IE UNIVERSIDAD

TESIS DOCTORAL/ DOCTORAL DISSERTATION

ENSAYOS SOBRE EL BIENESTAR EN EL TRABAJO / ESSAYS ON WORKPLACE WELL-BEING

SIYAO ZHU

SEGOVIA, 2023

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Doctoral Thesis Advisor: Dr. Kriti Jain

ABSTRACT

This thesis consists of three chapters that address different facets of employee well-being. Chapter 1 examines how employees make sense by seeking feedback from both leaders and coworkers. We propose that proactively seeking feedback from others in the workplace enables the sense-making process to encourage process regarding their own job/role and enhances the employee's work meaningfulness. The enhanced work meaningfulness, in turn, drives employees to take personal initiatives at work, which then results in higher performance. We collected longitudinal data and used the latent change score (LCS) method to analyze the dynamic process. Chapter 2 tested how performance pressure intensifies envy towards the coworker and then leads to surface acting—a strategy of image management moderated by emotional intelligence. This research was done with both experiments and time-lagged survey studies. Chapter 3 argues that the follower's work meaningfulness serves as the initiating factor of social exchange between the follower and the leader, which produces trust from the leader via enhanced task performance and organizational citizenship behavior oriented towards the organization (OCBO). In addition, there is a gender difference, such that the effect of work meaningfulness on task performance and OCBO and, sequentially, the leader's trust are stronger for male employees than for female employees. This study uses a multi-source (leader and follower) and multi-time survey design.

RESUME

Esta tesis consta de tres capítulos que abordan distintas facetas del bienestar de los empleados. En el capítulo 1 se examina el modo en que los empleados dan sentido a su trabajo al buscar feedback tanto de sus jefes como de sus compañeros. Proponemos que la búsqueda proactiva de feedback por parte de los demás en el lugar de trabajo permite que la búsqueda de sentido fomente el proceso en relación con su propio trabajo/rol y aumenta la significación del trabajo del empleado. A su vez, el aumento del sentido del trabajo impulsa a los empleados a tomar iniciativas personales en el trabajo, lo que se traduce en un mayor rendimiento. Recogimos datos longitudinales y utilizamos el método Latent Change Score (LCS) para analizar el proceso dinámico. En el capítulo 2 se comprobó cómo la presión sobre el rendimiento intensifica la envidia hacia el compañero de trabajo y luego conduce a la actuación superficial, una estrategia de gestión de la imagen, moderada por la inteligencia emocional. Esta investigación se realizó tanto con experimentos como con estudios de encuestas con desfase temporal. El capítulo 3 sostiene que el sentido del trabajo del seguidor sirve como factor iniciador del intercambio social entre el seguidor y el líder, que produce la confianza del líder a través de un mayor rendimiento en la tarea y un comportamiento de ciudadanía organizativa orientado hacia la organización (OCBO). Además, existe una diferencia de género, de forma que el efecto de la significación del trabajo sobre el rendimiento en la tarea y el OCBO y, secuencialmente, la confianza del líder es más fuerte para los empleados varones que para las mujeres. Este estudio utiliza un diseño de encuesta multifuente (líder y seguidor) y multitemporal.

ACKNOWLEDGMENT

I am extremely grateful for the support and companionship I have enjoyed during my Ph.D. journal from my supervisor, my committee, my academic department, my parents, and my friends. Without your dedication and encouragement, this thesis would not have been possible.

First and foremost, I would like to express my sincere gratitude to my supervisor, Dr. Kriti Jain, for her guidance, patience, and support. Her academic knowledge and personal experience have had a tremendous impact on my research and my life.

I would also like to thank my thesis committee: Dr. Gloria Maria Cuevas Rodriguez, Dr. Julio de Castro, Dr. Bin Ma, Dr. Evgenia Lysova, and Dr. Álvaro San Martín. Thank you for the comments and advice, which helped me improve my current research and my research skills.

Additionally, I am thankful to the Ph.D. department. Dr. Laura Maguire has given me great support whenever it is needed. I have also immensely benefited from all the courses and seminars delivered by professors from IE and invited by the Ph.D. department.

My special gratitude goes to my parents. Thank you for being who you are: two honest, kind, modest, caring, loving, and accommodating individuals. You always say you are not qualified to give me guidance on my career or studies, but you have taught me the most important lesson in my life: to cherish the healthy body I have that enables me to observe and participate in this busy yet interesting world. You are not only my backbone but also my front-light.

爸爸妈妈，谢谢你们！我永远永远爱你们！

Last but not least, I would like to thank my dearest friends and colleagues: Antonella, Antoaneta, Chandrika, Inma, Jeanne, Juan, Lucia, Luisa, Mariela, Mohamad, Olalla, Qiong, Rajdeep, Robert, Shike, Sonia, Sreyaa, Summeet, Sumit, Susan, Xiaofei, Xiaozhou, Zhaoyi, and Zhihao. Thank you for making this long Ph.D. journey less lonely or daunting.

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INTRODUCTION

With the global pandemic COVID-19 and several natural and environmental disasters that hindered people's health and normal lives, well-being has become an increasingly present challenge faced by society. The World Health Organization proposed "making mental health and well-being for all a global priority". In addition, the United Nations (UN) calls for attention to "good health and well-being" as part of its Sustainable Development Goals (SDGs). Management scholars are encouraged to join the debate and provide insights to enable tackling such "Grand Challenges" (George et al., 2016). This thesis answers the call for adding to the knowledge on this critical subject by exploring the antecedents, processes, and outcomes of increased or decreased well-being in the workplace.

Well-being is defined as the "overall quality of an employee's experience and functioning at work" (Grant et al., 2007, p. 52) and generally consists of three facets: psychological, physical, and social well-being. Studies on employee psychological well-being examined both hedonic (i.e., happiness and job satisfaction; see Lennard et al., 2019; Salas-Vallina et al., 2021) and eudaemonic (personal fulfillment such as meaningfulness; see Ryff & Singer, 2008) well-being. Physical well-being refers to bodily health, studied in the organization in multiple forms, such as stress (Bennett et al., 2017) and sleep (Schilpzand et al., 2018), etc. Lastly, social well-being focuses on the quality of an individual's relationships with others (Keyes, 1998). Organizational scholars have looked at social well-being in terms of trust (Salas-Vallina et al., 2021), leader-member exchange (Graen & Uhl-Bien, 1995), and cooperation (McAllister, 1995). This thesis primarily tackles the psychological and social well-being dimensions: Chapter 1 explores the intrapersonal process of forming work meaningfulness from seeking behavior from others at work; Chapter 2 shows that

performance pressure affects relations with co-workers by producing interpersonal emotion (i.e., envy) and interpersonal behavior (surface-acting towards the co-worker); Chapter 3 connects psychological and social well-being and suggests that follower's work meaningfulness leads to leader's trust in them.

More specifically, Chapter 1 delineates a within-person dynamic process that connects feedback-seeking behavior (FSB) and performance. Drawing on the sensemaking theory, we propose that the fluctuation of employees' FSB influences the change in their work meaningfulness, which shapes the adjustment of personal initiative and eventually impacts their performance. With this research, we aim to address the call to understand the cognitive process of feedback-seeking behavior, which has remained a black box. Moreover, this study demonstrates that employees can construct work meaningfulness in an agentic manner by seeking feedback from others. Last but not least, we fill the knowledge gap about relationships among different forms of proactive behavior. As organizations today expect employees to proactively manage their performance, scholars have studied a diverse set of proactive behaviors. Exploring the intrapersonal process of distinct proactive behaviors adds to the literature by providing a nuanced view of how certain proactive behaviors translate to performance change. We conducted latent change score (LCS) modeling on the panel data from 207 full-time employees using three-wave surveys separated by 2-week intervals. The results supported our hypotheses. These findings provide important theoretical and practical implications for researchers and managers regarding how to increase employees' well-being, initiative, and performance.

In the third Chapter, we probe the antecedents of leader's trust in followers. Trust has been extensively studied for its critical role in workplace relationships. Likewise, in recent

times, work meaningfulness has gained tremendous significance. However, both streams of literature (i.e., trust and work meaningfulness) have predominantly taken a top-down leader-centric approach to study the role of leaders in eliciting followers' trust in leader, meaningfulness, and behaviors. Instead, in this manuscript, we take a bottom-up approach to examine the role of followers in eliciting leaders' trust. Specifically, we propose that follower's meaningfulness can elicit leader trust via a higher level of task performance and OCBO. Moreover, incorporating the role of the leader in this bottom-up approach, we highlight gender as an important moderator influencing follower's task performance and OCBO. A dyadic time-lagged field study conducted with full-time employees in China confirmed most of our hypotheses. With this, we hope to contribute to the literature on meaningfulness, trust, and leadership. First, to the best of our knowledge, this is the first research that examines how follower's meaningfulness can elicit interpersonal attitudinal from their immediate leaders. Second, we answer the call of leadership scholars to 'reverse the lens' and view followers not only as recipients of leadership but also as active initiators of the leader-subordinate relationship – we study how follower's meaningfulness can serve as an initiator for leader trust and leader behavior. Third, by incorporating the gender effect, we argue for the importance of taking into account social roles in the examination of the effect of work meaningfulness.

As a whole, the three chapters contribute to the literature on well-being from different angles. Chapter 1 explores the within-person process of work meaningfulness (psychological well-being), revealing how individuals actively incorporate others' views to alter their work meaningfulness which eventually influences their performance. Chapter 2 identifies performance pressure as the antecedent for interpersonal emotion and behavior (social well-

being). Chapter 3 bridges work meaningfulness with leader's trust (social well-being). We hope this thesis could trigger further research on different facets of well-being.

INTRODUCCIÓN

Con la pandemia mundial COVID-19 y varios desastres naturales y medioambientales que dificultaron la salud y la vida normal de las personas, el bienestar se ha convertido en un reto cada vez más presente al que se enfrenta la sociedad. La Organización Mundial de la Salud propuso "hacer de la salud mental y el bienestar para todos una prioridad mundial" (Día Mundial de la Salud Mental 2022, s.f.). Además, la Organización de las Naciones Unidas (ONU) pide que se preste atención a "la buena salud y el bienestar" como parte de sus Objetivos de Desarrollo Sostenible (ODS). Se anima a los estudiosos de la gestión a unirse al debate y aportar ideas que permitan abordar estos "grandes retos" (George et al., 2016). Esta tesis responde al llamamiento para contribuir al conocimiento sobre este tema crítico explorando los antecedentes, procesos y resultados del aumento/disminución del bienestar en el lugar de trabajo.

El bienestar se define como la "calidad general de la experiencia y el funcionamiento de un empleado en el trabajo" (Grant et al., 2007, p. 52) que generalmente consta de tres facetas: bienestar psicológico, físico y social. Los estudios sobre el bienestar psicológico de los empleados examinan tanto el bienestar hedónico (es decir, la felicidad y la satisfacción laboral, véase Lennard et al., 2019; Salas-Vallina et al., 2021) como el bienestar eudaemónico (la realización personal, como la significación, véase Ryff y Singer, 2008). El bienestar físico se refiere a la salud corporal, estudiada en la organización de múltiples formas, como el estrés (Bennett et al., 2017) y el sueño (Schilpzand et al., 2018), etc. Por último, el bienestar social se centra en la calidad de las relaciones de un individuo con los demás (Keyes, 1998). Los estudiosos de las organizaciones han analizado el bienestar social en términos de confianza (Salas-Vallina et al., 2021), intercambio líder-miembro (Graen & Uhl-Bien, 1995) y

cooperación (McAllister, 1995). Esta tesis aborda principalmente las dimensiones psicológica y de bienestar social: El capítulo 1 explora el proceso intrapersonal de formación del sentido del trabajo a partir del comportamiento de búsqueda de los demás en el trabajo; el capítulo 2 muestra que la presión sobre el rendimiento afecta a las relaciones con los compañeros de trabajo al producir emociones interpersonales (por ejemplo, envidia) y comportamiento interpersonal (comportamiento superficial hacia el compañero de trabajo); el capítulo 3 conecta el bienestar psicológico con el bienestar social y sugiere que el sentido del trabajo de los seguidores conduce a la confianza del líder en ellos.

Más concretamente, el capítulo 1 describe un proceso dinámico intrapersonal que conecta el comportamiento de búsqueda de feedback (FSB) y el rendimiento. Basándonos en la teoría del sensemaking, proponemos que la fluctuación del FSB de los empleados influye en el cambio de su sentido del trabajo, lo que da forma al ajuste de la iniciativa personal y, finalmente, repercute en su rendimiento. Con esta investigación, pretendemos responder a la necesidad de comprender el proceso cognitivo del comportamiento de búsqueda de feedback, que ha permanecido en la sombra. Además, este estudio demuestra que los empleados pueden construir el sentido de su trabajo de una manera agéntica buscando la retroalimentación de los demás. Por último, pero no menos importante, llenamos el vacío en el conocimiento de las relaciones entre las diferentes formas de comportamientos proactivos. Dado que hoy en día las organizaciones esperan que los empleados gestionen su rendimiento de forma proactiva, los académicos han estudiado un conjunto diverso de comportamientos proactivos. Explorar el proceso intrapersonal de los distintos comportamientos proactivos se suma a la literatura al proporcionar una visión matizada de cómo ciertos comportamientos proactivos se traducen en un cambio en el rendimiento. Realizamos un modelo de puntuación de cambio latente (LCS)

sobre los datos de panel de 207 empleados a tiempo completo utilizando encuestas de tres olas separadas por intervalos de 2 semanas. Los resultados corroboraron nuestras hipótesis. Estos resultados ofrecen importantes implicaciones teóricas y prácticas para investigadores y directivos sobre cómo aumentar el bienestar, la iniciativa y el rendimiento de los empleados.

En el segundo capítulo, exploramos el impacto de la presión sobre el rendimiento en la envidia de los empleados y la actuación superficial intraorganizacional, con la inteligencia emocional de los empleados como moderador crítico. Aunque la presión sobre el rendimiento se ha convertido en una experiencia frecuente en el lugar de trabajo debido a las crecientes expectativas y objetivos de rendimiento impuestos por las organizaciones, se sabe menos sobre su influencia en los sentimientos y comportamientos interpersonales de los empleados, que pueden ser fundamentales para el bienestar psicológico de los empleados, la colaboración y la eficacia organizativa. Basándonos en la teoría de la comparación social, proponemos que es probable que los empleados que perciben una mayor presión sobre su rendimiento sientan envidia hacia sus compañeros que les superan. Además, basándonos en la teoría de la autopresentación, sugerimos que los empleados tienden a actuar en la superficie para disimular la envidia, que es una emoción indeseable en el contexto organizativo. Además, examinamos la inteligencia emocional de los empleados como moderadores de la relación entre la presión sobre el rendimiento y la actuación superficial a través de la envidia. Mediante un experimento, el Estudio 1 estableció la relación causal entre la alta presión sobre el rendimiento y la actuación superficial a través de la envidia. En el Estudio 2, utilizando un estudio de campo con un desfase temporal y un análisis a nivel de empleado, examinamos todo nuestro modelo de investigación con varias explicaciones alternativas. Con estos resultados, esperamos destacar cómo las expectativas organizativas de un rendimiento

excepcional de los empleados pueden aumentar la superficie intraorganizativa de los empleados actuando a través de la emoción indeseable de la envidia, y por lo tanto perturbar el bienestar de los empleados, así como las interacciones constructivas entre los miembros de la organización.

En el tercer capítulo, investigamos los antecedentes de la confianza del líder en sus seguidores. La confianza ha sido ampliamente estudiada por su papel fundamental en las relaciones laborales. Del mismo modo, en los últimos tiempos, el significado del trabajo ha adquirido una enorme importancia. Sin embargo, ambas corrientes de la literatura (es decir, la confianza y la significación del trabajo) han adoptado predominantemente un enfoque centrado en el líder de arriba hacia abajo para estudiar el papel de los líderes en la obtención de la confianza de los seguidores en el líder, la significación y los comportamientos. En cambio, en este manuscrito, adoptamos un enfoque ascendente para examinar el papel de los seguidores en la obtención de la confianza de los líderes. Específicamente, proponemos que el significado del seguidor puede provocar la confianza del líder a través de un mayor nivel de rendimiento en la tarea y OCBO. Además, al incorporar el papel del líder en este enfoque ascendente, destacamos el género como un importante moderador que influye en el rendimiento de la tarea del seguidor y en la OCBO. Un estudio de campo diádico realizado con empleados a tiempo completo en China confirmó la mayoría de nuestras hipótesis. Con ello, esperamos contribuir a la literatura sobre el significado, la confianza y el liderazgo. En primer lugar, hasta donde sabemos, ésta es la primera investigación que examina cómo el sentido de pertenencia de los seguidores puede provocar actitudes interpersonales de sus líderes inmediatos. En segundo lugar, respondemos a la llamada de los estudiosos del liderazgo para "invertir la lente" y ver a los seguidores no sólo como receptores del liderazgo,

sino también como iniciadores activos de la relación líder-subordinado - estudiamos cómo la significatividad del seguidor puede servir como un iniciador para la confianza del líder y el comportamiento del líder. En tercer lugar, al incorporar el efecto de género, defendemos la importancia de tener en cuenta los roles sociales en el examen del efecto de la significación del trabajo.

En conjunto, los tres capítulos contribuyen a la literatura sobre el bienestar desde distintos ángulos. El capítulo 1 explora el proceso con-persona de la significación del trabajo (bienestar psicológico), revelando cómo los individuos incorporan activamente las opiniones de los demás para alterar su significación del trabajo, lo que finalmente influye en su rendimiento. El capítulo 2 identifica la presión sobre el rendimiento como antecedente de la emoción y el comportamiento interpersonales (bienestar social). El capítulo 3 relaciona el sentido del trabajo con la confianza del líder (bienestar social). Esperamos que esta tesis sirva de estímulo para seguir investigando las distintas facetas del bienestar.

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Chapter 1: The "sense" behind proactive behavior: Relationships, dynamics, and outcome

ABSTRACT

Feedback-seeking behavior (FSB) is suggested to be a critical proactive behavior that enables employees to continuously improve their performance. Yet empirical results on the relationship between FSB and performance are mixed. This suggests the need to understand what happens after seeking feedback. This study examines the intrapersonal dynamic process between feedback-seeking behavior (FSB) and performance. Based on sensemaking theory, we argue that change in employees' FSB over time contributes to change in their perceptions regarding work meaningfulness, which influences the adjustment of their personal initiative (PI) and eventually predicts the change in their performance over time. We collected panel data from 207 full-time employees using three-wave surveys separated by 2-week intervals. The results of latent change score (LCS) modeling supported our hypotheses. Our findings suggest the need to recognize the distinctiveness of and the relationships among various forms of proactive behavior, as well as the underlying mechanisms of how they synergistically contribute to employees' performance. Moreover, we also illustrated that employees can construct work meaningfulness in an agentic manner by seeking and incorporating others' feedback.

Keywords: proactive behavior, feedback-seeking behavior, personal initiative, work meaningfulness, sensemaking

The "sense" behind proactive behavior: Relationships, dynamics, and outcome

INTRODUCTION

Organizations today expect employees to proactively manage and continuously improve their performance (Sherf & Morrison, 2020; Thompson, 2005; Vancouver & Morrison, 1995), whereas, in the increasingly complex workplace, performance information is often ambiguous, uncertain, and sometimes absent (Ashford, 2003; Hofmann et al., 2009). Hence, it is generally assumed that feedback-seeking behavior (FSB) – referred to as proactively seeking information to assess the correctness and adequacy of their goal-achieving behavior (Ashford, 1986; Ashford & Cummings, 1983) – enables employees to evaluate their own work and thus is critical for their performance advancement (Ashford, 2003; Ashford & Cummings, 1983; Morrison, 1993). However, empirical findings of FSB's effect are mixed: some researchers found that a higher frequency of FSB leads to better task performance (Huang, 2012; Morrison, 1993), while some other studies failed to establish this positive relationship (e.g., Anseel et al., 2015; Ashford & Black, 1996). This discrepancy suggests the necessity of looking into the nuanced process between FSB and performance. How do employees process the feedback they solicited? What action do they take to increase their performance after the feedback is processed? These questions require a close examination of the microprocessor of the feedback seeker's cognitive experience and sequential behaviors, which remain scarce (Anseel et al., 2015; Lam et al., 2007).

To address these gaps, we draw on the sense-making perspective (Weick, 1993, 1995) and posit a dynamic process from FSB enhancement to performance improvement mediated by the change in meaningfulness and personal initiative. Sense-making is the process during which "people concerned with identity in the social context of other actors engage ongoing

circumstances from which they extract cues and make plausible sense retrospectively while enacting more or less order into those ongoing circumstances" (Weick et al., 2005, p. 409). Employees constantly try to make sense of the meaning of their work, which is essential to their identity in the organization, from the words and behaviors of others at work (Wrzesniewski et al., 2003). Past literature suggests FSB serves as an important part of the sense-making process as it involves soliciting information regarding the employee's role, performance, and others' expectations of them (Ashford & Black, 1996; Drencheva et al., 2021; Wanberg & Kammeyer-Mueller, 2000). Hence, we argue that increasing FSB is conducive to constructing the meaning of work, resulting in enhanced work meaningfulness – the perception that one's work is worthwhile, significant, and purposeful (Pratt & Ashforth, 2003; Rosso et al., 2010; Steger et al., 2012). We further argue that the elated work meaningfulness triggers employees to engage in more personal initiative, which finally leads to performance increment. Personal initiative is defined as a behavior syndrome in which employees take self-starting and extra-role actions (Frese et al., 1997). We choose personal initiative as the behavioral mediator, first because it is a general form of proactive behavior that is particularly closely associated with higher work performance (Bledow & Frese, 2009; Thomas et al., 2010); and second, because the perceptual antecedences of deciding to conduct this proactive behavior have not been well explored (Crant, 2000). We argue that to develop personal initiative, employees should be able to make sense of the organization's mission, role, and goal, and they should be motivated to take action, which means that they should obtain a sense of work meaningfulness. Our theoretical model is shown in Figure 1.

Insert Figure 1 here

With this study, we aim to add to the literature on FSB, meaningfulness, and proactive behavior in general. First, this study advances research on FSB by unveiling the feedback seekers' perceptions and actions preceding performance change, which remain a black box (Anseel et al., 2015). More specifically, this study examined the intrapersonal dynamic process with a longitudinal survey study and latent change score model (LCS). LCS is an analytic method that explicitly captures the dynamic process when one change leads to other changes, allowing us to answer the call to discern the between- and within-person effect FSB has on performance (Anseel et al., 2015; Grant & Ashford, 2008). Second, it provides an empirical examination of how an employee's work meaningfulness is influenced by others' perspectives. This is particularly relevant because, despite the acknowledged influence social environment has on our work experience, meaningfulness has mostly been studied from an individual's first-person perspective (Tosti-Kharas & Michaelson, 2021; Wrzesniewski et al., 2003). This study provides a quantitative examination of the procedure during which an individual employee gauges others' views and forms their own sense of work meaningfulness. Third, proactive behavior, referred to as the self-directed and future-focused action that an individual takes to bring about change to the situation and/or change within oneself in the organization (Bindl & Parker, 2011; Grant & Ashford, 2008), encompasses a variety of behaviors such as FSB and personal initiative. However, rarely do empirical studies examine how one proactive behavior impacts another (Crant, 2000). This study links FSB (a proactive behavior that seeks resources from the environment) to personal initiative (a proactive behavior that changes the environment) and extends research on integrating diverse forms of proactive behavior.

THEORY AND HYPOTHESIS DEVELOPMENT

Sense-making is essential to any organizing process (Maitlis & Christianson, 2014). As mentioned above, it can be viewed as a process of exchange between the individual and their environment, during which employees first extract cues from the environment, make sense of the meaning of the cues within themselves, and then extend behaviors toward the environment. The sense-making perspective stresses the agentic nature of employees: employees construct a sense of events and features of the organization and then take action accordingly. Therefore, this perspective has been used to explore concepts related to proactive behavior, such as help-seeking and creativity (Drazin et al., 1999; Ford, 2000; Hofmann et al., 2009).

Sense-making generally involves three sequential processes: creation (extracting and bracketing cues of work experience from the organization), interpretation (making sense of the cues gathered), and enactment (taking action on the organization based on the newly constructed sense) (Sandberg & Tsoukas, 2015; Weick, 1995). However, rarely do sense-making studies involve all three processes – the creation process and interpretation process are generally mingled (Sandberg & Tsoukas, 2015). Based on past literature, FSB may serve as a form of the creation process, as it involves soliciting information regarding one's role, performance, and value in the organization (Ashford & Black, 1996; Vandenberghe et al., 2021). With the relevant information gathered from the creation process, the interpretation process then generates the "sense" – most commonly treated as the cognitive perception of interpreted events (Sandberg & Tsoukas, 2015). Work meaningfulness is one type of cognitive outcome of the sense-making process (Aguinis & Glavas, 2019). It theoretically increases personal initiative (Fletcher & Schofield, 2021) – a possible enactment process of

sensemaking. Personal initiative is a general form of proactive behavior that involves changing the environment (Chiaburu et al., 2017; Frohman, 1997), such as altering work characteristics (Frese et al., 2007). It is closely related to employee's task performance (Bledow & Frese, 2009; Thomas et al., 2010).

Below, we explain in detail the sense-making process, starting from FSB (i.e., creation), work meaningfulness (i.e., interpretation), personal initiative (i.e., enactment), and the impact on work performance.

Change in FSB and Change in Meaningfulness

There are generally two types of FSB: feedback monitor (i.e, passively observing others' work behavior) and feedback inquiry (i.e., directly soliciting information regarding one's performance and role, etc.) (Ashford & Black, 1996, 1996). Here we only examine feedback inquiry, because sense-making is essentially organized through communication – people extract and form sense through ongoing interactive talks (A. D. Brown, 2000; Taylor & Van Every, 1999; Weick et al., 2005). Most studies on FSB operationalized it as a trait-level construct (Anseel et al., 2015). However, it is shown that not only does the level of FSB fluctuate, but also a reduced level of FSB interrupts employees' evaluation of their fit with the organization and hinders employees' sense-making (Vandenberghe et al., 2021). Feedback received, observed, or sought from others could be inaccurate or ambiguous (Dykman et al., 1989; Lee et al., 2020); hence, insufficient or interrupted FSB could lead to incorporating information that is irrelevant or unconducive to the construction of meaning and meaningfulness. One example could be that employees receiving failure feedback from their leader tend to capture leader's affect besides the real message concerning the problems identified and tend to perform worse if the leader shows negative affect (Gaddis et al., 2004).

In contrast, more FSB may enable employees to seek clarification of unclear feedback, compare and contrast one's feedback with that of others, and solicit the most relevant feedback.

FSB, as the creation process, is likely to give rise to work meaningfulness because it facilitates the four major sources of meaningfulness: the work task, the role people play, the interaction, and the organization (Bailey et al., 2017). First, engaging in more FSB provides clarity of the work task per se. While employees who see their work as offering skill variety, task significance, and task identity tend to experience more work meaningfulness (Grant, 2008; Humphrey et al., 2007), engaging in more FSB provides more clarity regarding the goal (e.g., the identity and significance of the task), the skills needed, and the diagnosis of problems and misunderstandings (Ashford, 2003; Sherf & Morrison, 2020). Second, enhancing FSB clarifies the role that employees play (S. P. Brown et al., 2001). People make sense of others' words (e.g., feedback) and behaviors to evaluate roles (Wrzesniewski et al., 2003). Ring and Van de Ven (2000, p. 180) theorized that "the sense-making process derives from the need within individuals to have a sense of identity – that is, a general orientation to situations that maintain esteem and consistency of one's self-conceptions". Hence, engaging in more FSB enables the employee to understand their role and the alignment between their role and their self-concept, and thus experience more meaningfulness (Kahn, 1990; Rosso et al., 2010; Tims et al., 2016). Third, engaging in more FSB provides more interaction with co-workers and leaders. FSB is critical to employee socialization (Vandenberghe et al., 2021). For instance, a higher level of FSB from the leader leads to a higher level of leader-member exchange (Lam et al., 2007). FSB, therefore, is likely to enhance the sense of belongingness and connectedness – an essential trigger for work meaningfulness (May et al., 2004). Four,

the change in FSB is likely to provide a better fit with the organization's values, which predicts higher work meaningfulness (Pratt & Ashforth, 2003; Rosso et al., 2010). FSB helps to understand the organization's values and norms so as to identify the fit between the individual and the organization, which is illustrated by the fact that decrease of FSB leads to lower commitment to the organization (Vandenberghe et al., 2021). In summary, we hypothesize:

H1: Change in FSB positively predicts change in meaningfulness.

Change in Meaningfulness, Change in Personal Initiative, and Performance

Personal initiative is a type of proactive behavior that "(1) is consistent with the organization's mission, (2) has a long-term focus, (3) is goal-directed and action-oriented, (4) is persistent in the face of barriers and setbacks, and (5) is self-starting and proactive" (Frese et al., 1996, p. 38). The importance of personal initiative has been manifested by its positive link to a series of important workplace outcomes such as commitment (Hartog & Belschak, 2007), innovation (Rooks et al., 2016), and entrepreneurial success (Glaub et al., 2014). Researchers, therefore, have endeavored to uncover the mechanisms that enhance personal initiative. It's shown that job characteristics such as routinization (Ohly et al., 2006), control and complexity (Frese et al., 2007), and workplace attributes such as justice climate (De Dreu & Nauta, 2009) could lead to individual indifference in personal initiative. Besides the influence of the above-mentioned work conditions, personal initiative also fluctuates within each individual's work-life (Frese et al., 2007; Zacher et al., 2019). This suggests that under the same work condition, employees may engage in a certain cognitive process that leads to the decision to conduct this behavior.

We argue that the long-term, organization-oriented, and self-starting nature of personal initiative (Bledow & Frese, 2009) requires employees to have a clear understanding of the organization's missionor purpose and have the motivation and resources needed to strive for the long-term goals, suggesting that higher meaningfulness is likely to trigger more personal initiative. Fletcher & Schofield (2021) drew on the theory of purposeful work behavior (Barrick et al., 2013) – that experienced work meaningfulness triggers the task-specific motivational process – and showed that employees receiving an intervention to enhance work meaningfulness exhibit a higher level of personal initiative. The broaden-and-build theory of positive emotions (Fredrickson, 2004, 2013; Fredrickson & Branigan, 2005) also explains the positive relationship between change in meaningfulness and personal initiative. According to this theory, positive emotion broadens an individual's cognition-action reservoir, enabling them to build more enduring psychological resources. Meaningfulness, as a possible trigger of the broaden-and-build process (Fletcher et al., 2018; Soane et al., 2013), is likely to broaden the employee's perspective from short-term and self-centric to long-term and organization-focused, and to build and accumulate psychological resources conducive to personal initiative. Based on the previous discussion of the creation–interpretation–enactment process, we propose:

H2: Change in FSB positively predicts change in personal initiative via change in meaningfulness.

The positive relationship between personal initiative and performance from the individual to organizational level has long been established (Bledow & Frese, 2009; Chiaburu et al., 2017; Thomas et al., 2010). For example, small business owners receiving personal initiative intervention achieve higher entrepreneurial success. Middle manager with higher

personal initiative intention exhibits higher performance rating (Glaser et al., 2016). At the organizational level, personal initiative also leads to higher firm performance (Baer & Brown, 2012). Personal initiative stimulates change in the environment (Frese et al., 1996; Frese & Fay, 2001), such as improving work characteristics (Frese et al., 2007), and hence facilitates work performance. At the same time, employees with higher personal initiative form and implement clear career plans (Frese et al., 1997), which could also be conducive to work performance. On top of that, work meaningfulness has been shown to be a distant predictor to work performance (Allan et al., 2019), and it has been shown that a similar proactive behavior – the promotive voice behavior – mediates the relationship between work meaningfulness and performance (Fürstenberg et al., 2020). Based on the previous discussion, we propose:

H3: Change in FSB positively predicts change in performance via 1) change in meaningfulness and 2) change in personal initiative.

METHODS

Participants and Procedure

Data for this study came from full-time employees in the UK recruited from the online survey platform Prolific. At Time 1, 250 full-time employees were recruited. Two weeks later, participants received the Time 2 survey and a reminder email if the survey was not answered within a day. In total, 233 participants completed the Time 2 survey (93% response rate). Another two weeks later, participants received the Time 3 survey. Again, a reminder email was sent to participants who did not answer the survey within a day. We received 215 responses at Time 3 (86% response rate). All variables in this study were measured at all three time points. We used an anonymous ID to match the responses from the

same participants across the three rounds and joined all three surveys of 215 participants. Following the best practice of running the LCS model (Matusik et al., 2021), we screened the data and eliminated 8 responses falling outside 3 standard deviations of the average response time. Ultimately, 207 employees remained in the sample, including 107 women (51.69%) and 100 men (48.31%). Their average age was 37.33 years (SD = 11.28). Regarding the level of education, 62% held a bachelor's degree or above. On average, participants had worked in their current job for 7.34 years (SD = 7.94). Participants came from a wide spectrum of industries (e.g., finance, health care, manufacturing, and construction).

Measures

FSB was measured with a three-item feedback-inquiry sub-scale developed by Ashford (1986). Participants were asked how frequently they engaged in the following behaviors: "Seek information from your co-workers about your work performance"; "Seek feedback from your supervisor about your work performance"; "Seek feedback from your supervisor about potential for advancement within the organization" (1 = *never*, 5 = *always*).

Meaningfulness was measured following Leunissen et al.'s (2018) practice by using the four-item scale from the Work and Meaning Inventory, which captures a sense that the work one is doing has personal significance, matters, and is meaningful (Steger et al., 2012). A sample item is: "I have a good sense of what makes my job meaningful" (1 = *strongly disagree*, 7 = *strongly agree*).

Personal initiative (PI) was assessed using the seven-item scale developed and validated by Frese et al. (1997). An example item is "I actively attack problems at work" (1 = *strongly disagree*, 7 = *strongly agree*).

Participants' performance was measured with the three-item individual task proficiency scale by Griffin et al. (2007) on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). An example item is: "I carried out the core parts of my job well."

Control variable. In line with the literature on FSB (e.g., Lam et al., 2007; Sherf & Morrison, 2020), meaningfulness (e.g., Allan et al., 2019; Frieder et al., 2018), and PI (e.g., Fay & Sonnentag, 2002; Sonnentag, 2003), we controlled for demographic variables such as age, gender, and tenure in the organization, measured at T1. We also controlled for proactive personality (Bateman & Crant, 1993), which was measured at Time 3 with a 10-item scale (Seibert et al., 1999). An illustrative item is: "I am constantly on the lookout for new ways to improve my life" (1 = *strongly disagree*, 7 = *strongly agree*). Since the control variables, except for gender, were not significantly related to our dependent variables, we excluded them from the analysis report following the best practice of control variable usage suggested by Bernerth and Aguinis (2016). However, the results retain the same pattern when these variables are included.

Results

Analytical approach. As a first step, we conducted confirmatory factor analyses (CFAs) using the "lavaan" package for the R statistical computing environment to test the measurement model (Rosseel, 2012). We then conducted measurement equivalence analysis using Mplus version 8.3 (Muthén & Muthén, 1998). To account for observed deviations from normality, we used a robust maximum likelihood estimator in both analyses (Foldnes & Olsson, 2015).

Subsequently, we followed previous research by employing an LCS model using structural equation modeling in Mplus version 8.3 (Muthén & Muthén, 1998) to capture the

effect of change that occurs (the LCS method excludes measurement error; Matusik et al., 2021). More specifically, we took the simplified LCS modeling approach (Selig & Preacher, 2009) preferred by previous studies (e.g., Zacher et al., 2019) to test the hypothesized indirect effects.

Hypothesis 1 suggests that change in FSB predicts change in meaningfulness. To test Hypotheses 1, the latent change variable for meaningfulness (from T2 to T3) was specified to be influenced by T1 FSB, T1–T2 change in FSB, and T2 meaningfulness. Hypothesis 2 proposes an indirect effect between change in FSB and change in PI via change in meaningfulness. To test this hypothesis, the latent change variable for PI was specified to be influenced by T1 FSB, T1–T2 change in FSB, T2 meaningfulness, T2–T3 change in meaningfulness, and T2 PI. Hypothesis 3 proposes a two-stage serial mediation. To test Hypothesis 3, the dependent variable, the latent change variable for performance (from T2 to T3), was specified to be predicted by T1 FSB, T1–T2 change in FSB, T2 meaningfulness, T2–T3 change in meaningfulness, T2 PI, T2-T3 change in PI, and T2 performance. We conducted bootstrapping on Mplus with 5,000 resamples by following Selig and Preacher (2009).

Finally, we reported the results of three supplementary analyses. First, employees are more likely to engage in the sensemaking process when they experience problems at work (Weick, 1995). Hence, employees with lower performance may be more eager to seek feedback to make sense of their job. To examine this alternative explanation, we conducted a reverse indirect effect analysis using LCS modeling. In this model, T1 performance and T1–T2 change in performance were employed to predict T2–T3 change in FSB, which, in turn, is assumed to be associated with T2–T3 change in meaningfulness and then T2-T3 change in

PI. Second, theoretically, another possible alternative is that the change in FSB directly improves employee performance (e.g., Gong et al., 2017), which could, in turn, affect one's meaningfulness and, consequently, impact PI. To exclude this alternative scenario, we tested the serial mediation model, in which T1–T2 change in FSB was employed to predict T2–T3 change in performance and further influence T2–T3 change in meaningfulness and then T2-T3 change in PI. Third, since FSB and PI are both proactive behavior, we reversed their order in the model and tested a model with T1–T2 change in PI predicting T2–T3 change in meaningfulness then T2-T3 change in FSB and, in the end, T2–T3 change in performance.

Preliminary results. Table 1 shows the descriptive statistics, correlations, and internal consistency reliability of the measurements used in our study.

Insert Table 1 here

Discriminant validity test. The results of the CFA showed that the variables differed from each other on each of the three measurement occasions (see Table 2). For the T1 data, the results of a four-factor model yielded a good data fit: χ^2 (113) = 197.345; CFI = 0.957; TLI = 0.948; RMSEA = .063; SRMR = .057. This model fits the data better than did a one-factor model, a two-factor model (in which the items of FSB and PI were loaded into one factor and the items of meaningfulness and performance were loaded into one factor), or a three-factor model (in which the items of FSB and PI were loaded into one factor). Analyses showed similar results for data at T2 and T3.

Insert Table 2 here

Measurement invariance*.* To ensure that the repeated measures of the constructs use the same measurement instrument at each time point, it is necessary to establish longitudinal

measurement invariance (Matusik et al., 2021). The test of invariance involves comparing three levels of nested models: the configural invariance model, followed by the metric (weak) factorial invariance model, and ending with the scalar (strong) factorial invariance model (Widaman & Reise, 1997). Specifically, in the configural model, the same items load onto the same latent factor, while the factor loading and intercepts were unconstrained; in the metric (weak) invariance model, the factor loadings of the same variables were constrained to be equal across the three times; and in the scalar (strong) invariance model, the intercepts of the indicators were also constrained to be equal over time. Models were estimated in Mplus version 8.3 (Muthén & Muthén, 1998) using the MLR estimation procedure. Thresholds for accepting non-invariance were set according to Chen (2007): a change ≥ -.010 in CFI supplemented by a change ≥ .015 in RMSEA or a change ≥ .010 in SRMR would denote non-invariance. For testing metric invariance, following suggestions by Chen (2007), the threshold for SRMR was set to ≥ .030, since this index is particularly sensitive to changes in factor loadings. The results, summarized in Table 3, showed that all measurement models proved to be invariant over time.

Insert Table 3 here

Hypothesis testing. Table 4 shows the results of the LCS model used to test the hypotheses. Model fit was acceptable: χ^2 (523) = 898.099, $p < .001$; CFI = 0.938; TLI = 0.930; RMSEA = .059; SRMR = .055. Hypothesis 1 suggests that change in FSB positively predicts change in meaningfulness. In support of this hypothesis, Table 4 shows that T1–T2 change in FSB positively predicted T2–T3 change in meaningfulness (B = 0.244, SE = 0.092, 95% CI [0.059, 0.418]). Hypothesis 2 proposes that change in FSB positively influences PI, mediated by change in meaningfulness. As shown in Table 4, the 95% confidence intervals

around the indirect effects of T1–T2 change in FSB on T2–T3 change in PI through change in meaningfulness did not include zero (B = 0.069, SE = 0.042, 95% CI [0.005, 0.166]). Hence, the indirect effect was significant, which supported Hypothesis 2. Hypothesis 3 states that there is a serial mediation: The change in FSB positively influences change in performance, mediated first by meaningfulness and then by PI. As illustrated in Table 4, the indirect effect was significant (B = 0.021, SE = 0.014, 95% CI [0.001, 0.055]), supporting Hypothesis 3.

Insert Table 4 here

Results of supplementary analyses. We tested three alternative models. Table 5 shows the results of Alternative Model 1, in which T1 performance and T1–T2 change in performance predict T2–T3 change in FSB, which, in turn, influences T2–T3 change in meaningfulness and then T2–T3 change in PI. The alternative LCS model yielded a model fit index similar to those of the hypothesized model: χ^2 (523) = 863.399, p < .001; CFI = 0.945; TLI = 0.938; RMSEA = .056; SRMR = .054. However, neither T1 performance (B = −0.050, SE = 0.089, 95% CI [−0.229,0.121]) nor T1–T2 change in performance (B = 0.041, SE = 0.095, 95% CI [−0.151,0.217]) had significant impact on T2–T3 change in FSB. Therefore, neither the serial mediation model with T1 performance (B = −0.001, SE = 0.004, 95% CI [−0.011, 0.005]) nor T1–T2 change in performance (B = 0.001, SE = 0.004, 95% CI [−0.008, 0.009]) as predictors was significant.

Alternative Model 2 states that T1–T2 change in FSB triggers T2–T3 change in performance and then influences T2–T3 change in meaningfulness and, finally, T2–T3 change in PI. This alternative LCS model also yielded acceptable model fit: χ^2 (523) = 898.099, p < .001; CFI = 0.938; TLI = 0.930; RMSEA = .059; SRMR = .055. Nevertheless, Table 6 shows that T1–T2 change in FSB did not directly predict T2–T3 change in

performance (B = 0.024, SE = 0.063, 95% CI [−0.103, 0.147]), hence the serial mediation was not significant (B = −0.001, SE = 0.005, 95% CI [−0.015, 0.007]).

Alternative Model 3 tests whether T1–T2 change in PI predicts T2–T3 change in performance via T2–T3 change in work meaningfulness and then T2–T3 change in FSB. This alternative LCS model yielded acceptable model fit: χ^2 (523) = 840.300, p < .001; CFI = 0.948; TLI = 0.941; RMSEA = .054; SRMR = .054. Table 7 shows that T1–T2 change in PI did not directly predict T2–T3 change in meaningfulness (B = 0.091, SE = 0.095, 95% CI [−0.107, 0.270]); the serial mediation was thus not significant either (B = 0.000, SE = 0.002, 95% CI [−0.003, 0.006]). These results of alternative models provided supplementary evidence for our proposed model.

Insert Tables 5, 6, & 7 here

DISCUSSION

Despite the theoretical assumptions that FSB leads to higher performance, the empirical examination has shown mixed results (Anseel et al., 2015). This implies that before feedback is translated into real performance, it is probably processed by the feedback seeker, and the effectiveness of the feedback is likely to depend on the internal process. Supporting this view, research has shown that feedback tends to be more effective on performance improvement when it is deeply processed by the recipient (Anseel et al., 2009; Gabelica et al., 2014). However, based on our review, research uncovering the internal process of the feedback seeker is relatively scarce. This calls for us to explore the underlying mechanism that may explain the inconsistency. Drawing on the sense-making perspective, we found that employees engaging in more FSB to create the information needed for their sense-making process tend to experience change in work meaningfulness. The altered level of meaningfulness consequentlly triggers change in personal initiative and finally impacts the employee's performance.

Theoretical Contribution

Our findings contribute to the theory in several ways. First, we answered the calls for studies on the intermediate process between FSB and performance; more specifically, we examined the underlying intra-personal process (Anseel et al., 2015). This was particularly important given the inconsistent findings of prior research on the link between FSB and performance and the lack of studies that parcel out the within-person effect from the between-person effect of FSB. Our study, therefore, adds to the FSB literature by demonstrating that there is a sense-making process between FSB and performance, that change in FSB leads to change in work meaningfulness and then enacts more personal initiative.

This study also extends research on work meaningfulness. Researchers call for bringing in a third-person perspective in work meaningfulness studies (Tosti-Kharas & Michaelson, 2021; Wrzesniewski et al., 2003). This study extends the literature on work meaningfulness by showing that employees can proactively solicit and make sense of co-workers' and leaders' perspectives to form their own perception of work meaningfulness. Moreover, it expands the studies on work meaningfulness by showing that proactive behavior could both trigger and result from meaningfulness.

In addition, this study contributes to the integration of research on proactive behavior. As far as we know, only a few studies linked two distinct types of proactive behavior while most studies applied the same proactive process to forms of different proactive behavior. Crant (2000) divided proactive behavior into two categories: context-specific behaviors (e.g., FSB), and general actions (e.g., personal initiative). Our study shows that the two types don't always run parallel, while a context-specific behavior, after being internally interpreted, could also transfer into more general actions. Moreover, the FSB is a proactive behavior that seeks

resources from the organization, while personal initiative is a behavior that changes certain work conditions. The sense-making process shows how employees utilize different strategies to proactively interact with the work environment. Our study, hence, highlights the importance of recognizing the differences and interconnections among the diverse sets of proactive behavior.

Practical Implications

Our study also provides organizations with some practical insights. First, our study shows that FSB, besides impacting work performance, also affects employees' subjective well-being – work meaningfulness (Monnot & Beehr, 2014). Work meaningfulness is a fundamental need of human beings (Yeoman, 2014). It is closely related to job satisfaction, life satisfaction, and general health (Arnold et al., 2007a; Shockley et al., 2016; Steger et al., 2012). Some scholars went further and regarded providing work meaningfulness as the organization's moral obligation (Michaelson, 2011). The findings of this study offer HRs and leaders another method to improve work meaningfulness – encouraging FSB. Since costs like fear of a negative image could hinder the FSB (Anseel et al., 2007), HRs and leaders should try to create an environment condusive to seeking feedback. For instance, leaders should strive to provide more autonomy (Beenen et al., 2017).

This study also has implications for organizational change. Personal initiative ignites change from the bottom and could be beneficial to organizational development (Frohman, 1997), but at the same time it could be dangerous to conduct as it may lead to the stigma of being "rebellious". The finding of this study shows that to motivate employees to take the risk of conducting personal initiative, it is key to first give out information and help the employees make sense of their own position in the organization. HRs and leaders could thus

undertake training to help employees gain experience and more meaningfulness in the organization (Fletcher & Schofield, 2021). On a higher level, transformational leadership, and corporate social responsibility could also increase employees' sense of meaningfulness (Aguinis & Glavas, 2019; Frieder et al., 2018), and thus stimulate personal initiative.

Limitations and Avenues for Future Research

There are several limitations to our study. First: this study is based on self-reported measures, which could contribute to common method bias (Podsakoff et al., 2003b). We have taken measures to address this issue. For instance, we conducted CFA to distinguish variables measured in each round of surveys. We also examined the invariance of each variable across all three time points, ensuring that the measures are consistent across times. However, we encourage future studies to collect data from different sources to triangulate the results with our findings.

Second, our three-wave survey design doesn't allow us to separate the change in meaningfulness, personal initiative, and performances (all measured at T2 and T3). However, our conceptual framework is based on strong theoretical underpinnings, and tests of reversed causality demonstrated that the alternative models don't show significant results. Given the sense-making perspective and analytical evidence, it is likely that change in the FSB leads to meaningfulness, which in turn predicts personal initiative and performance. Nevertheless, future research should involve additional rounds of surveys to provide stronger causal inferences (Zacher et al., 2019).

Third, since we are only interested in FSB's effect on performance, we examined personal initiative as the enactment process. As FSB is also closely associated with socialization (Vandenberghe et al., 2021), it could very likely influence employees'

interactions with others. Future studies could extend the literature by examining interpersonal enactment such as network-building (Ferris et al., 2005). Four, this study explored the change in FSB by examining how the frequency increment affects the change in meaningfulness. We didn't look into more nuanced aspects of FSB, such as the change in tone of FSB, and the change in target of FSB. We hope future studies could explore the effect of FSB from these angles.

CONCLUSION

This study utilized the sense-making perspective and showed the internal process employees experience before their FSB translates into real performance. We found that actively seeking feedback tends to enhance employees' work meaningfulness, which triggers a higher level of personal initiative and, in the end, drives up the employee's performance. These findings provide important theoretical implications and offer practical insights for HR managers into how to increase employee personal initiative and performance by encouraging FSB.

CONCLUSIONES

Este estudio utilizó la perspectiva de la creación de sentido y mostró el proceso interno que experimentan los empleados antes de que su FSB se traduzca en rendimiento real. Descubrimos que la búsqueda activa de feedback tiende a aumentar el sentido del trabajo de los empleados, lo que desencadena un mayor nivel de iniciativa personal y, en última instancia, impulsa el rendimiento del empleado. Estas conclusiones tienen importantes implicaciones teóricas y ofrecen una visión práctica a los responsables de RRHH sobre cómo aumentar la iniciativa personal y el rendimiento de los empleados fomentando la FSB.

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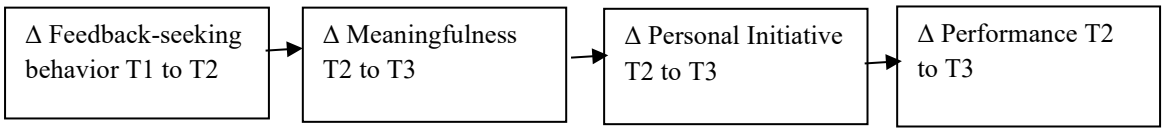
FIGURE 1: Conceptual model



Δ = change in; T = time.

TABLE 1: Correlations and descriptive statistics

Variable	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.FSB T1	2.62	1.08	(.79)															
2.FSB T2	2.40	1.17	.55**	(.87)														
3.FSB T3	2.46	1.09	.47**	.69**	(.86)													
4.Meaningfulness T1	5.00	1.46	.11	.19**	.12	(.94)												
5.Meaningfulness T2	4.86	1.59	.13	.18*	.13	.86**	(.96)											
6.Meaningfulness T3	4.86	1.62	.03	.18*	.14*	.82**	.87**	(.95)										
7.PI T1	5.15	1.11	.30**	.32**	.18**	.41**	.48**	.41**	(.90)									
8.PI T2	5.01	1.26	.17*	.30**	.22**	.38**	.46**	.43**	.69**	(.92)								
9.PI T3	5.20	1.19	.12	.25**	.26**	.41**	.46**	.51**	.68**	.67**	(.91)							
10.Performance T1	6.02	0.73	-.03	-.02	-.07	.25**	.28**	.24**	.43**	.31**	.36**	(.85)						
11.Performance T2	6.00	0.94	.01	.08	.05	.16*	.23**	.22**	.42**	.61**	.43**	.43**	(.93)					
12.Performance T3	6.13	0.71	.01	.07	.11	.20**	.35**	.30**	.42**	.50**	.54**	.40**	.49**	(.86)				
13.Age	37.33	11.28	-.24**	-.22**	-.20**	.16*	.17*	.16*	.06	.11	.12	-.04	-.00	.03				
14.Gender	1.52	0.50	-.06	.00	-.04	.01	.08	.10	.03	.08	.09	.19**	.18**	.27**	-.24**			
15.Tenure	7.34	7.94	-.21**	-.15*	-.12	.15*	.15*	.15*	-.03	.09	.12	-.02	.04	.05	.64**	-.16*		
16.Proactive personality	3.67	1.34	-.03	.14*	.12	.03	.07	.07	-.03	.02	.03	-.01	.06	.08	-.06	.09	.00	(.95)

Note: n=207. Coefficient alpha reliabilities are reported on the main diagonal in parentheses. Age, tenure: years; Gender: 1 = male, 2 = female. * $p < .05$ ** $p < .01$

TABLE 2: Results of confirmatory factor analyses

Model	χ^2	*df*	*p*	CFI	TLI	RMSEA	SRMR
Measurement point: Time 1							
One factor	1061.632	119	<.001	0.494	0.421	.211	.160
Two factors[ab]	597.192	118	<.001	0.742	0.702	.151	.147
Three factors[a]	348.966	116	<.001	0.880	0.859	.104	.093
Four factors	197.345	113	<.001	0.957	0.948	.063	.057
Measurement point: Time 2	χ^2	*df*	*p*	CFI	TLI	RMSEA	SRMR
One factor	1313.848	119	<.001	0.485	0.411	.246	.167
Two factors[ab]	935.085	118	<.001	0.661	0.609	.200	.197
Three factors[a]	467.888	116	<.001	0.853	0.827	.133	.101
Four factors	233.445	113	<.001	0.950	0.940	.078	.048
Measurement point: Time 3	χ^2	*df*	*p*	CFI	TLI	RMSEA	SRMR
One factor	942.329	119	<.001	0.533	0.466	.215	.149
Two factors[ab]	599.699	118	<.001	0.736	0.696	.163	.157
Three factors[a]	380.610	116	<.001	0.857	0.832	.121	.098
Four factors	179.665	113	<.001	0.964	0.957	.061	.049

Note. N = 207. Estimator = MLR. CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square.

a. FSB and personal initiative items are loaded into one factor.
b. Meaningfulness and performance items are loaded into one factor.

TABLE 3: Longitudinal measurement invariance test for FSB, meaningfulness, PI, and performance scales

FSB	χ^2	*df*	c	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	ΔCFI	ΔRMSEA	ΔSRMR
Configural	10.546	14	1.077	1.000	.000	.018					
Metric	11.572	18	1.080	1.000	.000	.021	2.080	4	.000	.000	-.003
Scalar	29.505	22	1.079	0.991	.041	.029	20.175	4	.009	-.041	-.008
Meaningfulness	χ^2	*df*	c	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	ΔCFI	ΔRMSEA	ΔSRMR
Configural	58.992	39	1.635	0.988	.050	.022					
Metric	70.078	45	1.545	0.985	.052	.041	8.362	6	.003	-.002	-.019
Scalar	76.781	51	1.475	0.984	.049	.043	-0.777	6	.001	.003	-.002
PI	χ^2	*df*	c	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	ΔCFI	ΔRMSEA	ΔSRMR
Configural	268.794	165	1.177	0.957	.055	.044					
Metric	283.140	177	1.180	0.956	.054	.058	73.67	12	.001	.001	-.014
Scalar	315.480	189	1.168	0.950	.056	.061	31.76	12	.006	-.002	-.003
Performance	χ^2	*df*	c	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	ΔCFI	ΔRMSEA	ΔSRMR
Configural	11.584	14	1.591	1.000	.000	.035					
Metric	14.750	18	1.507	1.000	.000	.065	7.061	4	.000	.000	-.030
Scalar	21.986	22	1.384	1.000	.000	.068	3.704	4	.000	.000	-.003

Note. $N = 207$. χ^2 = Satorra-Bentler scaled chi-square; c = scaling correction factor. Thresholds for accepting non-invariance: ΔCFI ≥ -.010, supplemented by ΔRMSEA ≥ .015 or ΔSRMR ≥ .010. The first two items in FSB T1 were allowed to correlate. The two items of performance in T3 Per1 and Per3 were allowed to correlate.

TABLE 4: Standardized results of the bootstrapped LCS model for direct and mediating effects				
Predictor variable	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Outcome variable: Δ Meaningfulness T2 to T3				
Gender	0.057	0.076	-0.095	0.206
Meaningfulness T2	-0.203	0.080	-0.349	-0.034
FSB T1	-0.131	0.087	-0.302	0.039
Δ FSB T1 to T2	0.244	0.092	0.059	0.418
Outcome variable: Δ PI T2 to T3				
Gender	0.011	0.064	-0.113	0.138
PI T2	-0.581	0.086	-0.740	-0.402
FSB T1	0.046	0.072	-0.094	0.190
Δ FSB T1 to T2	-0.008	0.092	-0.185	0.178
Meaningfulness T2	0.286	0.085	0.126	0.460
Δ Meaningfulness T2 to T3	0.282	0.115	0.051	0.503
Outcome variable: Δ Performance T2 to T3				
Gender	0.168	0.051	0.067	0.269
Performance T2	-0.928	0.085	-1.077	-0.740
FSB T1	-0.089	0.059	-0.206	0.028
Δ FSB T1 to T2	-0.028	0.067	-0.163	0.105
Meaningfulness T2	0.046	0.065	-0.082	0.176
Δ Meaningfulness T2 to T3	-0.171	0.088	-0.346	-0.003
PI T2	0.434	0.102	0.239	0.636
Δ PI T2 to T3	0.310	0.081	0.152	0.473
Indirect effect estimates with 95% confidence intervals	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Δ FSB T1 to T2 → Δ Meaningfulness T2 to T3 → Δ PI T2 to T3	0.069	0.042	0.005	0.166
Δ FSB T1 to T2 → Δ Meaningfulness T2 to T3 → Δ PI T2 to T3 → Δ Performance T2 to T3	0.021	0.014	0.001	0.055

Note. N = 207. Bootstrapping sample = 5000. Δ = change in; T = time. Gender: 1 = male, 2= female.

TABLE 5: Standard results of the bootstrapped LCS Alternative Model 1 for direct and mediating effects

Predictor variable	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Outcome variable: Δ FSB T2 to T3				
Gender	-0.053	0.078	-0.211	0.093
FSB T2	-0.455	0.063	-0.568	-0.321
Performance T1	-0.050	0.089	-0.229	0.121
Δ Performance T1 to T2	0.041	0.095	-0.151	0.217
Outcome variable: Δ Meaningfulness T2 to T3				
Gender	0.083	0.082	-0.081	0.238
Meaningfulness T2	-0.223	0.092	-0.380	-0.023
Performance T1	-0.016	0.111	-0.253	0.189
Δ Performance T1 to T2	0.053	0.131	-0.209	0.303
FSB T2	0.068	0.091	-0.119	0.241
Δ FSB T2 to T3	0.055	0.127	-0.204	0.297
Outcome variable: Δ PI T2 to T3				
Gender	-0.008	0.067	-0.148	0.120
PI T2	-0.609	0.138	-0.851	-0.315
Performance T1	0.201	0.138	-0.076	0.458
Δ Performance from T1 to T2	-0.079	0.145	-0.356	0.215
FSB T2	0.152	0.081	-0.001	0.315
Δ FSB T2 to T3	0.213	0.092	0.041	0.403
Meaningfulness T2	0.233	0.082	0.066	0.389
Δ Meaningfulness T2 to T3	0.271	0.106	0.067	0.478
Indirect effect estimates with 95% confidence intervals	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Performance T1 → Δ FSB T2 to T3 → Δ Meaningfulness T2 to T3 → Δ PI T2 to T3	-0.001	0.004	-0.011	0.005
Δ Performance T1 to T2→ Δ FSB T2 to T3 → Δ Meaningfulness T2 to T3 → Δ PI T2 to T3	0.001	0.004	-0.008	0.009

Note. N = 207. Bootstrapping sample = 5000. Δ = change in; T = time. Gender: 1 = male, 2= female.

TABLE 6: Standard results of the bootstrapped LCS Alternative Model 2 for direct and mediating effects

Predictor variable	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Outcome variable: Δ Performance T2 to T3				
Gender	0.164	0.055	0.046	0.265
Performance T2	-0.734	0.088	-0.859	-0.515
FSB T1	0.038	0.062	-0.084	0.159
Δ FSB T1 to T2	0.024	0.063	-0.103	0.147
Outcome variable: Δ Meaningfulness T2 to T3				
Gender	0.080	0.078	-0.075	0.229
Meaningfulness T2	-0.167	0.092	-0.331	0.028
FSB T1	-0.134	0.088	-0.300	0.044
Δ FSB T1 to T2	0.243	0.093	0.054	0.420
Performance T2	-0.115	0.156	-0.398	0.219
Δ Performance T2 to T3	-0.167	0.166	-0.474	0.179
Outcome variable: Δ PI T2 to T3				
Gender	-0.081	0.069	-0.213	0.058
PI T2	-0.720	0.136	-0.960	-0.420
FSB T1	0.087	0.075	-0.057	0.235
Δ FSB T1 to T2	0.009	0.092	-0.172	0.189
Performance T2	0.215	0.086	0.048	0.380
Δ Performance T2 to T3	0.326	0.110	0.107	0.540
Meaningfulness T2	0.502	0.199	0.122	0.914
Δ Meaningfulness T2 to T3	0.536	0.163	0.238	0.880
Indirect effect estimates with 95% confidence intervals	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Δ FSB T1 to T2 → Δ Performance T2 to T3 → Δ Meaningfulness T2 to T3 → Δ PI T2 to T3	-0.001	0.005	-0.015	0.007

Note. N = 207. Bootstrapping sample = 5000. Δ = change in; T = time. Gender: 1 = male, 2= female.

TABLE 7: Standard results of the bootstrapped LCS Alternative Model 7 for direct and mediating effects				
Predictor variable	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Outcome variable: Δ Meaningfulness T2 to T3				
Gender	0.074	0.078	-0.082	0.225
Meaningfulness T2	-0.213	0.099	-0.386	-0.002
PI T1	-0.025	0.113	-0.256	0.189
Δ PI T1 to T2	0.091	0.095	-0.107	0.270
Outcome variable: Δ FSB T2 to T3				
Gender	-0.068	0.073	-0.216	0.069
FSB T2	-0.441	0.071	-0.567	-0.288
PI T1	-0.068	0.100	-0.269	0.133
Δ PI T1 to T2	0.066	0.092	-0.121	0.245
Meaningfulness T2	0.055	0.109	-0.163	0.262
Δ Meaningfulness T2 to T3	0.041	0.104	-0.168	0.242
Outcome variable: Δ Performance T2 to T3				
Gender	0.186	0.054	0.075	0.292
Performance T2	-0.917	0.095	-1.077	-0.698
PI T1	0.270	0.098	0.069	0.458
Δ PI T1 to T2	0.129	0.088	-0.037	0.313
Meaningfulness T2	0.110	0.065	-0.020	0.241
Δ Meaningfulness T2 to T3	-0.071	0.078	-0.221	0.086
FSB T2	-0.019	0.062	-0.136	0.113
Δ FSB T2 to T3	0.126	0.072	-0.010	0.273
Indirect effect estimates with 95% confidence intervals	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Δ PI T1 to T2 → Δ Meaningfulness T2 to T3 → Δ FSB T2 to T3 → Δ Performance T2 to T3	0.000	0.002	-0.003	0.006

Note. N = 207. Bootstrapping sample = 5000. Δ = change in; T = time. Gender: 1 = male, 2= female.

Chapter 2: The role of performance pressure in coworker envy and surface acting

ABSTRACT

Performance pressure is a prevalent experience for employees in the workplace. While much research has explored how performance pressure might directly influence individual performance and well-being, to date there is a lack of understanding regarding how employees feel toward and interact with their social surroundings (here, coworkers) under high performance pressure. Based on the social comparison theory and the self-presentation theory, we propose that performance pressure will elicit the emotion of envy that is driven by possible upward comparisons among coworkers and lead to employee surface acting. In addition, we further propose that employee's emotional intelligence plays a critical role in attenuating the positive relationship between performance pressure and surface acting through envy. We found support for our hypotheses with one experimental study and one field study. To the extent that organizations are increasingly demanding high performance from employees, our research also offers implications for practitioners.

Keywords: Performance pressure; envy; surface acting; emotional intelligence; social comparison

The role of performance pressure in coworker envy and surface acting

INTRODUCTION

Organizations today are increasingly setting stretch goals and expecting employees to deliver a better-than-ever performance (Sitkin et al., 2011). Performance pressure, defined as the perceived urgency to deliver superior performance to achieve significant work outcomes (e.g., Mitchell et al., 2018), has hence become a prevalent workplace experience. In the past decades, many studies have demonstrated that performance pressure is an important predictor of employees' well-being, performance, and workplace behaviors. For example, performance pressure is shown to increase both employee's depletion and task performance (Mitchell et al., 2019)), and work-related cheating behavior (Mitchell et al., 2018). However, to date, there is little examination of performance pressure's influence on how employees view and interact with others at work, such as their coworkers. This is an important oversight because organizations are essentially systems of interdependent actors (Katz & Kahn, 1966), and hence how employees feel about and interact with their peers can critically impact not only their own well-being and performance but also the workplace dynamics.

In the current work, we aim to address this question by drawing on social comparison theory (Festinger, 1954) and self-presentation theory (Baumeister, 1989). First, we predict that high performance pressure is likely to trigger envy towards outperforming others. Envy is "an unpleasant, often painful emotion characterized by feelings of inferiority, hostility, and resentment" (Smith & Kim, 2007) that often resulted from upward comparisons with others (Duffy et al., 2012). Social comparison theory suggests that upward comparisons are more likely to occur when self-improvement motivation is salient (A. P. Buunk & Gibbons, 2007), as is the case under high performance pressure. Second, as previous literature has

characterized envy expressions at the workplace as inappropriate and unencouraged, we thereby propose that the envious employees may engage in surface acting toward the target of envy according to the self-presentation theory (Baumeister, 1989). Surface acting is interpersonal tactic employees use to suppress their authentic emotions (Grandey, 2003) Hochschild, 1983). Surface acting was chosen as the main behavior of interest because it not only jeopardizes employee's well-being and performance but also influences organizational effectiveness as it disrupts interpersonal relationships and interpersonal exchange (Grandey, 2003) (Hu & Shi, 2015) (Deng et al., 2017; Zhan et al., 2016). Lastly, we propose that the envious employee's emotional intelligence (EI) will moderate the hypothesized relationship. Specifically, we predict that an employee's ability to regulate their emotion will attenuate the positive relationship between performance pressure and envy, and that an employee's ability to use their emotion will attenuate the positive relationship between envy and surface acting (see Fig. 1 for the research model).

Insert Figure 1 here

Our work contributes to the literature in several ways. First, we extended the literature on performance pressure by exploring how it leads to interpersonal emotion and then interpersonal behavior. Whereas extant literature has typically investigated how performance pressure influences employee's performance and well-being (Mitchell et al., 2018, 2019) (Zhang et al., 2017)), there is limited understanding of how performance pressure may affect employees' perception of and reaction to their coworkers (Mitchell et al., 2019). Envy is an interpersonal hostile emotion (Smith & Kim, 2007), and surface-acting has been found to increase interactional avoidance and decrease communication satisfaction among coworkers (Hu & Shi, 2015). While the delivery of exceptional performance might

often require effective communication and cooperative endeavors, this study shows that it could on the contrary leads to hostile and interrupted dynamics between employees. In addition, we also add to the literature on performance pressure by looking into a covert/avoidant behavioral reaction. While past literature shows employees exhibit visible destructive or constructive actions such as incivility and citizenship behavior to encounter performance pressure (Mitchell et al., 2019), this study provides another behavioral response surface-acting with which hiding their malicious emotions and "suffer in the silence".

Second, we answered the call to examine the precursors of envy, whose studies are still scant (Duffy et al., 2021). The existing literature typically focuses on the performance of referent others as the antecedent of envy (Campbell et al., 2017) (Kim & Glomb, 2014; Reh et al., 2018). Our study adds to the literature by shifting the focus to the perception of organizational practices and looking into how performance pressure might prompt envy toward co-workers.

Lastly, we contribute to a more comprehensive investigation of employee's affective and behavioral outcomes caused by performance pressure by identifying employee's EI as an important boundary condition. While research has illustrated that performance pressure could cause different affective and behavioral responses (Mitchell et al., 2018) (Beilock & Carr, 2001), less is known about *who* is more susceptible to the influence of these emotions. In the current research, we highlight employee EI as a critical ability that employees could utilize to reduce the detrimental influence of envy on surface acting, and our research thus explains for whom envy is more likely to motivate destructive behavioral responses.

THEORY AND HYPOTHESIS DEVELOPMENT

Performance Pressure, Social Comparison, and Envy

Different from other types of pressure, such as temporal-based pressure (i.e., the time allowed for finishing a task) and market-based pressure (i.e., the opportunities in the market; Dineen et al., 2017), performance pressure comes from employee's perception of high external expectations imposed on them (e.g., Gardner, 2012). Employees experiencing such pressure understand that their performance has consequences – good performance can lead to pay raises and promotions, while bad performance puts their status in the organization at risk. Scholars have suggested that performance pressure often involves "a negative evaluative orientation toward performance insufficiency, a belief that current performance is inadequate for achieving a desired goal" (Zhang et al., 2017). Hence, good performance becomes highly coveted and relevant to the employee's standing in the organization in high performance pressure environments (Mitchell et al., 2018; 2019).

Envy is typically triggered by upward comparison, when employees find themselves lacking another's achievements or possession that they desire (Parrott & Smith, 1993). In the organizational context, envying outperforming others is a prevalent experience as employees constantly compete against each other (K. Lee & Duffy, 2019; Reh et al., 2018) (Duffy et al., 2012). Hence, higher performance pressure augments the desirability of performance and is likely to lead to higher envy of better-performing co-workers. This is supported by social comparison theory (e.g. Festinger, 1954). The theory suggests that humans have the innate desire to gather information about their own abilities and standing in the organization for self-evaluation by comparing themselves with others through upward comparisons (i.e., comparing oneself to a better other), and people tend to engage more in social comparison when the comparison domain is relevant. In summary, we suggest that under high performance pressure, employees view performance as very desirable and relevant and hence

seek information from others, which may prompt them to compare themselves with outperforming others. As a result, the emotion of envy might be generated when employees find themselves inferior to their peers regarding work performance or achievements. Hence, we predict:

H1: performance pressure is positively associated with employee envy towards outperforming coworkers.

Envy and Surface-Acting

Envy has been characterized as a socially undesirable emotion (Smith & Kim, 2007) as it causes pain and unpleasantness for both the enviers and the targets of envy. On the one hand, envy often manifests as a hostile emotion that prompts aggressive harmful behaviors from the enviers toward their target of envy to reduce the perceived discrepancy between the envier and the target. Among these harmful behaviors, undermining - defined as a behavior that impairs "the targets' ability to maintain social relationships and achieve success at work" (K. Lee & Duffy, 2019) - is perhaps the most established outcome of envy at the workplace (Duffy et al., 2012) (Khan et al., 2014; Reh et al., 2018; Sun et al., 2021). Therefore, displays of envy might signal potential malicious intent which could harm one's standing in organizations (Sebrant, 2014). On the other hand, individuals being envied also suffer from distress and concerns about themselves and their relationships. Studies have shown that people who feel envied by others experience more negative affect (K. Y. Lee et al., 2018), and more fear of ill will from their enviers (Rodriguez Mosquera et al., 2010). In sum, the display of envy might jeopardize employees' public image and harm one's interpersonal relationships with the target of envy. This is especially unappealing in the organizational context where collaboration and collective behaviors are expected (Tost & Johnson, 2019).

The self-presentation theory (Baumeister, 1989) suggests that people commonly employ behavioral strategies to create and maintain a desired social image (Goffman, 1959). Relatedly, Burgoon et al. (1989) suggested that emotional expression constitutes an important aspect of one's social image. Hence, to maintain their image, employees may tend to regulate their envy induced by high performance pressure.

According to the emotional labor literature, people use two strategies to regulate their emotions: surface acting and deep acting (Grandey, 2003) (Ashforth & Humphrey, 1993)). Surface acting is employees modifying their emotional display without changing their truly felt emotions, while deep acting is trying to authentically feel the desired emotion (Hochschild, 1983). Studies found a non-significant relationship between negative affectivity and deep acting (e.g., Liu et al., 2008), thus we only look at surface-acting in our study. Although a large stream of the literature has mostly focused on how employees engage in surface acting in the customer service context (see a review from (Grandey & Gabriel, 2015), it has been found that intra-organizational surface acting is just as common (e.g., when interacting with coworkers and leaders) (Grandey et al., 2007) (Glasø & Einarsen, 2008). Employees engage in intra-organizational surface acting to adhere to the organizational display rules (Hu & Shi, 2015; Xanthopoulou et al., 2018) and to manage the impression formed by other organizational members to obtain desired outcomes (Gabriel et al., 2020; Ozcelik, 2013). Accordingly, while we expect high performance pressure to engender more employee envy, we predict that employees engage in surface acting as the strategy to maintain a positive personal image that might be incurred by envy. Therefore, we anticipate envy to mediate the relationship between performance pressure and surface acting

H2: envy (a) is positively related to surface acting, and (b) mediates the positive relationship between performance pressure and surface acting.

The Moderating Role of Employee Emotional Intelligence

EI is defined as "a set of abilities that pertain to the organized sets of responses to events that constitute emotions" (Côté, 2014)), and it constitutes several sub-dimensions related to the ability to appraise, regulate, and use emotions (J. D. Mayer, Salovey, et al., 2008; Van Rooy & Viswesvaran, 2004). In the current work, we focus on the two dimensions of EI relevant to emotion regulation (interest of this study): the employee's ability to regulate emotions in the self and the ability to constructively use emotions (Law et al., 2004; Wong & Law, 2002).

Emotion regulation refers to individuals engaging in thoughts or behaviors to influence "which emotions they have, when they have them, and how they experience and express these emotions" (Gross, 1998). This is a deliberative and effortful process during which individuals try to increase, decrease or maintain certain emotions (Koole, 2009).

Individuals high in their ability to regulate emotions are more effective in determining if their current emotions are optimal and modifying experienced emotions if necessary (Côté, 2014). For example, (Parke et al., 2015) found that employees high in emotion regulation ability are able to maintain increased positive affect when dealing with high cognitive processing demands at work, and (Grant, 2013) similarly suggested that employees with stronger emotion regulation knowledge are able to cope more with fear and anxiety during voice expression. We thus propose that employees with higher emotion regulation ability will be less likely to experience envy when facing high performance pressure. Envy is such a painful emotion that individuals are highly motivated to reduce it (Duffy et al., 2012), and

employees high in emotion regulation ability should be more effective in selecting and implementing emotion regulation strategies (Côté, 2014). For example, they could engage in cognitive reappraisal by changing how they think about other outperforming coworkers (Gross & Thompson, 2007) (Troy et al., 2010) and reframe the feeling of envy into the feeling of positive empathy or admiration (Ganegoda & Bordia, 2019) (van de Ven, 2017). In sum, we believe that employees high in emotion regulation ability are better at reducing the feeling of envy.

H3: employee emotion regulation ability will negatively moderate the relationship between performance pressure and employee envy towards outperforming coworkers.

We further predict that the ability to use emotions will moderate the relationship between envy and surface acting. While we propose that employees tend to use surface-acting as a strategy to regulate their envy induced by performance pressure, extant literature has consistently found that surface acting is not without cost as it is associated with increased emotional exhaustion and decreased performance (Grandey, 2003) (Hu & Shi, 2015)). However, individuals with high emotion use ability are more capable of utilizing emotions to achieve constructive results and personal growth (Wong & Law, 2002) (Law et al., 2004). Previous research suggests that people differ in their ability to use emotions for thinking and decision-making (Gohm & Clore, 2000), such as the degree of knowing how to include emotions in and exclude emotions from cognitive thinking (J. D. Mayer, Roberts, et al., 2008), and using emotions to direct attention and efforts (J. D. Mayer et al., 1999),. Therefore, employees high in emotion use ability are likely to be more capable of excluding envy from influencing their actions towards their co-workers, so as to reduce the possibility of exhausting themselves or harming their own performance by surface-acting. In support of

that, (Cheung & Tang, 2009) have found that one's ability to use emotions was negatively associated with surface acting. Therefore, we predict that:

H4: employee emotion use ability will negatively moderate the relationship between envy and surface acting.

Taken together, we predict that the emotion regulation ability and the emotion use ability will separately play a moderating effect in the two stages of our research model. Therefore, as our model suggests that envy will mediate the relationship between performance pressure and surface acting, we propose that:

H5a: employee emotion regulation ability will moderate the indirect effect of performance pressure on surface acting via envy, such that this positive relationship will be weaker for employees who are higher in emotion regulation ability;

H5b: employee emotion use ability will moderate the indirect effect of performance pressure on surface acting via envy, such that this positive relationship will be weaker for employees who are higher in emotion use ability.

METHODS

Overview of Studies

We conducted an experimental study (Study 1) and one field study (Study 2) to test our hypotheses. In Study 1, we established the causal relationship between performance pressure and surfacing acting through envy. Recognizing the well-established relationship between envy and undermining (Duffy et al., 2012), we also measured undermining as an additional outcome of envy to show that envy could simultaneously drive undermining and surface acting (K. Lee & Duffy, 2019). In Study 2, we focused on surface acting as the focal outcome and tested our full moderated-mediation research model. Additionally, we included

anger and anxiety as alternative explanations, since performance pressure can also trigger these emotions (Mitchell et al., 2018) (Beilock & Carr, 2001) that employees might need to disguise in organizations (Kilduff et al., 2010).

STUDY 1

Sample and Procedure

Two hundred and two participants from the U.S. took part in an online study via Amazon's Mechanical Turk in return for a fixed payment. This platform has been shown to generate reliable data and a representative sample of the U.S. population with diverse age groups, professions, and educational levels (M. Buhrmester et al., 2011)Berinsky et al., 2012; (M. D. Buhrmester et al., 2018)). Thirty-eight responses were excluded from the sample because of the arbitrary answers to the comprehension text-entry test, leaving us with a final sample of 164 participants (46% female; $M_{age} = 38.31$, $SD_{age} = 13.15$).

Participants were then randomly assigned to one of the two experimental conditions, *high performance pressure* or *low performance pressure*[1]. In both conditions, participants were asked to imagine that they newly joined a firm where there exists a semi-annual performance review of the employee. In the high performance pressure condition, participants were told that if they ranked at the bottom bracket of the performance review, they would be asked to leave the company, and thus they were under high performance pressure. In the low performance pressure condition, participants were told that they would not be asked to leave the company unless they were placed in the bottom performance bracket two times in a row, and thus they were not under much performance pressure.

[1] Full scenario in presented in Appendix A.

Next, participants in both conditions imagined a co-worker A (we intentionally did not use a specific name to avoid gender inference as previous literature has found that people are more likely to compare themselves to the same gender: Blanton et al., 2001) who entered the company at a similar time and had similar education level as the participant, but would no doubt be rated as exceeding expectation in the performance review. As a comprehension test, participants were asked to briefly describe their work environment in the open text, and 38 participants with careless and random responses were removed from the analysis. Afterward, the participants responded to our measures, completed the manipulation check, and then provided demographic information.

Measures

Manipulation check. We used the 4-item performance pressure measure developed by Mitchell et al. (2018) to check if participants in each condition experienced high (low) performance pressure. An illustrative item is "the pressures for performance in my workplace are high" (1 = *strongly disagree*, 5 = *strongly agree*; α = .93).

Envy. We used the four-item envy scale developed by Schaubroeck and Lam (2004). An illustrating item is "It is frustrating to see A succeed so easily" (1 = *strongly disagree*, 5 = *strongly agree*; α = .86).

Surface acting. We adopted the 5-item scale from Brotheridge and Lee (2002) and Grandey (2003) to measure surface acting. The original scale tackles the employee-customer relationship. We modified the scale to measure the participant's reaction toward A and asked participants how strongly they believe they would engage in the behaviors in the items. An example of the adapted items is "I will put on an act in order to deal with him/her in an appropriate way" (1 = *extremely unlikely*, 5 = *extremely likely*, α = .93).

Social undermining. Participants indicated how likely they would engage in the undermining behavior toward A with a 13-item scale by Duffy et al. (2012). An example of the adapted items is "I will hurt A's feelings" (1 = *extremely unlikely*, 5 = *extremely likely*, α = .95).

Results

Descriptive statistics and correlations are presented in Table 1.

Insert Table 1 here

Manipulation check. We first tested if the experimental manipulation across conditions was successful. Participants in the high performance pressure condition provided higher ratings on the performance pressure scale (M = 4.36, SD = 0.86) than those in the low performance pressure condition (M = 2.75, SD = 1.20), t (162) = 9.87, $p < .01$, d = 1.54, suggesting our manipulation was successful.

Hypothesis testing. We examined performance pressure's effect on envy (Hypothesis 1) with a t-test. Envy in the high performance pressure condition (M = 2.96, SD = 1.11) was significantly higher than in the low performance condition (M = 2.40, SD = 1.10), t (162) = 3.27, p < .01, d = .51, providing support for Hypothesis 1. In addition, surface acting was significantly higher in the high performance pressure condition (M = 2.75, SD = 1.18) than in the low performance pressure condition (M = 2.15, SD = 1.13), t (162) = 3.16, $p < .01$, d = 0.52, and undermining was marginally significantly higher in the high performance pressure condition (M = 2.09, SD = 0.94) than in the low performance pressure condition (M = 1.83, SD = 0.91), t (162) = 1.83, p = .07, d = 0.28.

To examine the mediated relationship between performance pressure and surface acting via envy, we conducted a bootstrapping procedure with the PROCESS macro, model 4

(Hayes, 2013), with the high performance pressure condition coded as 1 and the low performance pressure condition coded as 0 (see Table 2). Performance pressure was positively related to envy (b = .56, se = .17, p < .01), while envy was positively related to surface acting (b = .73, se = .06, p < .01), supporting H2a. In addition, the indirect effect of envy excluded zero (Hayes, 2013): b = .41, se = .13, 95%*CI* [.16, .67], supporting H2b.

Insert Table 2 here

Although not the focus of the paper, we conducted another mediation analysis to test the well-established relationship between envy and social undermining with performance pressure as the antecedent. Performance pressure was positively related to envy (b = .56, se = .17, < .01), and envy was positively related to undermining (b = .50, se = .05, p < .01). In addition, the indirect effect of envy excluded zero (Hayes, 2013, 2015): b = .28, se = .09, 95% *CI* [.12, .47].

Discussion

This experimental study provides support for H1 and H2. Our results supported that employees who imagined working under high performance pressure reported a higher tendency to experience envy toward their outperforming co-worker which, in turn, led to a higher tendency to engage in surface acting. Although not the focus of the paper, we also showed that envy could simultaneously foster intentions of social undermining toward the target of envy under high performance pressure. To further examine the moderating effects and to investigate the hypotheses in the real workplace, we conducted Study 2 with a time-lagged survey design and focused on our full proposed research model.

STUDY 2

Sample and Procedure

As part of a larger study, participants were recruited for a three-wave survey from the online survey platform Prolific. At Time 1, 250 full-time employees in the UK were recruited (two responses were excluded from the dataset because they were not able to recall any co-worker; see below for detail of the procedure). Two weeks later, participants received the Time 2 survey and received a reminder e-mail if the survey wasn't answered within a day. In total, 233 participants completed the survey (a yield of 94%). Another two weeks later, participants received the Time 3 survey. Again, a reminder e-mail was sent to participants who didn't answer the survey within a day. We received 216 responses at Time 3 (a yield of 93%). We used an anonymous ID to match the responses from the same participants across three rounds and joined all three surveys of 215 participants.

The Time 1 survey included measures of performance pressure and demographics. Additionally, participants were asked to identify a target coworker, who "has job responsibilities, levels of education, and work experiences that were/are very similar" (hereafter referred to as target co-worker). Finally, participants rated their own and their target co-worker's performance.

From the full sample of 215 participants, a sub-sample (n = 134) was created by retaining participants that recalled a coworker with the same or higher performance as themselves since our hypotheses focused on employees' affective and behavioral responses towards outperforming others.[2] Participants were employed in a variety of industries (e.g., finance, health care, manufacturing, and real estate). The average age of respondents was

[2] We conducted t-tests on the demographics (i.e., age, gender, and tenure) and the performance pressure to know if these two groups (i.e., those who reported outperforming coworkers and were retained in the analysis and those who did not report outperforming coworkers and were removed) differed significantly from each other. The t-tests are not significant. Please see the results in Appendix B.

37.34 years (*SD* = 12.00), and their average tenure within the organization was 7.58 years (*SD* =8.25). Overall, 51% of the participants were female, 63% held a bachelor's degree or above, and 39% were in managerial or higher positions. Time 2 survey included the measures of envy. The Time 3 survey included the measure of surface acting as well as measures for anger and anxiety.

Measures

All items were measured on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* unless stated otherwise.

Performance pressure (T1). We assessed performance pressure with the same 4-item measure developed by Mitchell et al. (2018) used in Study 1 (α = .86).

EI: regulation and use of emotion (T1). We measured EI with the scale developed by Wang and Law (2002). We used two subscales of the measure: regulation of emotion and use of emotion. The illustrative items are "I am able to control my temper and handle difficulties rationally" for regulation of emotion (α = .84), and "I would always encourage myself to try my best" for use of emotion (α = .90).

Envy (T2). In the T2 survey, we requested participants to think of the recent work achievement of the target co-worker they identified in Time 1. For robustness, we assessed envy using a different scale than in Study 1. The scale used in Study 2 was developed by (Lange et al., 2018) and contains three dimensions of envy: malicious envy (α = .79), benign envy (α = .90), and the painful experience of envy (α = .78). Here we specifically focused on malicious envy as the mechanism due to our hypotheses focusing on the malicious intent behind envy that would need to be disguised by employees. The example item of malicious

envy was “I felt hostile towards him/her”. In the supplementary analyses, we also checked and controlled for the other dimensions of envy and the results held.

Surface act (T3). The same scale from Study 1 was used. Participants answered their frequency of conducting such acts on a 5-point scale (1= *Never*, 5= *Always*; α = .90).

Anger (T3). To control for the alternative mechanisms, we measured anger with the 3-item measure from Fredrickson et al. (2003): angry, irritated, and annoyed. Participants rated the extent to which they experienced these emotions on a 5-point scale (1 = *Not at all*, 5 = *Extremely*; α = .92).

Anxiety (T3). We assessed anxiety with three items from Brooks and Schweitzer (2011): nervous, anxious, and worried. We requested the participants to report the degree they experienced these three items on a 5-point scale (1 = *Not at all*, 5 = *Extremely*; α = .95).

Control variables. We considered a few potentially relevant control variables. We controlled for age, gender, and tenure in the organization as past literature suggests that they are related to social comparison (e.g., Duffy et al, 2012). Since people are more likely to compare themselves to the same gender (e.g., Blanton et al., 2001), we also controlled for whether the participant and the target co-worker were of the same gender. Lastly, comparing one’s performance to the target co-worker not only impacts envy (Lee & Duffy, 2019) but also could make the employee believe their performance is inadequate – a belief that accompanies performance pressure (Mitchell et al., 2018). Hence, we controlled for both the performance of the participant (α = .91) and the target co-worker (α = .90) with the 3-item individual task proficiency scale by Griffin et al. (2007) on a 7-point scale (1 *Strongly disagree*, 7 *Strongly agree*; ***T1***). An example item is: “I carried out the core parts of my job

well" for self-rated performance, and "He/She carried out the core parts of his/her job well" for the other's performance.

Results

Descriptive statistics and correlations. Table 3 reports the descriptive statistics and zero-order correlations among all variables in the study.

Insert Table 3 here

Bivariate correlations in Table 3 indicated gender and gender pair were not significantly correlated with our variables of interest. Hypotheses tests with and without gender and gender pair yielded similar results. Here, we report the results without controlling for these two variables. Secondly, since malicious envy is the main mediator variable of interest for our research design, we report below the results with only malicious envy included in the analyses. We conducted all analyses using benign envy, pain of envy, anger, and anxiety as alternative mediating mechanisms, and our findings still held (described in the supplementary analysis subsection below).

Confirmatory factor analysis. A confirmatory factor analysis (CFA) was conducted using Lavaan Package of R to test the factor structure of all measures. The hypothesized five-factor model (performance pressure, malicious envy, surface acting, regulation of emotion, and use of emotion) provided an acceptable fit to the data ($\chi 2$ (179) = 334.74, $p < .01$, CFI = .91, TLI = .90, RMSEA = .08, SRMR = .07; Browne & Cudeck, 1992), that is better than the alternative four-factor, three-factor, and one-factor model[3].

[3] The five-factor model achieved a better fit than an alternative four-factor model (in which items of regulation of emotion and use of emotion items were collapsed into a single latent factor; $\chi 2$ (183) = 497.24, p < .01, CFI = .82, TLI = .80, RMSEA = .11, SRMR = .09), three-factor model (in which items measured in T1 were

Hypotheses testing. We first re-examined Hypothesis 1 and 2. The OLS model (see Model 1, Table 4) supported that performance pressure significantly increased malicious envy (b = .13, se =.05, p < .05). Hence, the results supported H1. H2 proposed that performance pressure is positively related to surface acting through envy. The OLS model (see Model 3, Table 4) showed that malicious envy significantly increases surface acting (b = .57, se = .06, p < .01), supporting H2a. We also conducted bias-corrected bootstrapping procedures on 5,000 samples (Preacher & Hayes, 2008) with the PROCESS macro (Hayes, 2013). The result showed that the indirect effect of malicious envy was significant (b = .07, se = .03, 95% CI [.02, .15]; see the indirect effect in Table 4), supporting H2b.

Insert Table 4 here

H3 and H5a predicted that employee emotion regulation ability would negatively moderate the relationship between performance pressure and envy, and hence moderate the mediation effect between performance pressure and surface acting via envy. To test the moderation effect, we used PROCESS macro (Preacher and Hayes, 2008). The result showed that the interaction term (see Model 2 in Table 4) of performance pressure and regulation of emotion was not significant (b = -.03, se = .04, p = .40) and neither was the moderated mediation (b = -.02, se = .02, 95% CI [-.07, .03]; see the moderated mediation effect in Table 4). Thus, H3 and H5a were not supported.

H4 and H5b predicted employee emotion use ability will negatively moderate the relationship between envy and surface acting, and hence moderate the mediation effect. We found a significant interaction between malicious envy and use of emotion on surface acting

collapsed into a single latent factor; $\chi 2$ (186) = 1014.14 p < .01, CFI = .54, TLI = .48, RMSEA = .18, SRMR = .21), and to a one-factor model ($\chi 2$ (189) = 1307.28, p < .01, CFI = .37, TLI = .30, RMSEA = .21, SRMR = .20).

(*b*=-.12, *se* = .04, $p < .01$; see Model 4 in Table 4), therefore supporting Hypothesis 4. Figure 2 shows the simple slopes of surface acting at ± 1SD of use of emotion. The relationship between envy and surface acting was weakened for employees high in emotion use ability (*b* = .36, *se* = .09, $p < .01$) as opposed to low in emotion use ability (*b* = .65, *se* = .06, $p < .01$). We tested the moderated mediation effect in H5b with PROCESS macro (Hayes, 2013), and the result showed a significant index of moderated mediation (*b* = -.02, *se* = .01, 95% CI [-.049, -.004]), supporting H5b.

Insert Figure 2 here

Supplementary Analyses

To further increase confidence in our proposed conceptual model, we did additional analyses by using benign envy, pain of envy, anger, and anxiety as alternative mechanisms. Previous research suggested that envy can manifest as malicious envy (i.e., the envy we tested in the above analysis), benign envy, and pain of envy. Furthermore, performance pressure has been shown to result in anger and anxiety (e.g., Mitchell et al., 2018; Beilock & Carr, 2001), which are also negative emotions that employees could seek to mask via surface acting. Therefore we tested whether the effect of malicious envy holds even when including malicious envy, benign envy, pain of envy, anger and anxiety as simultaneous mediators in the mediation analysis. Our results showed that only malicious envy (*b* = .05, *se* = .02, 95% CI [.02, .10]) and anger (*b* = 0.07, *se* = .02, 95% CI [.03, .13]) had significantly indirect results, suggesting that malicious envy served as a valid mediating mechanism even after controlling for the other potential mechanisms.

Discussion

This time-lagged study replicated the findings in Study 1 and further supported our prediction that high performance pressure would trigger employee envy, specifically malicious envy, towards outperforming others, which then fosters surface acting. In addition, by examining the different dimensions of envy and other possible emotions, this study provided additional evidence that it was the malicious intentions behind envy that employees might seek to disguise. Furthermore, Study 2 examined the moderating effects of two dimensions of EI: regulation of emotion and use of emotion. Our results failed to support the effect of regulation of emotion on the positive relationship between performance pressure and envy. However, the analysis showed that emotion use ability attenuated the effect of malicious envy on surface acting, suggesting employees with higher emotion use ability are less likely to engage in surface acting even when experiencing malicious envy.

GENERAL DISCUSSION

With an experimental study and a time-lagged survey, this work examines the relationship between performance pressure and employee surface acting through the emotion of envy. Building on social comparison theory (Festinger, 1954), we first predict that high performance pressure leads to the emotion of envy towards outperforming coworkers. Next, building on self-presentation theory (Baumeister, 1989), we further propose that envious employees will engage in more surface acting to disguise envy. The results from two studies provide consistent evidence that employees exposed to high performance pressure are prone to experience stronger envy toward their co-workers who are outperforming, which stimulates surface acting. In addition, Study 2 provides additional support of the moderating role of the emotion use ability, such that envious employees high in their ability to use emotions engage in less surface acting upon feeling envy.

Theoretical Contributions

Our research makes several theoretical contributions. Foremost, we contribute to the literature on performance pressure by revealing that high performance pressure could lead to employee surface acting. To gain competitive advantages in the market, organizations are now increasingly relying on employees to deliver exceptional performance (Sitkin et al., 2011). While previous studies have found that high performance pressure might impair individual performance through increased depletion and disengagement (Mitchell et al., 2019) (Zhang et al., 2017), unethical behaviors (Mitchell et al., 2018) (Grover & Hui, 2005), and decreased team knowledge use (Gardner, 2012), not much has been investigated how performance pressure may impact interactional dynamics among coworkers. To the extent that intra-organizational surface acting not only impairs employee well-being but also hampers coworker trust and interpersonal relationships (Gabriel et al., 2020) (Hu & Shi, 2015), here we underscore that performance pressure can be detrimental to individual functioning and collaborative tasks through employee envy and intra-organizational surface acting. In addition, we enriched the understanding of the behavioral responses to performance pressure by exploring an alternative avoidant behavioral outcome – surface-acting. While past literature has explored how employees overcome their performance pressure either by deconstructive actions towards others or the organization (e.g., Mitchell et al., 2018, 2019) or by lifting one's own performance (e.g., Mitchell et al., 2019), we supplement the research by showing how employees cope with the pressure by suppressing their true feeling.

Second, we contribute to the literature on envy by broadening our understanding of its antecedents and consequences. While past research has vastly focused on the referent

coworker as an antecedent of workplace envy (Duffy et al., 2021), very little research has explored the contextual factors that systematically influence workplace envy. Based on the social comparison theory (Festinger, 1954), here we suggest that prevalent organizational practices of imposing high performance pressure on the employees can draw employee attention to the comparison between themselves and other outperforming co-workers, which stimulates the emotion of envy. Our work thus enriches research on organizational context (i.e., performance pressure) as a factor contributing to workplace envy.

Findings were mixed regarding the role of EI in attenuating the relationship between performance pressure and surface acting via envy. Whereas we found that the ability to use emotions helped alleviate the impact of envy on surface acting, we did not find the interaction between performance pressure and emotion regulation ability on envy as hypothesized. One possible explanation is that emotion regulation strategies might be more effective in maintaining positive or neutral emotions instead of reducing negative emotions, as previous studies have found mixed effects of emotional intelligence on reducing negative emotions (Gross & John, 2003) (Dong et al., 2014). Nevertheless, our research highlights use of emotions as an important individual ability that helps to reduce surface acting at the workplace, and elucidates that emotional capabilities should be considered when studying intraorganizational surface acting, a perspective that has been overlooked thus far (Hu & Shi, 2015; Ozcelik, 2013) (Glasø & Einarsen, 2008).

Practical Implications

Our work also offers practical implications for organizations and leaders. While organizations and leaders often set up high performance demands with the expectation of exceptional employee performance, we show that it may lead to the emotion of envy and

stimulates surface acting, thus potentially hampering individual and team performance. One way to alleviate the negative effect of envy from social comparisons is to avoid the zero-sum reward systems that might trigger unhealthy competition and further the malicious intention behind envy (Tzini & Jain, 2018). While a certain degree of competition might be inevitable, managers should prompt a healthy environment under performance pressure that minimizes employee resentment of high-performing employees.

Another effective way could be to develop employee EI through training. Our results suggest that employees more capable of using emotions to facilitate decisions are able to reduce surface acting upon feeling envy. Therefore, organizations may benefit from providing various training programs to increase employee awareness and understanding of emotions, as well as their ability to regulate and manage their emotions in the decision-making process (e.g., Salovey & Mayer, 1990)

Limitations and Future Research

We acknowledge the existence of limitations in our study. First, our measures from Study 2 were all obtained from the same source, which could result in common method variance bias (Podsakoff et al., 2012a). That said, we collected data at multiple time points to alleviate such concerns (Podsakoff et al., 2003a) and validated our proposed causal mechanisms by utilizing an experimental design in Study 1. In addition, the variables of interest in the current work (e.g., surface acting, feelings of envy, etc.) might be difficult to be observed by other sources. Nevertheless, we encourage future research to obtain data from multiple sources such as leaders to better validate our findings.

Another limitation is that in the current paper we only looked at upward comparison that induces envy, yet downward comparison is also likely to occur under high performance

pressure, and this could lead to another stream of emotional and behavioral reactions (Li et al., 2021). For example, scholars have found that downward comparison is beneficial for one's well-being (Wheeler & Miyake, 1992) and relational satisfaction (B. P. Buunk et al., 2001). While it is unclear to what extent employees might engage in upward vis-à-vis downward social comparisons under high performance pressure, this would be an interesting avenue for future research.

Third, we focused on the malicious aspect of envy that employees might need to mask, yet envy also has a prosocial aspect such that it encourages observational learning and feedback-seeking from the target of envy (K. Lee & Duffy, 2019) and might not pose threats to one's standing and interpersonal relationships in organizations. To the extent that the malicious and the prosocial aspects of envy could often co-occur (van de Ven et al., 2009), are employees more willing to express their envy to others, perhaps in a non-threatening way? Future research could further explore how the prosocial part of envy is perceived.

CONCLUSION

Performance pressure is a common experience for employees in organizational life. While previous literature has investigated how it might impact individual well-being and performance, not much has been explored regarding how it influences employee interactions. Across two studies, we explore the relationship between performance pressure envy which leads to employee surface acting. In addition, we illustrate the critical role of employee emotional intelligence in reducing surface acting as an undesirable outcome of envy. With these findings, we hope to identify performance pressure as a force that induces employee envy and subsequent surface acting, and highlight how the organizational expectation of exceptional employee performance may disrupt constructive employee interactions.

CONCLUSIONES

La presión sobre el rendimiento es una experiencia común para los empleados en la vida de las organizaciones. Aunque la literatura anterior ha investigado cómo puede afectar al bienestar y al rendimiento individuales, no se ha explorado mucho cómo influye en las interacciones de los empleados. A través de dos estudios, exploramos la relación entre la envidia por la presión sobre el rendimiento, que conduce a la actuación superficial de los empleados. Además, ilustramos el papel fundamental de la inteligencia emocional de los empleados en la reducción de la actuación superficial como resultado indeseable de la envidia. Con estos hallazgos, esperamos identificar la presión sobre el rendimiento como una fuerza que induce la envidia de los empleados y la subsiguiente actuación superficial, y destacar cómo la expectativa organizativa de un rendimiento excepcional de los empleados puede perturbar las interacciones constructivas de los empleados.

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Figure 1: Theoretical model

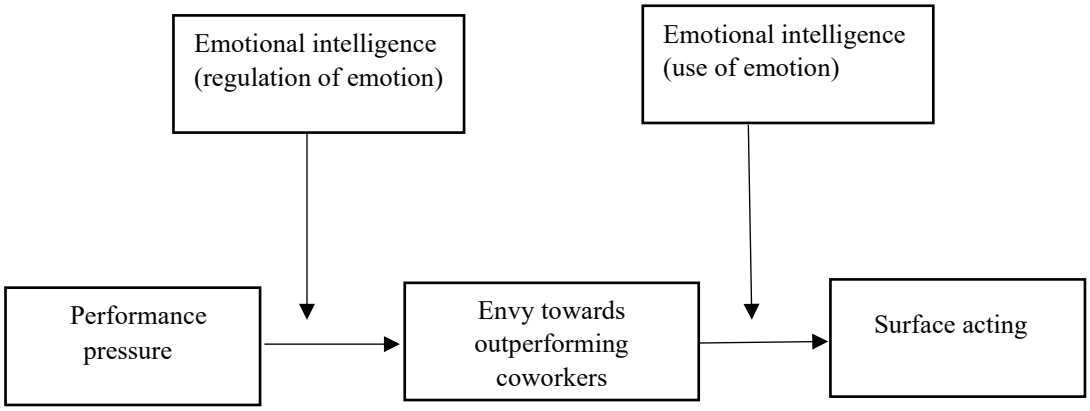

Figure 2: Study 2 Interaction between envy and employee use of emotion on surface acting

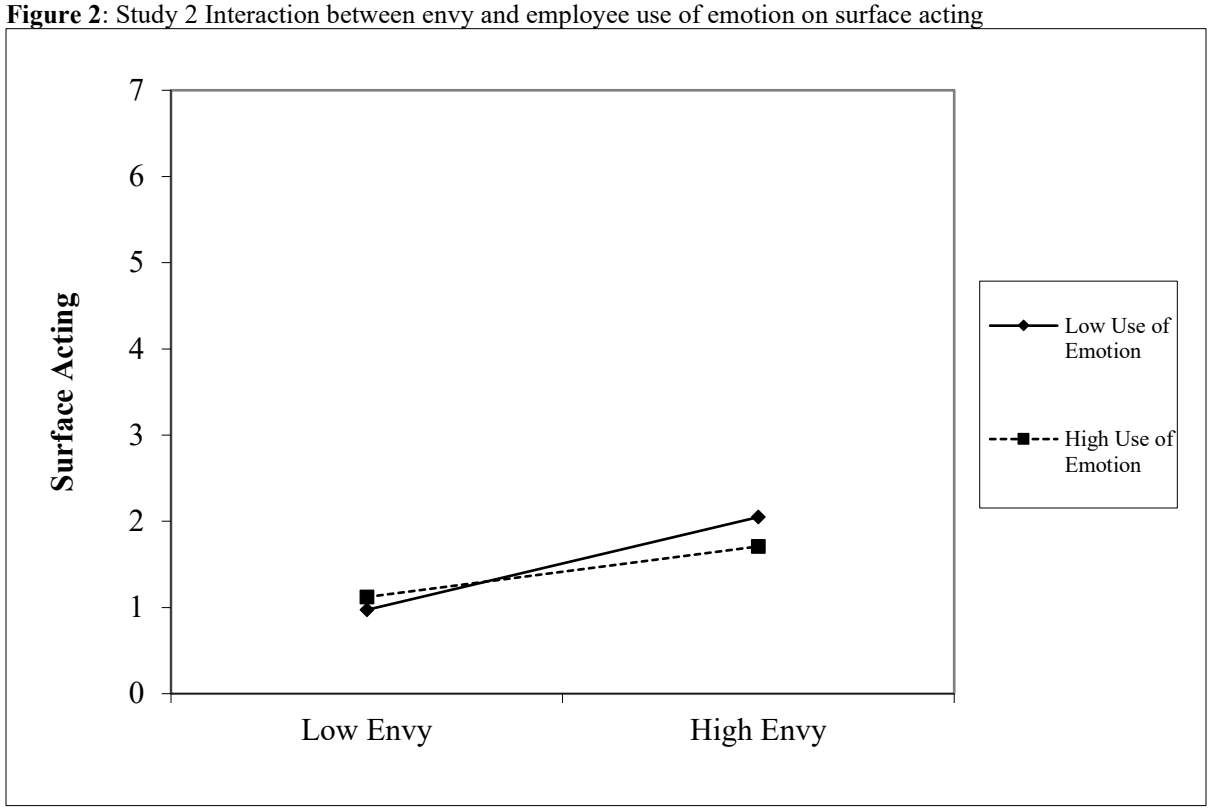

Table 1: Study 1 Correlations and descriptive statistics

Variable	Mean	*SD*	1	2	3	4	5	6
1.Age	38.31	13.15						
2.Gender	0.54	0.50	-0.09					
3.Performance pressure manipulation	3.57	1.31	-0.06	0.03	(.93)			
4.Envy	2.69	1.14	-0.15	0.14	0.31**	(.86)		
5.Surface acting	2.46	1.19	-0.05	0.12	0.28**	0.71**	(.93)	
6.Social undermining	1.96	0.93	-0.18*	0.26**	0.10	0.60**	0.69**	(.95)

Note: *n*=164. Age is measured in years. Gender is coded 0 for "female" and 1 for "male". Coefficient alpha reliabilities are reported on the main diagonal in parentheses.

* $p < .05$ ** $p < .01$

Table 2: Study 1 Mediation analysis from performance pressure to surface acting and social undermining through envy

	Envy		**Surface acting**		**Social undermining**	
Predictor	***B***	***SE***	***B***	***SE***	***B***	***SE***
Constant	2.40**	0.12	0.41*	0.17	0.63	0.15**
Performance pressure	0.56*	0.17	0.19	0.13	-0.02	0.12
Envy			0.73**	0.06	0.50**	0.05
R^2	0.06**		0.51**		0.37**	

Note. *n* = 164. Unstandardized regression coefficients are reported. Performance pressure was coded as 1 = high performance pressure condition, 0 = low performance pressure condition.

* $p < .05$ ** $p < .01$

Table 3: Study 2 Correlations and descriptive statistics

Variable	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Age	37.34	12.00															
2.Gender	1.51	.50	-.33**														
3.Tenure	7.58	8.25	.74**	-.25**													
4.Gender pair	1.34	.47	.01	-.13	.00												
5.Self-performance	5.94	0.80	-.04	.20*	-.04	-.17	(.91)										
6.Other performance	6.39	0.59	-.11	.23**	-.11	-.05	.72**	(.90)									
7.Performance pressure	4.69	1.44	.00	.02	.05	-.14	.07	.12	(.86)								
8.Malicious envy	1.46	0.88	-.07	.10	.11	.07	-.15	-.18*	.21*	(.79)							
9.Surface acting	1.48	0.74	-.02	-.02	.03	.05	-.14	-.15	.25**	.66**	(.90)						
10.Regulation of emotion	5.16	1.13	.19*	-.06	.09	-.22*	.24**	.17	.01	-.20*	-.17*	(.84)					
11.Use of emotion	5.25	1.14	.05	.00	.00	-.12	.43**	.34**	.11	-.14	-.18*	.55**	(.90)				
12.Benign envy	3.86	1.57	-.15	.12	-.01	.01	.03	.17*	.31**	.23**	.19*	-.03	.16	(.90)			
13.Pain of envy	1.53	0.88	-.01	.10	.11	.04	-.18*	-.16	.25**	.72**	.58**	-.19*	-.13	.34**	(.78)		
14.Anger	2.03	1.02	-.16	.11	-.09	-.02	-.10	-.06	.30**	.40**	.62**	-.22*	-.27**	.10	0.38**	(.92)	
15.Anxiety	2.21	1.19	-.24**	.16	-.19*	.12	-.18*	.04	.25**	.22*	.27**	-.26**	-.13	.13	.22*	.45**	(.95)

Note: n=134. Age and tenure are measured in years. Gender is coded 2 for *female* and 1 for *male.* Gender pair is coded 1 for *same gender* and 2 for *different gender.* Coefficient alpha reliabilities are reported on the main diagonal in parentheses.

* $p < .05$ ** $p < .01$

Table 4: Study 2 Regression results and indirect effects of performance pressure on surface acting through malicious envy

	Envy (T2)				*Surface acting (T3)*					
	Model 1		*Model 2*		*Model 3*		*Model 4*		*Model 5*	
Predictor	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Constant	3.48**	0.87	2.96*	1.25	0.60	0.63	-.43	.70	-.64	.68
Age	-.02**	.01	-.02*	.01	.01	.00	.01	.01	.01	.01
Tenure	.03*	.01	.03*	.01	-.01	.01	-.02	.01	-.02	.01
Self-performance	-.02	.13	.01	.13	-.05	.08	-.02	.09	-.01	.09
Other performance	-.29	.18	-.29	.18	.02	.06	.05	.12	.02	.12
Performance pressure	.13*	.05	.30	.21					.09*	.03
EI_ROE			.04	.19						
Performance pressure × EI_ROE			-.03	.04						
Malicious envy					.57**	.06	1.16**	.19	1.18**	.18
EI_UOE							.14	.08	.14	.07
Envy × EI_UOE							-.12**	.04	-.14**	.04
R2	.14**		.16**		.44**		.49**		.52**	

Mediation effect of envy

	Effect	Boot *SE*	Boot LLCI	Boot ULCI
Envy	.07	.03	.02	.15

Moderated mediation effects of EI

	Effect	Boot *SE*	Boot LLCI	Boot ULCI
EI_ROE	-.02	.02	-.07	.03
EI_UOE	-.02	.01	-.05	-.00

Note. *N* = 134. ROE = regulation of emotion. UOE = use of emotion. Unstandardized regression coefficients are reported. Bootstrap sample size 5000. CI confidence interval (95%); LLCI lower limit; ULCI upper limit. * $p < .05$, ** $p < .01$

APPENDIX A

Scenario for Study 1

Low performance pressure condition:

Now imagine the following scenario.

You are a newcomer in your current firm. Your firm grants enough time for employees to progress and typically completes performance reviews every one year. Your firm assigns every employee a performance bracket at each review, e.g., underperforming, as expected, exceeding expectations, etc. Unless you are in the bottom performance bracket twice in a row, you will not be asked to leave. ***In sum, you do not feel much pressure to work here.***

You and your coworker A entered the organization at ***a similar time*** *and had* ***a similar educational background****. While you are trying to improve your work performance, things seem to be much easier for A.* ***You have no doubt that A will be rated exceeding expectations.***

High performance pressure condition:

Now imagine the following scenario.

You are a newcomer in your current firm. Your firm expects its employees to progress quickly and typically completes performance reviews every six months. Your firm assigns every employee a performance bracket at each review, e.g., underperforming, as expected, exceeding expectations, etc. If you are in the bottom performance bracket, you will be asked to leave. ***In sum, you feel quite pressured to work here.***

You and your coworker A entered the organization at ***a similar time*** *and had* ***a similar educational background****. While you are trying to improve your work performance, things seem to be much easier for A.* ***You are uncertain about your upcoming performance review, but you have no doubt that A will be rated exceeding expectations.***

APPENDIX B

Table 1 *Study 2: Comparing Means of the Two Groups*

	Under-performing		*Out-performing*			
	Mean	*SD*	*Mean*	*SD*	*t-value*	*p-value*
Age	37.28	10.09	37.34	12.00	-.03	.97
Gender	1.51	0.50	1.51	0.50	-.12	.90
Gender_pair	1.28	0.45	1.34	0.47	-.79	.43
Tenure	6.78	7.20	7.58	8.25	-.73	.47
Performance pressure	4.60	1.40	4.69	1.44	-.44	.66
Regulation of emotion	5.24	1.24	5.16	1.13	.48	.63
Use of emotion	5.13	1.04	5.25	1.14	-.76	.45

Note: under-performing: participant reported a co-worker whose performance is lower (the eliminated responses; n = 79)*; Out-performing*: participant reported a co-worker whose performance is the same or higher (the selected responses; n = 134). Age and tenure are measured in years. Gender is coded 2 for *female* and 1 for *male.* Gender pair is coded 1 for *same gender* and 2 for *different gender.*

Chapter 3: Work meaningfulness & being trusted: An empirical study of how employee's work meaningfulness results in leader's trust

ABSTRACT

Although work meaningfulness has been shown to positively impact employees' work attitudes and behaviors, little is known about its interpersonal effect. We propose that employee's work meaningfulness affects to what extent the leader trusts the focal employee. Using time-lagged data from leader–follower dyads of Chinese part-time MBA students, this paper demonstrates that follower's task performance and OCBO mediate the positive relationship between follower's work meaningfulness and leader's trust. Additionally, we found that gender moderates this relationship, such that the effects of work meaningfulness on task performance and OCBO, and consequently on leader's trust are stronger for male employees than for female employees.

Keywords:Work meaningfulness; leader's trust in follower; OCBO; task performance; gender

Work meaningfulness & being trusted: An empirical study of how employee's work meaningfulness results in leader's trust

INTRODUCTION

Work meaningfulness, the degree to which an individual perceives their job to be worthwhile, significant, and purposeful (Pratt & Ashforth, 2003; Rosso et al., 2010; Steger, 2016), has a powerful influence on employee well-being and workplace attitudes and behaviors (Allan et al., 2019; Lysova et al., 2019). It has been shown to have a positive impact on employees' physical well-being (Soane et al., 2013), mental health (Fairlie, 2011), and task performance (Fürstenberg et al., 2020; Grant, 2008). Therefore, work meaningfulness has attracted a fair amount of scholarly attention in the past two decades (Bailey et al., 2019; Lysova et al., 2019). However, our review of the literature suggests that the interpersonal-level effect of meaningfulness has not received ample examination. This is pitiful given that meaningfulness, by nature, is a psychological state that depends on others to realize (Bailey et al., 2019), as we make sense of meaning by interacting with others (Tosti-Kharas & Michaelson, 2021).

To address this gap in the interpersonal effect of employee meaningfulness, this study investigates how employees' meaningfulness affects their relationship with the leader. More specifically, this study draws on trust theory and examines how follower's work meaningfulness influences leader's trust. Trust is an integral part of the leader-follower relationship (Schoorman et al., 2007), and has important impacts at different levels. For instance, follower's trust in the leader tends to positively influence their own creativity (Jaiswal & Dhar, 2017), leader's effectiveness (Breevaart & Zecher, 2019), and even the presidential vote (Pillai et al., 2003). However, most research in this domain has focused on the follower's trust in the leader but not the opposite (that is, *leader's trust in the follower*) (Brower et al., 2000). The one-sided examination of trust (Fulmer & Gelfand,

2011) can be problematic because trust is not always mutual – follower's trust doesn't equal that of their leader (Brower et al., 2000), and ignoring one side of the story may constrain the explanatory ability of trust (Korsgaard et al., 2015). We argue that there is a natural link between follower's work meaningfulness and leader's trust in them. This is because, work meaningfulness, though a subjective experience, tends to result in positive work outcomes that are critical to the assessment of employee's trustworthiness. Specifically, based on previous literature, we expect that increased task performance and OCBO, triggered by work meaningfulness, would in turn enhance leader's trust in the follower. Moreover, drawing on social role theory (Eagly, 1997; Eagly & Wood, 2012), we propose that there is a gender difference in the mediated relationships mentioned above. This is because individuals tend to conform to social expectations of their gender roles (i.e., men are agentic and women are communal). As a result, regardless of the work meaningfulness experienced, men tend to strive for higher task performance, and women more OCBO. Figure 1 exhibits our conceptual model.

Insert Figure 1 here

This paper makes a few contributions. First, to the best of our knowledge, no research has investigated how follower meaningfulness can elicit interpersonal attitudes from their immediate leaders. Hence, we extend the research on outcomes of work meaningfulness from the individual level to interpersonal relationships by examining how one's perception of meaningfulness affects their leader's trust in them. Second, we examine how follower meaningfulness can serve as an initiator that foments leader trust, which complements the research on the trust-building process between leader and follower that has been heavily one-sided. Additionally, leadership scholars have made recent calls to "reverse the lens" and view followers not only as recipients of leadership but also as active constructors of the leader-follower relationship (Uhl-Bien et al., 2014). Finally, while

previous research examined the relationship between work meaningfulness and task performance, we identify gender as a boundary condition for these relationships and thus extend our knowledge of the positive outcomes of work meaningfulness.

THEORY AND HYPOTHESES DEVELOPMENT

Follower Meaningfulness, Task Performance, OCBO, and Leader Trust

When studying leader-follower social exchanges, organizational scholars have typically used a top-down approach whereby the leader's behavior, personality, etc. lead to affective, cognitive, or behavioral responses from the follower (Meindl, 1995). With such a leader-centric approach, research on meaningfulness has shown empowering leadership and trust-based relationships foster employee meaningfulness (see Lysova et al., 2019 for a review). In addition, it has been shown that leader's meaningfulness could also be a source of meaningfulness for the followers (Kipfelsberger et al., 2022). However, there are very few studies that examine how follower's work meaningfulness impacts their leader's perception and leader-follower relationship. The same tendency applies to leader-follower trust studies. While research has shown that various antecedents such as transformational leadership (Podsakoff et al., 1990) and servant leadership (Schaubroeck et al., 2011) shape follower's trust in the leader, the other side (i.e., leader's trust in the follower) – along with its antecedents and consequences - has largely been ignored (for one exception, see Brower et al., 2009). However, recently, leadership scholars have made calls to 'reverse the lens' and view followers not only as recipients of leadership but also as active constructors of the leader-follower relationship (e.g., Uhl-Bien et al., 2014). For instance, it is shown that follower's mood could also influence that of the leader (Tee et al., 2013). In the current study, we argue that employee's work meaningfulness, other than being a result of leader-follower relationship (Tummers & Bronkhorst, 2014), serves as a trigger for leader's trust in the follower.

Trusting another person, defined as accepting to be vulnerable to the trustee (Rousseau et al., 1998), involves a risk for the trustor. Accordingly, to assume this risk, the trustor evaluates the trustworthiness of the trustee, which could be based on an assessment of the trustee's ability, benevolence, and integrity (e.g., Mayer et al., 1995). More specifically, ability means a "group of skills, competencies, and characteristics that enable a party to have influence within some specific domain" (Mayer et al., 1995, p. 717); benevolence is the orientation of the trustee to benefit the trustor without self-serving intention; and integrity reflects the perception that the trustee lives up to principles (Mayer et al., 1995). Work meaningfulness, though a cognitive perception that employees experience internally (Boeck et al., 2019), could be projected in desirable workplace behaviors that serve as strong signals of follower trustworthiness and thus mitigate the risk involved in leader's decision to trust the follower. According to the theory of purposeful behavior, work meaningfulness is linked to higher psychological capability (e.g., energy, absorption, and dedication to work) and motivation (e.g., self-efficacy and expectations) in performing tasks and roles (Barrick et al., 2013). This is echoed by the broaden-and-build theory of positive emotion (Fredrickson, 2004, 2013; Fredrickson & Branigan, 2005), which suggests that positive emotion broadens an individual's cognition-action reservoir, enabling them to build more enduring psychological resources. Meaningfulness, as a possible trigger of the broaden-and-build process (Fletcher et al., 2018; Soane et al., 2013), is likely to build and accumulate psychological resources necessary for performing work tasks. Hence, past literature has shown that work meaningfulness leads to a series of positive workplace outcomes, such as higher engagement, better task performance, organizational citizenship behaviors (OCB), proactive behavior, etc. (Allan et al., 2018, 2019; Fürstenberg et al., 2020; Van Beurden et al., 2022). Task performance and OCB are two visible forms of projections of meaningfulness that are likely to showcase follower's

trustworthiness and thus lead to leader's trust. OCB, behavior not critical to one's job and yet conducive to the organization's functioning, can be directed to individuals (OCBI) and the organization (OCBO) (Lee & Allen, 2002). We only examine OCBO here because it's suggested that OCBO is more likely to be triggered by job cognition – in our case, meaningfulness – while OCBI[4] tends to be caused by job affect (K. Lee & Allen, 2002). Brower et al.'s (2000) theory paper proposes that follower's task performance is likely to influence leader's judgment of follower's ability, benevolence, and integrity, while citizenship behavior positively influences perceptions of benevolence and integrity. Accordingly, follower meaningfulness, projected in the increased OCBO and task performance, can be a strong signal of follower trustworthiness and thus mitigate the risk involved in leader's decision to trust the follower. Therefore, we predict:

H1: Follower meaningfulness positively influences leader's trust via 1) task performance and 2) OCBO.

The Moderating Role of Gender

Social role theory (Eagly, 1997; Eagly & Steffen, 1984; Eagly & Wood, 2012) explains gender differences in cognition, affect, and behaviors. The theory suggests that gendered labor division in society leads to gendered expectations, and sequentially, people tend to adhere to the social norms associated with their gender roles. The traditional labor division puts men in the role of breadwinner, and thus men are generally ascribed agentic characteristics, while women normally assume the role of caretaker and are therefore expected to be more communal. Hence, men are generally associated with being competent and achievement-oriented, while women are likely to be perceived as sociable and

[4] We have also measured OCBI (α = 0.91). Table 1 shows OCBI does not correlate with follower work meaningfulness. We've also regressed work meaningfulness on OCBI, the result is not significant (β = .10, *SE* = .07, $p > 0.10$). Hence, we do not report OCBI in the analysis.

supportive (Langford & Mackinnon, 2000). Such gender-role-based expectations influence people's behavior as people tend to conform to social norms (Diekman & Clark, 2015). This is also evident in the organization. For instance, women are less favorably evaluated than men when performing OCB but are more likely to be penalized if they withhold such behavior (Heilman & Chen, 2005). In addition, women are more likely to feel obliged to help the organization than their male counterparts (Thompson et al., 2020). Though we proposed above that work meaningfulness provides psychological resources that motivate OCBO, women may be less influenced by it because the felt obligation prompts them to perform OCBO regardless of their personal traits and conditions (Alexandra Beauregard, 2012). In contrast, men are not expected to be social or helping, and thus may engage in more OCBO when they experience meaningfulness in their work. Similarly, gender roles could influence how meaningfulness impacts task performance. Task performance is generally regarded as a signal of competence (McAllister, 1995), and thus higher task performance is an indication of achievement. Men are more likely to engage in behaviors that enhance their personal status (Cross & Madson, 1997), while women are subject to stereotypes like "unambitious" and "weak" (Langford & Mackinnon, 2000) and may behave accordingly. Hence, work meaningfulness may be a weaker motivator for men than women when performing their tasks because men are driven to increase their careers regardless (Kacmar et al., 2011). Taken together with the discussion for Hypothesis 1, gender may interact with meaningfulness to affect follower's OCBO and task performance, which could further impact leader's trust. Therefore, we predict:

H2: Gender moderates the positive relationship between follower meaningfulness and leader's trust via OCBO and task performance, such that a) the mediation via OCBO is stronger for men than women, and b) the mediation via task performance is stronger for women than men.

METHODS

Data and Sample

This study was part of a larger leadership research project conducted with part-time MBA students at a Chinese business school. In exchange for credit, 224 students agreed to participate in the survey and provide the e-mail of their immediate leader at work (7 of the students provided the e-mail of one of their followers). We then contacted the leaders directly via the email provided and guaranteed the confidentiality of the survey results.

In this study, we conducted two rounds of surveys with the followers (i.e., part-time MBA students) and two rounds of surveys with the leader. At Time 1, we collected demographic data of the followers. All responses were returned. Two weeks later, we conducted the second survey with the followers, where we measured how meaningful they thought their work was. At the same time, the first survey with the leaders was sent to collect their rating of the follower's task performance and OCB and their own meaningfulness. At time 2, 223 responses from the followers were returned, of which 202 were useful (90.18% response rate). 217 leaders responded, among whom 181 questionnaires were useful (80.80% response rate). Two weeks later, we contacted the leaders again for a second round of survey collection, where we measured the leaders' trust in the follower. At this time, 181 out of the 217 responses that were returned to us are useful (80.80% response rate). Such high response rates were the result of the business school's strong support and effective response tracking.

This survey structure made sure that we have a multi-source (the IV was from the follower while the mediators and DVs were from the leader) and multi-time (the mediator and the DV were collected at different times) data set.

Excluding surveys with a wrong email address or improper dyad identification information, we were able to match, with all rounds of surveys, 146 pairs of leaders and

followers (followers: 55% female, 97% aged between 26 and 50 years, M_{tenure} = 4.36 years; leaders: 40% female, 95% aged between 26 and 50 years, M_{tenure} = 8.78 years). On average, the leader-follower dyad had a common tenure of 2.54 years.

All survey questions in the study were translated from English to Chinese and back-translated from Chinese to English by two independent bilingual individuals (one subject matter specialist and one professional translator), following Brislin (1980). The surveys were distributed using web-based tools.

Measures

Unless otherwise noted, the items were measured on a seven-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree.

Meaningfulness. Meaningfulness was measured using the four-item positive meaning sub-scale from the Work and Meaning Inventory, which captures a sense that the work one is doing has personal significance, matters, and is meaningful (Steger et al., 2012). A sample item is: "I have a good sense of what makes my job meaningful" (α = 0.91).

Task performance. We assessed the task performance of the followers using Williams and Anderson's (1991) 7-item scale. The leaders were asked to rate the focal followers' task performance using a 5-points scale (*1 = Strongly Disagree, 5 = Strongly Agree,* α = 0.80). An exemplary item is "*(The follower) engages in activities that will directly affect his/her performance evaluation*".

OCB. We requested the leaders to evaluate the follower's OCB using a 16-item scale by Lee and Allen (2002). The scale consists of two dimensions, namely, individual-oriented citizenship behavior (OCBI, α = 0.91) and organization-oriented citizenship behavior (OCBO, α = 0.89). Each contains 8 items. Sample items for OCBI and OCBO

respectively are "*Give up time to help others who have work or non-work problems*", and "*Take action to protect the organization from potential problems*."

Leader's trust. Leaders reported their trust in the follower on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*) using the two dimensions of McAllister's (1995) scale: affect-based trust (5 items; α = .82) and cognition-based trust (6 items; α = .70). Example items of affect-based and cognition-based trust respectively included "I can talk freely to this individual about difficulties I am having at work and know that (s)he will want to listen" and "This person approaches his/her job with professionalism and dedication". We use the aggregated trust measure in our analyses (α = .84).

Gender. Participants were asked their gender (women coded as "2"; men as "1").

Controls variables. Referring to previous literature on both leader-follower trust and work meaningfulness (Chua et al., 2008; Newman et al., 2014), we controlled for a range of variables. First, we controlled for follower's characteristics, namely age, gender, and education. Previous studies have shown that demographic (dis)similarity affects interpersonal attraction (Kark et al., 2012), which in the end impacts the leader-follower relationship. Hence, we also controlled for the leader's demographics (age, gender, education). Because trust may develop over time, we factored in leader-follower dyad tenure. It was suggested that the size of the organization could impact the type of leader-follower relationship (e.g. Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009), hence, we included it in the controls. Lastly, to control for factors that may enhance both follower's meaningfulness and the leader's trust, we controlled for leader's meaningfulness collected during the first-round survey with the leaders[5]. Following the best practice from Bernerth and Aguinis (2016), we only report the control variables that significantly

[5] Leader's work meaningfulness was measured with the same work meaningfulness scale as the follower's work meaningfulness (α = .88).

influenced our model in the statical analysis. However, the results remain the same when all the control variables are included in the model.

Results

Descriptive statistics. The means, standard deviations, and correlations among studied variables are presented in Table 1.

Insert Table 1 here

Preliminary analyses. To examine the construct discriminant validity, we conducted confirmatory analyses with all four key measurements we tested in the model. All the items load significantly into the 4-factor model (follower's work meaningfulness, Task performance, OCBO, and leader's trust – second-level factor with affective and cognitive Trust). To make sure that scales measured at the same time from the same source don't influence the data structure, we also examined the data as a 3-factor model (follower's work meaningfulness (time 2), follower's task performance and OCBO combined as one factor (time 2), and leader trust (time 3)). The results show that the 4-factor-model has a better fit (*CFI* = .91, *TLI* = .90, *RMSEA* = .06, *SRMR* = 0.07) than other alternative factor structures: the 3-factor model (*CFI* = .85, *TLI* = .84, *RMSEA* = .07, *SRMR* = .08), and the 1-factor model (*CFI* = .58, *TLI* = .55, *RMSEA* = .12, *SRMR* = .11). The CFA results provide support for the hypothesized 4-factor model.

Hypothesis testing. Hypothesis 1 proposes that OCBO and task performance mediate the relationship between follower work meaningfulness and leader's trust. To test these two hypotheses, we used the PROCESS macro model 4 developed by Hayes (2013) – a statistical method that offers bootstrapped estimates of the significance of mediation effects. Specifically, we conducted bootstrapping with 5000 resamplings and a 95% confidence interval. As Table 2 shows, the 95% confidence interval (CI) of OCBO (β = .04, *SE* = .02, 95% CI [.01, .07]). and task performance (β = .04, *SE* = .02, 95% CI

[.01, .08]) don't include zero, indicating significant indirect effects. Suggesting that both OCBO and task performance mediate the relationship between the follower's work meaningfulness and the leader's trust. Hence, Hypothesis 1 is supported.

Insert Table 2 here

Next, we tested the moderated mediation effects proposed in H2a and 2b using moderated OLS regression with parallel mediators (model 7 in PROCESS). We mean-centered our variables before creating the interaction (Preacher et al., 2007). Table 3 displays the results of the moderated mediation analysis. Hypothesis 2a proposes that gender moderates the relationship between follower's work meaningfulness and leader's trust via OCBO, as the relationship is stronger for males than for females. In support of H2a, the interaction of work meaningfulness with gender on leader's trust via OCBO was significant (β = -.06, *SE* = .03, 95% CI [-.14, -.01]): the conditional effect is stronger for male (β = .08, *SE* = .03, 95% CI [.03, .15]) than female followers (β = .02, *SE* = .02, 95% CI [-.02, .05]). The conditional effects on OCBO are illustrated in Figure 2. Hypothesis 2b postulates that the positive link between follower's work meaningfulness and leader's trust via task performance is moderated by gender, such that the relationship is stronger for females than for males. The results showed a significant moderation (β = -.09, *SE* = .03, 95% CI [-.16, -.03]) opposite to our hypothesis: again, the conditional effect is stronger for males (β = .10, *SE* = .03, 95% CI [.05, .16]) than females (β = .01, *SE* = .02, 95% CI [-.02, .05]). Figure 3 illustrates the conditional effects on task performance. Hypothesis 2b is not supported.

DISCUSSION

While employee's work meaningfulness and leader's trust in their followers have both been shown to be conducive to employee's work results and behaviors, neither work meaningfulness's interpersonal consequences nor the antecedents of leader's trust have

been well studied. This paper addresses both gaps by bridging these two concepts. We used a multi-source and time-lagged sample to conduct survey studies. We found that one's work meaningfulness contributes to leader's trust via enhanced task performance and OCBO. On top of that, we also examined the gender difference in the mediated relationship. As we expected, the effect of meaningfulness on OCBO is weaker for women than for men. Interestingly, contrary to our hypothesis, meaningfulness's impact on task performance is also stronger for men than women. This might be because women are rated slightly higher in the operational field (Roth et al., 2012). In summary, work meaningfulness' positive influence on leader's trust is stronger for male followers than for female followers.

Theoretical Implications

Our study has theoretical implications for work meaningfulness and leader-follower-trust literature. First, we examined the outcomes of work meaningfulness beyond those at the individual level. As studies on work meaningfulness are still relatively young, research on its outcomes has generally concentrated on the individual level, such as personal work behaviors and attitudes, while the relational aspects of meaningfulness have so far been ignored (Bailey et al., 2019). Our findings show that work meaningfulness' impact not only extends beyond the individual level but also has a bottom-up influence. In addition, we examined a very important boundary condition of the link between work meaningfulness and its influence on work outcomes and interpersonal relationships. Though a variety of studies have demonstrated the positive effect of work meaningfulness in the organizational setting (see the reviews of Allan et al., 2019), we incorporated social role theory and identified that gender influences how meaningfulness translates into real performance and OCBO. This showcases the importance of factoring in social or

workplace roles when examining meaningfulness, as meaningfulness is heavily embedded in human relationships (Wrzesniewski et al., 2003).

Lastly, we contribute to the literature on trust by exploring the antecedents of leader's trust in the follower. The vast literature on trust has typically focused on follower's trust in the leader, its antecedents, and consequent follower outcomes (Dirks & Ferrin, 2002), while limited numbers of studies have examined what causes leader's trust in the follower. Answering the call to "reverse the lens" and examining followers as active initiators of the leader-follower relationship (Uhl-Bien et al., 2014), we studied follower meaningfulness as an antecedent to leader trust. This helps add to the explanatory power of trust (Korsgaard et al., 2015) by providing a glimpse of the other side of the mutual relationship.

Practical Implications

Our study provides practical implications for organizations, leaders, and employees. When employees believe their work is meaningful, their task performance and OCBO improve, and so does the leader's trust. This forms a positive loop as leader's trust could then further enhance follower's performance and thus lead to organizational effectiveness (Brower et al., 2000). Therefore, organizations should strive to increase employees' meaningfulness. One way to do so is to design the job properly. Fletcher et al. (2018) suggest that job clarity and job challenge increase employee's meaningfulness. Leader, on the other hand, could also take measures to increase the follower's work meaningfulness such as engaging in spiritual leadership (Yang et al., 2019) and transformational leadership (Arnold et al., 2007b). Meanwhile, organizations and leaders should also be aware of the gender difference in meaningfulness. We do not suggest that organizations or leaders should be less concerned with women's work meaningfulness. However, we encourage organizations to strive for a work environment with no gender

stereotypes. We trust this will help reduce the gendered expectations that female employees experience at the workplace and thus help them unleash the motivating power of meaningfulness.

On the other hand, how to gain leader's trust is also a practical concern for the followers. Instead of seeking ways to manage leader's impression, followers may genuinely focus on making their own job meaningful and thus consequently win the leader's trust. Previous literature has also suggested ways for individuals to increase their sense of meaningfulness in work. Job crafting (Wrzesniewski & Dutton, 2001), for example, is a way for employees to elevate their work meaningfulness. Followers can undertake measures such as looking at their leaders for inspiration and making their work more challenging (Tims et al., 2012) to deal with jobs that are not meaningful.

Limitations and Future Research

One limitation of our research is that the study was conducted solely with a Chinese sample. Due to their unique culture, Chinese organizations could exhibit specificity in the leader-follower relationship. For instance, Chen et al. (2014) suggested that the pillar value in Confucianism, "relationism", augments the importance of personal connections in Chinese leader-follower relationships. Therefore, leaders could be more attentive to various cues, be it task performance or OCBO, to establish their affect-based trust in the follower. Differently, in the western context, leaders may generate their affect-based trust more from relational factors other than the competence of the follower. Future research could examine this model in western settings.

Second, though we tried to control the common variance bias by gathering data from multiple sources at multiple time points and controlling for relevant variables (Podsakoff et al., 2012b), we are aware that we are not able to eliminate all common

variance bias. There might be organizational factors that could contribute to both follower's work meaningfulness and leader's trust in followers in general. We encourage further research to examine this relationship in a more controlled environment, such as field experiments.

Third, we cannot eliminate the concern for reverse causality between follower's work meaningfulness and task performance and OCBO (measured at the same time). However, the relationship between follower's work meaningfulness and task performance and OCBO, measured at the same time, has been tested and supported by previous studies (Allan et al., 2019; Fürstenberg et al., 2020). One past study posited that leader's trust may reversely lead to follower's task performance and OCB, while its cross-sectional data did not provide an inference to the causal direction (Brower et al., 2009). Even though we tried to mitigate this concern about the possibility of the reserve relationship by measuring task performance and OCBO before leader's trust, we encourage future studies to collect panel data to tease apart the effects from both directions.

Lastly, our results on gender's moderating effect show that women are less motivated by work meaningfulness to increase task performance, which is opposite to our expectation. We encourage future studies to look deeper into the gendered effect of work meaningfulness, especially its effect on employee's performance.

CONCLUSION

Employee's work meaningfulness has a significant impact on the work setting. Our findings suggest that, beyond enhancing employee's work behaviors and attitudes, work meaningfulness also strongly influences employee's relationship with the leader. Especially, followers believe their work to be meaningful and generally perform better and conduct more OCBO. For leaders, follower's task performance and OCBO signal positively in terms of the follower's trustworthiness and thus lead to higher trust in the

follower. In addition, there's a gender difference in this mediated relationship. The effect of work meaningfulness on leader's trust via both task performance and OCBO tend to be stronger for male follower than for female followers.

CONCLUSIONES

El sentido del trabajo de los empleados tiene un impacto significativo en el entorno laboral. Nuestros resultados sugieren que, además de mejorar los comportamientos y actitudes laborales de los empleados, el sentido del trabajo también influye mucho en su relación con el líder. Especialmente, los seguidores creen que su trabajo tiene sentido y, por lo general, rinden más y realizan más OCBO. Para los líderes, el rendimiento en la tarea del seguidor y la OCBO señalan positivamente en términos de la confiabilidad del seguidor y, por lo tanto, conducen a una mayor confianza en el seguidor. Además, hay una diferencia de género en esta relación mediada. El efecto de la significación del trabajo sobre la confianza del líder a través del rendimiento en la tarea y la OCBO tiende a ser mayor en los seguidores masculinos que en las seguidoras femeninas.

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Table 1: Means, standard deviations, and correlations

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.Age	3.51	0.58	-													
2.Gender	1.55	0.50	.08	-												
3.Education	3.15	0.43	-.01	-.07	-											
4.Leader age	4.18	0.68	.29**	.08	-.03	-										
5.Leader gender	1.40	0.49	-.10	.04	-.03	-.25**	-									
6.Leader education	3.49	0.59	.10	-.09	-.13	.01	-.03	-								
7.Dyad tenure	2.54	2.30	.07	-.01	.16*	.13	-.00	-0.15	-							
8.Organization size	2.84	1.57	-.05	-.14	.07	.10	-.03	.17*	.08	-						
9.Leader meaningfulness	5.41	0.80	-.07	.08	.06	.12	-.09	-.13	-.10	.02	(.88)					
10.Follower meaningfulness	4.96	1.01	.13	.01	-.02	.13	-.07	.04	-.14	.01	.09	(.91)				
11.IRB	4.26	0.48	.07	.12	.03	.12	.04	.03	.03	.04	.31**	.25**	(.79)			
12. OCBI	5.34	0.84	.00	.13	-.05	-.01	-.06	.05	.10	-.04	.20*	.11	.53**	(.91)		
13.OCBO	5.20	0.85	.08	.12	-.12	.06	-.02	.03	.09	.01	.33**	.23**	.53**	.76**	(.89)	
14.Leader's Trust	3.97	0.46	.12	.12	-.05	-.03	-.01	.11	.09	.02	.17*	.18*	.57**	.57**	.57**	(.84)

Note. *N* = 146. Gender was dummy coded (1 = male, 2 = female). Age was measured on a 7-point scale (where 1 = *under 18*; 2 = *18-25 years of age*; 3 = *26 – 30 years of age*; 4 = *31-40 years of age*; 5 = *41-50 years of age*; 6 = *51-60 years of age*; 7 = *61 years of age and above*). Education was measured on a 5-point scale (where 1 = *secondary school*; 2 = *college*; 3 = *bachelor*; 4 = *master*; 5 = *PhD*). Tenure and dyad tenure were measured in years. Organization size was measured by the number of employees (where 1 = *less than 200 employees*; 2 = *200 - 500 employees*; *3 = 500-3,000 employees*; 4 = *3,000-50,000 employees;* 5 = *50,000 employees and above*). Reliability estimates appear in parentheses across the diagonal. *$p < .05$, **$p < .01$

Table 2: Mediation effects of follower meaningfulness on leader's trust through OCBO and task performance

	Mediator = OCBO		Mediator = Task performance		DV = Leader Trust	
Predictors	*B*	*SE*	*B*	*SE*	*B*	*SE*
Constant	3.34**	0.77	2.54**	0.45	1.84**	0.39
Follower meaningfulness	0.20**	0.07	0.11**	0.04	0.01	0.03
Education	-0.34*	0.15	0.01	0.09	-0.03	0.07
Leader age	-0.05	0.10	0.03	0.06	-0.08	0.04
Dyad tenure	0.08	0.03	0.02	0.02	0.01	0.01
Leader meaningfulness	0.36**	0.08	0.18**	0.05	-0.03	0.04
OCBO					0.38**	0.07
IRB					0.20**	0.04
R^2	.45**		.40**		.66**	

Indirect effects

	Effect	Boot *SE*	Boot LLCI	Boot ULCI
OCBO	.04	.02	.03	.13
Task performance	.04	.02	.01	.08

Note. N = 146. The coefficients presented are unstandardized estimates. Variables are mean-centered. CI = confidence interval. * $p < .05$. ** $p < .01$.

Table 3: Moderated mediation effects of gender and follower meaningfulness on leader trust through OCBO and task performance

	Mediator = OCBO		Mediator = Task performance		DV = Leader Trust	
Predictors	*B*	*SE*	*B*	*SE*	*B*	*SE*
Constant	4.33**	0.74	3.13**	0.43	1.90**	0.40
Follower meaningfulness	0.71**	0.23	0.50**	0.13	0.01	0.03
Gender	0.16	0.13	0.09	0.07		
Follower Meaningfulness X Gender	-0.31*	0.13	-0.24**	0.08		
Education	-0.33*	0.15	0.02	0.09	-0.03	0.07
Leader age	-0.08	0.10	0.01	0.06	-0.08	0.05
Dyad tenure	0.08**	0.03	0.02	0.02	0.01	0.01
Leader meaningfulness	0.33**	0.08	0.15**	0.05	-0.02	0.04
OCBO					0.20**	0.04
IRB					0.38**	0.07
R^2	.49**		0.47**		0.66**	

	Indirect effects			
	Effect	Boot *SE*	Boot LLCI	Boot ULCI
Conditional indirect effect of				
Male	.08	.03	.03	.15
Female	.02	.02	-.02	.05
Index of moderated mediation via OCBO	-.06	.03	-.14	-.01
Conditional indirect effect of				
Male	.10	.03	.05	.16
Female	.01	.02	-.02	.05
Index of moderated mediation via OCBO	-.09	.03	-.16	-.03

Note. N = 146. The coefficients presented are unstandardized estimates. Variables are mean-centered. CI = confidence interval. * $p < .05$. ** $p < .01$.

Figure 2: Interaction between follower meaningfulness and gender on OCBO

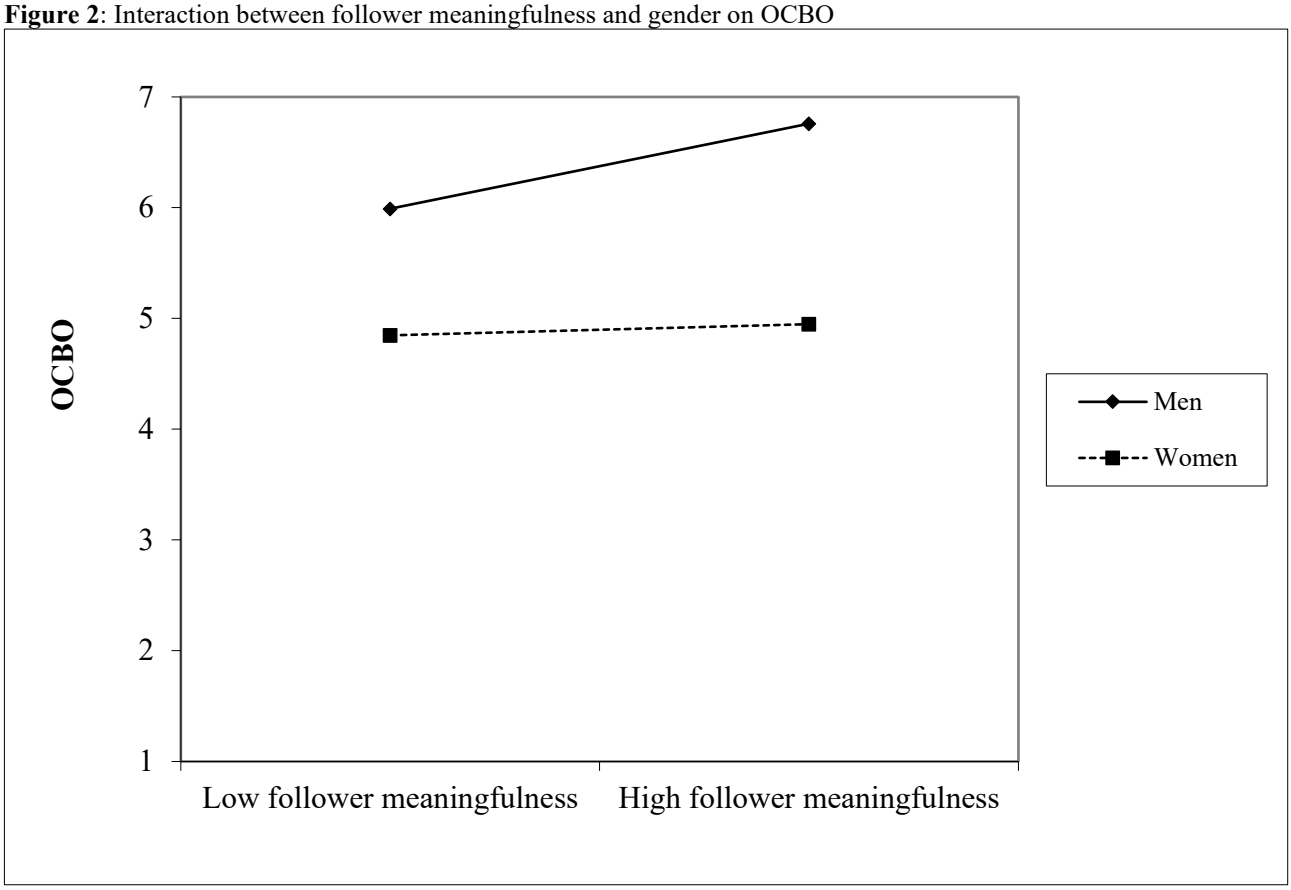

Figure 3: Interaction between follower meaningfulness and gender on task performance