9-2024

Cultural Tightness in Organizations: Investigating the Impact of Formal and Informal Cultural Tightness on Employee Creativity

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Author Note

This research was funded by the Singapore Ministry of Education (MOE) Academic Research Fund (AcRF) Tier 2 grant OR Ref No. T2EP40120-0001.

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Forthcoming at Organizational Behavior and Human Decision Process

Abstract

This paper delineates cultural tightness into formal versus informal aspects to depict the strength of norms and the extent of sanctions emanating from both formal and informal norms. Organizations with high formal cultural tightness regulate behaviors through explicit written norms and official sanctions, whereas those with high informal cultural tightness regulate behaviors through uncodified norms, collective beliefs, and informal social sanctions. Through a field study across 14 diverse companies in two countries (Malaysia and the Philippines) and two experiments involving participants from the United States, we found that perceived informal cultural tightness consistently exerts a more significant impact on stifling employee creativity than perceived formal cultural tightness. Additionally, we discovered that these two aspects of cultural tightness also potentially interact to influence employee creativity. Lastly, we identified promotion-focused (but not prevention-focused) self-regulation as a likely mechanism through which informal cultural tightness affects employee creativity. These findings contribute to cultural tightness-looseness theory and research on how organizational culture affects employee creativity.

Key Words: cultural tightness, organization theory, creativity, innovation

Cultural Tightness in Organizations: Investigating the Impact of Formal and Informal Cultural Tightness on Employee Creativity

Creativity, defined as the generation of novel and useful ideas (Amabile, 1983), has long been regarded as a precursor to organizational innovation and, consequently, competitiveness (Amabile, 1988; Shalley et al., 2004). To this end, organizations worldwide are constantly seeking ways to enhance employees' creative performance. Numerous studies have identified a conducive socio-cultural environment as crucial for fostering employee creativity (e.g., Csikszentmihalyi, 2014; Hartnell et al., 2011).

In recent years, cultural psychologists have been increasingly interested in the concept of cultural tightness, defined as the strength of social norms and the degree of sanctioning in a given community (Gelfand et al., 2006; Gelfand et al., 2011). A growing body of research has explored the impact of cultural tightness on creativity (e.g., Chua et al., 2015; Gedik & Ozbek, 2020). For instance, studies found that individuals from culturally tighter societies tend to be less creative because such societies shape certain individual characteristics, such as prevention-focused self-regulation and a reduced willingness to take risks (Gelfand et al., 2006). More recent research (i.e., Gedik & Ozbek, 2020; Qin et al., 2021) has investigated the role of cultural tightness within organizations, revealing that organization-level cultural tightness can inhibit team creativity.

Despite advancements in understanding cultural tightness's effect on creativity, theoretical gaps remain. Cultural psychologists posit that behavioral constraints may emanate from multiple sources, including formal regulations (e.g., rules and policies) and informal social norms (e.g., practices and customs; Helmke & Levitsky, 2004). Yet, there has been limited research on the differential effects of these multi-sourced characteristics of behavioral

constraints. Additionally, it is unclear how cultural norms and sanctions created by different types of organizational constraints differentially or interactively affect employee behaviors.

To address these research gaps, we distinguished between formal and informal cultural tightness, which assess the norms strength and degree of sanctions arising from formal regulations versus informal social norms. Formal cultural tightness involves norms enacted through official structures, clearly outlining the organization's expectations (Abernethy et al., 2010) to ensure operational consistency and effectiveness (Kleine & Weißenberger, 2014). Informal cultural tightness, in contrast, derives from unwritten social norms and collective beliefs about appropriate behaviors; it is enforced through social sanctions and pressures, which shape employee behaviors and facilitate interactions (Peffer & Salancik, 1978; Zou et al., 2009).

In this paper, we focus on employees' *perceived* formal and informal cultural tightness, rather than aggregated organizational cultural tightness, when examining its effects on employee creativity. We do this for two reasons. First, perceived cultural tightness is a more proximal driver of individual-level creativity, as it directly influences employees' understanding of acceptable behaviors and creative expressions at the workplace (Long et al., 2011). Second, employees' perceptions of formal and informal cultural tightness may greatly vary depending on the degree of exposure to, and the relevance of, specific formal or informal norms. Informal norms, being implicit, can be interpreted in varied ways by different members across business units or departments (Barsade & O'Neill, 2014; Mawritz et al., 2014; Schneider et al., 2013). For formal cultural tightness, employees' perception of the quantity of formal norms and their understanding of these norms can vary significantly, depending on their exposure to, and the relevance of specific formal regulations (e.g., Liu et al., 2017).

We hypothesize that heightened perceptions of informal cultural tightness would stifle employee creativity. Employees perceiving a strong presence of informal cultural tightness may be more reluctant to explore creative ideas, challenge the status quo, or suggest unorthodox approaches to problem solving. Given the mixed findings on the impact of formal organizational constraints on creativity (Mainemelis & Sakellariou, 2022; Sandhu & Kulik, 2018), we will explore how formal cultural tightness might affect employee creativity and assess the comparative influences of formal and informal cultural tightness on employee creativity, as well as their potential interactive effect.

Our research offers three theoretical contributions. First, we bridge the cultural tightness literature with insights gleaned from organizational theory research by distinguishing between formal and informal aspects of cultural tightness. Existing cultural tightness literature primarily addresses generalized norms and rules, despite the recognition that social constraints can originate from various sources. As such, our work represents an advancement in refining the conceptualization of cultural tightness. Second, existing theoretical frameworks on cultural tightness predominantly focus on the collective level (e.g., nations or regions), presuming that individuals within the collective uniformly experience and are influenced by the same norms and rules. We expand this line of theorizing by positing that individuals within a given collective may perceive cultural tightness in distinct ways. As a result, cultural tightness should exert a more proximal impact on individual-level outcomes than aggregated tightness. Third, our investigations on the independent, comparative, and interactive effects of informal and formal cultural tightness on employee creativity generate new insights into how cultural tightness affects creativity at the workplace. We show that formal and informal aspects of organizational cultural tightness influence employee creativity in different ways.

Theoretical Background

Cultural Tightness

Cultural tightness is defined as "the strength of social norms and degree of sanctioning within societies" (Gelfand et al., 2006). This construct distinguishes itself from content-oriented cultural dimensions such as collectivism and power distance (Hofstede, 1984) by focusing on the *structure* of culture. It emphasizes the role of external norms and constraints and describes how they shape behavioral patterns across cultures (Gabrenya, 1999; Gelfand et al., 2006). Cultural tightness encompasses two integral dimensions: the *potency of the norms*, which reflects their clarity and pervasiveness, and the *degree of sanctioning*, which involves the severity of repercussions when individuals transgress these norms (Gelfand et al., 2006). Both dimensions are foundational to the conceptualization of cultural tightness (Jackson & Gelfand, 2016). Contemporary theorization on cultural tightness (Chua et al., 2015, 2019; Ma et al., 2023) posits it as a bi-dimensional construct, encompassing both the intensity of norms and the gravity of penalties. In alignment with this perspective, the present research will incorporate both dimensions of cultural tightness.

Scholars have investigated how cultural tightness at different levels influences creativity. At the national level, studies (Chua et al., 2015; Gelfand et al., 2011) demonstrated that societies with tighter cultures tend to foster prevention-focused self-regulation and encourage an adapter rather than an innovator approach toward creative problem-solving. This results in a lower propensity to challenge the status quo and take risks, leading to reduced creativity compared to individuals from looser cultures. At the regional level, Harrington and Gelfand (2014) found that culturally tight states are associated with lower levels of innovation in the U.S.; Chua et al. (2019) found that provincial-level tightness inhibits radical innovation in China. Recent studies

(i.e., Gedik & Ozbek, 2020; Qin et al., 2021) have examined cultural tightness in organizations, concluding that organizational cultural tightness appears negatively related to creativity.

Formal and Informal Control Systems in Organizations

Organizations rely on various control systems to regulate and organize employees' behaviors, broadly delineated into formal and informal control systems (Etzioni, 1975; Helmke & Levitsky, 2004; Hirst et al., 2011). Formal control systems refer to the structures and written rules and policies that direct employees' behaviors, including standards for performance appraisal and standardized procedures of operations (Sitkin & Roth, 1993; Turner & Makhija, 2006). Conversely, informal systems are the unwritten but generally shared meanings and collective understandings developed and enforced outside of officially sanctioned channels, embodying elements such as customs, traditions, taboos, and cohesive social networks within the organizations (Flipo et al., 2023; Helmke & Levitsky, 2004; Ouchi, 1980).

Formal and informal control systems differ in several key aspects. Formal controls set authority, define formal expectations, and facilitate operational consistency (Abernethy et al., 2010; Bunderson et al., 2016; Kleine & Weißenberger, 2014), whereas informal controls foster communication, idea sharing, and social connections among members (Peffer & Salancik, 1978; Simons, 1995). Formal controls are implemented through hierarchies and explicit regulations (Lange, 2008), whereas informal controls spread through social networks and interactions (Petrič & Roer, 2022; Zenger et al., 2000). Formal controls involve official monitoring and disciplinary actions such as warnings and demotions, whereas informal controls rely on peer supervision and use social acceptance or ostracism as key behavioral drivers (Nee, 1998; Tucker, 2019). Psychologically, formal systems reduce role ambiguity (Berger & Calabrese, 1974), stimulate epistemic and instrumental motives, and activate a transactional mindset (Cialdini & Goldstein,

2004), whereas informal systems promote a sense of belonging and diminish feelings of distinctiveness (Cialdini & Goldstein, 2004; Morris & Liu, 2015).

Formal and Informal Cultural Tightness

Integrating organizational theory and cultural tightness literature, we distinguish the two aspects of organizational cultural tightness: formal and informal cultural tightness, to respectively indicate the strength of norms arising from formal or informal control systems and the degree of sanctioning within organizations when individuals deviate from these norms. Formal and informal cultural tightness are conceptually distinct, as they measure the strength and sanctions of constraints originating from different organizational sources, involving different functionality, transmission channels, sanctioning mechanisms, and psychological processes. However, these two types of cultural tightness are likely correlated in practice since they can influence each other's development (Beisel, 1993; Holmes et al., 2013).

Although formal and informal cultural tightness are conceptually linked to discussions of formal and informal organizational processes, these constructs differ from existing ones, such as formalization (Hirst et al., 2011), HR systems (Liu et al., 2017), formal organization and informal social structure (McEvily et al., 2014), as well as formal and informal positions or channels (Mainemelis & Sakellariou, 2022; Maoret et al., 2020). A critical difference is that formal and informal cultural tightness encompass the severity of sanctions for norm violations and the overall structure of organizational culture, unlike other concepts that focus on specific organizational processes and content, such as HR systems, without directly specifying the sanctions for non-compliance.

Additionally, informal cultural tightness and cohesive social networks, though related, are also distinct concepts. Cohesive social networks are characterized by dense, deeply embedded

social relationships that foster a sense of group membership and unity (Bentona, 2017; Friedkin, 2004; Ho et al., 2006). Such a social structure can be an antecedent to informal cultural tightness, which may also arise from shared practices, traditions, and taboos beyond mere social cohesion. Importantly, as Chan et al. (2006) articulated, a high degree of informal cultural tightness does not invariably lead to a cohesive social structure. For instance, certain shared norms (e.g., challenging each other during meetings) might engender conflict rather than cohesion. Furthermore, cohesive social networks provide functions beyond those of informal cultural tightness, such as facilitating the flow of valuable resources. Empirical findings from Flipo et al. (2023) reveal that social structures are influenced by cultural tightness, further highlighting their distinctiveness.

Last but not least, it is also worth clarifying that formal and informal cultural tightness do not directly correspond to injunctive norms—beliefs about what ought to be done—and descriptive norms—beliefs about what most others actually do within a social group (Cialdini et al., 1990). Unlike these norms, which typically imply but do not specify sanctions for deviations, cultural tightness explicitly implicates sanctions for norm violations. Furthermore, while non-adherence to descriptive and injunctive norms usually results in social disapproval (Yanovitzky & Stryker, 2001) or feelings of guilt and shame (Giebelhausen et al., 2021; Lieberman et al., 2019), formal cultural tightness is rooted in clear organizational norms and standards, with violations resulting in formal organizational sanctions like warnings or demotions (Lange, 2008).

Impact on Employee Creativity

This research examines the impact of informal and formal cultural tightness on employee creativity. We posit that informal cultural tightness adversely affects employee creativity, but formal cultural tightness does not exhibit a similar negative impact. To probe these dynamics

further, we specify three research questions to explore the effects of formal and informal cultural tightness on creativity and the relative strength of these effects, as well as their interactive effects on employee creativity.

First, we argue that informal cultural tightness undermines employee creativity by engendering a sense of the presence of numerous unwritten social norms, extensive social monitoring, and potential sanctions, including ostracism, for deviations from these tacit yet widely accepted behavioral codes (Gelfand et al., 2006). This heightened sense of informal cultural tightness can suppress employee creativity for several reasons. Primarily, informal norms direct employees' behaviors in part by activating their social motives (Cialdini & Goldstein, 2004). Given that social interactions significantly shape creativity (Adarves-Yorno et al., 2008; Amabile, 1983; Mumford et al., 2002), a heightened perception of informal cultural tightness can deter employees from pursuing creative ideas that might breach certain norms and harm interpersonal relationships (Qin et al., 2021). Additionally, creativity depends on a strong desire for personal growth, a propensity for risk-taking and exploratory problem-solving, which are traits associated with promotion-focused self-regulation (Higgins, 1997). When informal cultural tightness increases, the growing constraints imposed are likely to diminish employees' promotion-focused self-regulation (Gelfand et al., 2006), consequently reducing their motivation to challenge the established norms and to engage in creative pursuits. Employees, therefore, may opt for more conventional ideas that align with group acceptance. As such, we expect informal cultural tightness to be detrimental to employee creativity.

Second, unlike informal cultural tightness, formal cultural tightness does not exhibit a consistent adverse influence on employee creativity. The relationship between formal norms and employee creativity is complex, with studies yielding mixed findings. For instance, some studies

(Juillerat, 2010; Mainemelis & Sakellariou, 2022; Ohly et al., 2006) indicate that formal norms can foster creativity by legitimizing creative endeavors, securing necessary resources, and promoting organizational consistency. Other research (Sandhu & Kulik, 2018) suggests that formal norms may limit creativity by diverting attention from innovative pursuits and diminishing employees' ability to adapt to novel challenges and opportunities. Furthermore, formal cultural tightness may have less impact on creativity compared to informal cultural tightness. Creativity thrives under conditions of uncertainty (Zielińska & Karwowski, 2022) and deviation from standard practices (Ford, 1996). Formal norms are more effective in stable, predictable settings with routine tasks and measurable output (Baucus & Near, 1991; Ouchi, 1979, 1980). Conversely, informal norms provide the necessary flexibility and adaptability for creative endeavors, which often involve navigating ambiguity and unpredictability (Ocasio & Wohlgezogen, 2010). Given the inherent volatility and uncertainty of creative work, we posit that the effect of formal cultural tightness on employee creativity is likely to be less pronounced.

Hypothesis (H1): Informal cultural tightness (but not formal cultural tightness) negatively impacts employee creativity.

Research Questions

We next explore three Research Questions (RQ) to better understand the impact of both formal and informal cultural tightness on employee creativity. Formal cultural tightness could potentially affect employee creativity in opposite directions. On the one hand, intense formal norms and sanctions may lead to perceptions of bureaucracy (Olsen, 2006; Ouchi, 1980), diminishing employee creativity by hindering ideation and exploration. On the other hand, formal norms and sanctions might enhance employee creativity by specifying acceptable types of creative expression, thus offering employees clear guidelines for their creative endeavors

(Juillerat, 2010; Mainemelis & Sakellariou, 2022). The exact impact of formal cultural tightness on creativity, therefore, remains an open question.

RQ1: Controlling for informal cultural tightness, what is the relationship between formal cultural tightness and employee creativity?

In addition, formal and informal cultural tightness are conceptually distinct, as they measure the strength and sanctions of constraints from different sources in organizations. Understanding their relative impact on employee creativity is crucial, given the mixed findings in current literature. For example, Adam and Rachman-Moore (2004) found that informal norms significantly influence ethical behavior through teamwork dynamics. However, Whitson et al. (2015) found that the potency of formal and informal norms varies depending on factors like job mobility. These findings underscore the importance of exploring the relative impact of formal and informal cultural tightness on creativity.

RQ2: In comparing the influence of formal and informal cultural tightness on employee creativity, which exerts a stronger effect?

Lastly, considering employees are subject to both formal and informal organizational norms, it is useful to understand how these two types of cultural tightness interact. Research across organizational theory has delved into the complex interaction between formal and informal control systems at both macro and micro levels (e.g., Falkenberg & Herremans, 1995; Helmke & Levitsky, 2004; Weng et al., 2021). We first posit that varying levels of formal and informal cultural tightness could coexist in an organization. Building upon this foundation, we explore how formal and informal cultural tightness interact to affect employee creativity.

RQ3: How do formal and informal cultural tightness interact to shape employee creativity?

Empirical Strategy

We designed three studies (a field study and two experiments) to examine Hypothesis 1 (H1) and the three Research Questions (RQs). In Study 1, we recruited working professionals from 14 firms across different industries in two culturally tight Asian societies (Malaysia and the Philippines). The field study allowed us to examine the effects of interest in a naturalistic setting, conferring external validity. In Study 2, a pre-registered field experiment (AsPredicted #123612), we manipulated the degrees of informal and formal cultural tightness in a fictitious firm in America; participants were drawn from an online American subject pool. In addition, we explored the potential underlying mechanisms driving the effects we found. Study 3 is another pre-registered field experiment (AsPredicted #152235), which improved Study 2's experimental design by making manipulations more cleanly differentiated across the conditions. For exploratory purposes, we included an additional creativity task to inspect if the key findings can be generalized from objective creativity assessment to market success assessment. Materials, data, and analysis syntaxes for Studies 2 and 3 (Study 1 was not pre-registered and contains confidential company data) are available on the Open Science Framework webpage (https://bit.ly/3VAoF1D).

Study 1: Field Study

Method

Participants

To obtain organizational field samples, we engaged the first author's contacts in Malaysia via his teaching of senior executives, as well as a Singapore tertiary institution's connections in the Philippines. The senior executives of each firm confirmed that creativity played an important role in their employees' jobs. Participation was completely voluntary, and no financial inducement was provided. In return, we shared the aggregated findings with the firms' senior management.

A total of 1,756 full-time employees were recruited from 14 firms (eight Malaysian and six Filipino), which operate in a wide range of industries. Prior research demonstrated that engaging firms from multiple industries strengthens the validity and generalizability of findings (Lee & Neill, 2003). Moreover, as all 14 firms are local enterprises, they provided a suitable context in which to examine whether employees differ in their perceptions of formal and informal cultural tightness, despite sharing the same national culture. Excluding cases with missing data in the idea generation task, the final sample included 1,513 participants (108 respondents per firm on average). The majority of the participants were Malaysian (52.41% of the combined sample) and Filipino (46.99% of the combined sample) nationals. Participants had an average age of 36.04 (SD = 10.27), with an average work experience of 13.24 years (SD = 9.14). Slightly more than half -- 51% -- of the participants were women, and 79.51% of the participants obtained a bachelor's degree or higher. 5.42% of the participants held a senior management position in their organizations.

Procedure

Using Qualtrics, we conducted a one-wave survey in two countries; data collection in Malaysia was conducted one year before it was done in the Philippines. All survey questions were presented in English. Survey links were sent to each firm's point of contact, who then shared the links with the employees. The survey consisted of three parts. In the first part, participants provided demographic information. The second part included questions about organizational cultures. The third part featured idea generation tasks aimed at measuring employees' creativity. We assured participants of their confidentiality and emphasized that data were collected for research purposes only.

Measures

Formal and informal cultural tightness. We adapted Gelfand et al.'s (2011) cultural tightness scale to measure formal cultural tightness (α = .75) and informal cultural tightness (α = .77) in participants' organizations (1 = *strongly disagree*, 6 = *strongly agree*). To help participants better understand the items, we provided definitions of formal regulations and informal norms (see Supplementary Materials Section 1 for scales and definitions).

We operationalized formal and informal cultural tightness at the individual level, despite using organization as the referential target in the cultural tightness measures. Prior organizational research has set a precedent by using referent-shift items to measure individual-level perceptions (Kim & Leung, 2007; Shteynberg et al., 2011). Moreover, Wormley et al. (2021) argued that although cultural tightness is a group-level construct, it draws on how individuals sense and assess the strength of norms and punitive tendencies associated with them. Hence, we used the individual-level measures of formal and informal cultural tightness as the key independent variables in testing H1 and the three RQs, which examine individual-level creativity.

Employee creativity. With reference to Burt's (2004) workplace idea generation task, we asked participants to propose one new and useful approach that artificial intelligence (AI) can be incorporated in their company. The task focuses on generating ideas for business applications of AI and not on its technical aspects. CEOs of the firms confirmed AI's relevance to their businesses.

We then rated the quality of the proposed ideas on originality (novel and uncommon), usefulness (can solve real-world problems), and feasibility (can be practically implemented) (Torrance, 1998). Six senior Ph.D. students specializing in AI research (three for each country's data collection) who were blind to the hypothesis and RQs were hired to rate these three idea qualities on a 7-point scale (1 = *not at all* to 7 = *very much*). The internal consistency for idea

originality, idea usefulness, and idea feasibility were .72, .75, .73 (Malaysia: .76, .77, .74; the Philippines: .67, .76, and .72). We then averaged scores of these three measures to create a single idea creativity score, (α = .67) (Malaysia: .68; the Philippines: .68). Additionally, we generated another creativity variable by multiplying idea originality with idea usefulness to account for the importance of both creative dimensions (Montag et al., 2012).

Controls. Research shows that organizational climates that support creative thinking can enhance individual creativity (Farmer et al., 2003; Ghosh, 2015). We controlled for employees' perceptions of *creativity climate* using the 4 items adapted from Koys and Decotiis (1991) (α = .87). In terms of *gender*, Chua and Jin (2020) found that women are better than men at handling task conflicts arising from creativity collaborations (0 = *women*; 1 = men). Given that domain knowledge is a driver of creativity (Amabile, 1983), education and years of work experience can also affect creativity. *Education* was measured by asking for the highest education level obtained (1 = *less than high school*, 6 = *doctoral degree*). As most of participants hold either a bachelor's degree (71.32%) or some college degree (13.09%), we recoded education as a dummy variable (0 = *below bachelor's degree*; 1 = *bachelor's degree or above*). *Rank* is measured by asking if the participant is a general employee (0) or senior management (1). Perry-Smith (2006) argued that individuals with higher ranks in organizations have a greater perception of power and are hence more willing to take risks and offer creative ideas. Further, researchers found that scientists tend to make their most significant breakthroughs at an early *age* (Jones & Weinberg, 2011). Lastly, studies found that certain *country* characteristics (e.g., education) can foster or inhibit individual creativity (Yong et al., 2020) (0 = *Philippines*; 1 = *Malaysia*).

Analyses and Results[1]

Main Analyses

Descriptive statistics. Supplementary Table 3 presents the means, standard deviations, and correlations among all key variables. Notably, informal (but not formal) cultural tightness has significant negative correlations with all five creativity measures, providing preliminary evidence that formal and informal cultural tightness affect creativity differently.

Informal cultural tightness (H1). Given the nested nature of the data (multiple employees within each organization), we used linear mixed-effect models, which included random slopes and random intercepts that allowed us to statistically control for potential noise in the data and focus on the effects of interest. We found a significant negative effect of informal cultural tightness on all five creativity measures—*idea originality*: b = -0.09, se = 0.02, z = -3.98, $p < .05$, 95% CI = [-0.14, -0.05]; *idea usefulness*: b = -0.16, se = 0.03, z = -4.75, $p < .05$, 95% CI = [-0.23, -0.09]; *idea feasibility*: b = -0.15, se = 0.03, z = -4.79, $p < .05$, 95% CI = [-0.21, -0.09]; *idea creativity (mean)*: b = -0.14, se = 0.02, z = -5.52, $p < .05$, 95% CI = [-0.18, -0.09]; *idea creativity (originality x usefulness)*: b = -0.21, se = 0.04, z = -5.02, $p < .05$, 95% CI = [-0.30, -0.13] (see Table 1). This result means that when employees sensed strong informal norms and sanctions regulating their behaviors, they were less likely to be creative. The negative effects of informal cultural tightness held even after adding the control variables (see Supplementary Table 4). Thus, H1 is supported.

Insert Tables 1 and 2 about here

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[1] To show that cultural tightness in organizations can be differentiated into formal and informal cultural tightness, we ran exploratory factor analyses, confirmatory factor analyses, and measurement invariance. To show that formal and informal cultural tightness are different from other organizational cultural constructs, we ran convergent and divergent validity analyses. Results are in Supplementary Materials Section 2. In addition, we included an additional creativity measure: the unusual uses task. Please refer to Supplementary Materials Section 3 for more details.

Formal cultural tightness (RQ1). We assessed the relationship between formal cultural tightness and creativity using the same linear mixed-effect models in testing H1[2]. Although formal cultural tightness had a positive relationship with all five creativity measures, the effect was significant only for *idea originality*: $b = 0.06$, $se = 0.03$, $z = 2.11$, $p < .05$, 95% $CI = [0.00, 0.11]$ (Table 1). After adding the control variables, the positive pattern remained unchanged across all five creativity measures. Notably, besides *idea originality:* $b = 0.06$, $se = 0.03$, $z = 2.07$, $p < .05$, 95% $CI = [0.00, 0.12]$, significant effects also emerged for *idea creativity (mean)*: $b = 0.06$, $se = 0.03$, $z = 2.01$, $p < .05$, 95% $CI = [0.00, 0.12]$ and *idea creativity (originality x usefulness)*: $b = 0.11$, $se = 0.05$, $z = 2.10$, $p < .05$, 95% $CI = [0.01, 0.21]$. These results highlight the potential of formal cultural tightness in enhancing employee creativity (see Supplementary Table 4).

Informal vs. formal cultural tightness (RQ2). We examined the unique main effect of each form of cultural tightness while controlling for the other. Indeed, the two beta coefficients for the main effects of informal and formal cultural tightness were significantly different for each of the creativity measures: *idea originality* ($\chi2$ (1, N = 1,513) = 12.74, $p < .05$), *idea usefulness* ($\chi2$ (1, N = 1,513) = 10.97, $p < .05$), *idea feasibility* ($\chi2$ (1, N = 1,513) = 12.62 , $p < .05$), *idea creativity (mean)* ($\chi2$ (1, N = 1,513) = 17.28, $p < .05$), and *idea creativity (originality x usefulness)* ($\chi2$ (1, N = 1,513) = 15.94, $p < .05$). When control variables were included, the main effects of informal and formal cultural tightness remained significantly different for each creativity measure: *idea originality* ($\chi2$ (1, N = 1,513) = 12.09, $p < .05$), *idea usefulness* ($\chi2$ (1, N = 1,513) = 11.16, $p < .05$), *idea feasibility* ($\chi2$ (1, N = 1,513) = 12.35 , $p < .05$), *idea creativity (mean)* ($\chi2$ (1, N = 1,513) = 17.61, $p < .05$), and *idea creativity (originality x usefulness)* ($\chi2$ (1, N = 1,513) = 16.10, $p < .05$).

[2] Given the moderate correlation between the two forms of tightness (see Supplementary Materials Section 2), when one form of tightness is used as a predictor, analyses should control for the other form of tightness. Hence, we used the same model to test H1 and RQ1. In addition, we found no evidence that one form of cultural tightness mediates the effect of the other (see Supplementary Materials Section 3).

Given that the beta coefficients of informal cultural tightness have a higher magnitude than those of formal cultural tightness (see Tables 1 and Supplementary Table 4), informal cultural tightness is a significantly stronger predictor of employee creativity than formal cultural tightness.

Informal and formal cultural tightness interaction (RQ3). We introduced the interaction term of formal and informal cultural tightness into the linear mixed-effect models. The analyses revealed that when informal cultural tightness was low, increasing formal cultural tightness significantly enhanced creativity; but when informal cultural tightness was high, increasing formal cultural tightness did not materially affect creativity. This means that when informal norms are clear and social sanctions are strict, the strength of norms arising from formal organizational rules becomes less relevant for creativity — *idea originality*: $b = -0.06$, $se = 0.03$, $z = -2.16$, $p < .05$, 95% $CI = [-0.12, -0.01]$; *idea usefulness*: $b = -0.09$, $se = 0.04$, $z = -2.10$, $p < .05$, 95% $CI = [-0.17, -0.01]$; *idea feasibility*: $b = -0.08$, $se = 0.04$, $z = -2.18$, $p < .05$, 95% $CI = [-0.16, -0.01]$; *idea creativity (mean)*: $b = -0.08$, $se = 0.03$, $z = -2.65$, $p < .05$, 95% $CI = [-0.14, -0.02]$; *idea creativity (originality x usefulness)*: $b = -0.13$, $se = 0.05$, $z = -2.51$, $p < .05$, 95% $CI = [-0.23, -0.03]$ (see Table 2). When control variables were added, the interaction effect remained largely significant (marginal significance for *idea usefulness*: $p = .07$; see Supplementary Table 5). Figures. 1a-1b depict the interaction effects on *idea creativity* (*mean*) and *idea creativity* (*originality x usefulness*). Supplementary Figures. 1a-1c depict the interaction effects on *idea originality*, *idea usefuleness*, and *idea feasibility*).

Discussion

Study 1 provided field evidence that when there were clear, strong, unwritten social norms and informal sanctions regulating employees' behaviors, they were less likely to be creative (*H1*). Formal cultural tightness appeared to enhance employee creativity (*RQ1*). Additionally, informal

cultural tightness was a significantly stronger predictor of employee creativity than was formal cultural tightness *(RQ2)*. Lastly, the interaction pattern between informal and formal cultural tightness (*RQ3*) suggested that when there were strong, clear informal norms and a high degree of informal sanctioning, the strength of norms arising from formal organizational rules became less relevant for creativity.

Study 2: Experiment

Study 2 extended Study 1 in three ways. First, using an experimental design, we sought to ascertain the causal effects of formal and informal cultural tightness on creativity. Second, by using an American sample and a different creativity measure, we increased the generalizability of our findings beyond Southeast Asia and to other types of creative activities. Third, we explored the potential underlying mechanisms of the proposed effect (*H1*).

Method

Participants and procedure

We recruited 500 participants on Prolific with the following criteria: living in the United States, fluent in English, full-time employee, bachelor's degree or above, aged between 21 and 60, approval rate of ≥ 97%, and first-time participants of this research. We excluded participants who failed the attention checks, gave non-serious, irrelevant responses, or reused the sample responses in the task. The final sample size had 203[3] participants (M_{age} = 39.17, *SD* = 9.59; 38% female).

Participants were asked to imagine starting a new role as a marketing executive at a marketing firm. As part of the orientation, participants would watch two onboarding videos – one

[3] Study 2 initially used a 3 (formal cultural tightness: high vs. moderate vs. low) x 3 (informal cultural tightness: high vs. moderate vs. low) design. The moderate conditions were included in the pre-registration based on an earlier draft of the manuscript. However, the analyses of the moderate conditions were excluded in the current paper at the request of the Associate Editor. Before removing the moderate conditions from Study 2, the sample size was 489 (M_{age} = 39.55, *SD* = 9.50; 36% female). As such, power analysis was not conducted.

featured the organization's policies and the other one showcased "employees" sharing their experiences with the organization. Depending on the assigned experimental condition, different participants would watch different videos. Thereafter, participants answered questions pertaining to their perceptions of the organization before completing the creative tasks.

Manipulation

Participants were randomly assigned to one of the four conditions based on a 2 (formal cultural tightness: high vs. low) x 2 (informal cultural tightness: high vs. low) factorial experimental design.

In the formal cultural tightness conditions, video clips showcased the Human Resources manager introducing company rules to the participants. Norm strength was manipulated through the number of rules being presented to the participants: three (low) or 12 (high), whereas sanctioning strength was manipulated via the possibility of receiving formal disciplinary actions if one violated the rules: unlikely (low) or certainly (high).

In the informal cultural tightness conditions, video clips showcased two "employees" sharing their general experiences at the marketing firm. Norm strength was manipulated through the extent to which behaviors were aligned with the norms in a particular situation in the organization: low consensus (low) or high consensus (high), whereas sanctioning strength was manipulated via the possibility of being socially censured if one deviated from the standard behaviors: unlikely (low) or certainly (high).

To control for the order and sequence effects, the two videos in each condition were presented in a counterbalanced fashion. These video clips were specifically produced for the present study using Synthesia, an AI-powered video generation platform. To enhance the level of realism, all "actors" are Caucasians who were programmed to speak with a natural American

accent. As there are 12 formal rules in total, ideally, there should be 220 (12 choose 3) versions of videos for the low formal cultural tightness condition. However, it would be too complex for our study to capture all combinations. Hence, we used three different versions of videos for low formal cultural tightness in Study 2.

After watching the video clips, participants answered two sets of manipulation checks. The first set measured perceptions of *formal organizational control* (6 items, α = .94) and *informal organizational control* (5 items, α = .78) within the firm. We initially included 6 items in the informal control scale, but item 1 was strongly and negatively correlated with most of the other five items (see Supplementary Materials Section 4). This suggested that item 1 did not measure the same construct as the remaining items. Hence, we decided to drop item 1, as it reduced the reliability of the scale and may generate misguided results in the main analyses. Both sets of items were adapted from Gackstatter et al. (2019) and Gomez & Werner (2004) (see Supplementary Materials Section 1). The scales ranged from 1 (*not at all*) to 7 (*extremely large extent*). The second set of items was the adapted measures of formal (6 items, α = .90) and informal (6 items, α = .91) cultural tightness used in Study 1 (see Supplementary Materials Section 1). Participants were asked to indicate the extent to which each item described the organization based on the information shared in the onboarding videos.

Measures

Creativity task. Creativity was measured using a divergent thinking task adapted from Rubin et al. (1991) by Lu et al. (2017). For a first on-the-job task, participants were asked to generate ten one-word names for three product categories: pasta, nuclear element, and pain reliever. To aid participants in product name generation, six sample words were provided for each category (see Kray et al., 2006). Notably, the sample words for each category have two or three common

ending letters: “ti”, “na”, or “ni” for the pasta category, “on” or “ium” for the nuclear element category, and “ol” or “in” for the pain reliever category. In line with past studies (Galinsky et al., 2008; Kray et al., 2006; Rubin et al., 1991), creativity was operationalized as the cumulative number of names that did not overlap with the endings of the provided sample words. This operationalization represents an objective creativity assessment, as the results can be objectively counted.

Potential mediators. We measured regulatory focus to explore whether it mediated the effects we found in H1. Participants were asked to rate 18 items (Lockwood et al., 2002), measuring their self-regulatory focus based on the content shared in the onboarding videos. The scale included two subscales designed to measure promotion ($\alpha = .95$) and prevention ($\alpha = .92$) focus. When individuals perceive the culture in their environment as tight, they may experience a lower degree of freedom to pursue growth and success and/or a higher degree of self-censorship and self-monitoring, limiting creative thinking. All items were rated on a 7-point scale (1 = *not at all*, 7 = *extremely large extent*).

As pre-registered, for exploratory purposes, Study 2 also explored various other potential psychological mechanisms (e.g., creative self-efficacy) that might be engendered by formal and informal cultural tightness (see Supplementary Material Section 5).

Manipulation checks

Results showed that participants in each condition correctly assessed the level of formal and informal cultural tightness.

Organizational control. Participants in the low formal tightness condition ($M = 4.64$, $SD = 1.75$) reported significantly lower levels of formal organizational control (t (201) = -5.74, $p < .001$, $d = 1.43$, 95% CI = [-1.55, -0.76]) than those in the high formal tightness condition ($M =$

5.79, *SD* = 1.06). Participants in the low informal tightness condition (*M* = 3.33, *SD* = 1.00) reported significantly lower levels of informal organizational control (*t* (201) = -18.87, *p* < .001, *d* = 0.90, 95% CI = [-2.65, -2.15]) than those in the high informal tightness condition (*M* = 5.73, *SD* = 0.81).

Organizational cultural tightness. Participants in the low formal tightness condition (*M* = 4.06, *SD* = 1.45) reported significantly lower levels of formal cultural tightness (*t* (201) = -3.19, *p* < .05, *d* = 1.26, 95% CI = [-0.92, -0.22]) than those in the high formal tightness condition (*M* = 4.62, *SD* = 1.06). Participants in the low informal tightness condition (*M* = 2.95, *SD* = 1.01) reported significantly lower levels of informal cultural tightness (*t* (201) = -16.79, *p* < .001, *d* = 0.90, 95% CI = [-2.37, -1.88]) than those in the high informal tightness condition (*M* = 5.08, *SD* = 0.79).

The results above showed that our manipulations affected all scales in the expected direction, lending support to the validity of the cultural tightness scales used in Study 1.

Analyses and Results[4]

Descriptive statistics. Supplementary Table 6 presents the means, standard deviations, and correlations among all key variables.

Informal cultural tightness (H1). We conducted a one-way analysis of variance to compare the effect of different levels of informal cultural tightness on creativity while controlling for formal cultural tightness. Levene's test showed that the homogeneity of variance assumption was met (F [1, 201] = 0.97, p = .33). As predicted, participants in the low informal cultural tightness condition reported significantly better creativity performance (F [1, 201] = 3.75, p = .05, η^2_p = .02)

[4] We included two additional creativity measures: the same AI task used in Study 1 and the Remote Associates Test. Please see Supplementary Material Section 5 for more details.

than participants in the high informal cultural tightness condition (M_{high} = 4.99, SD_{high} = 5.51; M_{low} = 6.48, SD_{low} = 5.47). Hence, H 1 is supported.

Formal cultural tightness (RQ1). Our one-way analysis of variance showed that the homogeneity of variance assumption was not met and there was no significant difference in the mean creativity performance between the two levels of formal cultural tightness conditions (F [1, 201] = 0.02, p = .88, η^2_p = .00). However, participants in the high formal cultural tightness condition still reported higher creativity scores than those in the low formal cultural tightness condition (M_{high} = 5.71, SD_{high} = 6.32; M_{low} = 5.69, SD_{low} = 4.57).

Informal vs. formal cultural tightness (RQ2). We examined the effect size of each form of cultural tightness. Results indicated that informal cultural tightness (i.e., negative effect) (F [1, 201] = 3.75, p = .05, η^2_p = .02) was a stronger predictor of creative performance than formal cultural tightness (i.e., positive effect) (F [1, 201] = 0.02, p = .88, η^2_p = .00).

Informal and formal cultural tightness interaction (RQ3). A two-way analysis of variance revealed a non-significant interaction effect (F [1,199] = 1.00, p = .32, η^2_p = .01).

Self-regulatory focus. We conducted mediation analyses with structural equation modeling using the MEDSEM package in STATA. All indirect effects were reported based on the Monte Carlo method, following Yzerbyt et al.' (2018) recommendations. Informal cultural tightness had a significant indirect effect on creativity via promotion-focused self-regulation (*indirect effect* = -0.64, *se* = 0.27, p < .05, 95% CI [-1.24, -0.18]). However, for prevention-focused self-regulation, the indirect effect was non-significant (*indirect effect* = 0.39, *se* = 0.37, p = 1.06, 95% CI [-0.32, 1.12]).

Discussion

Study 2 provided empirical evidence for the negative effect of informal cultural tightness on employee creativity *(H1)*, and showed promotion-focused self-regulation to be the key mediator driving the negative effect. In addition, consistent with Study 1, there appeared to be a positive relationship between formal cultural tightness and creativity *(RQ1)*, and informal cultural tightness is a stronger predictor of creative performance *(RQ2)*. However, Study 2's interaction pattern *(RQ3)* was not consistent with Study 1's.

Study 3: Experiment

Study 3's primary goal was to replicate Study 2's key findings. Study 3 also improved the experimental design by making the manipulations more cleanly differentiated across the conditions while controlling for potential confounds in Study 2's manipulations. For exploratory purposes, we included an additional task that investigated the potential to extend our findings from the objective creativity assessment to the success of creative ideas in the marketplace.

Method

Participants and procedure

The recruitment of participants was identical to that of Study 2. Study 3 requried at least 467 participants, based on Study 1's effect size, to achieve 80% power. We recuited a total of 600 participants on Polific, resulting in a final sample size of 526 participants (M_{age} = 38.03, *SD* = 10.52; 56% female). We removed 44 participants from task 1 and 30 participants from task 2 for failing attention checks, reusing sample responses, or providing non-serious or irrelevant responses (refer to the syntax file for examples of excluded responses).

The procedure in Study 3 was the same as that in Study 2.

Manipulation

All manipulation procedures were identical to Study 2's, except that on top of Study 2's three videos, Study 3 included three additional videos for the low formal cultural tightness condition (a total of six videos). The aim was to enhance the representativeness of the chosen rules. Details on the improved manipulation of Study 3 are in Supplementary Materials Section 6.

Participants answered the improved sets of manipulation checks from Study 2: *formal organizational control* (α = .91) and *informal organizational control* (α = .82), formal (α = .86) and informal (α = .91) cultural tightness.

Measures

Creativity task 1 (objective creativity assessment). We used the same measure as in Study 2.

Creativity task 2 (market success assessment). To explore whether task 1's findings apply to the success of creative ideas in the market, we designed a creative task that asked participants to generate new product names and campaign slogans for a cross-brand collaboration between a fitness chain and pasta brand. As cross-brand collaboration involves the union of two previously unrelated brands to create a new and useful product, this is in keeping with the definition of creativity.

Creativity was assessed through the method of mass audience rating, where each audience member was randomly assigned 20 sets of product names and their associated campaign slogans. Although 2,008 audience members completed the rating, for data quality control, we removed audience members who took four seconds or less in answering each of the four questions – creative rating for name and slogan, and intention to recommend or buy – as these audience members may

not have taken the task seriously. The final sample included 1,028 audience members (M_{age} = 37.56, *SD* = 8.98; 57% female).

As task 2 extended the creativity task to the marketplace setting, mass audience ratings should ideally test whether the generated ideas would be well received in the consumer market. Hence, for each set of product names and campaign slogans, the audience members rated how novel and effective the ideas would be at attracting gym-goers (1 = *not at all*, 7 = *extremely large extent*). Thereafter, the audience members were asked to indicate the likelihood of recommending and purchasing the pasta product (1 = *extremely unlikely*, 5 = *extremely likely*).

Mediators. Using the same measures of self-regulatory focus as in Study 2, we investigated whether it would mediate the effects found in H1 (α = .96 for promotion-focused and α = .89 for prevention-focused).

Manipulation checks

Results showed that participants in each condition correctly assessed the level of formal and informal cultural tightness.

Organizational control. Participants in the low formal tightness condition (*M* = 3.96, *SD* = 1.66) reported significantly lower levels of formal organizational control (*t* (524) = -10.50, *p* < .001, *d* = 1.51, 95% CI = [-1.65, -1.13]) than those in the high formal tightness condition (*M* = 5.35, *SD* = 1.36). Participants in the low informal tightness condition (*M* = 3.20, *SD* = 1.31) reported significantly lower levels of informal organizational control (*t* (524) = -22.79, *p* < .001, *d* = 1.14, 95% CI = [-2.47, -2.08]) than those in the high informal tightness condition (*M* = 5.48, *SD* = 0.96).

Organizational cultural tightness. Participants in the low formal tightness condition (*M* = 3.61, *SD* = 1.25) reported significantly lower levels of formal cultural tightness (*t* (524) = -8.43, *p*

< .001, d = 1.12, 95% CI = [-1.02, -0.63]) than those in the high formal tightness condition (M = 4.43, SD = 0.97). Participants in the low informal tightness condition (M = 2.90, SD = 1.11) reported significantly lower levels of informal cultural tightness (t (524) = -23.01, p < .001, d = .97, 95% CI = [-2.11, -1.78]) than those in the high informal tightness condition (M = 4.85, SD = 0.82).

As shown, our manipulations affected all scales in the expected direction. Furthermore, we used the paired-sample t-tests to show that, in general, the manipulation of one type of cultural tightness did not affect the perception of the other type of cultural tightness (see Supplementary Materials Section 7). Taken together, the above results demonstrated that the manipulation of formal and informal cultural tightness was successful.

Analyses and Results

Descriptive statistics. Supplementary Table 7 presents the means, standard deviations, and correlations among all key variables.

Informal cultural tightness (H1) in task 1. The homogeneity of variance assumption was satisfied (F [1, 524] = 0.07, p = .79). The one-way analysis of variance showed that participants in the low informal cultural tightness condition reported significantly better creativity performance (F [1, 524] = 5.23, p < .05, η^2_p = .01) than those in the high informal cultural tightness condition (M_{high} = 8.55, SD_{high} = 7.75; M_{low} = 10.10, SD_{low} = 7.78). Hence, H1 is supported.

Informal cultural tightness (H1) in task 2. The homogeneity of variance assumption was satisfied (product name: F [1, 524] = 0.003, p = .96; campaign slogan: F [1, 524] = 0.01, p = .93; intention to recommend: F [1, 524] = 0.42, p = .52; intention to buy: F [1, 524] = 0.01, p = .93). Consistent with H1, participants in the low informal cultural tightness condition reported marginally better creativity performance than those in high informal cultural tightness condition (product name: F [1, 524] = 2.80, p = .095, η^2_p = .01; campaign slogan: F [1, 524] = 2.51, p = .11,

η^2_p = .01; intention to recommend: F [1, 524] = 2.48, p = .12, η^2_p = .01; intention to buy: F [1, 524] = 2.82, p =.09, η^2_p = .01). (product name: M_{high} = 3.06, SD_{high} = 0.56, M_{low} = 3.14, SD_{low} = 0.56; campaign slogan: M_{high} = 3.42, SD_{high} = 0.60, M_{low} = 3.51, SD_{low} = 0.59; intention to recommend: M_{high} = 2.65, SD_{high} = 0.33, M_{low} = 2.70, SD_{low} = 0.32; intention to buy: M_{high} = 2.69, SD_{high} = 0.35, M_{low} = 2.74, SD_{low} = 0.35). Hence, the market success and creativity assessment provided consistent support for H1.

Formal cultural tightness (RQ1) in task 1. The homogeneity of variance assumption was not satisfied, and our one-way analysis of variance revealed that there was no significant difference in mean creativity performance between the two levels of formal cultural tightness conditions (F [1, 524] = 0.76, p = .38, η^2_p = .001). However, participants in the high formal cultural tightness condition still reported higher creativity scores than those in the low formal cultural tightness condition (M_{high} = 9.61, SD_{high} = 7.91; M_{low} = 9.02, SD_{low} = 7.69).

Formal cultural tightness (RQ1) in task 2. The homogeneity of variance assumption was satisfied, but we did not find a significant difference in mean creativity performance between the two levels of formal cultural tightness conditions (product name: F [1, 524] = 0.48, p = .49, η^2_p = .001; campaign slogan: F [1, 524] = 0.45, p = .51, η^2_p = .001; intention to recommend: F [1, 524] = 0.10, p = .76, η^2_p = .00; intention to buy: F [1, 524] = 0.05, p = .83, η^2_p = .00). Still, it is worth noting that participants in the high formal cultural tightness condition reported higher creativity scores than those in the low formal cultural tightness condition (product name: M_{high} = 3.11, SD_{high} = 0.59, M_{low} = 3.08, SD_{low} = 0.54; campaign slogan: M_{high} = 3.48, SD_{high} = 0.60, M_{low} = 3.45, SD_{low} = 0.58; intention to recommend: M_{high} = 2.68, SD_{high} = 0.33, M_{low} = 2.67, SD_{low} = 0.32; intention to buy: M_{high} = 2.72, SD_{high} = 0.36, M_{low} = 2.71, SD_{low} = 0.34). Collectively, these results, although non-significant, are consistent with what we found in Studies 1 and 2.

Informal vs formal cultural tightness (RQ2) in task 1. We examined the effect size of each form of cultural tightness. Results showed that informal cultural tightness (F [1, 524] = 5.23, $p < .05$, $\eta^2_p = .01$) was a stronger predictor of creative performance than formal cultural tightness (F [1, 524] = 0.76, $p = .38$, $\eta^2_p = .001$), consistent with what we found in Studies 1 and 2.

Informal vs. formal cultural tightness (RQ2) in task 2. Results in task 2 replicated task 1's pattern of finding that informal cultural tightness seemed to more greatly influence creativity (product name: F [1, 524] = 2.80, $p = .095$, $\eta^2_p = .01$; campaign slogan: F [1, 524] = 2.51, $p = .11$, $\eta^2_p = .01$; intention to recommend: F [1, 524] = 2.48, $p = .12$, $\eta^2_p = .01$; intention to buy: F [1, 524] = 2.82, $p = .09$, $\eta^2_p = .01$) than formal cultural tightness (product name: F [1, 524] = 0.48, $p = .49$, $\eta^2_p = .001$; campaign slogan: F [1, 524] = 0.45, $p = .51$, $\eta^2_p = .001$; intention to recommend: F [1, 524] = 0.10, $p = .76$, $\eta^2_p = .00$; intention to buy: F [1, 201] = 0.05, $p = .83$, $\eta^2_p = .00$).

Informal and formal cultural tightness interaction (RQ3) in task 1. A two-way analysis of variance revealed a non-significant interaction effect (F [1, 522] = 1.83, $p = .18$, $\eta^2_p = .003$). Notably, despite the non-significant results, Study 3 reported an interaction pattern that is consistent with Study 1's. That is, at a low level of informal cultural tightness, there was a positive effect of formal cultural tightness on employee creativity: ($M_{\text{formal high - formal low}} = 1.52$, $p = .12$). However, at a high level of informal cultural tightness, increasing formal cultural tightness did not considerably change employee creativity ($M_{\text{formal high - formal low}} = -0.31$, $p = .74$). This result suggests that when there were strong, clear informal norms and a high degree of sanctioning, the strength of norms arising from formal organizational rules became less relevant for creativity. Supplementary Figure 2 depicts this pattern of results.

Informal and formal cultural tightness interaction (RQ3) in task 2. The two-way analysis of variance revealed non-significant interaction effects (product name: F [1, 522] = 0.01, $p = .93$,

η^2_p = .00; campaign slogan: F [1, 522] = 0.05, p = .82, η^2_p = .00; intention to recommend: F [1, 522] = 0.19, p = .67, η^2_p = .000; intention to buy: F [1, 522] = 0.001, p = .98, η^2_p = .000).

Self-regulatory focus in task 1. We conducted mediation analyses using the same method used in Study 2 and found a significant indirect effect of informal cultural tightness on creativity via promotion-focused self-regulation (*indirect effect* = -0.99, *se* = 0.25, $p < .05$, 95% CI [-1.51, -.55]). However, for prevention-focused self-regulation, the result appeared to suggest a competitive mediation, where prevention-focused self-regulation is not sufficient in mediating the direct effect (*indirect effect* = 0.89, *se* = 0.36, $p < .05$, 95% CI [0.18, 1.61]).

Self-regulatory focus in task 2. Promotion-focused self-regulation emerged as a partial mediator in a competitive mediation. This finding suggests that although the effect of promotion-focused self-regulation is consistent with the theoretical framework, there is the likelihood of an additional mediator driving the direct effect (Zhao et al., 2010). In addition, we found a non-significant indirect effect of formal cultural tightness on creativity via prevention-focused self-regulation. (see Table 3).

Tables 3 about here

Discussion

Study 3 provided further empirical evidence for: 1) the negative effect of informal cultural tightness on creativity (*H1*), 2) promotion-focused self-regulation as the key mediator driving the negative effects, 3) a positive relationship between formal cultural tightness and creativity (*RQ1*), and 4) informal cultural tightness as a stronger predictor of creative performance (*RQ2*). It is also worth noting that the pattern of interaction (*RQ3*) in Study 3's objective creativity assessment (task 1) is similar to that in Study 1. Given that Study 1 took place in a real-world context, the similar interaction pattern affirmed the rigor of Study 3's improved manipulation design, which artificially

created the two forms of cultural tightness. Lastly, while the market success assessment (task 2) only replicated findings in *H1*, *RQ1*, and *RQ2* from Studies 1 and 2, this is understandable given that the task was more commercial in nature, as we asked questions such as likelihood to buy a certain product. Nonetheless, the replications showed the potential of extending our research to commercial settings.

General Discussion

This paper delineates the formal and informal aspects of cultural tightness and investigates their independent, comparative, and interactive effects on employee creativity. Through a field study and two experiments, we found that informal cultural tightness negatively affects employee creativity across all three studies, whereas formal cultural tightness appears to have a positive impact on creativity -- although the effects are not always statistically significant. Additionally, we found that informal cultural tightness appears to be a more potent predictor of employee creativity compared to formal cultural tightness. Regarding the interactive effects of formal and informal cultural tightness, we found (Study 1 and Study 3) that at low levels of informal cultural tightness, an increase in formal cultural tightness positively influences employee creativity. Conversely, at high levels of informal cultural tightness, an increase in formal cultural tightness does not significantly affect employee creativity. These effects suggest that when informal cultural tightness is strong, the impact of formal cultural tightness on employee creativity is diminished. Specifically, when employees perceive strong informal norms and anticipate social sanctions, the strength of formal norms and sanctions becomes less relevant for creativity. In both experimental studies, promotion focus emerged as a significant mediator driving the negative effect of informal cultural tightness on employee creativity.

Theoretical Implications

Our research offers several notable theoretical contributions. First, we advance cultural tightness theory by distinguishing between informal and formal sources of cultural tightness within organizations, moving beyond the traditional approach of treating norms as a unified construct (Harrington & Gelfand, 2014). Recognizing that norms have diverse roots (Etzioni, 1975; Helmke & Levitsky, 2004) and that different norms (and associated sanctions) possess distinct impacts on employee psychological mechanisms and work-related outcomes, our research integrated the cultural tightness literature with organizational theory and differentiated between informal and formal cultural tightness. We demonstrated that informal and formal cultural tightness have distinct influences on employee creativity, with empirical evidence underscoring the greater significance of informal cultural tightness in shaping employee creativity. These findings highlight the theoretical value of distinguishing between informal and formal cultural tightness in organizational contexts.

The interactive effect between formal and informal cultural tightness further underscores the importance of differentiating between the two. In two of our studies (Study 1 and Study 3), we found enhanced creativity with high formal cultural tightness only when informal cultural tightness was low. This finding revises the notion that benefits necessarily result from the convergence of formal and informal norms (Helmke & Levitsky, 2004; Smith-Crowe et al., 2015). Instead, a complementary effect might be at play when it comes to cultural tightness. Additionally, it appears that when informal cultural tightness is high, the impact of formal cultural tightness on creativity is greatly diminished, further attesting to the potency of informal cultural tightness.

Second, we enrich cultural tightness theory by examining individuals' perceived cultural tightness instead of aggregated or shared cultural tightness. Existing theoretical approaches to cultural tightness predominantly focus on the collective level (including nations, regions, and organizations, Chua et al., 2019; Gelfand et al., 2006; Harrington & Gelfand, 2014; Qin et al., 2021), presuming that individuals within certain groups consistently experience and are similarly influenced by the same norms and sanctions. However, within an organizational context, employees from various functions or departments may be exposed to different norms or practices (Liu et al., 2017; Liu et al., 2013), leading to different experiences of cultural tightness. By investigating individuals' perceived cultural tightness, we offer a potentially more accurate depiction of the relationship between cultural tightness in organizations and employee creativity.

Third, our research contributes to the understanding of how organizational cultures affect employee creativity. A rich body of research has explored the influence of organizational constraints on employee creativity (Hirst et al., 2011; Liu et al., 2017; McEvily et al., 2014; Soda et al., 2019). Our study adopts the cultural tightness perspective and examines the effects of different norms and sanctions derived from formal and informal control systems (rather than the specific content of those control systems) on employee creativity. It appears that informal cultural tightness plays a highly decisive role in decreasing the quality of employees' creative ideas. Formal cultural tightness, on the other hand, exhibits a less significant impact on employee creativity. In fact, there appears to be some evidence of a positive effect of formal cultural tightness on creativity. One speculation is that perceptions of strong formal norms also serve as guidance for employees' creative efforts.

Fourth, we validated our theory using different research methods (field survey and experiment) across diverse cultural contexts. This approach strengthened the robustness of our

theory by demonstrating its generalizability and causality. Studies indicate that cultural tightness is associated with different outcomes depending on the cultural context (e.g., Chua et al., 2019). Acknowledging this concern, we tested our hypothesis and research questions with participants from multiple cultural backgrounds and found support for our baseline hypothesis across various cultural settings. Moreover, the combination of field survey and experimentation methods allowed us to examine not only the correlations among variables but also establish causality, significantly enhancing the validity of our research.

Fifth, with regards to mechanisms, we found that promotion-focused self-regulation appears to play a consistent role in explaining the negative effects of informal cultural tightness on employee creativity (Studies 2 and 3). Specifically, informal cultural tightness's negative impact on creativity appeared to flow through reduced promotion-focused self-regulation. There was, however, no significant mediation effect for prevention-focused self-regulation. This finding is interesting in that prior research often references increased prevention-focused self-regulation as an effect of cultural tightness (Chua et al., 2015; Gelfand et al., 2006).

Practical Implications

Our study offers some practical recommendations for managers to adjust organizational practices or norms in hopes of boosting creativity. First, recognizing the substantial impact of informal cultural tightness on curtailing employee creativity, we advocate for the implementation of practices that nurture flexibility and autonomy, thereby fostering an environment more conducive to creative endeavors. It is essential for managers to conduct regular assessments of the organization's culture using methodologies such as surveys and other feedback mechanisms. These processes can illuminate how informal norms may hinder creativity and identify opportunities for cultural adjustment. Second, given the potential positive impact of formal

cultural tightness on creativity, it is useful to keep a balance between formal regulations and autonomy. Managers are advised to strategically leverage formal cultural tightness to offer clear guidance and directions for employees' creative behaviors while ensuring that bureaucratic structures do not suppress creativity.

Limitations and Future Research

As with all research, there are limitations to our work. First, our analyses broadly categorize the sources of cultural tightness as either formal or informal. However, in real-world organizations, there can be many types of formal and informal sources of organizational constraints. For instance, constraints from human resources systems might be different from constraints from financial control systems. Given the scope of our study, it was not feasible for us to theorize and measure specific sources of norms and sanctions. Therefore, we recommend that future research delve into the impacts of specific sources of formal and informal cultural tightness by collecting more detailed information on the origins of cultural tightness, so as to further enrich our understanding of its influence on creativity.

Another limitation of our research is the mixed findings regarding the interaction between formal and informal cultural tightness across the three studies. We attribute these different findings to the varying contexts in which the studies were conducted. In Studies 2 and 3, we used an experiment involving a fictitious company to test causality, while clarifying the concepts of formal and informal cultural tightness through our precise manipulation of experimental conditions. The drawback to this approach, however, is that an experimental setting has limited real-world organizational contexts and social dynamics. As such, some of the underlying mechanisms and effects may have differed across the field versus experimental studies. Thus, even though we attempted to explore the interactive effects of informal and formal cultural

tightness on creativity, questions remained. Future research should continue to investigate the interplay between formal and informal cultural tightness and employee creativity by employing diverse methodologies in different contexts.

In Studies 2 and 3, we made some progress in identifying potential mechanisms underlying the effects of informal cultural tightness on creativity. As noted above, a consistently salient mediator appears to be promotion-focused self-regulation, but some other findings were unexpected (e.g., prevention-focused self-regulation was not a viable mediator). Again, one potential explanation could be that the experimental paradigm in Studies 2 and 3, while having important strengths (e.g., establishing causality), might not have fully captured the complex social dynamics of real-world organizational cultures. We urge future research to further investigate the preliminary mechanisms that account for the effects we found in a field setting.

Lastly, the present research focuses on employee creativity, not innovation (the successful implementation of creative ideas). It is plausible that cultural tightness affects creativity and innovation differently. To the extent that innovation requires strong coordination of processes and resources, one possibility is that employees' perceptions of formal cultural tightness would likely play a positive role here. Future research can explore this line of inquiry.

Conclusion

In closing, this research integrates organizational theory and cultural tightness theory to distinguish formal and informal aspects of cultural tightness in organizations. In doing so, we reveal a nuanced and complex picture of how employees' perceptions of informal and formal cultural tightness impact their creativity in organizations. This work demonstrates the theoretical and practical value of differentiating the sources of cultural tightness in organizational contexts. At the same time, important questions remain unanswered. We hope future work can build on

our theorizing and empirical evidence to further expand the understanding of cultural tightness, organizational culture, and creativity.

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Table 1

Effects of Informal and Formal Cultural Tightness on Creativity (Excluding Control Variables) (Study 1)

	Idea originality				Idea usefulness				Idea feasibility				Idea creativity (mean)				Idea creativity (usefulness*originality)			
Variables	b	z	95% CI		b	z	95% CI		b	z	95% CI		b	z	95% CI		b	z	95% CI	
Constant	3.59*	28.93	(3.35	3.84)	5.29*	30.18	(4.95	5.64)	4.70*	28.54	(4.38	5.02)	4.53*	36.04	(4.29	4.78)	2.71*	12.47	(2.28	3.13)
(se)	(0.12)				(0.18)				(0.16)				(0.13)				(0.22)			
[p-value]	[0.00]				[0.00]				[0.00]				[0.00]				[0.00]			
ICT[a]	-0.09*	-3.98	(-0.14	-0.05)	-0.16*	-4.75	(-0.23	-0.09)	-0.15*	-4.79	(-0.21	-0.09)	-0.14*	-5.52	(-0.18	-0.09)	-0.21*	-5.02	(-0.30	-0.13)
(se)	(0.02)				(0.03)				(0.03)				(0.02)				(0.04)			
[p-value]	[0.00]				[0.00]				[0.00]				[0.00]				[0.00]			
FCT[b]	0.06*	2.11	(0.00	0.11)	0.04	1.04	(-0.04	0.12)	0.05	1.38	(-0.02	0.12)	0.05	1.68	(-0.01	0.10)	0.09	1.87	(-0.00	0.19)
(se)	(0.03)				(0.04)				(0.04)				(0.03)				(0.05)			
[p-value]	0.03				0.30				0.17				0.09				0.06			
R^2	.01				.01				.02				.02				.02			

Note. N = 1,513.

ICT=informal cultural tightness, FCT=formal cultural tightness.

[a] Informal cultural tightness measured at the individual level; [b] Informal cultural tightness measured at the individual level.

*$p < .05$.

Table 2

Interaction Effects of Formal and Informal Cultural Tightness on Creativity (Excluding Control Variables) (Study 1)

	Idea originality				Idea usefulness				Idea feasibility				Idea creativity (mean)				Idea creativity (usefulness*originality)			
Variables	b	z	95% CI		b	z	95% CI		b	z	95% CI		b	z	95% CI		b	z	95% CI	
Constant	2.57*	5.25	(1.61	3.53)	3.86*	5.50	(2.49	5.24)	3.33*	5.12	(2.05	4.60)	3.23*	6.35	(2.23	4.22)	0.58	0.66	(-1.14	2.29)
(se)	(0.49)				(0.70)				(0.65)				(0.51)				(0.88)			
[p-value]	[0.00]				[0.00]				[0.00]				[0.00]				[0.51]			
ICT[a]	0.18	1.40	(-0.07	0.44)	0.22	1.2	(-0.14	0.59)	0.22	1.27	(-0.12	0.56)	0.22	1.60	(-0.05	0.48)	0.36	1.55	(-0.09	0.82)
(se)	(0.13)				(0.19)				(0.17)				(0.13)				(0.23)			
[p-value]	[0.16]				[0.23]				[0.20]				[0.11]				[0.12]			
FCT[b]	0.29*	2.61	(0.07	0.51)	0.37*	2.29	(0.05	0.68)	0.36*	2.45	(0.07	0.65)	0.35**	2.98	(0.12	0.57)	0.58*	2.89	(0.19	0.97)
(se)	(0.11)				(0.16)				(0.15)				(0.12)				(0.20)			
[p-value]	[0.01]				[0.02]				[0.01]				[0.00]				[0.00]			
FCT* ICT	-0.06*	-2.16	(-0.12	-0.01)	-0.09*	-2.10	(-0.17	-0.01)	-0.08*	-2.18	(-0.16	-0.01)	-0.08*	-2.65	(-0.14	-0.02)	-0.13*	-2.51	(-0.23	-0.03)
(se)	(0.03)				(0.04)				(0.04)				(0.03)				(0.05)			
[p-value]	[0.03]				[0.04]				[0.03]				[0.01]				[0.01]			
R^2	.02				.02				.02				.03				.02			

Note. $N = 1{,}513$.

ICT= informal cultural tightness, FCT= formal cultural tightness.

[a] Informal cultural tightness measured at the individual level. [b] Informal cultural tightness measured at the individual level.

*$p < .05$.

Table 3

Mediating effect of Self-regulatory Focus (Study 3 Task 2)

	Product name		**Campaign slogan**		**Recommendation**		**Buy**	
Variables	indirect effect	95% CI	indirect effect	95% CI	indirect effect	95% CI	indirect effect	95% CI
Promotion-focused self-regulation	0.03	(0.00 , 0.06)	0.06	(0.03 , 0.10)	0.03	(0.01 , 0.04)	0.02	(0.01 , 0.04)
(se)	(0.02)		(0.02)		(0.01)		(0.01)	
[p-value]	[0.05]		[0.00]		[0.01]		[0.02]	
Prevention-focused self-regulation	0.03	(-0.02 , 0.09)	0.00	(-0.05 , 0.05)	0.00	(-0.03 , 0.03)	0.00	(-0.03 , 0.03)
(se)	(0.03)		(0.03)		(0.02)		(0.02)	
[p-value]	[0.18]		[0.99]		[0.79]		[0.90]	

Note. $N = 526$.

The independent variable is informal cultural tightness.

Figure 1a

Interaction Effect of Formal and Informal Cultural Tightness on Idea Creativity (mean) (Study 1)

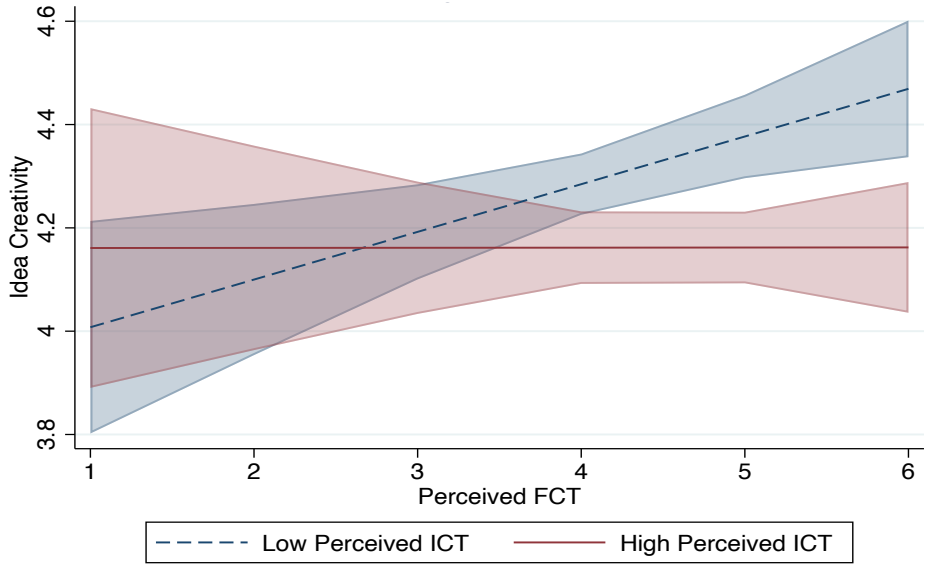
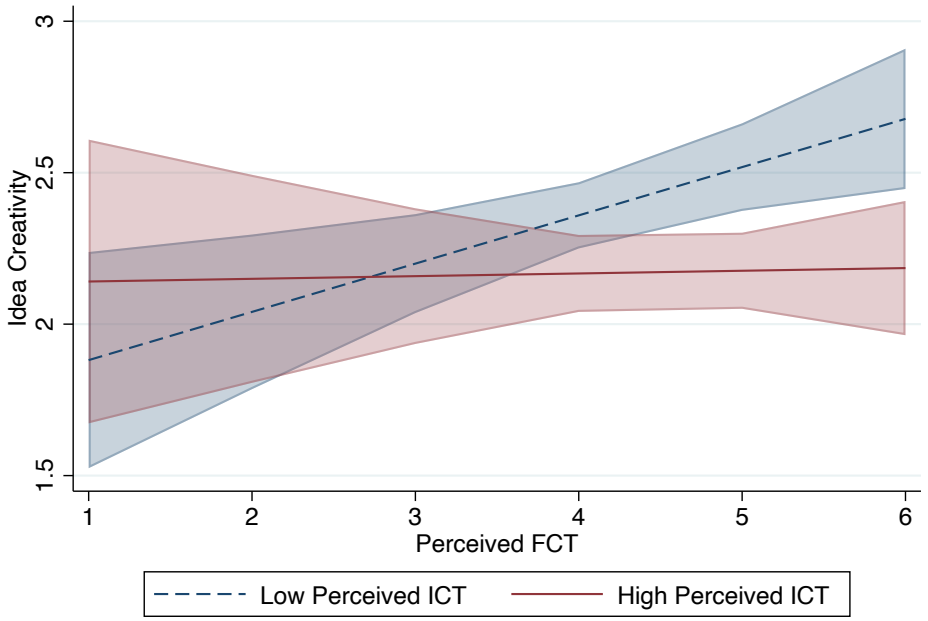


Figure 1b

Interaction Effect of Formal and Informal Cultural Tightness on Idea Creativity (originality x usefulness)(Study 1)



Note. FCT = formal cultural tightness, ICT = informal cultural tightness.