 4.21, SD = 0.48) as compared to respondents who were working under fixed salary (M = 4.68, SD = 0.67), b = -0.48, SE = 0.05, $p < .001$, R^2 = 0.15. The result held after controlling for the pre-registered set of covariates, b = -0.28, SE = 0.06, $p < .001$, R^2 = 0.23.

Lastly, we examined the strategic socializing measure but did not find the same level of statistical significance. Under monetary incentives, respondents reported marginally higher strategic socializing (M = 3.87, SD = 0.66) than when working under fixed salary (M = 4.00, SD = 0.72), b = 0.13, SE = 0.07, p = .051, R^2 = 0.01. However, we no longer observed marginal effects when we controlled for the pre-registered covariates, b = -0.02, SE = 0.08, p = .850, R^2 = 0.06.

In support of our hypothesis, respondents who received monetary incentive (vs. fixed salary) at work perceived themselves to be less authentic around their colleagues, and they also perceived their colleagues to be less authentic. Due to the correlational nature of Study 6, there may be confounds that impacted respondents' reporting of their experiences that we could not rule out—such as their work tasks and team structures. We therefore tested our hypothesis using a more controlled experiment in Study 7. Specifically, we used a hypothetical workplace

scenario and manipulated the incentive structure (monetary incentives vs. fixed pay) to provide evidence for causality.

Table 3
Study 6 Descriptive Statistics and Correlations

Variable	*M* (*SD*)	1	2	3	4	5	6	7	8	9	10	11	12
Monetary incentives	0.61 (0.49)												
Authenticity of self	4.61 (0.76)	-.47***											
Authenticity of others	4.40 (0.60)	-.37***	.60**										
Strategic socialization	3.94 (0.69)	.09	-.14**	-.15**									
Age	2.89 (0.53)	-.02	.12*	.05	.01								
Gender	0.37 (0.48)	-.05	-.01	.03	.001	-.07							
Household size	3.02 (1.23)	.32***	-.32***	-.26***	.09	-.002	-.004						
Household income	10.85 (1.42)	-.05	.04	.12*	.06	.02	-.02	.05					
Education level	4.76 (1.08)	.21***	-.28***	-.22***	.21***	.08	.04	.20***	.19***				
Full time	0.91 (0.28)	.21***	-.17***	-.18***	.19***	.03	-.04	.02	.03	.24***			
Hourly status	0.46 (0.50)	-.10*	.01	.04	-.10*	.03	.001	0.11*	-.12*	-.26***	-.22***		
Tenure	2.07 (0.57)	.11*	-.01	-.01	.10*	.53***	0.10*	.15***	.13**	.16***	.13**	-.15***	
Occupation	0.40 (0.49)	.05	.07	.05	.07	-.03	.01	.06	.16***	.22***	.13**	-.24***	.10*

Note. * Indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$. The control variables were coded as follows: age (log), gender (0 = male; 1 = female), household size, household income (log), education level (from 1 = less than high school to 7 = doctoral degree), full time (0 = not full time; 1 = full time), hourly status (0 = non-hourly; 1 = hourly), tenure (log), occupation (0 = other; 1 = management or professionals).

3.3. Study 7: Vignette Experiment

3.3.1. Introduction

We had two major goals for Study 7. First, we aimed to test the effect of monetary incentives on authenticity using an experimental design to draw causal inference. We tested whether participants who were assigned to a monetary incentive (vs. fixed pay) condition were more likely to perceive themselves and their colleagues to be less authentic at work. Second, we tested our proposed mechanism, objectification. We predicted that participants in the monetary incentive condition would be more likely to objectify themselves and their team members as compared to participants in the fixed pay condition. According to our theory, this heightened objectification would mediate the effect of monetary incentives on perceived authenticity of the self and others.

3.3.2. Participants

We recruited 535 participants from Amazon's Mechanical Turk (age_{mean} = 39.07; female = 43%; full-time employees = 80%). Following Fritz & MacKinnon (2007) on the mediation power analysis, we determined to recruit at least N = 405 to detect a significant medium-sized mediation effect with 80% power. To obtain the minimum number of participants required to achieve this effect size, we recruited 588 participants. Following our pre-registered exclusion criteria (https://aspredicted.org/P25_BDG), we excluded those who failed the attention check item ("In the scenario, how were you paid?"; 1 - Received a big bonus for good performance, 2 - Received a fixed salary at the end regardless of performance, 3 - I do not know). We excluded participants who chose the incorrect answer or "I do not know" from the analyses because their

unawareness of our manipulation may lead to misinterpretation of the key results. We ended up with 535 participants after this exclusion.

3.3.3. Procedure and Materials

Participants read a vignette from Study 2 about a workplace scenario. In the scenario, participants imagined being employed at a firm where they often worked on various projects with their teams, including team leaders and other members. Participants were told that at the end of each project, managers, clients, and other team members would evaluate their performance. Participants were then randomly assigned between-subjects to one of two conditions: the monetary or fixed pay conditions. Participants in the monetary incentive condition were told that this evaluation would have a significant impact on their pay resulting in a bonus representing usually 50% of their pay. Those in the fixed pay condition were told that the evaluation would have no impact on their pay, and they would receive a fixed salary at the end of the project. To hold the reward value constant across conditions, we told all participants that they would receive $3,000 for each project.

Consistent with Studies 2 and 3, we employed participation-contingent incentives (e.g., fixed pay) following prior studies that have commonly used it as a control condition to compare the effect of different incentive systems (e.g., Bailey, Brown, & Cocco, 1998; Braun, Kirsch, & Yamamoto, 2011; Cadsby, Song, & Tapon, 2007; Hur & Nordgren, 2016; Hur et al., 2021). Specifically, we presented participants with an identical task and reward amount, while only differing the way they earned the reward. Participants indicated the level of objectification of self and others, authenticity of self and others, and strategic socialization in the workplace.

About the Self. First, we administered a 5-item objectification scale from Belmi & Shroeder's (2020). Participants rated the extent to which they would be objectified by team members, on a 1 (strongly disagree) to 5 (strongly agree) scale (α = .75; e.g., "My team members would think that I could be an instrument for accomplishing things"). Next, we administered the identical 6-item scale measuring participants perceived authenticity of self from Study 6 (α = .74). We also administered the identical 3-item strategic socializing scale from Study 6 (α = .72).

About Others. Participants also rated the extent to which they would objectify their team members on the same scale (α = .75; e.g. My team members could be an instrument for accomplishing things"). We then administered the identical 6-item scale measuring participants' perceived authenticity of their team members from Study 6 (α = .61).

Participants' responses to the items comprising each scale were averaged to obtain measures of objectification and authenticity. Lastly, participants answered standard demographic questions including age, gender, education, marital status, household income, household size, number of children, work hours, tenure, occupation type, and hourly pay.

3.3.4. Results

About the Self

Objectification. Following the pre-registered analysis plan, we ran an OLS regression to examine the effect of manipulation on one of my key mediators: objectification of the self. As predicted, participants in the monetary incentive condition indicated higher measures of objectification of the self (M = 3.73, SD = 0.75) than those in the fixed pay condition (M_{others} = 3.42, SD_{others} = 0.76), b = 0.31, SE = 0.07, $p < .001$, R^2 = 0.04. These results support our

prediction that monetary incentives would increase the extent to which individuals perceived themselves to be objectified by their colleagues.

Authenticity. We then analyzed the effect of manipulation on our main dependent variable: perceived authenticity of the self. The results provided support for our prediction that participants in the monetary incentive condition would perceive lower authenticity of the self (M = 4.76, SD = 0.73) as compared to those who were assigned to the fixed pay condition (M = 4.99, SD = 0.66), b = -0.23, SE = 0.06, $p < .001$, $R^2 = 0.03$.

Strategic socialization. Lastly, we analyzed the effect of manipulation on reported measures of strategic socialization with other team members. As predicted, participants in the monetary incentive condition (M = 4.31, SD = 0.64) reported that they would engage in strategic socializing to a significantly greater degree than those in the fixed pay condition (M = 3.93, SD = 0.73), b = 0.38, SE = 0.06, $p < .001$, $R^2 = 0.07$. Although we observed a weak correlation between monetary incentives and strategic socialization in Study 1, manipulating monetary incentives in a specific scenario provided evidence that monetary incentives had a significant effect on strategic socializing, accounting for 7% of the variance.

About Others

Objectification. We then examined objectification of others. As predicted, we found that participants in the monetary incentive condition indicated higher measures of objectification of others (M = 3.82, SD = 0.72) than those in the fixed pay condition (M_{others} = 3.55, SD_{others} = 0.75), b = 0.27, SE = 0.06, $p < .001$, $R^2 = 0.03$.

Authenticity. We also examined perceived authenticity of others. We again found supporting evidence of our pre-registered hypothesis that participants in the monetary incentive

condition reported lower authenticity of others (M = 4.52, SD = 0.72) than those in the fixed pay condition (M = 4.67, SD = 0.69), b = -0.16, SE = 0.05, $p < .002$, R^2 = 0.02.

Mediation Analysis on Perceived Authenticity of the Self. To test our pre-registered hypotheses of whether objectification mediated the effects of monetary incentives on authenticity, we conducted a mediation analysis using the PROCESS Mediation Model 4 (Hayes, 2013; Preacher & Hayes, 2004), with the incentive manipulation as the independent variable, perceived authenticity of the self as the dependent variable, and objectification of the self as the mediating variable. We found a significant total effect of condition on authenticity of the self, b = -0.23, SE = 0.06, $p < .001$, 95% CI [-0.35, -0.11], and a smaller direct effect, b = -0.18, SE = 0.06, $p < .01$, 95% CI [-0.29, -0.06]. The indirect effect excluded zero, b = -0.05, SE = 0.02, 95% CI [-0.09, -0.02], suggesting that objectification of the self was a partial mediator, explaining 22% of the total effect of monetary incentives on authenticity of the self.

On an exploratory basis, we conducted a parallel mediation analysis by including both objectification of the self and objectification of others as mediators in the model. Interestingly, we found that only objectification of the *self* significantly mediated the effect of condition on authenticity of the self (See Figure 2 for a visualization of the results). This suggests that when receiving monetary incentives lead employees to objectify *themselves*, they then become less authentic around their coworkers.

Mediation Analysis on Perceived Authenticity of Coworkers. Following pre-registration, we then examined whether objectification of others mediated the effect of monetary incentives on perceived authenticity of others. We conducted a mediation analysis using the PROCESS Mediation Model 4 (Hayes, 2013; Preacher & Hayes, 2004), with our manipulation as the independent variable, perceived authenticity of others as the dependent variable, and

objectification of others as the mediating variable. We found a significant total effect of condition on authenticity of others, b = -0.15, SE = 0.05, p = .002, 95% CI [-0.25, -0.06], and a smaller direct effect, b = -0.10, SE = 0.05, p < .001, 95% CI [-0.19, -0.002]. The indirect effect excluded zero, b = -0.06, SE = 0.02, 95% CI [-0.09, -0.03], suggesting that objectification of others was a partial mediator, explaining 40% of the total effect of monetary incentives on authenticity of others.

On an exploratory basis, we conducted a parallel mediation analysis by including both objectification of the self and others as mediators in the model, and we found that only objectification of *others* significantly mediated the effect of condition on authenticity of others (See Figure 3 for a visualization of the results). This suggests that when receiving monetary incentives lead people to objectify their *coworkers*, people then also perceive their coworkers as less authentic.

3.3.5. Discussion

These results provide additional support for our central prediction: monetary performance incentives undermine self-perceived authenticity and the perceived authenticity of colleagues. These results also provide evidence for our proposed mechanism by showing that monetary incentives undermine the perceived authenticity of the self by leading people to perceive themselves as objects and undermine perceived authenticity of colleagues by leading people to perceive their colleagues as objects. However, an open question is whether there could be situations where monetary incentives have a neutral or positive effect on authenticity. In Study 8, we draw from the person-environment fit literature to investigate how employees' fit with their manager moderate the effect of monetary incentives on authenticity.

Figure 2
Study 7 Exploratory Parallel Mediation on Authenticity of Self

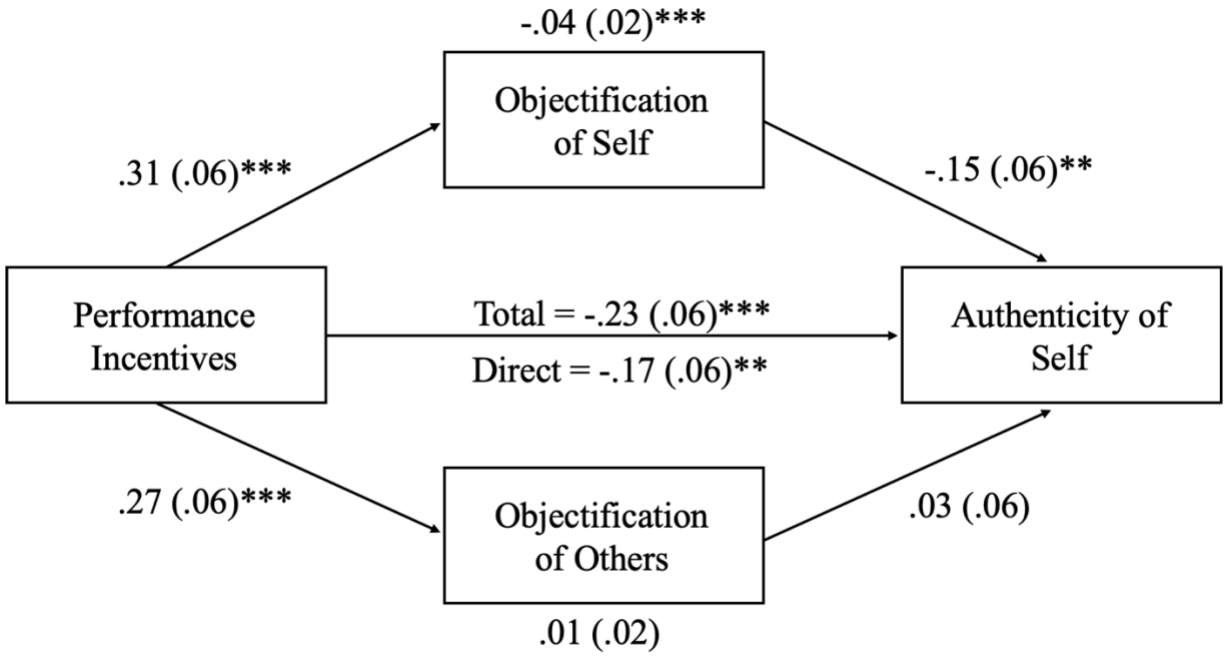
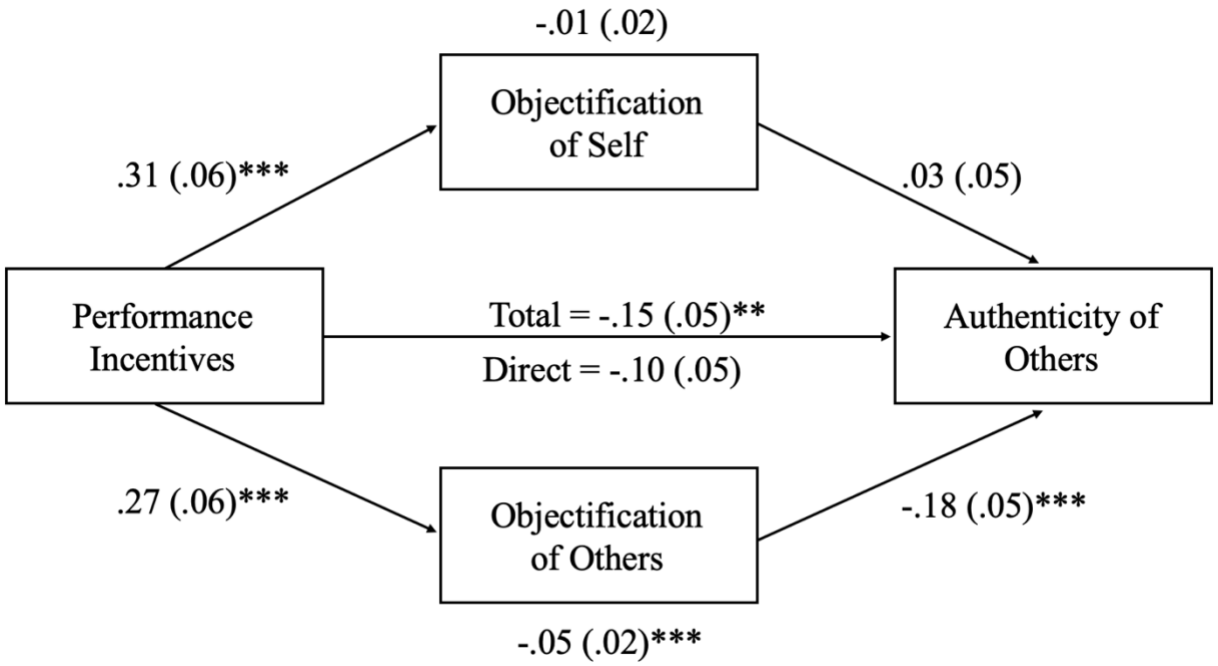


Figure 3
Study 7 Exploratory Parallel Mediation on Authenticity of Others



3.4. Study 8: Moderation of Employee-Manager Fit

3.4.1. Introduction

The primary goal of Study 8 is to examine a potential boundary condition for the effect of monetary incentives. Specifically, we tested whether there would be situations where "being authentic" would be instrumental in maximizing rewards in a monetary performance incentive system, and therefore encourage employees to be more authentic around their colleagues. Given the important role that managers play in employees' professional development, we focused on employee-manager relationships and examined whether manager-employee fit would moderate the effect of monetary incentives on authenticity. We thus manipulated the degree to which an employee had a good vs. poor fit with the manager in a scenario. We predicted an interaction, such that the negative effects of monetary incentives on authenticity would be present only when the employee has a poor fit with the manager, because hiding one's authentic self would be more instrumental. However, when the employee has a good fit with the manager, emphasizing one's similarities with the manager by revealing one's authentic self could be instrumental for employee to maximize rewards at work.

Furthermore, we tested an additional measure for authenticity: self-disclosure. Self-disclosure has been defined as "communication behavior through which the speaker consciously makes him/herself known to the other person (Pearce & Sharp, 1973), sometimes revealing personal information that would otherwise be unlikely to be known by the other" (Ignatius & Kokkonen, 2007). Therefore, self-disclosure has been used as one of the measures of authenticity (Hurley & Hurley, 1969; Jiang et al., 2022). We explore this possibility in this study.

3.4.2. Participants

Six hundred and ninety-seven participants were recruited from Prolific (age_{mean} = 36.96; female = 47%; household $income_{mean}$ = $77,720). In a pilot study (N = 206), I found that the interaction effect of our manipulation on authenticity yielded an effect size of η^2 = 0.02. We conducted a power analysis using GPower and found that we would need at least N = 676 to detect a significant interaction effect of η^2 = 0.02 with 80% power. Therefore, we recruited 700 participants from Prolific and ended up with N = 697 after excluding those who did not pass our simple attention check, following the pre-registered exclusion criteria https://aspredicted.org/6FV_GJ8). For the attention check, we asked participants to select an option of "I'm ready to complete a survey and provide useful feedback" in a multiple-choice question at the end of the survey, before the demographic section.

3.4.3. Procedure and Materials

We randomly assigned participants to one of four conditions in a 2 (incentive: monetary performance pay vs. fixed pay) x 2 (manager-employee fit: good vs. poor) between-subjects design. We constructed a vignette about a person named Taylor (a gender-neutral name to reduce gender-specific associations) and asked participants to rate their thoughts about how Taylor would feel and behavior in the situation. This type of indirect questioning has been used frequently to reduce social desirability bias (Fisher, 1993; Whillans, Weidman, & Dunn, 2016).

All participants read that Taylor works at a marketing consulting firm, and Taylor's manager has a calm and stable disposition who strives to maintain a traditional, structured workplace culture. We manipulated the manager-employee fit by varying the degree to which Taylor had a similar personality and working style with the manager. In the *good fit* condition (n = 353), Taylor had a structured and quiet personality and worked best in a quiet environment. In

contrast, in the *poor fit* condition (n = 344), Taylor had an adaptable personality and worked best in a dynamic environment. We also manipulated the incentive system. In the *monetary incentive* condition (n = 346), Taylor received monetary rewards based on good performance evaluation from the manager. In the *fixed pay* condition (n = 351), Taylor received a fixed salary regardless of getting a receiving a positive evaluation from the manager.

After reading the vignette, participants first rated the extent to which they thought that Taylor would feel authentic in this situation using 4 items, adapted from Wood et al. (2008); (α = .89; e.g. "Taylor would feel comfortable being true to oneself in most situations at work.") on a 1 (not at all) to 7 (very much) scale. They then indicated how much Taylor would engage in authentic self-disclosure using 4 items (α = .92; e.g., "Taylor would feel comfortable sharing Taylor's own interests?" and "Taylor would talk about Taylor's own hobbies?"). We adopted the theoretical concept from the Authenticity in Relationships Scale (AIRS) by Goldman and Kernis (2002) when constructing these items. We examined the composite of each scale as my pre-registered dependent variables. In this study, we focused on the perceived authenticity of Taylor self and did not measure perceived authenticity of others due to the complexity of the vignette.

3.4.4. Results

Perceived Authenticity. We first examined the main effect of the incentive manipulation on authenticity. Consistent with Studies 6 and 7, participants in the *monetary incentive* condition rated Taylor to feel significantly less authentic in interacting with the manager (M = 4.56, SD = 1.55) than those in the *fixed pay* condition (M = 5.36, SD = 1.16), $F(1,696) = 62.75$, MSE = 97.05, $p < .001$, $\eta^2 = 0.08$. Following pre-registration, we then conducted a 2 (incentive system) x 2 (manager-employee fit) ANOVA analysis with perceived authenticity. The results supported

our pre-registered hypothesis, indicating that the degree of manager-employee fit moderated the effect of monetary incentives on authenticity, $F(3,693) = 24.39$, $MSE = 37.72$, $p < .001$, $\eta^2 = 0.03$.

Decomposing this interaction, under *poor* fit, participants in the *monetary incentive* condition rated Taylor to feel significantly less authentic in interacting with the manager ($M = 3.83$, $SD = 1.43$) than those in the *fixed pay* condition ($M = 5.04$, $SD = 1.26$), $F(1,693) = 81.70$, $MSE = 126.34$, $p < .001$. Under *good* fit, participants in the *monetary incentive* condition still rated Taylor to feel significantly less authentic in interacting with the manager ($M = 5.35$, $SD = 1.27$) than those in the *fixed pay* condition ($M = 5.63$, $SD = 0.99$), the effect was significantly smaller than the effect in the *poor* fit condition, $F(1,693) = 4.50$, $MSE = 6.97$, $p = .034$. While the results did not precisely align with our predictions that there would be no effect of monetary incentives under the good fit, we observed the predicted interaction: the impact of monetary incentives was smaller in the good fit condition than in the poor fit condition (see visualization of the results in Figure 4).

Self-Disclosure. Next, we examined the main effect of monetary incentives on self-disclosure. Similar to perceived authenticity, participants in the *monetary incentive* condition rated Taylor to be less likely to self-disclose personal information to the manager ($M = 4.48$, $SD = 1.46$) than those in the *fixed pay* condition ($M = 5.12$, $SD = 1.20$), $F(1,696) = 39.10$, $MSE = 68.12$, $p < .001$, $\eta^2 = 0.05$. Following pre-registration, we conducted a 2 (incentive system) x 2 (manager-employee fit) ANOVA to analyze authentic self-disclosure. These results supported our pre-registered hypothesis, indicating that the degree of manager-employee fit moderated the effect of monetary incentives self-disclosure, $F(3,693) = 9.82$, $MSE = 17.12$, $p = .002$, $\eta^2 = 0.01$.

Under the *poor* fit, participants in the *monetary incentive* condition rated Taylor to be less likely to disclose information about the self to the manager (M = 4.21, SD = 1.43), as compared to how those rated Taylor in the *fixed pay* condition, (M = 5.15, SD = 1.15), $F(1,693) = 43.53$, $MSE = 75.84$, $p < .001$. Under the *good* fit, participants in the *monetary incentive* condition rated Taylor to be less likely to disclose information about the self to the manager (M = 5.09, SD = 1.24) as compared to how those rated Taylor in the *fixed pay* condition, (M = 4.78, SD = 1.42). Again, the difference was smaller than the difference in the *poor* fit condition, $F(1,693) = 4.92$, $MSE = 8.58$, $p = .027$. See visualization of the results in Figure 5.

3.4.5. Discussion

In this study, we explored a boundary condition for the effect of monetary incentives on perceived authenticity. If employees have a good fit with their managers regarding their personalities and work styles, it may be instrumental to emphasize the similarities to receive support and mentorship from the manager (Brown, Burke, & Sauciuc, 2023; Brown, Zablah, & Bellenger, 2008). Thus, the negative effect of monetary incentives on perceived authenticity, and self-disclosure, is amplified when employees have a poor fit with their manager, but mitigated when they have a good fit with the manager.

Figure 4
Study 8 ANOVA Results for Authenticity

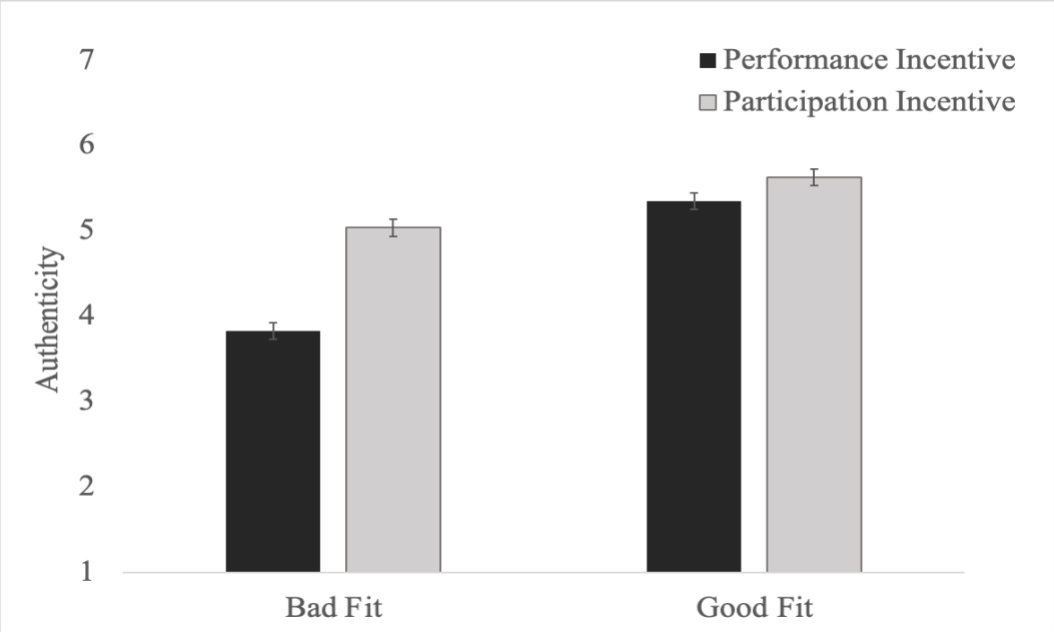
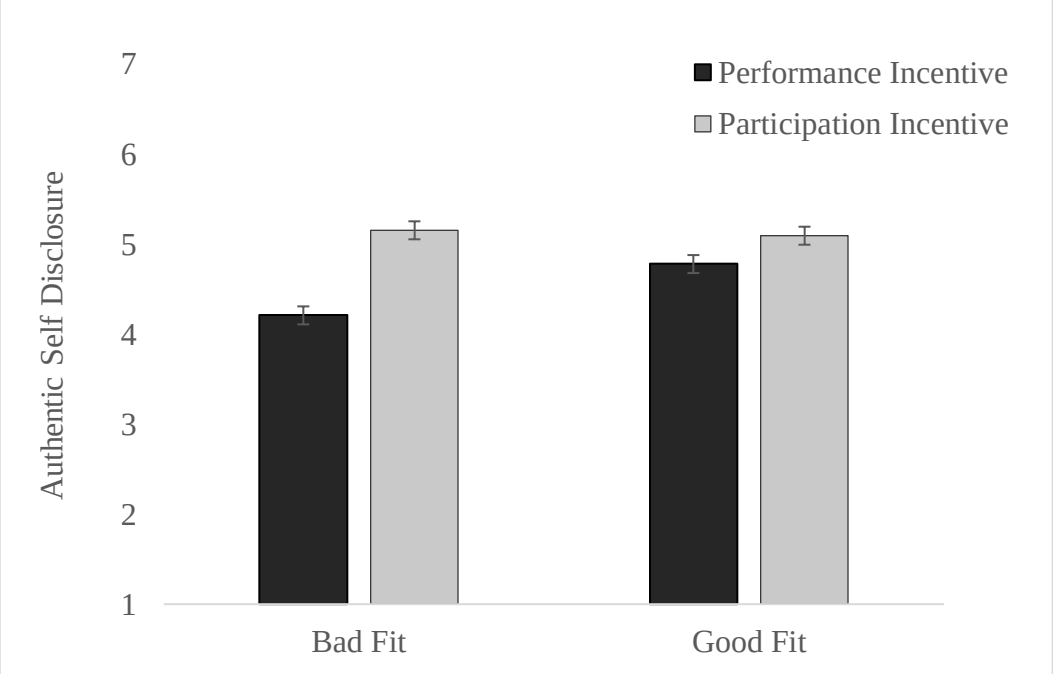


Figure 5
Study 8 ANOVA Results for Authentic Self-Disclosure



3.5. General Discussion

Across three studies using different methods and measures, we found that monetary performance incentives shaped employees' perceived authenticity of themselves and others in the workplace partially through perceived objectification. This research provides the first empirical examination of how monetary performance incentives, a crucial part of organizational structure, affect employee's perceived objectification and authenticity of self and others. Past research has primarily focused on the effects of monetary rewards on motivation (e.g., Cameron et al., 2005; Deci, Koestner, & Ryan, 1999; Fehr & Falk, 2002; Miceli et al., 1991) and performance (e.g., Gneezy & Rustichini, 2000; Heyman & Ariely, 2004). We have also looked at how monetary performance incentives affect individuals' day-to-day social interaction patterns in Chapter 2. However, the exploration of the present research encompasses individuals' self-perception – how they view themselves and others at work – and offers an insight into the relationship between incentives and authenticity within the instrumental working context.

In line with our hypothesis regarding the impact of monetary incentives on perceived objectification, our research revealed a significant association: employees subject to monetary incentives consistently reported heightened feelings of objectification in the workplace, thereby compromising their authenticity. Furthermore, we substantiated this observation through experimental validation, wherein we manipulated participants' payment status to demonstrate a replicable effect. Moreover, our investigation delves into a crucial boundary condition whereby the negative impact of monetary incentives on authenticity is mitigated—employee-manager fit. We explore how the alignment between employees and their managers serves as a moderating factor, potentially attenuating the detrimental effects of monetary incentives on authenticity.

Taken together, these studies identify a common organizational circumstance—exposure to monetary incentives—under which people perceive greater objectification and lower authenticity. The current study also adds to the literature on Person-Environment (P-E) fit, which prompts a discussion on circumstances where monetary incentives may not compromise authenticity. Person-Environment fit is defined as **"**the compatibility that occurs when individual and work environment characteristics are well matched" (Kristof-Brown & Guay, 2011). Existing research in this domain has demonstrated that a good P-E fit can act as a buffer against various negative workplace outcomes, such as reduced job stress (Deniz, Noyan, & Ertosun, 2015; Kristof-Brown, Zimmerman, & Johnson, 2005) and decreased turnover intentions (Van den Bosch & Taris, 2014a). Our findings expand upon this body of literature by illustrating that a strong alignment between employees and managers can also mitigate the adverse impact of monetary incentives on employees' authenticity. Consequently, organizations that cultivate a positive fit with their employees may leverage monetary incentives to enhance performance without compromising authenticity.

3.5.1. Implications for Future Research

A related area for further research is when and how monetary incentives contribute to greater or lower wellbeing, since authenticity is closely related to wellbeing (e.g. Rivera et al., 2019). For instance, the ability to feel authentic at work has been linked to increased job satisfaction (van den Bosch & Taris, 2014b), and valuing authentic expression with each other can alleviate burnout (Grandey et al., 2012). The impact of authenticity on wellbeing may stem from its status being a fundamental human motive. Humanistic theories propose that individuals possess an inherent drive to experience authenticity (Deci & Ryan, 1985; Maslow, 1943).

Maslow (1968), for instance, theorized that authenticity emerges when individuals, having satisfied their basic physiological needs, discover their true inner nature by sufficiently satisfying higher-order psychological needs. Our findings further suggest that monetary incentives adversely affect this fundamental motive of authenticity, potentially leading to negative outcomes for well-being. Future research should explore the direct correlation between monetary incentives and key well-being indicators such as overall life and job satisfaction, mood, stress levels, and burnout. This will help managers and organizations understand whether monetary incentives lead individuals to utilize authenticity in pragmatic ways that can lead to greater organizational success and wellbeing.

Moreover, there are several generative areas for future research regarding boundary conditions. First, the effect of monetary incentives could differ based on whether they are based on individual or team-based performances. The current experiments employed scenarios where monetary incentives were individual based; however, team-based performance incentives may increase authenticity among team members because having greater authenticity among group members lead to better team performance outcomes (Connelly & Turel, 2016). Although we did not find significant interactions between monetary incentives and team vs. individual-based to predict perceived authenticity in Study 6, future research could conduct additional experiments to explore whether team-based (vs. individual-based) performance incentives increase authenticity among team members.

Relatedly, there could be occupational differences that moderate the effect of monetary incentives. For instance, the effect of monetary incentives on authenticity may be stronger for individuals with occupations that require tasks are more individualistic in nature (e.g., statistician) than collectivistic (e.g., teachers). Recent study by Jiang et al. (2024) has shown that

individuals with agentic orientation than communal orientation were more likely to objectify others. Therefore, occupations that are more individualistic in nature that require less communion may be associated with greater objectification of others, and in turn undermine authenticity. More research is needed to explore the relationship between monetary incentives and authenticity across different occupation types.

Future studies should also explore individual differences that moderate the effect of monetary incentives. For example, differences in socioeconomic status may affect the extent to which people are more likely to objectify themselves and others. Lower social class individuals are known to display more humanistic behaviors, such as prosocial helping (Piff et al., 2010) and communality by considering others' needs and concerns (Dubois, Rucker, & Galinski, 2015), which may be associated with lower perceived objectification of themselves and others. However, it is an empirical question of whether monetary incentives would have a greater or weaker impact on lower social class workers' perceived authenticity due to their stronger humanistic attitudes, and more research is needed to answer this question.

CHAPTER 4

The Effect of Time Incentives on Humanization

4.1. Introduction

Previous chapters explored the negative effects of monetary incentives on people's perceptions of objectification and instrumentality in the workplace, and how they shape workplace socialization. In Chapter 4, we shift our focus to a different form of compensation—paid vacation days—and examine their distinct psychological effects on people's felt humanness.

The Covid-19 pandemic and its aftermath have prompted many employees to reevaluate the significance of personal time and flexibility in their lives outside of the workplace (Stein et al., 2021; Subramanian & Washington, 2022). People are yearning for more moments with loved ones, the ability to unwind with a friend during lunch, or to be able to attend their kid's recital on a weekday. Attending to this shift in preferences, leaders are looking for ways to implement flexible work strategies that create equitable opportunities for all employees (Kossek et al., 2021; Robinson, 2022). Thus, it is critical to investigate concrete ways that can help organizations and managers value employees' time and personal lives.

We contend that one way to address this problem is through providing performance incentives in the form of time off from work instead of more money. Across three experiments, this chapter illustrates how "time" bonuses in the form of vacation days can increase people's felt humanness by segmenting them from the objectifying workplace. This chapter is currently under review: Lee-Yoon, A. & DeVoe, S. A humanizing separation from work: The benefits of rewarding people with vacation instead of money.

4.2. Study 9: Recall Paradigm

4.2.1. Introduction

The main goal of Study 9 was to test our hypothesis that receiving a vacation bonus, as opposed to a monetary bonus, is associated with greater felt humanness using a recollection paradigm. Participants were randomly assigned to recall a time where they either used a vacation day or a money bonus and report their felt humanness accordingly. Study 9 provides ecological validity by looking at the independent effects of an actual vacation vs money on felt humanness.

Furthermore, we test another related plausible mechanism in Study 9: Perceived objectification. Perceived objectification is defined as "perceiving and treating [peers] more like objects (e.g., means to obtain profit) and less like humans (i.e., people who have agency and emotion) in work contexts" (Belmi & Shroeder, 2021). This definition could be interpreted as the same construct as felt humanness just at the opposite valence; therefore, it is possible to interpret that vacation bonuses increase relationship quality through decreased objectification. Because past research hasn't empirically or theoretically distinguished these two constructs, we explore both felt humanness and objectification as dependent variables and find that recalling using vacation days (vs. money bonus) increases felt humanness but does not detect an impact on objectification despite its potential conceptual overlap.

4.2.2. Participants

We aimed to recruit 2,000 full-time employees from Prolific who worked in the same organization for at least one year and received *both* paid vacation days and money bonuses. Sample size was determined before any data analysis. Our past survey from Prolific indicated

that 30% of full-time employees received only one of (or neither) paid vacation days or money bonuses; therefore, we recruited 2,857 participants to reach a final sample size of N = 2,000. However, a greater number of employees did not receive both paid vacation days and money bonuses in this sample, and therefore, we ended up with 1,507 participants after exclusion (42.4% female, 56.3% male, 1.3% non-binary; Age_{mean} = 38.15). Participants came from diverse occupational backgrounds, major occupation types including professional (26.9%), managerial (15.8%), tech and related support (15.1%), sales (7.9%), administrative (including clerical; 13.6%), service (except for protective and household; 4.3%), machine operations (2.2%), and transportation and logistics (2.3%). Pre-registration for Study 9 is available here: https://aspredicted.org/C39_P2J

4.2.3. Procedure and Materials

Participants were randomly assigned to reflect on a recent vacation bonus or money bonus they received and wrote a few sentences about it. The instructions read as follows: *"Please think about the vacation days [money bonus] you received from your organization in the past year (2022) and recall the most recent time that you used your vacation days [money bonus]. How much did you use, and what did you use it for? Please describe in 2-3 sentences.*" After the recall task, participants completed measures assessing their felt humanness and objectification when thinking about the experience they wrote.

To measure felt humanness, we adapted the humanness scale from Bastian & Haslam, 2010 (α = .82; e.g., "When thinking back to the recalled time, I feel… emotional, responsive, and warm; sophisticated; robotic (reverse coded)."). Then, we measured objectification using 5 items on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (α = .85; e.g., "I could be an

instrument for accomplishing things."; Belmi & Shroeder, 2020). To explore some of the reasons why participants might feel objectified when using vacation days or money bonuses, we administered an additional 1-item objectification measure on a scale ranging from 1 = *not at all* to 5 = *very much* ("*To what extent did you feel objectified when using your [paid vacation/money bonus]? Feeling objectified means that you felt as if you were treated as means to an end (e.g., using a relationship with you to get work done or accomplish a goal), treated you as replaceable with other people, did not regard you as a being with emotions or wants, or did not care about your physical well-being.*"). Participants who rated higher than 1 = *not at all* were further directed to write in greater detail about the emotions they felt and the thoughts they had at the time. This item solicited qualitative insight into participants' thoughts about *when* and *why* might vacations (or money bonus) be objectifying.

Lastly, we measured participants' perceived monetary value of the vacation days and money bonuses. Participants answered the following question, "Please think back to the time you recalled using your [vacation day/money bonus]. What would be the approximate monetary value of that [vacation day/money bonus] you used?" on a scale from $0 to $15,000. On an exploratory basis, we statistically controlled for the monetary value of conditions to evaluate whether possible differences in the monetary value of the bonuses was driving any differences observed across conditions.

4.2.4. Results

Felt Humanness. The results supported our pre-registered hypothesis, such that participants who were randomly assigned to recall using their vacation reported feeling significantly greater humanness (M = 5.40, SD = .90), as compared to participants in the money

bonus condition who recalled using their money bonus, (M = 5.04, SD = .96), β = .19, b = .36, t(1506) = 7.46, SE = .05, p < .001, 95% CI [.26, .45], d = .39. On an exploratory basis, we re-ran this analysis with participant's perceived monetary value of the bonus (log)[10] in the model as a control variable, and found that the result held, β = .18, b = .35, SE = .05, t(1492)[11] = 7.20, p < .001, 95% CI [.25, .44], d = .43, suggesting that the effect of vacation (vs. money) bonus on felt humanness cannot merely be explained by the value of the bonuses.

On an exploratory basis, we examined the potential moderating role of occupation type on the observed effect. We explored this moderator because individuals with jobs that are considered less objectifying at baseline may experience weaker increase in felt humanness from using vacation bonuses. Specifically, we tested whether participants with professional and management jobs (coded 1) would experience a comparatively smaller increase in felt humanness after recalling a vacation (vs. using money bonus) compared to all other occupations (coded 0) because professional and management jobs are more likely to have greater skill variety, autonomy, and complexity (e.g., Abbott, 1988). However, we found that occupation type was not a significant moderator in this study, β = .02, b = .05, t(1492) = .48, SE = .10, p = .632, 95% CI [-.14, .24], d = .40.

Objectification. Next, we examined participants' perceived objectification, however the results did not support our pre-registered hypothesis. Participants in the vacation condition did not feel significantly less objectified (M = 3.99, SD = 1.48) compared to participants in the money bonus condition (M = 4.11, SD = 1.36), β = -.04, b = -.12, t(1506) = -1.64, SE = .07, p = .101, 95% CI [-.26, .02], d = .09. Again, we re-ran our analysis with perceived monetary value

[10] We took the log of the monetary value to account for skew.
[11] The monetary value question did not force response and 13 participants did not answer the question.

of the bonus (log) in the model and found the same null result, β = -.04, b = -.10, t(1491) = -1.41, SE = .07, p = .160, 95% CI [-.25, .04], R^2 = .16. These null results suggest that vacation and money bonuses may not systematically impact individuals' perceived objectification to the same degree as felt humanness. This makes sense considering our theorizing on segmentation as the mechanism. Vacations segment individuals from the workplace, reorienting their focus to personal life. While this may enhance feeling of humanness, it doesn't necessarily entail a reduction in objectification.

Objectification (single item). On an exploratory basis, we examined the effect of condition on the single-item objectification measure. Again, we found that participants in the vacation condition did not report lower objectification (M = 1.62, SD = 1.03) compared to participants in the money bonus condition (M = 1.67, SD = 1.06), β = -.02, b = -.05, t(1506) = -.85, SE = .05, p = .397, 95% CI [-.15, .06], d = .05. However, an interesting theme emerged from participants' written responses. Five-hundred-and-twenty-seven participants indicated that they felt objectified at least to some degree and were prompted to provide a free response. A frequent reason provided was due to work-related interruptions during vacation, such as receiving messages from their managers and coworkers. One respondent noted, "*I was still being contacted during my vacation and I still engaged and responded. I felt robotic since I had the choice to not engage and enjoy my vacation.*" This suggests that employees feel less humanized when they are not allowed complete separation from work during vacation. We also found this theme being mentioned among participants in the money bonus condition. For example, one participant regretted that receiving a large money bonus made them feel more obligated to respond to their boss whenever the boss wanted: "*I felt that I would have to answer my boss whenever he wanted due to him giving me such a large bonus*."

In order to evaluate this theme more systematically, we had a coder blind to condition evaluate the 527 responses on the segmentation domain by indicating whether the responses contained any theme related to the employee not being able to maintain a clear boundary between work-related and non-work-related matters. Responses that contained this theme were coded as 1, and all others were coded as 0. Next, we examined whether participants in the vacation condition exhibited a significantly higher tendency to mention the theme of segmentation, thus looking at whether segmentation is a theme more relevant within the vacation context. Using logistic regression analysis, we found that participants in the vacation condition were 3.62 times more likely to mention that they felt objectified due to the absence of segmentation compared to participants in the money bonus condition, $B = 3.62$, $Wald = 43.63$, $p < .001$. Consistent with our theorizing, participants may not mention the theme of segmentation frequently in the money condition because money bonuses by nature do not inherently create a clear separation between non-work and work responsibilities. In contrast, vacation by their very nature involves a distinct division from work, and therefore, an absence of this segmentation during vacations could result in a failure to promote humanness.

4.2.5. Discussion

In Study 9, we demonstrated that receiving a vacation day increased felt humanness more than receiving a money bonus. Although the current recall paradigm provides ecological validity, one limitation of this study is not being able to control how often or how much participants were given vacation and monetary bonuses. To address this limitation, we controlled for participants perceived monetary value of the bonuses and confirmed that our results hold. In the next studies, we directly address this limitation by manipulating the bonus given to participants.

In Studies 10 and 11, we developed a workplace vignette to test our hypothesized mediator using a reward of vacation. A unique feature of vacation is that its goal is to allow employees to completely separate from work, both physically and mentally. Therefore, receiving more vacation days would allow employees greater segmentation. In Study 10, we tested whether receiving additional paid vacation days increased participants' perceived segmentation and in turn increased their feelings of humanness.

4.3. Study 10: Vignette Experiment

4.3.1. Introduction

We had three goals for Study 10. First, we aimed to replicate the effects from Study 9 showing that a vacation (vs. money bonus) increases participant's felt humanness. Second, we aimed to test the effects of receiving a vacation (vs. money) bonus on our proposed mediator, segmentation. Lastly, we predicted a mediation where participants who receive vacation bonuses will perceive greater segmentation than participants who receive cash equivalent bonuses, which will then increase felt humanness.

4.3.2. Participants

We recruited full-time employees from Prolific. Based on our previous study, the effect of condition (vacation vs. cash equivalent) on humanness yielded an effect size of $d = .34$. Using G*Power calculation, we found that at least $N = 274$ is needed to detect an effect of $d = .34$ with 80% power. To ensure a high-powered study, we aimed to recruit 500 participants from prolific

and successfully collected 499 responses (34.9% female, 63.9% male, 1.2% non-binary; Age_{mean} = 39.09). A post-hoc sensitivity analysis showed that this larger obtained sample size provided 80% power to detect an effect of d = .25. Following our pre-registered exclusion criteria, we checked whether participants completed the survey in less than a minute. We confirmed that none of the participants met this exclusion criteria, and therefore no participants were excluded from analysis. Pre-registration for Study 10 is available here: https://aspredicted.org/8KL_9GY

4.3.3. Procedure and Materials

All participants read a vignette saying that they have been recently hired at a company as a full-time marketing consultant. Participants were told that their three-year contract stipulates that they will make $54,000/year in base salary and receive 10 days of paid vacation each year. The recruit team had the choice to add either 5 more paid vacation days or the cash equivalent bonus to their benefits contract. Then, participants were randomly assigned to further read that the recruit team has decided to give them either 5 more paid vacation days (vacation condition, n = 250), or the cash equivalent bonus (cash condition, n = 249). To ensure that participants are engaged with the scenario, we asked participants to write in one or two sentences about what they would do with the bonus.

Next, participants answered the extent to which they perceived having segmentation in the scenario using 4 items on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (α = .93; e.g., "My workplace would let people forget about work when they're at home." adapted from Kreiner, 2006). Then participants answered the 9-item felt humanness scale (α = .87; "In the scenario where I received [*5 paid vacation days bonus/cash equivalent bonus*], I would feel…emotional, responsive, and warm."; adapted from Bastian & Haslam, 2010).

Lastly, we also measured how much participants perceived the vacation vs. cash equivalent bonus to be unusual using two items on a scale from 1 = *not at all surprising/unusual* to 7 = *extremely surprising/unusual*: 1) "How surprising did you find it was to receive the vacation/money bonuses?" and 2) "How unusual did you think it was to receive the vacation/money bonuses?" Following our pre-registration, we created a composite of these two items (α = .82) and conducted our analyses with and without this covariate. We aimed to examine if the positive effects of vacation bonus on felt humanness can be explained by the unusualness of the vacation bonus.

4.3.4. Results

Felt humanness. Running an OLS regression analysis, we found that participants who were randomly assigned to the vacation condition felt greater humanness (M = 5.16, SD = .81) as compared to those in the cash condition who received the cash equivalent bonus (M = 4.87, SD = .71), β = .15, b = .29, t(497) = 3.37, SE = .09, p < .001, 95% CI [.12, 46], d = .30. The result held after controlling for the unusualness of the bonus, β = .14, b = .27, t(496) = 3.14, SE = .09, p = .002, 95% CI [.10, 44], d = .33. This confirmed our pre-registered hypothesis and replicated the main effect documented in the previous study using a different paradigm.

Segmentation. We found that participants who were randomly assigned to the vacation condition perceived greater segmentation from work (M = 5.32, SD = 1.11) as compared to those in the cash condition (M = 4.71, SD = 1.31), β = .25, b = .62, t(497) = 5.64, SE = .11, p < .001, 95% CI [.40, .83], d = .51. The result held after controlling for unusualness of the bonus, β = .24, b = .60, t(496) = 5.45, SE = .11, p < .001, 95% CI [.38, .82], d = .51.

Mediation on Felt Humanness. We conducted a mediation analysis following our theoretical model that vacation bonuses increase felt humanness through greater segmentation. We used PROCESS Mediation Model 4 (Hayes & Preacher, 2013) with condition as the independent variable, segmentation as the mediating variable, and felt humanness as the dependent variable. The total effect of condition on felt humanness was significant, $b = .29$, $t(497) = 3.37$, $SE = .09$, $p < .001$, 95% CI [.12, .46], $d = .30$, and the direct effect of condition on felt humanness controlling for segmentation was no longer significant, $b = .05$, $t(496) = .61$, $SE = .08$, $p = .544$, 95% CI [-.10, .20], $d = 1.21$. The confidence intervals for the indirect effect excluded zero for felt humanness, $b = .24$, $SE = .05$, 95% CI [.15, .35], $p < .001$. These results are consistent with our pre-registered mediation model suggesting segmentation as a viable a mediator, which explained 83% of the total effect of condition on felt humanness. Although the test of this mediation was significant for this model, several other models are possible.

4.3.5. Discussion

The results in Study 10 supported all our pre-registered hypotheses. First, we replicated the effects of vacation on felt humanness using a controlled vignette experiment. Second, conditional on our model assumption that vacation increases humanness via segmentation, our statistical test showed that segmentation can account for a significant portion of variance. Despite the evidence on mediation, we cannot infer a causal relationship between segmentation and felt humanness using the current design. Therefore, we conducted an experiment to directly manipulate the degree to which participants were given segmentation from work during vacation. Experimental manipulation of the mediator will give us more direct evidence that segmentation increases felt humanness (e.g., Bullock & Green, 2021).

4.4. Study 11: Manipulation of Segmentation

4.4.1. Introduction

In our conceptualization, the more that vacation increases segmentation from work responsibilities, the greater individuals should feel humanness. The main goal of Study 11 was to test this idea with a vignette paradigm by manipulating the mediator of segmentation. Second, we also explored potential implications of humanness on employees' workplace outcomes. Although earning money is the basic goal of providing labor, individuals often join organizations not only to work but also to fulfill other psychological needs, such as to build social relationships, feel respected, aspire and produce ideas (Baumeister & Leary, 1995; Good et al., 2012; Schwartz, 2015). In fact, a recent survey of 20,000 employees worldwide found that 'respect' was ranked as the most important aspect of good leadership (Rogers, 2018). Therefore, humanness is likely to have important implications for employee outcomes, and we provide preliminary evidence on these ideas.

4.4.2. Participants

Due to the novelty of our manipulation, we did not have a prior effect size estimate. We recruited 200 full-time employees from Prolific (33.3% female, 64.7% male, 2.0% non-binary; Agemean = 36.47). The sample size was determined before any data analysis. A post-hoc sensitivity analysis showed that the obtained sample size of N = 200 provided 80% power to detect an effect of d = .39. We did not exclude any participants. Pre-registration for Study 11 is available here: https://aspredicted.org/TRY_2HS

4.4.3. Procedure and Materials

We randomly assigned participants to one of two conditions: high segmentation vs. low segmentation. We used the same workplace setting from Study 10, where participants were asked to imagine that they were a full-time marketing consultant at MarketCal with a salary of $54,000/year and received 10 days of paid vacation each year. All participants imagined that they took a week off, and it was their first day of vacation. Then participants were told that they received a message alert while having breakfast in the morning. In the high segmentation condition (n = 100), participants were presented with an iphone lock screen image that showed two messages—one from their mother and one from their friend (see Figure 6). In the low segmentation condition (n = 100), participants also saw two messages, but one was from their mother and the other was from their boss (see Figure 7).

After reading the scenarios, all participants answered our manipulation check using 4 items on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (α = .98; e.g., “My workplace would let people forget about work when they're at home.”; adapted from Kreiner, 2006). Then, we administered the felt humanness scale from Study 2 as our dependent measure (α = .88).

Lastly, we administered several exploratory workplace outcome measures, including 1-item job satisfaction on a scale from 1 = *extremely dissatisfied* to 10 = *extremely satisfied* ("Taking everything into consideration, how would you feel about your job in the scenario as a whole?"), turnover intentions using 2 items on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (e.g., “I would frequently think of quitting my job.”; Colarelli, 1984), relationship satisfaction with colleagues using 5 items on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (e.g., “Colleagues would positively affect my job experience.”), and work engagement

using 3 items on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (e.g., "At my work in the scenario, I would feel bursting with energy."; Schaufeli et al., 2019).

4.4.4. Results

Manipulation Check. We conducted an OLS regression analysis of condition on segmentation and confirmed that our manipulation was successful. Participants in the high segmentation condition who received both messages from personal ties rated significantly higher on segmentation (M = 5.53, SD = 1.22), as compared to those in the low segmentation condition who received one of the messages from their boss, (M = 2.88, SD = 1.68), β = .67, b = 2.65, $t(199)$ = 12.79, SE = .21, $p < .001$, 95% CI [2.24, 3.06], d = 1.80.

Felt Humanness. We found that participants who were randomly assigned to the high segmentation condition (M = 5.40, SD = .74) reported feeling significantly greater humanness as compared to those in the low segmentation condition (M = 4.16, SD = 1.07), β = .56, b = 1.24, $t(199)$ = 9.62, SE = .13, $p < .001$, 95% CI [.99, 1.50], d = 1.36. This result supports our pre-registered prediction that greater segmentation from work increases individuals' felt humanness.

Workplace Outcomes (Exploratory). Table 4 shows the means, standard deviations, and correlations of the key variables and workplace outcome variables. We found condition assignment to be significantly correlated with all workplace outcome variables, such that being in the high segmentation condition was associated with higher job satisfaction, $r(201)$ = .63, $p < .001$, 95% CI [.53, .70], higher satisfaction with colleagues, $r(201)$ = .55, $p < .001$, 95% CI [.44, .64], higher work engagement, $r(201)$ = .54, $p < .001$, 95% CI [.43, .63], and lower turnover intention, $r(201)$ = -.53, $p < .001$, 95% CI [.62, .42].

Looking at the association between dependent variables— felt humanness was also significantly correlated with higher job satisfaction, $r(201) = .64$, $p < .001$, 95% CI [.55, .71], higher satisfaction with colleagues, $r(201) = .63$, $p < .001$, 95% CI [.54, .70], higher work engagement, $r(201) = .56$, $p < .001$, 95% CI [.45, .65], and lower turnover intention, $r(201) = -.54$, $p < .001$, 95% CI [-.63, -.43].

4.4.5. Discussions

Study 11 provides further empirical evidence for the causal status of segmentation as a mediator. A subtle manipulation (i.e., message alert from their boss vs. friend) that triggered thoughts about work during a vacation led individuals to feel significantly lower humanness compared to when they were allowed complete disconnection from work.

We also explored the potential downstream consequences of segmentation and felt humanness on workplace outcomes. Higher levels of felt humanness were strongly associated with anticipated increases job satisfaction, greater relationship satisfaction with colleagues, higher engagement, and reduced turnover intentions. These findings have potential implications for managers and organizations to foster a humanizing workplace.

Overall, the present study provides causal evidence that segmentation from work causes felt humanness and that feeling human is linked with a wide set of positive outcomes highly relevant to employees thriving work.

Figure 6
Messages in the High Segmentation Condition

Figure 7
Messages in the Low Segmentation Condition

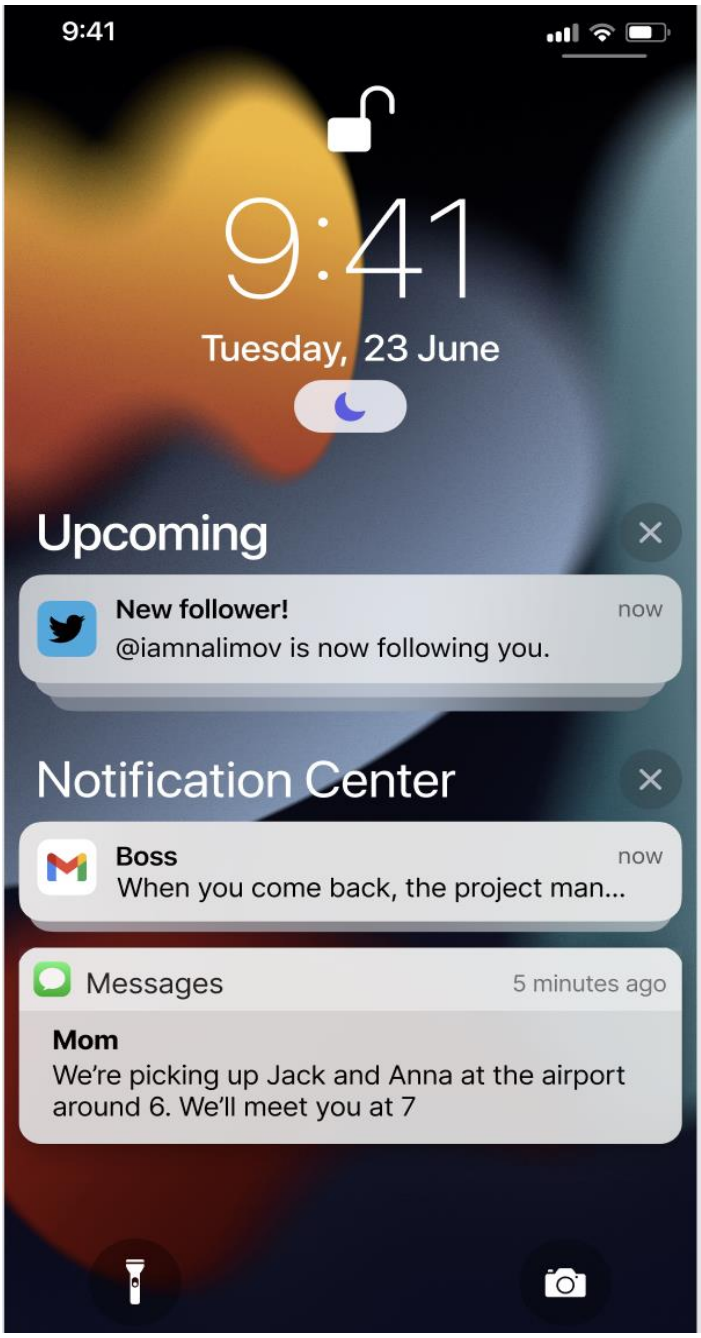


Table 4
Study 11 Descriptive Statistics and Intercorrelations

Variable	*M* (*SD*)	1	2	3	4	5
Condition	.50 (.50)					
Felt Humanness	4.78 (1.11)	.56***				
Job satisfaction	6.28 (1.81)	.55***	.64***			
Relationship satisfaction	4.97 (1.18)	.39***	.63***	.62***		
Engagement	4.10 (1.47)	.42***	.56***	.68***	.67***	
Turnover intention	3.39 (1.76)	-.41***	-.54***	-.56***	-.56***	-.65***

*** $p < .001$.

4.5. General Discussion

In contrast to receiving an equal monetary bonus, being awarded a bonus in the form of vacation provides separation from work that enhances individuals' feeling of humanness. In Study 9, participants who simply reflected on utilizing their paid vacation days reported feeling greater humanness compared to those who recalled receiving money bonuses, holding constant to value of these bonuses. Through a simulated scenario in Study 10, people who received a bonus in the form of vacation days, as opposed to its monetary equivalent, reported heightened feelings of humanness, primarily due to the perceived separation from work. Study 11 further solidified this finding by demonstrating a direct causal link between manipulating this segmentation and increased feelings of humanness. Across various methods, including thinking back to past bonuses and imagining hypothetical scenarios, our findings consistently support the hypothesis that offering paid vacation instead of monetary incentives enhances people’s feeling of humanness.

One significant implication of segmentation as a unique mechanism is that time provided without clear separation from work is unlikely to enhance felt humanness. Another theoretical implication of this research is that offering vacation instead of money as a reward may foster responses more aligned with social exchanges rather than market exchanges (Gallus et al., 2022). Lastly, as we expand our theories to accommodate the evolving landscape of hybrid work arrangements, it's crucial to recognize that the capacity to achieve segmentation from work is potentially a vital factor in people feeling fully human.

Our results consistently showed that receiving a bonus of vacation increases feelings of humanness (Studies 9-11). However, we suspect that individuals are less aware of the potential benefits of giving time off as a reward for good performance given that the most common types

of rewards and gifts given to employees tend to be money-related—including cash, gift cards, and other monetary bonuses (Miller, 2014). When we asked 97 Mturk workers to imagine they were a manager at a company and were looking to enhance the satisfaction of an employee, fewer participants self-generated giving time as an effective way to give a bonus for good performance. Indeed, the most commonly mentioned bonus was money-related (31%), including cash bonus and pay raise. Additionally, gift cards, which are also associated with monetary value, accounted for 17% of the responses. While certainly not non-existent, the next most frequent type of bonuses suggested were related to time in the form of vacation and time-offs (19%) with the remaining suggestions taking the form of other non-monetary bonuses, such as, materials (7%), recognition awards (5%), food (6%), and various other gifts. These data suggest that it does not immediately come to mind for the vast majority of those we sampled to give a bonus in the form of time, and individuals are more prone to considering giving bonuses in the form of money and other material gifts. However, further research is needed to confirm whether this trend extends to experienced managers. If so, organizations and HR departments should focus on increasing managers' awareness and understanding of the benefits of time-based bonuses like vacations.

4.5.1. Limitations and Future Directions

There are several limitations of the present investigation that are important to consider in the context of future research. First, past research suggests a possibility that individuals who come from a lower socio-economic (SES) background may prefer monetary bonuses over vacation bonuses. For example, a boost in salary is found to be more likely to increase well-being and productivity for workers with lower (vs. higher) SES backgrounds (Wolfers &

Zilinsky, 2015). Similarly, Tully and colleagues (2015) found that individuals with greater financial constraints preferred material goods over experiences because materials were thought to have longer-term consumption utility. Lee and colleagues (2018) also showed that individuals with a lower (vs. higher) social class background were not happier with experiential goods over material goods due to concerns over resource management and limited finances. These studies suggest that SES may moderate our results. However, we did not observe any significant interaction with SES on felt humanness across our studies (p = .606 to p = .968). Although individuals with lower SES may *prefer* monetary bonuses over vacation bonuses, acquiring monetary bonuses may not necessarily make them feel more human. While our data showed no interactions across condition and SES, future research could further explore whether lower SES and financially constrained workers experience greater felt humanness when receiving monetary bonuses.

Moreover, researchers should explore whether larger sums of money bonus have the potential to increase felt humanness. While our studies focused on the impact of *equivalent* amounts of vacation and money bonuses on feelings of humanness, there remains the possibility that money bonuses could foster a greater sense of humanness if offered more generously. To initially test this idea, we conducted an interaction analysis using data from Study 8 to examine whether the effect of the bonus type (vacation vs. money) interacted with their monetary value in predicting feelings of humanness. However, we did not find a significant interaction in this dataset, indicating that money bonuses were perceived as less humanizing compared to vacation days across all levels of their monetary value. Although one might anticipate that larger sums of money bonuses would bolster feelings of humanness, it is equally plausible to anticipate that they would continue to diminish them. According to the overjustification hypothesis (Deci,

1971), explicit monetary rewards are likely to undermine intrinsic motivation and enjoyment in a task, a phenomenon known as the “crowding out” effect. While some research suggests that increasing the monetary reward for a task can enhance task engagement, the existing literature does not provide evidence on whether larger sums of money can also amplify intrinsic motivation and enjoyment of a task. Therefore, further investigation is warranted to explore these opposing yet plausible hypotheses regarding whether providing larger monetary bonuses would heighten or further diminish feelings of humanity.

Another area worth exploring is whether this influence on perceived humanity also applies to other time-related incentives, such as shorter breaks and parental leaves. Although these incentives can be categorized as "time" incentives, their effects on employee experiences may vary significantly from those of vacation days. For example, the impact of vacations and their monetary equivalents may differ considerably from experiences that involve greater consequences, such as being denied parental leave or receiving a substantial salary bonus that greatly affects one's family. Likewise, while shorter breaks may provide employees with some respite, they may not completely detach them from the work environment as effectively as vacation days do. Therefore, more research is needed to understand the effects of time incentives more broadly.

Overall, we found evidence consistent with our hypothesis that receiving a vacation over a money bonus led individuals to perceive greater segmentation from work and in turn feel significantly greater humanness. Yet, there may be alternative mechanisms as to "why" vacation is so humanizing. It is reasonable to argue that a vacation bonus increases felt humanness because it's a novel type of bonus or simply because it's *not* money. Although we attempt to rule out this alternative explanation by controlling for the "unusualness" covariate (pre-registered) in

Study 10, it is worthwhile to consider how vacation bonuses are distinguishable from other non-monetary bonuses and gifts (e.g., chocolate boxes, coupons) that are also not money but may be as novel as vacation bonuses.

Importantly, researchers have suggested that givers are often unsuccessful in giving what the recipient wants, and unsolicited gifts are evaluated as less considerate than expected (e.g., Galak, Givi, & Williams, 2016; Gino & Flynn, 2011). Givers often misjudge the degree to which their recipients will appreciate the gift (Flynn & Adams, 2008). Therefore, non-monetary bonuses like food or movie tickets may not be highly appreciated if the bonuses don't align with employees' preferences. However, vacation bonuses allow employees to spend the extra time at their own discretion (e.g., go to movies, travel, rest). Compared to other non-monetary bonuses, we posit that vacation bonuses are similarly useful to money in that they can cater to individuals' specific needs, which is a preferred type of gift by most individuals (Williams & Rosenzweig, 2017). Thus, receiving more vacation or money are similar in that they can be tailored to one’s needs, but as the studies in this paper show, giving time can have the added benefit of being perceived as more humanizing. Future research should examine whether similar effects hold for other non-monetary bonuses.

CHAPTER 5

Conclusion

This dissertation investigates the distinct effects of time (such as vacations) and monetary incentives on individuals' perceptions of objectification, instrumentality, and felt humanness. Through these mechanisms, I argue that time and money incentives exert distinct influences on people's social lives. While monetary incentives can effectively boost performance on incentivized tasks (see a review by Condly, Clark, & Stolovitch, 2003), our research reveals their unintended negative consequences on perceived objectification and instrumentality, which in turn shape social interactions in a negative way—leading to reduced time spent with personal ties and increased time with work ties, alongside diminished authenticity in work interactions. From a perspective of human sustainability, these negative social impacts may have enduring repercussions on workplace well-being, potentially influencing longer term organizational outcomes negatively. As suggested by Belmi & Shroeder (2021), workplace objectification is associated with greater turnover intentions and incivility toward colleagues.

Our research also explores an alternative incentive approach—time bonuses in the form of paid vacation days. We demonstrate that vacation days offer greater separation from objectifying work contexts, thereby producing opposite effects on organizational outcomes. For instance, in Study 11, we illustrate that experiencing greater segmentation during vacations increases feelings of humanness, with downstream consequences on reduced turnover intentions, increased work engagement, and job satisfaction. Thus, our work suggests that additional time off from work as

a reward can enhance feelings of humanness, and potentially lead to improved well-being outcomes at work.

This research collectively guides organizations to strategically employ different incentives based on their goals. If the company's goal is to maximize employees' performance outcome on a specific task, monetary incentives may prove effective. However, when the company's goal is to enhance human sustainability and long-term organizational outcomes, implementing time-related incentives, such as paid leave and vacations, are likely to be more beneficial. We base these suggestions on our theory and findings that time-based rewards promote a sense of humanization, while monetary rewards like performance incentives often prompt employees to perceive their colleagues more as tools, influencing their workplace experiences and socialization patterns in ways that are focused on maximizing rewards. This research trajectory not only deepens our theoretical understanding but also offers practical tools for managers to craft organizational incentive structures in ways that allow employees to thrive.

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