

# Impacts of the Strength and Conformity of Social Norms on Well-Being: A Mixed-Method Study Among Hybrid Workers in Japan

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## ABSTRACT

Previous studies have suggested that organizational social norms can positively affect employee well-being. However, such social norms have not been well developed during the post-COVID-19 transition to hybrid work, which combines office and remote work, and it is unclear how employees' perceptions of social norms for hybrid work affect their well-being. In this study, we investigated the impact of social norms for hybrid work on the well-being of hybrid workers living in Japan through a mixed-method approach consisting of an online survey ( $n = 212$ ) and semi-structured interviews ( $n = 20$ ). The results indicate that hybrid workers who feel subject to strong social norms have lower well-being. Conversely, those who are more willing to conform to social norms have higher well-being. Given our findings, we discuss implications for the design of systems to help hybrid workers conform to organizational social norms and to improve their well-being.

## CCS CONCEPTS

• **Human-centered computing** → **Empirical studies in HCI**.

## KEYWORDS

Hybrid Work, Well-Being, Social Norms

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## 1 INTRODUCTION

After COVID-19 was characterized as a pandemic [105], lockdown measures and social distancing policies were introduced worldwide, which accelerated the global trend of remote work [51, 71]. Recent studies have shown ample evidence that during the COVID-19 pandemic, remote workers suffered from social isolation, work-family conflict, and overwork [4, 93], which negatively impact their well-being (e.g., anxiety, depression, and burnout) [13, 51, 63, 67, 71, 79].

With the spread of COVID-19 increasingly under control, many employees can return to the office while maintaining the flexibility of working from home as needed. This pattern of “working part of the time in the office and part time from somewhere else” [95, p. 8] is referred to as *hybrid work*. So far, flexibility and autonomy have made hybrid work more popular with many employees than office-only or remote-only work arrangements [9, 11]. One challenging aspect of the shift to hybrid work models is an upending of previously established social norms about work. Social norms are shared beliefs about what sort of behavior is acceptable among members of a group [20]. They are related to well-being in several ways. Following norms can facilitate a feeling of group membership, which is positively associated with well-being [31, 60, 66]. Further, norms can moderate the impact of crises on well-being by motivating behaviors that impact life satisfaction [42].

In light of this situation, there is a need to work toward organizational social norms that moderate the negative relationship between changes in work practices induced by COVID-19 and employee well-being [51]. Motivated by previous research, this study focuses on two main aspects of social norms that contribute to employee well-being. The first is the **strength** of social norms, i.e., the difference between tight cultures with restrictive rules and strong monitoring and sanctioning systems, and loose cultures which are more lax. Tight cultures can facilitate cooperation and coordination and have helped groups survive high-threat situations (e.g., food scarcity, natural disasters, and contagious diseases) throughout history [33, 35, 81]. In the present context, the uncertainty caused by the COVID-19 pandemic has been shown to be associated with poor employee well-being [97], and therefore a tight culture may relieve pandemic-related stress and improve well-being by providing guidance about what to do [34, 35]. On the other hand, strong norms

can have a negative effect on well-being by reducing personal autonomy [96, 103]. The second significant aspect is **conformity** to social norms, i.e., person-culture fit. Person-culture fit is generally evaluated by the similarity between the values of the individual and those of the organization or group [74]. Previous studies showed that a good person-culture fit is associated with positive employee attitudes [1, 53, 54, 74] and psychological well-being [31].

Despite the importance of organizational social norms to employee well-being, few researchers have investigated the impact of social norms on employee well-being as work practices transition to hybrid work. Especially during this transition, the best practices for hybrid work are not yet known, and many organizations have not yet fully developed social norms for hybrid work. In addition, remote workers have less opportunity to observe the behavior of their colleagues, which can inhibit the formation of social norms. Under such circumstances, the judgment of what behavior is desirable or not is uncertain, and it is unclear how an employee's perception of social norms affects his/her well-being. Specifically, there is a lack of understanding on how the strength of norms perceived by hybrid workers affects their well-being when norms are not well developed, as well as how hybrid workers attempt to conform to social norms and how this affects their well-being. To date, prior research in the field of HCI and CSCW about social norms has largely focused on the management of online communities [5, 16, 50, 70, 85, 92], and few studies have focused on social norms in the management of workplaces. It has also been pointed out that traditional productivity-oriented technology can create stress and anxiety for employees. For example, Leshed and Sengers found that while productivity tools fulfill the American users' desire to comply with their cultural identity of being busy people, they also create suffering by exacerbating conflicts around busyness and other life priorities [58]. This points to the need to design technologies that take into account social factors such as social pressures and peer expectations [18].

Hence, the main objective of our research is to investigate how hybrid workers' experiences of social norms for hybrid work affect their well-being. Specifically, we aim to answer the following research questions (RQs).

- (1) RQ1. To what extent does daily affective well-being change in response to work arrangements in hybrid work?

We ask this question to get an overall picture of hybrid workers' day-to-day well-being when working from home as compared to working at the office, because this could influence how they respond to social norms that push for particular work arrangements. We then proceed to the following questions.

- (2) RQ2a. To what extent do hybrid workers' perceptions of the strength of social norms for hybrid work affect their well-being?
- (3) RQ2b. To what extent does their willingness to conform to social norms for hybrid work affect their well-being?
- (4) RQ3. How do hybrid workers perceive and navigate the relationship between social norms for hybrid work and their well-being?

To understand hybrid workers' daily work styles and examine their attitudes toward social norms and these norms' relationship to

well-being, we conducted a three-week series of online surveys and semi-structured interviews with hybrid workers living in Japan.

The contributions of this work are as follows. We find that hybrid workers who feel subject to strong social norms have lower well-being. Conversely, a willingness to conform to social norms is associated with higher well-being. Given these results, we emphasize the need for organizations to manage social norms to support hybrid workers' well-being. Finally, we discuss the design implications for the technology according to the concept of social norms in hybrid work settings.

## 2 RELATED WORK

### 2.1 COVID-19, remote work, and well-being

Even before COVID-19, numerous studies assessed the effectiveness of remote work and found that it is associated with several benefits, including autonomy and flexibility on when and where to work [4, 52, 93, 106]. Because of these benefits, remote work has been shown to increase employees' job satisfaction [4, 17, 32, 38, 99], organizational commitment [17, 37, 44], positive emotions [17, 99], and work engagement [23, 65] as well as to reduce stress [23, 32], turnover intentions [37], and work-family conflict [4, 23, 32]. On the other hand, previous studies have also discussed negative impacts of remote work on well-being [4, 17, 21]. For example, remote work has disadvantages such as social isolation and lack of support, which are associated with negative emotions [10, 93].

Ultimately, the relationship between remote work and well-being is shaped by a variety of factors, such as ergonomic factors, management factors, and demographics [10, 21]. Specifically, positive well-being among remote workers is associated with higher levels of flexibility [39, 90, 96] and autonomy [38, 39, 98]. One reason is that working from home, with its greater flexibility and autonomy, promotes work-life balance by reducing commuting time and allowing employees to adjust the location and timing of their own work [10, 21]. Well-being is further moderated by the amount of remote work, with those who work more than 2.5 remote workdays per week having reduced work-family conflict but worse relationships with colleagues [32]. Furthermore, well-being outcomes are worse among those who have a low-quality supervisor relationship [32]. Finally, men (particularly those with children) have higher well-being during remote work than women [41].

A series of recent studies have also indicated that the change in work style caused by the COVID-19 pandemic had a negative association with employee well-being [13, 51, 63, 67, 71, 79]. For example, one study found that during the pandemic, workers' well-being was impaired by high stress levels, the absence of a daily routine, and a lack of social contacts [83]. In addition, remote workers during the pandemic have faced challenges related to a high number of meetings, overwork, and physical and mental health issues [14]. Ultimately, however, the extent to which switching to remote work has positive or negative effects on well-being seems to vary across contexts, as a variety of factors come into play [72].

In light of these studies, the relationship between remote work and well-being may have changed since the COVID-19 pandemic. For example, pre-pandemic remote-workers often worked from home according to their preferences, but during the pandemic, many employees were forced to work from home regardless of whether

they wanted to [51]. Another challenge to generalizing based on previous studies is that remote and hybrid work arrangements have become much more common since the pandemic started.

Although many studies have investigated the relationship between the COVID-19 pandemic and employee well-being, only a few have focused on hybrid work [95]. For example, according to a survey ( $n = 475$ ) and interviews ( $n = 12$ ) with Chinese hybrid workers, factors that attracted them to working in the office included a better workplace setup, in-person meetings, social engagement with colleagues, and working on specific tasks in the office [102]. On the other hand, factors that attracted them to working from home included reduced commute time, the necessity of family care, more focus time, reduced health risks, and weather [102]. Moreover, it was reported that employees perceived higher productivity in hybrid work as compared to full-time office work prior to COVID-19, with many employees preferring a hybrid work arrangement [102]. Other research showed that full-time remote workers and hybrid workers who work one to two remote workdays per week have lower well-being in workplace relationships than employees who do not work remotely at all [47]. This research suggests that occasional remote work (less than one day per week) is preferable from the aspect of well-being in workplace relationships [47]. Although several studies have focused on hybrid work during the COVID-19 recovery, most have focused on factors that are related to individuals' work styles - the experiences of hybrid workers and best practices for hybrid work are still insufficiently explored.

Finally, COVID-19 has already been influencing HCI research in the area of work. Cho et al. [18] analyzed data collected on subreddits related to working from home and found challenges in adapting to remote work, managing work-life boundaries, and reconstructing the home's sense of place. Lu et al. [61] interviewed remote workers to identify opportunities for supporting informal communication, such as how to best indicate when one is available or not available to chat, and how to convey authenticity. Yang et al. [107] found that remote workers tend to perceive their weakly connected ties as less engaged and less worthy of collaboration. Based on their results, they identified opportunities for helping remote workers maintain awareness of weak ties. For example, they suggested that digital footprints left in shared public workspaces help enhance social awareness of remote weak ties. While these studies investigate design opportunities and psycho-social effects related to remote work, hybrid work demands specific consideration since it involves flexible switching between office and remote work. In our research, we focus on how individual workers are positioned within an organization's overall work style, and we examine how social norms for hybrid work, which are still developing after the COVID-19 pandemic, affect employee well-being.

## 2.2 Social norms and well-being

Previous studies have demonstrated that social norms have the power to motivate behavior in a wide range of settings, including recycling [84], littering [20, 48], environmental conservation programs [40], and alcohol consumption [80]. The seminal work of Cialdini et al. [20] introduced two types of social norms: the injunctive norm (a perception of what should be generally approved or disapproved by others), and the descriptive norm (a perception of

what others generally do). For example, in a littering situation, the perception that trash should be thrown in the trash can is an injunctive norm, while the perception that most people throw trash in the trash can is a descriptive norm. As people transition to hybrid work during the COVID-19 recovery, organizational social norms about what forms of hybrid work are appropriate or inappropriate are still developing, and judgments about what behavior is acceptable or unacceptable are also uncertain. According to prior research, the less confident a person is in the adequacy of his/her actions and judgments, the more likely the person is to act according to his/her perceived social norms, i.e., according to the social pressure to perform or not perform a certain behavior [2, 91]. Thus, hybrid workers may focus on and be influenced by their perceptions of injunctive and descriptive norms in the organization to determine their work arrangements.

Social norms not only affect employees' decision-making and behavior but can also affect their well-being. One factor of social norms that influences employee well-being is their strength. Gelfand et al. [34] defined the tightness-looseness of a culture as "the strength of social norms and degree of sanctioning within societies" (p. 6). The tightness of a culture reflects many strongly enforced rules and little tolerance for deviance [45]. Tight groups have been shown to cooperate much faster under threat and to have higher survival rates than loose groups [33, 35, 81]. In addition, employees' perception of uncertainty has been shown to be associated with negative well-being [97], and tight groups may be better able to cope with uncertainty by referring to many clear social norms [34, 35]. Altogether, these findings suggest that the strength of social norms for hybrid work positively associates with employee well-being. On the other hand, flexible work arrangements have been shown to be positively related to employee well-being through autonomy [96], but strict rules on hybrid work may have a negative impact on employee well-being because they undermine flexibility and autonomy. For example, monitoring has been shown to increase remote workers' degree of work-home interference, thereby undermining their well-being [100].

Another factor of social norms that influences employee well-being is conformity to social norms. O'Reilly et al. [74] noted that "congruency between an individual's values and those of an organization may be at the crux of person-culture fit" (p. 492). Person-culture fit has been shown to be positively related to employees' job satisfaction [1, 53, 54, 74], and commitment [53, 54, 74], and negatively related to their turnover intentions [53, 54, 74]. Fulmer et al. [31] also showed that culture amplifies positive effects on self-esteem and subjective well-being when a person's personality matches the prevailing personality in that culture. Altogether, these findings suggest that conformity to the social norms for hybrid work positively associates with employee well-being. Yet, such positive effects on well-being may not be possible in hybrid environments where organizational social norms are not well developed, because it is difficult to conform to unclear norms. In particular, employees working remotely have less opportunity to observe the behavior of others, making it difficult for them to recognize and conform to social norms [19].

In light of these studies, social norms for hybrid work may provide clues to addressing organizational issues related to employee well-being. Hybrid work is often flexible in that workers make

their own decisions about how many and which days to work from home or at the office. Without formal rules, social norms will likely strongly shape these decisions. Hence, there is a need to understand how employees' perceptions of social norms affect hybrid workers' well-being. To our knowledge, no prior studies have examined the relationship between social norms for hybrid work and employee well-being. We thus contribute to this literature by investigating the impact of such social norms on employee well-being and deriving implications for the development of social norms for hybrid work.

### 3 METHOD

To answer our RQs, we conducted a mixed-methods study of Japanese hybrid workers in February and March 2022, which included a series of online surveys (a screening survey, daily surveys for three weeks, and a follow-up survey) and follow-up interviews. The screening survey aimed to select participants for the study, the daily survey aimed to obtain participants' daily affective well-being, and the follow-up survey aimed to obtain participants' perceptions of social norms and overall well-being. The follow-up interview aimed to add depth to the survey findings and to further understand how the participants navigated the relationship between social norms and their well-being.

The participants were awarded a 5,000-JPY (approximately 43 USD at that time) Amazon gift certificate for completing the screening and follow-up surveys and an additional 6,000-JPY (approximately 52 USD at that time) Amazon gift certificate for a follow-up interview. The study was reviewed and approved by our institution's ethics board.

#### 3.1 Surveys

**3.1.1 Participants.** The participants were recruited through an online marketing company. The target population was limited to hybrid workers living in Japan who were between 18 and 64 years old. Moreover, as we focused on how individual workers were positioned within an organization's overall work style, we targeted those who belonged to a team. Here, we defined a team as a group of people who work on a common project or goal on a daily basis and share the same office space when they come to work. Furthermore, because hybrid work practices and experiences are expected to stabilize over time, we targeted those who had been working remotely at least one to four days a week for at least three months. Finally, to target workers for whom hybrid work arrangements can easily be implemented, the workers' occupations were limited to company employees, public officials, faculty members, and non-profit organization staff.

A total of 250 respondents participated in the survey; respondents were excluded from the analysis if they did not provide at least one daily response for each type of day (i.e., office workday, remote workday, and day off) or did not complete the follow-up survey. After application of this exclusion criterion, the analysis included 212 respondents. The participants are described in Table 1.

**3.1.2 Procedure.** Each participant was briefed on the study's intent and completed a screening survey. The screening survey asked about demographic information, the frequency of remote work, and experience with hybrid work. The participants were then sent a daily survey via an SMS link at 19:00 for 21 days. The daily survey

asked about their work location, perceptions of other employees, and affective well-being on that day. They also received a reminder message at 20:00 and were able to respond until noon the following day. Finally, on day 22, after the last day of the three-week daily survey, the participants received a follow-up survey. The follow-up survey asked about their perceptions of the strengths of injunctive and descriptive norms, their willingness to conform to those norms, and their overall well-being, which was characterized as a multidimensional construct [15, 86]. During the 21-day survey, although not all participants answered every day, 212 participants responded 1176 times on office workdays (mean = 5.55, SD = 3.08, median = 5, min. = 1, max. = 15), 1493 times on remote workdays (mean = 7.04, SD = 2.97, median = 7, min. = 1, max. = 13), and 1490 times on days off (mean = 7.03, SD = 1.41, median = 7, min. = 3, max. = 15).

**3.1.3 Measures.** To answer RQ1, RQ2a, and RQ2b, a scale on employees' affective well-being was included in the daily survey, and scales on employees' perceptions of the strength of injunctive and descriptive norms, their willingness to follow those norms, and employees' overall well-being were included in the follow-up survey. The supplemental material provides the survey details.

**Expected frequency of remote work.** Because the way hybrid work should be done depends on the team, we asked what the frequency of remote work is expected within the team. To measure this *expected frequency of remote work*, the participants responded to the statement "My team members think that I should work under the following work arrangements" by choosing one of the following options: "Come to the office every day," "Work remotely less than one day a week," "Work remotely 1-2 days a week," "Work remotely 3-4 days a week," or "Work remotely every day."

**Strengths of injunctive and descriptive norms.** To assess the participants' perceptions of the strengths of social norms for hybrid work (RQ2a), we adapted questions from Ajzen's sample questionnaire [3]. To measure the *strength of injunctive norms*, the participants responded to the statement "How strongly do your team members think that you 'should follow' the work arrangements you selected in [the question on expected frequency of remote work]?" on a 7-point Likert scale. To measure the *strength of descriptive norms*, they responded to the statement "Most of my team members all come to the office with a similar frequency" on a 7-point Likert scale.

**Willingness to conform to injunctive and descriptive norms.** To assess the participants' willingness to conform to social norms for hybrid work (RQ2b), we again adapted questions from Ajzen's sample questionnaire [3]. To measure their *willingness to conform to injunctive norms*, the participants responded to the statement "I want to come to the office as often as my team members expect me to" on a 7-point Likert scale. To measure their *willingness to conform to descriptive norms*, they responded to the statement "I want to come to the office around as often as other team members do" on a 7-point Likert scale.

**Overall well-being.** To measure the participants' overall well-being (RQ2a and RQ2b), we used the workplace PERMA profiler with 23 items [49]. This measure is based on the five factors of the PERMA model (positive emotion, engagement, relationships, meaning, accomplishment) in the workplace. Much of the research on workplace well-being has addressed separate elements, and

**Table 1: Summary of participants' information.**

Attribute	Range	Sample size
Age	18-24	5 (2.4%)
	25-34	50 (23.6%)
	35-44	58 (27.4%)
	45-54	62 (29.2%)
	55-64	37 (17.5%)
Gender	Male	126 (59.4%)
	Female	86 (40.6%)
Role	General employee	158 (74.5%)
	Managerial employee	38 (17.9%)
	Operator, executive	6 (2.8%)
	Others <sup>a</sup>	10 (4.7%)
Job category	Planning, public relations	18 (8.5%)
	Sales	59 (27.8%)
	Manufacturing, production	7 (3.3%)
	Procurement, purchasing	4 (1.9%)
	Production control, quality control	9 (4.2%)
	Technology, research & development	25 (11.8%)
	General affairs, human resources	33 (15.6%)
	Accounting, finance	16 (7.5%)
	Information system division	24 (11.3%)
Others	17 (8.0%)	
Frequency of remote work	1-2 days a week	123 (58.0%)
	3-4 days a week	89 (42.0%)

Note: a: public official, faculty member, non-profit organization staff.

this measure is one of the few that captures multidimensional elements of workplace well-being [25]. The PERMA profiler has demonstrated acceptable psychometric properties in assessments conducted with large international samples [15]. The participants responded to all items on an 11-point Likert scale (0 to 10). The overall well-being at work was calculated as the average of the scores on 15 items related to the PERMA model's five factors and one item related to happiness [49].

**Daily affective well-being.** To measure the participants' daily affective well-being (RQ1, RQ2a, and RQ2b), we used the short-form Daniels five-factor measure of affective well-being (D-FAW) [82]. Compared to the Positive and Negative Affect Schedule (PANAS) [104], the most widely used scale for affective well-being, the short-form D-FAW is occupation-specific, has a higher coverage of low-activation items, and has a higher representation of anger/aggression terms and fatigue [82]. The short-form D-FAW uses 10 adjectives to describe the positive and negative axes of five factors: anxiety-comfort (AC), displeasure-pleasure (DP), bored-enthusiastic (BE), tiredness-vigor (TV), and angry-placid (AP). The short-form D-FAW questions were included in the daily survey: the participants responded to all items on a 6-point Likert scale to determine whether they had felt these emotions during the day today. The daily affective well-being was calculated by averaging the scores for the ten items. The five items related to negative emotions were reverse-scored, so that higher scores meant greater well-being. Then, for

each participant, the scores on office workdays, remote workdays, and days off were calculated as the average daily affective well-being scores.

### 3.2 Follow-up interviews

To add depth to the survey findings and further understand how the participants navigated the relationship between social norms and their well-being (RQ3), 20 randomly selected participants were interviewed among those who responded to the daily survey on at least 14 out of 21 days and agreed to participate in a follow-up interview. Table 2 summarizes their information.

The interviews were conducted remotely via video calls in March 2022. Each interview lasted approximately 60 minutes. The interviews were semi-structured and asked about the participants' perceptions of social norms for hybrid work and their well-being. The supplemental material provides the details of the interview guide. The interviews were conducted in Japanese, recorded, and transcribed.

The interview transcripts were analyzed by thematic analysis [12]. After immersion by reading the transcripts, the first author performed an open coding phase on all the transcripts by using the analytical software MaxQDA. The first author performed an inductive thematic analysis during this coding phase by grouping the relevant codes into themes. The themes derived from the analysis were regularly presented to the other authors for discussion

**Table 2: Summary of interview participants' information.**

ID	Gender	Age	Role	Job category	Frequency of remote work
P1	Male	25-34	employee	Planning, public relations	3-4 days a week
P2	Female	35-44	employee	Planning, public relations	1-2 days a week
P3	Male	35-44	employee	General affairs, human resources	3-4 days a week
P4	Male	55-64	employee	Sales	1-2 days a week
P5	Male	45-54	employee	Technology, research & development	1-2 days a week
P6	Male	25-34	employee	Accounting, finance	1-2 days a week
P7	Male	55-64	employee	Production control, quality control	1-2 days a week
P8	Female	35-44	employee	General affairs, human resources	1-2 days a week
P9	Female	55-64	employee	Planning, public relations	3-4 days a week
P10	Male	35-44	manager	Technology, research & development	3-4 days a week
P11	Female	25-34	employee	General affairs, human resources	3-4 days a week
P12	Female	25-34	employee	General affairs, human resources	1-2 days a week
P13	Female	45-54	employee	General affairs, human resources	1-2 days a week
P14	Male	25-34	employee	Technology, research & development	3-4 days a week
P15	Female	18-24	employee	Sales	1-2 days a week
P16	Male	55-64	manager	Manufacturing, production	3-4 days a week
P17	Female	45-54	employee	Sales	1-2 days a week
P18	Male	45-54	manager	Planning, public relations	3-4 days a week
P19	Female	18-24	employee	Sales	1-2 days a week
P20	Male	45-54	manager	Technology, research & development	1-2 days a week

to confirm their validity. All authors then refined the codes and themes in an iterative and collaborative process.

## 4 RESULTS

This section is divided into three parts. We start with the participants' daily work status and its impact on their well-being as reported in the daily surveys (RQ1). We then report the results of a multiple regression analysis, which examined the relationships between the participants' perception of social norms and their well-being (RQ2a and RQ2b). Finally, we present the findings from our semi-structured interviews, which helped us better understand how the participants navigated workplace norms (RQ3).

### 4.1 Relationship between daily affective well-being and work arrangements (RQ1)

First, we report quantitative measures about daily affective well-being on days with different work arrangements. Then, we draw from the participant interviews to identify common threats to well-being when working remotely and when working at the office. This provides necessary context for understanding how workers are affected by and navigate social norms for hybrid work.

**4.1.1 One-way ANOVA comparison of daily affective well-being subscales.** To address RQ1, we asked the participants to complete a daily survey about their affective well-being on office workdays, remote workdays, and days off. By averaging each daily affective well-being subscale, we found that certain subscales varied depending on the work arrangement. Figure 1 shows boxplots, with outliers (indicated by dots), of the five subscales of affective well-being for each type of day. In the figure, subscale scores that were significantly different among working arrangements according to

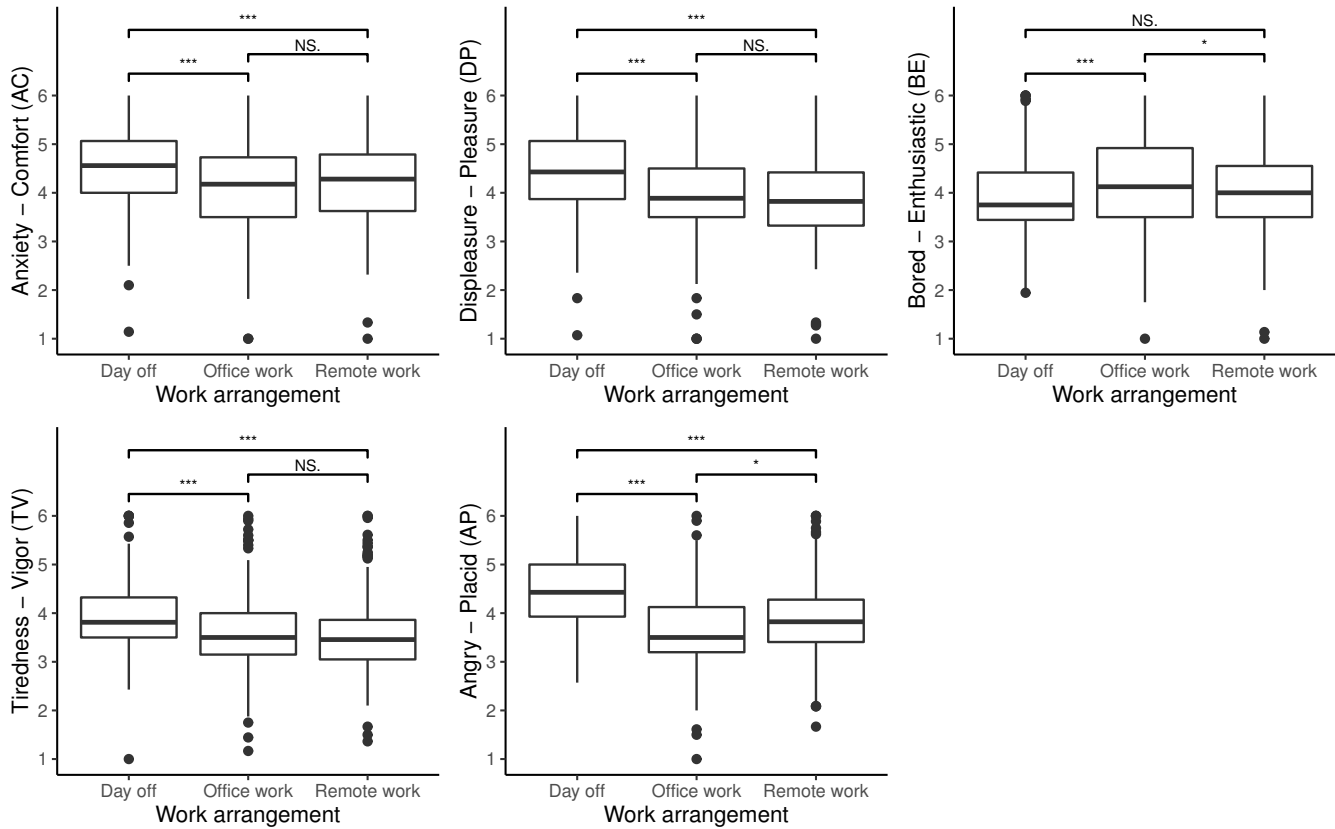
a post-hoc test (Tukey's HSD test) are denoted by \* ( $p < .05$ ), \*\* ( $p < .01$ ), and \*\*\* ( $p < .001$ ).

A one-way ANOVA was conducted to examine whether the scores on the affective well-being subscales differed across the three work arrangements. The results showed that the differences in the anxiety-comfort (AC), displeasure-pleasure (DP), bored-enthusiastic (BE), tiredness-vigor (TV), and angry-placid (AP) scores between groups were all significant at a 0.1% significance level (AC:  $F(2, 633) = 9.51, p < .001$ ; DP:  $F(2, 633) = 25.87, p < .001$ ; BE:  $F(2, 633) = 7.24, p < .001$ ; TV:  $F(2, 633) = 13.12, p < .001$ ; AP:  $F(2, 633) = 62.12, p < .001$ ). Multiple comparisons were conducted for the five scores by using Tukey's HSD test at a 5% significance level. The participants reported significantly higher levels of comfort, pleasure, vigor, and placidity on days off as compared to workdays. In general, well-being scores were not dramatically different between office workdays and remote workdays, but the participants reported significantly higher levels of enthusiasm on office workdays than on remote workdays; conversely, they reported significantly lower levels of placidity on office workdays than on remote workdays.

**4.1.2 Mixed effects on office-day well-being.** According to the follow-up interviews, some participants reported feeling tenser when they were in the office than when they worked remotely. For example, several participants noted that they were more concerned about the eyes of others and that their voices would be heard by others in the office.

*"When I come to work, I feel tense. I am tense when I come to work, or rather, I work hard. Also, I feel that I am being watched, so I am tense" (P05).*

*"I have a rather loud voice, so I usually annoy those around me when I talk. I guess that's why I feel more at*



**Figure 1: One-way ANOVA comparison for five daily affective well-being subscales across office workdays, remote workdays, and days off. Outliers are indicated by dots, and significant differences are denoted by asterisks (\*\*\*:  $p < .001$ ; \*\*:  $p < .01$ ; \* :  $p < .05$ ).**

*ease when I work remotely because I don't bother people around me. Even if I speak the same way in the office, my loud voice can be heard by others or bother them" (P16).*

Moreover, some participants noted different effects of the presence of other people's eyes. For example, several felt less relaxed by the presence of others' eyes, while others felt more focused.

*"The ease of relaxing is better at home. Since the space is private and closed off, I am free to do whatever I want, including dressing up. In an office, I am exposed to society, so I can't be as free as I would like" (P16).*

*"When I come to work, I am seen by others so that I may feel rather tense and more focused on my work" (P18).*

These explanations provide insight into the lower level of placidity and higher level of enthusiasm on office workdays, reported above. Although this was a small effect averaged across all participants in Figure 1, the interview quotations suggest that these differences are quite meaningful on an individual scale.

There were also a few comments regarding environmental factors affecting well-being on office workdays. In the team to which P15 belonged, team members followed a system whereby teams were divided into several groups and each group was assigned days

to come to the office, to limit the number of people coming to the office each day. In P15's team, these groups were randomly assigned so those who had come to the office together on previous days would be in different groups. P15 noted that a specified day makes office workdays valuable because of the ability to communicate with various coworkers.

*"I am pleased that our team has this system. I think it is very nice to be able to communicate with various people because it is a situation where it is not easy to have a chance to talk to each other. We also go out for lunch with everyone on the same team" (P15).*

This quote indicates that sharing the same space and communicating in person is one factor that positively affects office-day well-being.

## 4.2 Effect of social norms on well-being (RQ2a, RQ2b)

**4.2.1 Regression analysis.** To answer RQ2a and RQ2b, we conducted a hierarchical multiple regression analysis with overall well-being, office-day well-being, and remote-day well-being as dependent variables, age, gender, and role as control variables, and

five aspects of injunctive and descriptive norms as predictor variables. Table 3 lists the correlations of the independent and predictor variables, and Table 4 lists the regression analysis results. The possibility of multicollinearity was examined by calculating the variance inflation factor (VIF). The highest VIF was 2.01, indicating that multicollinearity was unlikely to influence the analysis.

The analysis shows that, in terms of the difference between the coefficients of determination for steps 1 and 2, model 1 with overall well-being as the dependent variable was significant at the 0.1% level, and model 2 with office-day well-being as the dependent variable was significant at the 1% level. For model 1, the F test for the coefficient of determination for the total equation was significant at the 0.1% level ( $F(10, 201) = 5.20, p < .001$ ). This model shows that overall well-being was positively associated with membership in the role groups *operator*, *executive* ( $\beta = 2.06, p < .01$ ) and *others* (consisting of public officials, faculty members, and non-profit organization staff) ( $\beta = 1.14, p < .05$ ). Further, overall well-being was negatively associated with strength of injunctive norms ( $\beta = -0.19, p < .05$ ) and positively associated with willingness to conform to injunctive norms ( $\beta = 0.32, p < .001$ ). For model 2, the F test for the coefficient of determination for the total equation was significant at the 0.1% level ( $F(10, 201) = 3.72, p < .001$ ). Two variables were positively associated with office-day well-being: the role group *operator*, *executive* ( $\beta = 0.87, p < .01$ ) and willingness to conform to descriptive norms ( $\beta = 0.11, p < .01$ ). Lastly, for model 3, the F test for the coefficient of determination for the total equation was significant at the 5% level ( $F(10, 201) = 2.24, p < .05$ ). Remote-day well-being was positively associated with age ( $\beta = 0.09, p < .05$ ) and the role group *operator*, *executive* ( $\beta = 0.59, p < .05$ ).

In summary, it appears that the perceived strength of injunctive norms regarding hybrid work was negatively associated with employee well-being, whereas a greater willingness to conform to injunctive norms was positively associated with employee well-being. Moreover, regarding office workdays, a greater willingness to conform to descriptive norms for hybrid work appears to associate with employee well-being positively.

**4.2.2 Preferences for flexibility and autonomy.** In the follow-up interviews, some participants expressed a preference for flexibility and autonomy with regard to hybrid work, which may help explain some of the negative association between strong injunctive norms on well-being:

*“I don’t like to be told to stay home, come to work, or take time off. I don’t like to be restricted in this way, and I think it is good that I can make my own choices” (P20).*

Specifically, some participants associated flexibility with having control over their work-life balance:

*“Rather than being tightly bound by rules, I can set my work schedule and easily maintain a good balance between work and private life, which I think is good for me” (P06).*

Although these comments were not limited to norms, but also expressed a desire for flexibility with regard to rules, they demonstrate a general desire to make one’s own decisions about when and

where to work. This provides insight into the finding that injunctive norm strength was negatively associated with overall well-being.

**4.2.3 Suspicion and fear surrounding remote work.** Several participants stated in the follow-up interview that they were concerned that their team members would question them about not doing their jobs while working remotely. For example, P08 felt frustrated that others could not tell he was busy working remotely:

*“For example, there are times when I receive an e-mail, and I am too busy to respond right away. If I am at work, I feel as if everyone understands that I am in a complicated situation, whether they know it or not, so I don’t feel too constrained by the fact that I can’t respond immediately. On the other hand, if I am working at home, no one knows about this difficult situation, and I wonder what they will think of me for not being able to respond” (P08).*

This demonstrates concern about being judged by one’s coworkers because many aspects of one’s work, particularly difficulties, are not visible when working remotely.

Indeed, this concern was not unfounded, as illustrated by comments from several participants who expressed precisely this type of suspicion toward other team members who work remotely:

*“There is a sort of progress chart, and since my workload is quite heavy, I probably won’t be suspected by team members of not doing my work. On the other hand, there are times when I suspect other team members, “You haven’t progressed at all, did you really do your work today?”” (P17).*

*“If I don’t hear from someone for 10 to 15 minutes, I don’t assume that he or she is not working. However, there are frequent cases when I don’t hear from someone for an hour or two. At this time, I wonder if this person is really working or sleeping” (P11).*

These quotes show that some employees were concerned and anxious about how others viewed them, even when working remotely. A common theme in these comments is the lack of visibility of one’s work when working remotely. Some participants were suspicious of colleagues because they could not view evidence of their progress, and conversely, P08 expressed concern that colleagues might erroneously think that a lack of visible progress indicated a lack of effort because they could not see how difficult some tasks are. This raises awareness of colleagues’ work activities as an important theme to which we will return in this paper’s Discussion.

In addition, being concerned about others’ evaluations can lead to behavior that matches that of others, i.e., being willing to follow a descriptive norm. Thus, people who are particularly concerned about how others view them are likely to have a high intention to follow descriptive norms in general, including norms about hybrid work patterns. In remarking on suspicions toward people working remotely, participants highlighted that it is difficult to see what remote colleagues are doing when not at the office. This offers a potential explanation for the association in Table 4 between willingness to conform to the descriptive norms and office-day well-being: People who want to conform to descriptive norms about hybrid work may have higher well-being on office-days because being



**Table 3: Mean (M), standard deviation (SD), range (R), and correlations for the independent and predictor variables.**

Variable	1	2	3	4	5	6	7	8
1 Overall well-being								
2 Office-day well-being	0.65 ***							
3 Remote-day well-being	0.61 ***	0.84 ***						
4 Expected frequency of remote work	0.09	0.03	0.00					
5 Strength of INs	-0.02	-0.03	-0.06	0.13				
6 Willingness to conform to INs	0.31 ***	0.19 **	0.17 *	0.07	0.30 ***			
7 Strength of DNs	0.07	0.04	0.02	0.04	0.28 ***	0.25 ***		
8 Willingness to conform to DNs	0.21 **	0.23 ***	0.16 *	0.07	0.29 ***	0.53 ***	0.58 ***	
M	5.85	3.91	3.90	3.42	4.57	4.57	4.67	4.17
SD	1.80	0.71	0.68	0.79	1.43	1.53	1.65	1.77
R	0-10	1-6	1-6	1-5	1-7	1-7	1-7	1-7

Note: \*\*\*:  $p < .001$ ; \*\*:  $p < .01$ ; \*:  $p < .05$ ; IN: injunctive norm; DN: descriptive norm.

**Table 4: Predictors of overall well-being (model 1), office-day well-being (model 2), and remote-day well-being (model 3).**

	Model 1			Model 2			Model 3		
	Overall well-being			Office-day well-being			Remote-day well-being		
	Coef.	SE	$\Delta R^2$	Coef.	SE	$\Delta R^2$	Coef.	SE	$\Delta R^2$
<b>Step1</b>									
(Intercept)	4.95 ***	0.41		3.58 ***	0.16		3.53 ***	0.16	
Age	0.23 *	0.12		0.09	0.05		0.10 *	0.04	
Gender									
Male (reference)									
Female	-0.18	0.25		-0.04	0.10		0.02	0.10	
Role									
General employee (reference)									
Managerial employee	0.41	0.34		0.11	0.13		0.02	0.13	
Operator, executive	2.24 **	0.72		0.90 **	0.29		0.63 *	0.28	
Others <sup>a</sup>	1.16 *	0.57		0.36	0.22		0.11	0.22	
Step2			0.10 ***			0.07 **			0.05
(Intercept)	3.65 ***	0.76		3.38 ***	0.31		3.47 ***	0.31	
Age	0.18	0.11		0.08	0.04		0.09 *	0.04	
Gender									
Male (reference)									
Female	-0.31	0.24		-0.06	0.10		-0.01	0.10	
Role									
General employee (reference)									
Managerial employee	0.24	0.33		0.06	0.13		-0.02	0.13	
Operator, executive	2.06 **	0.69		0.87 **	0.28		0.59 *	0.28	
Others <sup>a</sup>	1.14 *	0.54		0.37	0.22		0.12	0.22	
Expected frequency of remote work	0.18	0.15		0.02	0.06		0.00	0.06	
Strength of INs	-0.19 *	0.09		-0.05	0.04		-0.05	0.04	
Willingness to conform to INs	0.32 ***	0.09		0.04	0.04		0.05	0.04	
Strength of DNs	-0.02	0.09		-0.04	0.04		-0.03	0.04	
Willingness to conform to DNs	0.11	0.09		0.11 **	0.04		0.07	0.04	
$R^2$ for total equation			0.21			0.16			0.10

Note: \*\*\*:  $p < .001$ ; \*\*:  $p < .01$ ; \*:  $p < .05$ ; SE: standard error; IN: injunctive norm; DN: descriptive norm; a: public official, faculty member, non-profit organization staff.

around their colleagues in person allows them to demonstrate conformity to descriptive norms more generally.

### 4.3 Navigation of social norms (RQ3)

#### 4.3.1 Difficulties in making decisions about when and where to work.

When we asked whether there were any penalties for violating the injunctive norms, none of the interview participants were directly subject to penalties, such as a lower assessment or a pay cut. However, some participants were concerned about penalties that were not explicitly stated but existed implicitly as injunctive norms. For example, P06's workplace has a super flextime system that allows employees to work at least one hour between 6:00 a.m. and 10:00 p.m. as long as they meet the minimum working hours per month. P06 stated that according to this system, it should not be a problem to come to work and leave immediately, but that it was difficult because of the implicit injunctive norms:

*“There is a working system [for super flextime] that only some people use. Since only some people are using the system, there is a question as to whether it is appropriate to use that system. A few say that everyone should not use that system or that it is difficult to use. [...] There is a system in place, but there is an unspoken consensus that it should not be used very often. I have some doubts about this situation” (P06).*

As another example of being bound by injunctive norms and anxious to defy them, P15, a new hire, expressed some resistance to making her own decisions about working remotely:

*“Honestly, it depends on how long you've been with the company, and I still have a tough time telling my boss about my preference. I can't tell my boss because I'm still not used to the company, and I'm afraid that telling my boss that I want to be home on a day when I can come to work might turn him off” (P15).*

These quotes indicate that some participants had difficulties making decisions about when and where to work due to implicit injunctive norms formed in their workplace. Even though the companies did not impose penalties for violating the injunctive norms, participants seemed reluctant to defy those norms.

4.3.2 *Strategies for handling ambiguous and opaque aspects of hybrid work.* In some cases, participants expressed frustration that the shift to remote work had not been accompanied by corresponding shifts in policies:

*“For example, there is no such thing as a tightly organized evaluation system, a management system with tools, or a change in the evaluation system. Therefore, I have doubts about the opacity of such a company, and this faltering has occurred since the start of remote working” (P12).*

Similarly, P05 asserted that their company relied too much on vague “recommendations” which led to ambiguity:

*“Since I am only the leader of a team of 8 people, I think the company's upper management should set the rules more clearly. I don't think it is a good idea to use a vague term like “recommendation” in Japanese, as if it can be done in any way depending on the recipient” (P05).*

However, we also observed other participants taking advantage of flexible schedules in order to accommodate each other's needs. For example, P09 noted that she talks with her team members to coordinate their office workdays so that they do not have to come to work on days when they have personal commitments (e.g., their children's lessons). Other participants noted that their choice of office workdays was affected by their team members' schedules, for the sake of completing tasks involving collaboration:

*“For example, if I have to do a common task with a team member, I may be concerned about who is or is not going to the office. For example, if we have to carry things as a team, I may be concerned about who is or is not at the office, so in that sense, my team member's arrival at the office affects me” (P01).*

These examples demonstrate ad hoc cooperation in order to be considerate toward each other's personal lives and to coordinate work tasks. Thus, although ambiguity was a problem for some, there are occasions where it allowed worker-driven coordination.

Another area where ambiguity posed a challenge was in remote work activities being properly recognized among colleagues. Unlike the evaluation criteria when working in the office, some participants' evaluation criteria for remote work was based only on final deliverables. This led to a lack of clarity when it came to how coworkers understood each other's labor. As was identified in Section 4.2.3, this contributed to stress among some workers who worried that their colleagues might be skeptical that they were working hard.

Under such circumstances, these participants implemented strategies to gain recognition in ways other than work deliverables so they would not be perceived as slacking off while working remotely. For example, P11 assessed whether team members were doing their jobs by how quickly they replied, and in turn, he made sure to reply as quickly as possible to avoid the perception that he was not doing his job. Others talked about strategies to get higher ratings by writing detailed daily reports.

*“For remote workers, a daily report is submitted to the company, which includes a daily morning temperature measurement and a log of what time you worked and what you did today. This report is not necessary if I come to the office. I try to write down all the details in the daily log that says what I did today at home” (P13).*

These examples point to strategies used by some participants to improve the visibility of their work in order to gain proper recognition.

## 5 DISCUSSION

### 5.1 Daily affective well-being according to work arrangements

First, RQ1 examined the well-being of hybrid workers according to their work arrangements. Our results showed that daily affective well-being differed significantly depending on the working arrangement. First, hybrid workers were more comfortable, pleasant, vigorous, and placid on their days off than on workdays. Second, hybrid workers were more enthusiastic on office workdays than on

days off and remote workdays. Third, hybrid workers were more placid on remote workdays than on office workdays.

Whereas previous studies indicated that remote workdays are better than office workdays in terms of job satisfaction [99], work engagement [23] and stress [23], our results show mixed effects. Contrary to Delanoëje and Verbruggen's finding that work engagement was higher on remote workdays than on office workdays [23] and Wang et al.'s report that employees were attracted to working from home because of more time to focus [102], our results showed that employees were more enthusiastic about office workdays than remote workdays. However, our results also showed that they were more placid on remote workdays than office workdays. We speculate that this might be related to reduced stress on remote workdays, which corresponds to findings in prior work [23].

According to the interview results, the tendency to be both more enthusiastic and more irritable on office workdays as compared to remote workdays may be related to the presence of team members. When employees come to the office, they seem to feel more pressure to work hard than on remote workdays and to feel anxiety about being overheard by those around them. This corresponds to comments indicating that the presence of surrounding gazes in the office makes it difficult to relax but easier to get more motivated. On the other hand, the lack of others' gazes when working remotely seems to make it easier to relax. Thus, proximity or distance from team members seems to be one of the main influences on enthusiasm and placidity.

Another factor that may have led to different results from previous studies is the influence of culture. According to Markus and Kitayama, Asian cultures emphasize "attending to others, fitting in, and harmonious interdependence with them" and "American culture neither assumes nor values such an overt connectedness among individuals" [64, p. 224]. Thus, compared to Eastern people, Western people may be less affected by the presence of others and have different daily affective well-being according to work arrangements.

## 5.2 Relationship between social norms and employee well-being

RQ2a and RQ2b asked about the impact of social norms for hybrid work on employee well-being, focusing on the strength of norms and willingness to conform to norms. The results showed that norm strength and willingness to conform were associated with employee well-being as follows. First, the willingness to conform to injunctive norms was positively associated with overall well-being. Second, the strength of injunctive norms was negatively associated with overall well-being. Third, the willingness to conform to descriptive norms was positively associated with well-being during office workdays.

The result of a positive relationship between conformity to social norms and well-being agrees well with a previous finding that the person-culture fit amplifies well-being [31]. Furthermore, the negative relationship between the strength of injunctive norms and well-being was consistent with a previous study showing that monitoring undermines employee well-being [100].

According to the interview results, the negative relationship between the strength of injunctive norms and overall well-being may

be related to respondents' preferences for flexibility and autonomy. Past research has found that perceptions that one's workplace supports workers' autonomy are correlated with positive affect and job satisfaction [87] and better psychological health [36]. Flexibility and autonomy provide remote workers with the advantages of organizing work tasks according to their preferences and coordinating work and non-work activities, which is associated with better well-being, motivation, and performance [76, 96]. Multiple studies about post-COVID-19 hybrid work have found that workers increasingly want and benefit from autonomy, since the ability to control their work-life balance can improve well-being [89, 102]. For example, a recent study of hybrid and remote workers found that those who feel autonomy over their workspace and schedule are more likely to enjoy working from home [18]. However, increased autonomy is not a panacea for work satisfaction. The same study also found that workers with high autonomy can experience difficulty managing boundaries between work and home. We observed similar difficulties, particularly that ambiguity about what was expected from colleagues contributed to worker frustration and difficulty making decisions about when and how often to go to the office. For example, P15 stated that it was difficult for her to exercise flexibility because she was afraid of her supervisor's reaction. Also, P05 stated that he would like more precise rules instead of using the vague term "recommendation." Accordingly, rules and norms that are too strict may lower well-being by reducing employee flexibility and autonomy, however high autonomy may also contribute to stress by tasking workers with making decisions that were previously others' responsibility. We posit that the presence of strong injunctive norms, if not accompanied by clear rules or accompanying descriptive norms, can lead to the worst of both worlds, where workers feel pressure to conform to an expectation by their coworkers but lack guidance (through rules or other peoples' examples) about how to meet this expectation or navigate conflicting demands.

The positive relationship between conformity to descriptive norms and well-being on office workdays may be related to suspicion and fear surrounding remote work. The interview results suggested that people working remotely are more likely to be suspected of slacking off and to be concerned about this suspicion. Those with such anxiety may have higher well-being on office workdays because they are more willing to conform to descriptive norms and are more likely to conform to descriptive norms in the office. In other words, on office workdays, it is easier for people who want to do the same thing as their colleagues to observe other members' behavior and thus be reassured that their behavior matches. On the other hand, those who do not want to conform to descriptive norms may be more comfortable on remote workdays because they do not have to worry about what others think of them.

## 5.3 Implications for managing social norms at work

RQ3 investigated how hybrid workers perceive and navigate the relationship between social norms for hybrid work and their well-being. According to the interview results, participants navigated considerable ambiguity when it came to when and how often they should work at the office compared to working remotely. While some were frustrated by the lack of clarity, others took advantage

of the resulting flexibility to coordinate with their colleagues in ways that seem to contribute to their well-being. Furthermore, the interview results revealed strategies for increasing the visibility of remote work processes, to assure colleagues that one is working hard. Below, we offer implications about how to build upon these strategies to manage social norms positively impacting well-being.

**5.3.1 Design implications.** One important dimension of our findings was a lack of shared awareness among colleagues. A significant body of HCI research has focused on addressing exactly this challenge [e.g., 26, 27, 43, 57, 78]. Much of this work has focused on facilitating collaborative performance [56, 59, 62], rather than on how awareness among work colleagues could improve well-being. The results of the present study suggest that increasing mutual awareness among colleagues may address two types of threats to hybrid workers' well-being. First, participants' stress was exacerbated by colleagues' suspicions about their remote productivity, and these suspicions were rooted in the fact that work conducted outside the workplace is often lacking in visibility. Second, increasing awareness among colleagues may make it easier to support accurate descriptive norms, since participants could observe colleague's work practices first-hand. Leveraging descriptive norms may be valuable because, although strong injunctive norms about hybrid work were associated with poor well-being, *descriptive* norm strength had no such negative association.

Furthermore, office-day well-being was higher for those with high willingness to conform to descriptive norms, which may be because physical co-presence at the office makes it easier to demonstrate such conformity to one's peers. However, the corollary is also true, that people who lack willingness to follow descriptive norms had worse well-being when at the office. Indeed, many participants described feeling watched by others when at the office. For those people, bringing the gaze of others' eyes into their remote workplace (their home) is likely to increase stress. Therefore, organizations may seek to increase awareness among hybrid-working colleagues, but should avoid approaches that may negatively impact employee well-being. Many organizations have turned to digital monitoring [55], which does not require active effort from workers, but which has negative effects on job attitudes and anxiety [46, 75]. By contrast, workplace messaging apps like Slack afford workers control about what to share and with whom, but burden users with expectations for frequent messaging and immediate replies [108].

This leads to a challenge: How can organizations increase shared awareness among employees in different locations, without undue burden and without invasive monitoring that can increase stress? Further, given that attitudes about monitoring and sharing information varied among our study participants, a one-size-fits-all solution is less appropriate than tools that can be tailored to workers' needs. To address this challenge, we present two illustrative proposals. The first describes an approach for manual, deliberate information sharing without imposing a high burden. The second explores possibilities for increasing awareness passively, while giving workers the ability to control the scope of automated disclosures. In both proposals, we speculate about ways to extend existing HCI research to support awareness among colleagues and cultivate descriptive norms, in order to address threats to well-being identified during this study.

### Ritualization of information sharing among colleagues.

Our first proposal is to ritualize a simple form of information sharing among workers. Rituals are routines that are imbued with meaning-making, and which often contribute to the construction of shared identities [30]. Participating in shared rituals has been found to positively associate with well-being in family [22, 29], community [88], and workplace [68] contexts. Further, rituals and routines have been identified as important tools for managing work-life boundaries during remote work, and for establishing a sense of place during the disruptive transition to remote work amid the COVID-19 pandemic [18]. Our results suggest that hybrid workers can experience an even more disruptive transition, since the boundaries between work and home are not consistent day-to-day.

Like Cho et al., [18], we see *Highlight Matome* [7] as a productive example of using simple rituals to support worker well-being. Avrahami et al. [7] found that workers who spent about 30 seconds each day using *Highlight Matome* to write down a daily highlight experienced increased engagement, dedication, and positivity toward their jobs. We observed some participants in our study (e.g., P13) recording daily work logs to increase the visibility of their work, however these logs were a mandated form of work tracking rather than a tool for reflection, like *Highlight Matome*. We posit that extending a highlight-focused logging tool with sharing features could contribute to a shared ritual through which descriptive norms could be communicated among colleagues. Crucially, the design should be carefully engineered to avoid devolving into an accountability or productivity tracking tool. This could be accomplished by prompting users with examples that emphasize work-life balance (e.g., highlights about completing a work task should co-exist with highlights about exercising, socializing, or achieving personal goals), limiting the frequency of sharing (e.g., record private highlights every day, and share a single highlight once a week), and considering making sharing anonymous (to reduce self-presentation pressure).

### Automatic information sharing during collaborative work.

Our second proposal builds on prior HCI research about automated information sharing during collaborative work. One of the most successful areas in collaborative computing is collaborative document editing, where users' edits and activities are passively shared with one another through revision logs [e.g., 56, 101]. However, in contemporary work, a single task could involve many different applications [73], suggesting a need to share information extending across multiple applications simultaneously. Researchers have explored screen-sharing during collaborations [e.g., 94], which is a promising approach for some types of collaboration, although potentially invasive in others. A less invasive model could be to share logs, such as excerpts of Web browser histories, histories of revisions to selected documents, and meeting schedules. For this proposal to serve workers' well-being, it is important that they feel in control of what they share and with whom. To facilitate control without demanding laborious filtering of information streams, Mozilla's *Multi-Account Containers* tool<sup>1</sup> is a useful design influence. It prevents platforms from tracking one's activity across the web by containing specific online accounts to color-coded Browser tabs. In the present-case, workers could open applications they want to share within color-coded virtual workspaces with customizable

<sup>1</sup><https://addons.mozilla.org/en-US/firefox/addon/multi-account-containers/>

sharing settings. If workers were given sufficient control over what they share and with whom, this is a potential direction for passively increasing awareness without subjecting workers to surveillance.

**Proposed benefits.** These proposals aim to serve participants' preferences for flexibility and autonomy, while cultivating routine information sharing. Workers who use such systems could engender reciprocal trust with their colleagues, which is promising because trust is a predictor of health [8]. Ultimately, making colleagues' practices more visible to one another could facilitate the formation of more accurate descriptive norms, which could lead to flexibility and transparency about the appropriateness of various work styles. Particularly, in workplaces where diverse work styles are equally viable paths to success, observing others' varied practices could contribute to looser injunctive norms, since there would be less reason to believe that any one approach *should* be followed by anyone. While there is a need for further research about supporting well-being in hybrid work, we offer these proposals as potential paths to well-being, by increasing clarity about how to navigate new and changing work structures.

**5.3.2 Management implications.** The results of this study showed that the strength of injunctive norms is associated with lower overall well-being, while willingness to conform to injunctive norms is associated with higher overall well-being. This suggests that it is important to carefully adjust the strength and quality of injunctive norms to facilitate willingness to conform. For example, it may be helpful to set specific behavioral expectations to facilitate conformity without relying on harsh penalties or punitive rules. Prior research has suggested that in online communities where it is difficult to impose sanctions on rule-breakers, the provision of clear, detailed behavioral expectations makes it easier for newcomers to conform to a community's injunctive norms [70]. In this study, a few interview participants reported that they would like clearer policies regarding hybrid work. One reason for this seems to be that, even though participants did not identify formal penalties for violating implicit norms, they frequently faced negative judgments from coworkers. Thus, clearer rules and evaluation mechanisms could make it easier for workers with different work styles to demonstrate productivity to their colleagues. In this case, more clarity in formal organizational structures could facilitate looser injunctive norms among coworkers because colleagues' informal judgments would play a smaller role.

In addition, employers should consider why some employees do not want to conform to injunctive norms. Subjective norms are less likely to lead to their prescribed behavior if the perceived costs of that behavior are high [24]. Thus, organizations should seek to identify and remove barriers in order to make it easier for workers to engage in the desired behavior. In some cases, the costs of removing barriers may be high, or there may be benefits to tolerating non-conformity. In such instances, organizations should consider loosening injunctive norms rather than focusing on compliance. For example, prior work has found gender differences in preferences and experiences related to working at home versus working in-person [28] and argued that flexible remote-work options could help balance gender gaps in hours worked and wages [6]. In such cases, mandating conformity to a one-size-fits-all system could harm well-being.

Similarly, we observed cases where, in the absence of firm rules, workers coordinated their schedules together to accommodate each other's personal needs and to facilitate cooperative work. These represent opportunities where workers may be capable of coordinating parts of their own work without top-down rules or pressure invoked through strong injunctive norms. We posit that this sort of flexibility could improve well-being if it allows workers to develop patterns that fit their individual needs, as well as the needs of their teammates. Furthermore, if properly nurtured by organizations, it could be possible for this sort of worker-driven coordination to coalesce into descriptive norms that encourage consideration among colleagues as well as efficient scheduling of in-person collaboration.

## 5.4 Limitations

Because our data were collected only in Japan, there are some constraints on the generalizability to different countries and cultures. For example, national differences in cultural tightness may affect social norms for hybrid work. Moreover, while the percentage of full-time employees in Japan who have a second job is low at 5.9% [69], in countries with many employees who work second jobs, membership in multiple organizations may impact social norms. In the future, the impact of such cultural tightness and multiple organizational affiliations on the relationship between social norms for hybrid work and employee well-being should be carefully explored.

Additionally, because our data relate to the ongoing COVID-19 pandemic, our results may be biased by the impact of COVID-19 infections and social distancing policies. Specifically, we collected our data during February and March 2022, when pre-emergency measures to address the sixth wave of COVID-19 were announced at various locations in Japan. It is possible that the Japanese public was relatively nervous about COVID-19 during this period and that social norms for hybrid work subsequently changed as the number of COVID-19 cases declined. Further follow-up and longitudinal studies will be needed to address this issue.

Third, this study relies on self-report measures, which can cause common method biases [77]. Although we adopted subjective measures in our study because people's perception has a major impact on their well-being, objective measures are also important. In the future, for example, objective measures of well-being (e.g., health status) could be collected in addition to subjective measures. Further, an ethnographic approach would help us gain a more comprehensive understanding of how social norms affect employee well-being.

## 6 CONCLUSION

Although previous research suggests that organizational social norms play an important role in employee well-being, we still know little about their effect on well-being during the transition to hybrid work, when social norms are not yet fully formed. In this paper, we examined relationships between hybrid-workers' well-being and social norms about how often and when they should work remotely compared to at the workplace. In general, hybrid workers' well-being was negatively impacted by strong social norms, but many also described feeling anxious about how others see them when the norms were loose. Additionally, those who were more willing to conform to social norms about their hybrid work schedule generally had higher well-being. To accommodate this situation,

some tried to coordinate and generate new norms that aligned with their values and needs. Based on these results, we made recommendations for managing the strength of workplace norms and for increasing collaborative awareness in ways that could lead to more accurate descriptive norms, without subjecting workers to constant monitoring or burden. This research contributes knowledge toward the development of technologies and management approaches that can help in forming new norms to reduce negative impacts of hybrid work arrangements on employee well-being while maintaining benefits such as flexibility and autonomy.

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