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# EMPLOYEES' RITUAL SENSE IN ORGANIZATION: A SCALE DEVELOPMENT STUDY AND EFFECTS OF RITUAL SENSE ON EMPLOYEE OUTCOMES

#### **LIANG JUN**

SINGAPORE MANAGEMENT UNIVERSITY

# EMPLOYEES' RITUAL SENSE IN ORGANIZATION: A SCALE DEVELOPMENT STUDY AND EFFECTS OF RITUAL SENSE ON EMPLOYEE OUTCOMES LIANG.JUN

Submitted to Lee Kong Chian School of Business in partial fulfilment of the requirements for the Degree of Doctor of Business Administration

#### **Dissertation Committee:**

WANG Heli (Chair)

Janice Bellace Professor of Strategic Management
Lee Kong Chian School of Business, Singapore Management University

WANG Yijiang (Co-Supervisor)

Professor of Human Resources Management and Economics
Cheung Kong Graduate School of Business

GENG Xuesong (Committee member)

Associate Professor of Strategic Management
Lee Kong Chian School of Business, Singapore Management University

Cheng Chi-Ying (Committee member)

Associate Professor of Psychology
School of Social Sciences, Singapore Management University

SINGAPORE MANAGEMENT UNIVERSITY 2020 Copyright (2020) LIANG Jun I hereby declare that this PhD dissertation is my original work and it has been written by me in its entirety.

I have duly acknowledged all the sources of information which have been used in this dissertation.

This PhD dissertation has also not been submitted for any degree in any university previously.

Lingjur

LIANG Jun 3 March 2021

#### **ABSTRACT**

# EMPLOYEES' RITUAL SENSE IN ORGANIZATION: A SCALE DEVELOPMENT STUDY AND EFFECTS OF RITUAL SENSE ON EMPLOYEE OUTCOMES

#### LIANG Jun

The present research is focused on the topic of organizational rituals. On the basis of reviewing existing studies of organizational rituals, the present investigation (1) developed the scale of employees' ritual sense and (2) empirically tested the effects of ritual sense in impacting employees' workplace consequences. Two independent studies were conducted to develop the scale of employees' ritual sense and to investigate how and when ritual sense is associated with employees' workplace outcomes. Specifically, using data collected from 418 employees in China, Study 1 develops and validates an individual level measure of employee's ritual sense. Collecting another sample of 453 employees, Study 2 examines the role of ritual sense in impacting employees' workplace consequences (i.e., affective commitment, role overload, and turnover intention). Study 2 also reveals how the effects of employee's ritual sense on employee outcomes were transmitted by the increase of psychological resources (i.e., reduced negative mood, increased competence need satisfaction, and increased dedication at work), and how such effects are bounded by the characteristics of the focal ritual (i.e. frequency of the ritual, the priming process or the ritual, and the extent to which the ritual is workrelated). Our findings suggest that ritual sense can serve as an effective intervention that facilitates favorable employee outcomes including increasing affective commitment to the organization, decreasing role overload and turnover intention. Based on our research findings, the present thesis also discusses theoretical and practical implications accordingly.

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#### **CHAPTER 1.INTRODUCTION**

Organizational ritual has long been shown to play irreplaceable roles in organizations at different levels, and rituals in various forms were shown to profoundly shape the development and emergence of organizational culture and impacting employees' attitudinal and behavioral outcomes (Islam, 2015; Samier, 1997; Smith & Stewart, 2011; Ulrich, 1984). However, various rituals themselves may not directedly and necessarily lead to favorable employees' outcomes in the workplace, as rituals are inherently exogenous to employees' own perceptions and reactions. Therefore, there must be some underlying psychological mechanism or processes that were triggered by the various organizational rituals. In other words, the direct psychological sense or meaning making processes derive from the ritual, no matter it is a private ritual or collective ritual that shared with other group members, should play an important role in impacting employees' subsequently attitudinal and behavioral orientation. However, despite calls for researchers and practitioners to recognize and even take advantages of ritual sense in the workplace, there are large gaps in our understanding of what "ritual sense" means, how it could be measured, and when and how it leads to favorable employee results. Indeed, no empirical research that we are aware of has measured the impact of ritual sense on important employee work outcomes. As such, there are many propositions suggesting the importance of ritual sense in employees' daily work and even their life among both researchers and practitioners, but almost nothing has been confirmed in relatively rigorous empirical research due to the lack of measuring scale and systematic design.

The primary goal of the present thesis is to investigate the ritual sense that initiated by various rituals. Specifically, we conceptualized ritual as a form of organizational intervention, and further theorizing how the intervention what kinds of psychological perceptions and reactions would be triggered by performing certain rituals, which would subsequently associate with employees' state-like psychological resources and ultimately their attitudinal outcomes in the workplace. Therefore, in revealing the sub-dimensions of employees' experience of ritual sense by developing a psychometrically robust ritual sense, as well as examining how and why ritual sense initiate favorable employee outcomes in the workplace, the present thesis is promising in integrating rituals literature and psychological resources literature, and thereby generate meaningful theoretical and practical implications. The present thesis reports two studies regarding employees' experience of ritual sense in the workplace. Specifically, Study 1 was aimed to develop and validate the scale to measure employees' ritual sense, in the hope of offering a research tool to examine and reveal the real impact of ritual sense in impacting organizational process and outcomes at different levels.

Based on the scale developed in Study 1, Study 2 was aimed to empirically examine the role of ritual sense in impacting employee outcomes in the organizational context. In particular, drawing on the psychological resources framework (Gilbert, Foulk, & Bono, 2017), Study 2 investigated employees' negative mood, competence need satisfaction, and dedication at work as underlying mechanisms that transmitting the effects of ritual sense in impacting affective commitment, role overload, and turnover intention. Further, taking different characteristics of the

focal ritual into consideration (i.e., frequency of the ritual, pre-performed strategy associated with the ritual, and the extent to which the ritual is work-related), Study 2 also aimed to explore boundary conditions of the effectiveness of ritual sense.

#### **CHAPTER 2.RESEARCH QUESTIONS**

Considering conducting research on employees' sense of ritual derives from the observation towards managerial practice. Given that organizational ritual plays irreplaceable roles in shaping organizational culture and impacting employees' attitudinal and behavioral outcomes, we realized that there must be some underlying psychological mechanism or processes that were triggered by the various organizational rituals. In other words, we theorize in the present thesis that the direct psychological sense or meaning making processes derive from the ritual, no matter it is a private ritual or collective ritual that shared with other group members, should play an important role in impacting employees' subsequently attitudinal and behavioral orientation. Nevertheless, to our surprise, although the role of ritual in organizations has attracted numerous scholarly attentions in the field of human resource management and organizational behavior, this field of research has been stymied and limited because of the inconsistency in the definition of ritual sense and the difficulty of measurement in empirical studies.

The present research is aimed to extend the study of organizational ritual in four ways. First, on the basis of reviewing existing literature, the present research will propose the definition and key dimensions of employees' ritual sense. Second, based on the definition and key dimensions of ritual sense, the present study will continue with developing and validating the scale to measure employees' sense of ritual. Third, using the scale developed in the present study, we intend to demonstrate the role of ritual sense in impacting employees' workplace consequences. Fourth, the present study will also try to investigate the underlying

mechanisms as well as the boundary conditions of the effects of ritual sense on employee outcomes. Taken together, the research questions can be summarized as:

- (1) What is employees' ritual sense? (2) How to measure employees' ritual sense?
- (3) How employees' ritual sense will impact their workplace outcomes? (4) What are the boundary conditions of the effects of ritual sense?

Toward this end, the present research reported two studies to answer the above-mentioned research questions on the basis of reviewing exiting literature on organizational ritual. Specifically, Study 1 was aimed to develop and validate the scale to measure employees' ritual sense, in the hope of offering a research tool to examine and reveal the real impact of ritual sense in impacting organizational process and outcomes at different levels. Based on the scale developed in Study 1, Study 2 was aimed to empirically examine the role of ritual sense in impacting employee outcomes in the organizational context.

#### CHAPTER 3. LITERATURE REVIEW

#### 1.Core Features of Organizational Rituals

Organizational rituals are defined as the mandatory, repetitive and formal activities which confer symbolic meaning and performed in organizational context (Smith & Stewart, 2011). Rituals possess several essential features of invariability, formality and symbology.

First, organizations process rituals in accordance with invariable, inflexible and standard pattern of performance. Rituals and ritual-like organizational activities must follow the established and strict rules of the organization to perform standardized operations step by step (Smith & Stewart, 2011). Even though the content of rituals may be distinct and novel, the macro structure of each ritual must be unchanged over time (Smith & Stewart, 2011).

Second, rituals emphasize formal actions authorized by the organization, which means ritual participants have to act in accordance with prescribed expectation of organization (Rappaport & Rappaport, 1999). In the process, participants are expected to enact their roles with greater fidelity to the specified form (Smith & Stewart, 2011). For example, when researching the company annual general meetings as rituals displaying idealized speeches, Catasús and Johed (2007) found that wearing formal business suit may been seen as formality when it is linked to a ritualized activity.

Third, ritual conveys symbolism which distinguishes it from other organizational routines (Sosis & Ruffle, 2004). Symbols are based on a common ideology of organization and reinforced by repeating ritual activities. For instance, the

organization marks the characteristics that members hold or share with various sambols, such as labels, nameplates, pictures, and desk-designs (Brown, Lawrence, & Robinson, 2005). Turner viewed symbols as the storage units of rituals which packed with meaning. Ritual and symbol influence each other. The execution of ritual strengthens the influence of symbols, and symbols are endowed with more important meanings due to the performance of ritual (BliegeBird et al., 2005; Geertz, 2000).

#### 2.Ritual as An Organizational Intervention

In organizations, interventions are adopted to increase effectiveness and achieve positive outcomes. Organizational intervention is defined as planned, behavioral actions that aim to stable employee's psychological status, improve organizational mechanisms and facilitate desired intervention outcomes (Nielsen & Abildgaard, 2013).

Previous organizational intervention researches are mainly focus on the stress control field which is considered to have positive influence on working conditions and employee health and well-being, e.g., (Briner & Reynolds, 1999; Richardson & Rothstein, 2008). Organizational level occupational health interventions are demonstrated to be efficient to reduce job stress (Hurrell Jr & Murphy, 1996; LaMontagne, Keegel, Louie, Ostry, & Landsbergis, 2007). These interventions, which require changes to complex social system, are associated with the improvement in employee' well-being (Semmer, 2003). Although organizational

interventions may be likely to meet the resistance and have unintended side-effects, they are efficient to yield strong power (Nielsen & Abildgaard, 2013).

These interventions often operate through a participatory and dynamic approach (Nielsen, Taris, & Cox, 2010). Meanwhile, the participatory process, that is the extent of employee involved, is essential to the outcomes of the intervention (Nielsen & Randall, 2012). In the process, the perceptions of the intervention by the participants strongly influence the outcomes of the intervention (Nielsen & Miraglia, 2017). According to Glisson, Duke, and Green (2006), Availability, Responsiveness, and Continuity (ARC) organizational intervention strategy contains three stages to conduct the intervention process and enhance effectiveness. First, collaboration stage aims to support the organizational leadership, cultivate personal relationship and access or develop networks. This stage emphases organizational leadership to shape the organizational structure and establish rewards and incentives for meeting performance standards (Gustafson et al., 2003; Meyers, Sivakumar, & Nakata, 1999). Meanwhile, personal relationship and social network are developed in the process of intervention through personal communications (Ferlie, Gabbay, Fitzgerald, Locock, & Dopson, 2001; Thomas & Rogers, 1998). Similarly, intervention also provide opportunities for new ideas exchange and information sharing and accessing to experts and collaboration (Goes & Park, 1997; Rogers, 2010). Second stage is emphasizing participating which aims to build up teamwork, provide information and meaning, establish feedback system, resolve conflict and implement participatory decision-making. Through participating and experiencing organizational interventional activities, information

sharing and experience collecting are engendered to improve the social support and decrease the risks associated with changes and uncertainty (Baer & Frese, 2003; Dyer, 1987; Edmondson, Bohmer, & Pisano, 2001; Ensley & Pearce, 2001; Higgins & Routhieaux, 1999). Moreover, feedback system is provided to share information and involve employees in the decision-making process (Bennis, 1966; McGregor & Cutcher-Gershenfeld, 1960; Meyers et al., 1999), which is benefit for conflict solving (Alper, Tjosvold, & Law, 2000). Third stage is valuing innovation which refers to the development goal, continuous improvement, job characteristics redesign and self-regulation and stabilization. Long-term and short-term performance goal are built up to encourage employees to improve and innovate (Durham, Knight, & Locke, 1997). Meanwhile, clear job responsibility and broadening skills are developed in the process. As information sharing and experience collecting are happened to the participants, it is helpful for employees to ensure self-regulation and stabilization of change effort (Porras & Robertson, 1992; Rogers, 2010).

In terms of rituals, it is considered to be an efficient intervention approach in some areas (Schwartzman, 1986). Taken into consideration about the features, it is not surprising that rituals are found to be qualified as an intervention. First intervention stage claims collaboration, which is the primary purpose of organizational rituals. Specifically, rituals enhance group solidarity through stimulate the feelings of belongings of the participants (Smith & Stewart, 2011). Through participating in ritual activities, employees achieve more opportunities to communicate with expert and develop relationship with others in context. Ritual is also useful to signal

commitment and manage work structure (Smith & Stewart, 2011). For example, a uniform is typically form to clear hierarchy and emphasis leadership in organizations. Similarly, as more communicating opportunities are provided and information are shared in rituals, employees gain experience and information from others which is benefit for their future work and enhance solidarity and teamwork of the groups, which is the second stage of the intervention. Third, although ritual is not associated with typical goals, it involves the enactment of specified behaviors which are standardized, rule-bound, predictable, repetitive and directed towards (Smith & Stewart, 2011). Thus, it is efficient to be adopted as a tool to facilitate continuous improvement, job characteristics redesign and self-regulation and stabilization. Accordingly, ritual in organizational context is a common intervention approach which is usually adopted to influence employees' psychological process, group improvement and organizational development. In sum, in the current research, we adopt the view of organizational intervention and explore the role of organizational rituals as an effective intervention on employee's psychological status and work outcomes.

#### 3. Underlying Mechanisms of the Impacts of Organizational Rituals

Organizational rituals and ritual-like activities are important and provide valuable functions and impacts on organizations (Smith & Stewart, 2011). Before exploring the functions, we aim to reveal the mechanisms of how organizational rituals work. Organizational rituals affect participants through following three mechanisms. Cognitive capture mechanism reveals the relationship between ritual performance

and the cognitive content transmission; affective anchoring and conditioning mechanism explains the emotional impact of rituals and behavioral prescription mechanism proposes a connection between rituals and other subsequent organizational activities (Smith & Stewart, 2011).

Although the efficiency of ritual performances is still on debate, rituals reinforce the meaning of organizational culture and activate cognitive systems associated with information-processing (Boyer & Liénard, 2006). Researches have demonstrated that ideas and beliefs will be influenced by context and environment which contributes to the catchiness of ideas and information matching (Smith & Stewart, 2011). Through performing rituals and ritual-like activities, organizational culture, ideas and beliefs are transmitted efficiently. Rituals are instruments with functions of both cultural exposure and cognitive receptivity, which refers to information process such as attention, perception, learning, memory and decision-making (Eysenck & Keane, 2005; Smith & Stewart, 2011). Successful rituals are easy to recall and avail subsequent transmission. Meanwhile, when the cultural information conveyed by rituals is matched with the cognitive acceptability of the participants, the ritual is more likely to prompt the employees to cognitive capture the corresponding information (Smith & Stewart, 2011).

Rituals evoke substantive emotional responses. The repetition of rituals strengthens associated feelings. Damasio's (1999) somatic marker hypothesis suggests that emotions are inherent in decision cognitive processes. There is a correlation between ritual behavior and physiological responses, such as anxiety, fear, sadness, happiness, satisfaction, anger or disgust, which can be triggered by the association

of a ritual with the underlying meaning. Individuals are somatic marked through ritual performances and the connection arouses the memory of the sense of associated emotions by repeating rituals unconsciously. Besides, the more individuals participating ritualized activities, the more likely they will feel connection, energy and focus in activities (Csikszentmihalyi & Csikzentmihaly, 1990). Thus, rituals enhance the feelings of connectivity, timelessness and meaning (Newberg & d'Aquili, 2000). Affective experiences occur in the process and will be strengthened by performing rituals.

The performance of rituals depends on the social environment such as values and beliefs shared by individuals. Meanwhile, rituals also affect the personal belief and behavior orientation of participants. The repeated and fixed ritual conveys information such as organizational information, cultural beliefs and common beliefs to the participants, which makes the organization and social environment constantly strengthened and consolidated, so the participants of the ritual must hold the same beliefs and ideas to integrate into the organization. On the contrary, in order to avoid cognitive dissonance, people with different values and beliefs can only change their own views, accept the information and values conveyed by the ritual, and conduct the following behavior according to the requirements of the organization, otherwise they can only stop attending the ceremony (Smith & Stewart, 2011). Therefore, rituals play an important role in regulating the beliefs of participants, stabilizing the environment, and regulating the behavior of employees.

#### 4. Theoretical Basis of Organizational Ritual

The "solidarity" thesis. Scholars insisting the "solidarity" view suggest that organizational rituals indispensable role in the construction and maintenance of specific organizational unity and organizational order (Roth, 1995). First of all, as rituals possess features of invariable and formality (Smith & Stewart, 2011), organizational members have opportunities to gathering on formal occasions owing to performing organizational rituals. Next, inflexible, standard and symbolic processes are always repeated in organizational rituals which is helpful for organizations to constantly reaffirm and consolidate the beliefs that should be shared by all members in the organization. Meanwhile, in the process, rituals participants experience pleasure and happy emotions and this kind of positive emotions are beneficial in enhancing cohesion and solidarity as the consequence. Deal and Kennedy (1983) researched enterprises with strong culture, such as IBM, and found that employees shared value in a high level. This type of organizations establishes a specific symbolic understanding and control system, which generated from employee's daily communication. These not only improve goal coordination between the organization and the employees, but also reinforce employees' organizational community.

The "sensemaking" thesis. The "sensemaking" thesis emphasizes the ritualization process in organizations. Which means, scholars holding "sensemaking" thesis not only focus on the ritual itself, but also explore the whole process from the beginning of constructing a ritual to a formal, stable, well-established structure as well as the impact of the whole process. As rituals are invariable, formal and symbolic (Smith

& Stewart, 2011), the institution and maintenance of rituals are purposeful, which express the expectation and belief of the organizations.

Sensemaking is also seen as a basic function of organizational rituals (Geertz, 2000; Turner, Abrahams, & Harris, 2017). When holding and participating ritual activities, organizational members percept the organizational belief of which actions are solemn and acceptable by the organizations. It helps to construct the social identity to distinguish the insiders and outsiders. Thus, organizational members are able to observe and participate in the formation process of social system through getting involved in important rituals.

Rituals in organizations provide the members a series of shared rules and standard framework which should be complied by all employees. In the meantime, employees' repetitive participating in rituals reinforce the orders and rules. Thus, it can be seen that the process of ritual or ritualization is also a vital instrument for people to construct and influence the social environment.

#### **5.Functions of Organizational Ritual**

Impact on information transmission. Rituals transmit organizational values and beliefs among employees. It is not just the inflexible rules and process which matters, but the meaning and information hidden behind the performances are essential for the whole organization (Sosis & Ruffle, 2004). For example, behind the complex religious rituals, the tenet, belief and connotations are implied and transmitted. By repeating standard religious rituals, collective beliefs and values are consolidated (Smith & Stewart, 2011).

Impact on organizational operation. On one hand, rituals manage employees' daily work time and arrange work structures through its solidified and repetitive sequence and process. For example, employees check emails and text on time, drink afternoon tea at fix time on working days. All these ritualized organizational activities arrange employees' work into different time structures. On the other hand, rituals are also helpful to exemplify and reinforce the social order (Smith & Stewart, 2011). Researches indicate that organizational rituals and ritual-like activities play an important role in managing, controlling and strengthening the hierarchy and maintaining stability. In the process, rituals help to relieve employees' negative emotions, such as anxiety, caused by facing with uncertainty environment (Fiese et al., 2002). Specifically, when the organization is in a period of changing and transforming, rituals with constant processes bring stability and soothe employees. Simultaneously, Repetitive rituals help to form shared beliefs in the organization and reinforce the organizational cohesion. Thus, rituals are essential and helpful to enhance employees' organizational commitment.

Impact on psychological experience. Rituals work by influencing employees' psychological feelings. Firstly, rituals arrange individuals to different social categories, for example, who is an "insider" and who is an "outsider" (Anand & Watson, 2004). People regularly participating in rituals are easier to bind together and become "insider" group members, while others will be seen as outsiders. Secondly, rituals help organizational members to establish the common norm and shared belief in the society. For instance, athletes are often required to sing national anthem together which contributes to strengthen solidarity (Sosis & Ruffle, 2004).

Thirdly, rituals also signal commitment. When researching cooperation behavior, social communication and interpersonal trust, sociologists claim that costly signaling diminishes deception and enhances social cohesion as well as collective cooperation (Sosis, 2003). This theory is also work on the ritual performance. The higher the cost of activities or commitment required by a ritual, the more the social cohesion will be enhanced. Finally, integrative ritual performances enhance cohesion, manage anxiety and provide psychological safety for employees to facing with uncertaintie (Fiese et al., 2002; Smith & Stewart, 2011). For example, colleagues hold farewell parties for retirees which bring psychological safety and organizational care to them and enhance their confidence to facing with the unsure retired life (Smith & Stewart, 2011).

#### 6. Role of Ritual in Building Positive Psychological Resources

In the past decades, work stress faced by employees increased dramatically, and the employee's psychological state and well-being have attracted wide concern. Following the perspective of conservation of resource theory Why aren't we all Hutterites? Costly signaling theory and religious behavior (Hobfoll, 1989; Hobfoll, Halbesleben, Neveu, & Westman, 2018), employees possess variable amounts of resources, that these resources can be depleted and restored (Gilbert et al., 2017). As resource is defined as "those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies" (Hobfoll, 1989, p.516), it is critical to employee well-being and performance (Gilbert et al., 2017).

According to the resource perspective, positive psychological and emotional resource is one of the key elements which promote flourishing and performance in working setting Why aren't we all Hutterites? Costly signaling theory and religious behavior (Gilbert et al., 2017). It is widely believed that the emotion and behavior will be predicted by the level of resource possessed by employees (Gilbert et al., 2017). For example, employees' job performance, organizational commitment and organizational citizenship behaviors are positively related to their emotional resources (Cropanzano, Rupp, & Byrne, 2003). Gilbert et al. (2017) claimed that there are three broad categories of positive psychological resources: mood (including positive affect and emotions), energy (including vigor and vitality) and efficacy (including mastery, resiliency, optimism, purpose and meaningfulness). All of the three psychological resources have been demonstrated significantly influence on employee job performance and behaviors. They are efficient to reduced negative mood, increased competence need satisfaction, and increased dedication at work (Avey, Reichard, Luthans, & Mhatre, 2011; Fritz, Ellis, Demsky, Lin, & Guros, 2013; Gilbert et al., 2017). Sufficient studies have already explored each of the three psychological resources' influence on work outcomes. For example, positive moods and emotions are illustrated to be benefit for employee's task performance (Miner & Glomb, 2010); creativity (Davis, 2009) and prosocial behavior (George, 1991). Energy is another sort of crucial employee psychological resource which brings vitality and vigor to daily working. It is also efficient to decrease deviance and increase employee's work engagement, performance and facilitating organizational citizenship behaviors (Little, Nelson, Wallace, &

Johnson, 2011). Moreover, Efficacy is closely related to employee's job performance, organizational commitment, and job satisfaction (Avey et al., 2011). Thus, it is not surprising that promoting positive resources and maintaining employees are the crucial managerial problem in organizational context.

It is believed that organizational interventions are useful to promote organizational effectiveness and to restore employee's resources. Ritual, as one common intervention form in organizations, is considered to be effective interventions to facilitate employee's work outcomes via helping employees to build positive psychological status. Rituals in organization are capable of evoking substantive emotional responses (Smith & Stewart, 2011). It is associated with work and relationships can be profoundly emotional (Smith & Stewart, 2011). Through participating in rituals, employees develop powerful communal belief, identity and solidarity in organizational context and are even provided emotional anchor to amplify the effect of the beliefs embedded in rituals (Smith & Stewart, 2011). As the consequences, profound emotions and sense of connection are engendered (Smith & Stewart, 2011). Smith and Steward (2001) claim that ritual is useful to control negative emotions. For example, ritual and ritual-like behaviors are valuable tools for managing ambiguity, because they reduce uncertainty and replace it with safe and accepted behaviors. Early theoretical work also proposed that rituals serve as a mechanism for controlling the disruptive aspect of symbol production which may cause anxiety psychological state.

Besides of building positive emotion, ritual is also valuable to help individuals building up the feeling of energy. According to the view of Smith and Steward (2011), people involved in ritualized activity are more likely to feel associated with flow states, which refers to the feelings of connection, energy and focus in an activity (Csikszentmihalyi & Csikzentmihaly, 1990). This sense of energy is the product of distinct and qualitatively different types of social interaction (Boyns & Luery, 2015), which are frequently happen in rituals. Through interacting with other participates in rituals, individuals develop the feeling of connection and positive emotions, which brings energy feelings (Collins, 2009). Specifically, ritual in organizations are embedded information of the core company culture, belief and value. These symbols delivered by rituals strength the individual's memory of this emotional energy (Collins, 2009). Similarly, Boyns and Luery (2015) claims that encounters between individuals within rituals produce high level of emotional energy resonate into patterns of thought.

Moreover, rituals are also considered to be efficient to enhance individual's self-efficacy (Mendez, Witkowsky, Allee, Christensen, & Stiles, 2017), shape identity (Coyne & Mathers, 2011) and increase commitment (Smith & Stewart, 2011). As rituals in organization usually aim to engender feelings of empowerment and a greater self-worth, they likely can lead to greater self-efficacy due to increased self-confidence and belief in the control ability of the situation and positive outcomes (Mendez et al., 2017). Because of the feature of rituals, which are stable and conveying meaning, individuals experience safe and balance withing the help of participating in rituals (Smith & Stewart, 2011), which is benefit for them to better integrate into the new life or work pattern (Mendez et al., 2017). Thus, individuals involved in rituals are more likely to experience self-efficacy to face with various

circumstance. Ritual is also a tool to identify individuals include and exclude (Smith & Steward, 2011). Rituals operate as gatekeepers by excluding non-believers unprepared to engage in the activities (Smith & Steward, 2011). Employees develop organizational identity through participating in organizational rituals (Coyne & Mathers, 2011). Meanwhile, as believing in the value expressed which is strengthen gradually, individuals develop increasing commitment to the organization under a solidary environment (Smith & Steward, 2011).

#### 7. Scale Development and Validation Process

Questionnaire survey is one of the most commonly used methods to obtain data in empirical research, especially in the field of organizational behavior (Stone, 1978). The essential requirements of measuring are well content validity, criterion validity, construct validity and internal consistency. The current research will construct organizational ritual scale based on the steps of item generation, scale development and scale evaluation.

Item generation. Generally, scale items are generated by deductive and inductive approaches (Hinkin, 1995). Deductive approach is used to explore the construct with mature theoretical connotation or clear practical phenomena. During the process, researches need to review the existing literatures, using the theoretical definition of the construct to generate the items (Hinkin, 1995). When using inductive approaching, unstructured or semi-structured interviews are conducted to classify, induct and summarize the phenomenon and employees' behaviors. No

matter which approach is selected, content validity and internal consistency should be guaranteed and ensured.

Scale development. After generating items, it is necessary to examine whether the developed items are able to reflect the measured structure as expected. Therefore, works associated with research design, scale construction, and reliability assessment should be covered in the current process (Hinkin, 1995).

First, at research design stage, selection of research sample, items reverse coding, scale points and sample size should be considered. Second, in the process of scale construction, we need to use statistical technique to achieve data reduction and construct refining. Explorative factor analysis and confirmatory factor analysis processes should be involved in the current process. Third, in the process of reliability assessment, researchers need to ensure that the newly-develop scale attain acceptable reliability standard. Cronbach's alpha was generally used to examine the internal consistency of scale, and the Cronbach's alpha should reach not lower than 0.70 to be considered to accept (Nunnally, 1994). The reliability assessment for newly-develop scale includes using split-half reliability or test-retest reliability technique and assessing reliability criteria in another independent sample is most recommended by previous researchers (Hinkin & Schriesheim, 1989). Scale evaluation. The corn propose for scale evaluation process is to ensure that the newly developed or conceptualized construct captures its own theoretical meaning, and in the meanwhile shares common features with other existed similar constructs. Specifically, the nomological network for the newly-develop scale and other variables should be developed in this process, and it is necessary to depict criterionrelated validity. The convergent and discriminant validity evidence should be derived in this process.

#### **CHAPTER 4 Study 1: Scale Development**

#### **4.1Theory and Scale Development**

In the current study, we explored the employee's ritual sense which is evoked by specific ritual and perceived by individuals in organizations. We theorized three dimensions of ritual sense: 1) general cognition of the focal ritual; 2) promotion effect of ritual on employee's work proactivity; 3) perception of self-development brought by ritual.

First, as formal and inflexible activities, rituals in organizations have significant influence on participants (Smith & Stewart, 2011). Because of the formality and invariability, individuals in organizational context receive information delivered by rituals and develop cognitions through participating in ritual activities. For example, employees cognize that organizational ritual is a crucial event. Second, rituals provide opportunities for employees to full recognize the behaviors expected by organization. Specifically, through participating in ritual activities held in organizations, employees develop further understand of organizational goals, job demand as well as confidence towards achieving goals, which facilitate goal commitment. Thus, employees express high level of goal commitment and proactivity as the consequences, which is considered to be the second dimension of employees' sense of organizational ritual. Additionally, organization holds rituals to express the company culture, value and belief. This cultural information conveyed by the ritual provides employees sufficient resources and is helpful for employees' self-development.

Accordingly, we develop employee's ritual sense scale by integrating these three dimensions. We explore employee's general cognition of ritual as the first dimension such as thriving at work scale (Porath, Spreitzer, Gibson, & Garnett, 2012) as well as goal commitment scale (Hollenbeck, Williams, & Klein, 1989) to test the influence of employees' ritual sense on affect and following behaviors.

#### 1.Employee's Cognition of Ritual

According to Smith and Stewart (2011), ritual is formal, usually organized by the organization, the team, or the individual for specific events or reasons. Therefore, compared with the general work activities, participates of ritual in organization perceive formality, importance, specifically and meaningful. Based on this, we develop the items of first dimension of ritual sense scale. It contains four items: "This ritual is important to me"; "This ritual is special to me"; "This ritual is meaningful to me" and "I think this ritual is formal".

#### **2.Goal Commitment**

Goal commitment is defined as one's determination to reach a goal (Locke & Latham, 1990). Employee's high goal commitment means unwillingness to abandon goals, which reflects the individual's determination to achieve the target. Hollenbeck et al. (1989) develop 9-item scale to measure employee's goal commitment (see Table 1).

#### **Items**

- 1. It's hard to take this goal seriously. \*
- 2. It's unrealistic for me to expect to reach this goal. \*
- 3. It is quite likely that this goal may need to be revised, depending on how things go. \*
- 4. Quite frankly, I don't care if I achieve this goal or not. \*
- 5. I am strongly committed to pursuing this goal.
- 6. It wouldn't take much to make me abandon this goal.
- 7. I think this goal is a good goal to shoot for.
- 8. I am willing to put forth a great deal of effort beyond what I'd normally do to achieve this goal.
- 9. There is not much to be gained by trying to achieve this goal. \*

Note. Asterisk denotes reversed coded item.

In organization, repeated ritual strength employee's cognition of organizational value, culture and expected behaviors. Therefore, employees develop better understanding of the work and responsibilities and generate specific work goals. Meanwhile, rituals facilitate employees to generate positive affect which is helpful in the individual process of achieving goals. Under this situation, employees have a higher work proactivity and less possibility to flinch and give up when facing with difficulties. Based on scale developed by Hollenbeck et al. (1989), we develop 5-item scale to measure the second dimension of ritual sense scale. The items include "I feel that I can take my work goal more seriously"; "I will care more about whether my work goal can be achieved"; "I am strongly committed to pursuing work goal"; "I am willing to input more effort than usual to achieve my work goal" and "I think that working hard to achieve the goals can also make me benefit a lot".

#### 3. Thriving at Work

The concept of thriving at work is first proposed by Spreitzer, Dutton, Sonenshein, and Grant (2005). The state of thriving refers to the mental state in which an individual experiences vitality and learning at the same time. It is a short-term rather than continuous internal feeling. Employees with a strong sense of thriving at work may experience positive energetic feelings, recognize their own development and self-growth, and actively improve their motivation to learn. Two dimensions of thriving at work are as follows. First dimension is learning, which refers to a sense that they are continually improving and getting better at what they do. The second dimension is vitality which refers to a sense of feeling energized

and alive (Porath et al., 2012). This scale was developed based on the two dimensions and each dimension contains five items (see Table 2).

Table 2 Scale of Thriving at Work from Porath et al. (2012)

Sub-Dimension	Items
Learning	1. I find myself learning often.
_	2. I continue to learn more as time goes by.
	3. I see myself continually improving.
	4. I am not learning. *
	5. I am developing a lot as a person.
Vitality	6. I feel alive and vital.
	7. I have energy and spirit.
	8. I do not feel very energetic. *
	9. I feel alert and awake.
	10. I am looking forward to each new day.

Note. Asterisk denotes reversed coded item

In organization context, employees may experience positive affect after attending formal, invariable and encouraging rituals. For instance, individuals in organization, through participating rituals, may have deep understanding and identification of self-development and improvement. Thus, we propose that individual feeling of self-growth may be another important dimension of ritual sense caused by rituals. According to thriving at work scale, we develop 6 items to measure employee's feeling of self-growth. The items are through participating in rituals, "I feel I can grow quickly in next work"; "I see myself continually improving in my thinking"; "I feel that I have found a new path to growth"; "I feel that I am more and more mature"; "I feel that I am constantly improving" and "I think I am constantly developing".

#### 4. Ritual Sense

Taken together, we integrate three dimensions of ritual sense and develop employee's ritual sense scale. This scale includes 15 items, in which 4 items are for employee's cognition of ritual, 5 items are for employee's proactivity and 6 items are for employees' self-growth (see Table 3).

Table 3 Study 1: Scale of Ritual Sense Developed in the Present Study

Dimension	Items
	1. This ritual is important to me.
Cognition of ritual	2. This ritual is special to me.
Cognition of fitual	3. This ritual is meaningful to me.
	4. I think this ritual is formal.
	5. I feel that I can take my work goal more seriously.
	6. I will care more about whether my work goal can be achieved.
Duogativity	7. I am strongly committed to pursuing work goal.
Proactivity	8. I am willing to input more effort than usual to achieve my work goal.
	9. I think that working hard to achieve the goals can also make me benefit a lot.
	10. I feel I can grow quickly in next work.
	11. I see myself continually improving in my thinking.
Calf anarral	12. I feel that I have found a new path to growth.
Self-growth	13. I feel that I am more and more mature.
	14. I feel that I am constantly improving.
	15. I think I am constantly developing.

### 4.2 Method

### **Sample and Procedure**

After completing the preliminary design of the items of the ritual sense scale, the survey is conducted through Sojump, a platform providing functions similar to Amazon Mechanical Turk, and samples are randomly selected for this survey. We adopt 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Before starting the questions, participates are required to recall a formal and fixed ritual which they would regularly perform. These rituals may be the collective mobilization meeting before starting a new project, the prayer activity before attending important interviews or major assessments, or even individual work-related ritual process. No matter what ritual is recalled, the ritual should be formal and serious which contains several process steps. After recalling the ritual, employees are required to finish the questionnaire.

This survey is conducted through two stages. At the first stage, we collect 200 samples to conduct exploratory factor analysis (EFA) to test structure validity. After completing the first stage of EFA, we collected the second round of data. We also use Sojump and collect 218 samples to conduct confirmatory factor analysis (CFA).

### 4.3 Results

## 1. Exploratory Factor Analysis

In order to test the validity of the developed ritual sense scale. We conduct exploratory factor analysis using the data collected at the first stage. First, we adopt Bartlett's test and KMO test to investigate whether the items in the scale are suitable for factor analysis. The results are shown in Table 4. The Bartlett's test value is 863.799, df = 105, p < .001, and KMO value is .871. The results show that there are considerable relationships among the items, suggesting that the data is suitable for factor analysis.

Table 4 Study 1: KMO Test and Bartlett's Test Results

KMO		Bartlett's Test	
KWO	Chi-square	df	P value
0.871	863.799	105	.000

Next, we adopt the method of principal component with varimax rotation to determine the potential dimension of developed ritual sense scale. The results show that there are three dimensions with eigenvalue above 1. We keep the items with factor loading above .40 and shown in Table 5. The results show that there are three items with cross factor loading, which are "I think this ritual is formal", "I see myself continually improving in my thinking" and "I think I am constantly developing". Thus, we remove these items and conduct the EFA again.

Table 5 Study 1: First EFA Result

			Factor	
	Items	Cognition	Proactivity	Self- growth
1	This ritual is important to me.	.750		
2	This ritual is special to me.	.750		
3	This ritual is meaningful to me.	.751		
4	I think this ritual is formal.		.504	.408
5	I feel that I can take my work goal more seriously.		.663	
6	I will care more about whether my work goal can be achieved.		.569	
7	I am strongly committed to pursuing work goal.		.581	
8	I am willing to input more effort than usual to achieve my work goal.		.543	
9	I think that working hard to achieve the goals can also make me benefit a lot.		.666	
10	I feel I can grow quickly in next work.			.716
11	I see myself continually improving in my thinking.		.416	.432
12	I feel that I have found a new path to growth.			.719
13	I feel that I am more and more mature.			.746
14	I feel that I am constantly improving.			.507
15	I think I am constantly developing.		.497	.453

In the second EFA, we also keep the items with factor loading above .40 and show the results in Table 6. As we designed, 13 items of ritual sense scale can be divided to three dimensions. Summarizing the meaning expressed by the items, we name the dimensions as ritual cognition with 3 items, proactivity with 5 items and self-growth with 4 items.

Table 6 Study 1: Second EFA Result

			Factor	
	Items	Cognition	Proactivity	Self- growth
1	This ritual is important to me.	.712		
2	This ritual is special to me.	.796		
3	This ritual is meaningful to me.	.776		
4	I feel that I can take my work goal more		.705	
4	seriously.			
5	I will care more about whether my work		.601	
3	goal can be achieved.			
6	I am strongly committed to pursuing		.615	
O	work goal.			
7	I am willing to input more effort than		.537	
,	usual to achieve my work goal.			
8	I think that working hard to achieve the		.680	
	goals can also make me benefit a lot.			
9	I feel I can grow quickly in next work.			.756
	I feel that I have found a new path to			.748
10	growth.			
11	I feel that I am more and more mature.			.746
_12	I feel that I am constantly improving.			.483

## 2. Confirmatory Factor Analysis

Based on the result of EFA, we conduct a second stage investigation using the 12-items ritual sense scale through Sojump online software. Participates are also required to recall a workplace ritual before starting the questionnaire. After collecting the data, we use Mplus 7 software to conduct confirmatory factor analysis (CFA). The results in Table 7 show that model 1, which is a 3-factor model, fit the data best ( $\chi 2 = 103.540$ , RMSEA = .069, CFI = .943, TLI = .926, SRMR = .044). Besides, we also consider model 2, which is two level single factor model with three sub-dimensions: cognition, proactivity and self-growth. The results show that there is no significant difference between model 1 and model 2, which means that the ritual sense can be used as one factor with three dimensions in empirical analysis. Finally, we combine all items as one factor model (model 3), and the results show that the model fit is significantly worse than model 1 and model 2. Thus, the results of CFA support the ritual sense developed.

Table 7 Study 1: Confirmatory Factor Analysis

	χ2	df	RMSEA	CFI	TLI	SRMR	Δχ2	$\Delta df$	sig.
Model 1	103.540	51	.069	.943	.926	.044			
Model 2	103.540	51	.069	.943	.926	.044			
Model 3	140.099	54	.086	.907	.886	.053	36.559	3	.000

**Note:** N = 218.

## 3.Item Analysis

In addition, we test the correlation between each item of ritual sense scale and the total score of the scale (as shown in Table 8). The average of the 12 items is between 3.61 and 4.06, and the standard deviation is between .870 and 1.075. The correlation coefficients of all items and the total score range from .543 to .726, and all reached a significant level (p <.001). In addition, we also test the discrimination of each item. We grouped the samples according to the criteria of 27% upper and lower score of each item and test the difference between the two score groups (as shown in the Table 9). The results show that on 12 items, the score of the upper 27% score group is significantly higher than that of the lower 27% score group. The results show that the developed scale has good discrimination.

Table 8 Study 1: Correlation Between Each Item and Total Score

No.	1	2	3	4	5	6	7	8	9	10	11	12
Mean	3.91	3.66	4.01	4.06	3.83	3.94	3.90	3.95	3.66	3.61	3.78	4.03
SD	.946	1.018	.960	.870	1.055	1.034	1.018	.942	1.075	1.034	1.055	.962
Correlation	.607**	.543**	.687**	.576**	.706**	.696**	.634**	.697**	.667**	.711**	.726**	.700**

Table 9 Study 1: Discrimination Result

No.		1	2	3	4	5	6	7	8	9	10	11	12
Upper	Mean	5.00	4.34	5.00	5.00	5.00	5.00	5.00	5.00	4.40	4.35	5.00	5.00
27%	SD	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.48	0.00	0.00
Lower	Mean	2.71	2.57	3.51	3.61	2.54	3.41	2.57	3.50	2.52	2.58	2.50	3.52
27%	SD	0.58	0.63	0.80	0.70	0.65	0.87	0.69	0.77	0.65	0.65	0.65	0.81
T va	lue	32.30**	22.21**	22.41**	24.23**	31.91**	22.05**	27.98**	24.03**	22.97**	21.96**	32.63**	21.73**

### 4. Reliability Analysis

We also conducted reliability analysis on the developed three-dimensional ritual sense scale (see Table 10). The results show that the developed ritual sense scale has good reliability. Specifically, the first dimension's (ritual cognition) internal consistency reliability coefficient is .711, the split-half reliability coefficient is .655; the second dimension's (proactivity) internal consistency reliability coefficient is .782, the split-half reliability coefficient is .762; the third dimension's (self-growth) internal consistency reliability coefficient is .780, the split-half reliability coefficient is .713; the internal consistency reliability coefficient of overall scale is .884, and the split-half reliability coefficient is .875. The results show that the developed three-dimensional ritual sense scale has a good level of reliability.

Table 10 Study 1: Reliability Test

	Cognition	Proactivity	Self-growth	Total
Internal				
Consistency	.711	.782	.780	.884
Reliability				
Split-half	655	760	712	075
Reliability	.655	.762	.713	.875

## **5. Validity Analysis**

In order to verify the structural validity of the scale, we adopt the method of principal component with varimax rotation. The results show that there are three factors with eigenvalue above 1. As shown in Figure 1, the eigenvalue of each factor is 4.252, 1.210 and 1.114 respectively. Three factors explain 55.046% of the total variance. Therefore, the scale has good structural validity.

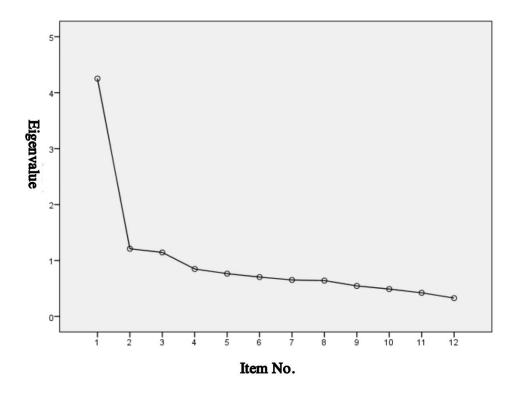


Figure 1 Study 1: Screen Plot

### 4.4 Discussion

This chapter reviews the development of ritual sense scale based on goal commitment scale and employee proactivity scale. Using this scale, sample data was collected through questionnaire surveys, exploratory factor analysis and confirmatory factor analysis are conducted. The results show that the ritual sense has a stable three-dimensional structure: ritual cognition, work proactivity and self-growth.

The CFA results show that three factors fit the data well ( $\chi 2 = 103.540$ , RMSEA = .069, CFI = .943, TLI = .926, SRMR = .044). In addition, since the three dimensions involved in the scale are all sub-dimensions of the concept of ritual sensation, we estimate a two-level single-factor model that includes three sub-dimensions of ritual cognition, proactivity, and self-growth. The results are not significantly different from the three-factor model, which further proves that the sense of ritual is a whole construct that includes three sub-dimensions. In addition, we conducted item analysis, discrimination analysis, reliability and validity test on the developed three-dimension scale. The results show that the developed scale has good project identification and high reliability and structural validity.

Study 1 offers initial support for our proposed conceptualization of employees' ritual sense, showing its underlying dimensions. Study 1 also provides preliminary supports for the subsequent empirical research, as the scale developed in the current study demonstrates favorable reliability and validity. Nevertheless, the present study was limited on its ability to demonstrate the predictive validity of ritual sense. Therefore, Study 2 was conducted, which was focused on using the scale developed

in Study 1 to examine how and when employees' ritual sense will impact their workplace consequences. Specifically, given that organizational ritual can be conceptualized as typical intervention, which subsequently impact employee outcomes in the workplace, Study 2 was designed to examine how employees' ritual sense was related to favorable employee outcomes via facilitating positive psychological resources.

# CHAPTER 5.STUDY 2: EFFECTS of RITUAL SENSE ON EMPLOYEE OUTCOMES

## **5.1 Theory and Hypotheses**

### 1. Effects of Ritual Sense on Employees' Psychosocial Resource

Drawing on the general framework of positive psychological resources (Gilbert et al., 2017), the present study investigated how ritual sense that employees experience will enhance their work-related outcomes. Specifically, the positive psychological resource perspective is particularly relevant in the current investigation, as the one of the key purposes of emphasizing the role of individual psychological resources is to provide clarity on how positive resources can be built - especially via targeted interventions (Gilbert et al., 2017). Moreover, as "organizations would be wise to develop interventions to increase resource exchanges" (Hobfoll et al., 2018, p. 111), investigating the roles of various forms of rituals and the associated psychological responses such as ritual sense would be able to offer both theoretically and practically important implications for organizations to develop resource-based interventions, thereby enhancing employee outcomes in the workplace. As such, in examining the role of leader humility in facilitating employee outcomes in the workplace, we incorporated the three broad categories of psychological resources into investigation, represented as mood (such as the decrease of negative mood), efficacy (such as the increase of competence need satisfaction), and energy (such as the increase of dedication at work).

First, employees' ritual sense should be effective in reducing their negative mood, thereby alleviating the focal employees' stress at work and protecting them from unnecessary resource depletion. In particular, there has long been a consensus in the literature of psychology and social psychology that people's actions and feelings are closely intertwined (Van Dillen & Koole, 2007). As such, although people's behaviors or actions are often guided by their feelings, their feelings or emotional responses are impacted by their behaviors (such as performing certain rituals at work) as well. Further, given that mood is one of the important psychological resources that may impact employees' attitudinal and behavioral outcomes in the workplace, it is both theoretically and practically important to investigate how employee's ritual sense shape employees' emotional responses at work as a mechanism to influence their subsequent work-related outcomes. Specifically, we propose that interventions such as performing ritual at work can serve as a clear-cut boundary that distracts employees from negative mood, and therefore alleviating potential resource depletion triggered by negative emotion responses. In other works, performing certain ritual at work, or even a daily routine that "signifying" the start of work-related tasks, can serve as a switch for employees to clear their mind and to activate their working memory thereby drawing their attention from potential negative mood and negative events (Van Dillen & Koole, 2007). Additionally, the experience of ritual sense can play a similar role with mindfulness in the workplace, allowing them to view events more objectively (Shapiro, Carlson, Astin, & Freedman, 2006). As such, employees' experience of ritual sense at work can serve as a buffer to protect employees from ruminating

negative information or negative events, and therefore should be effective in reducing their experience of negative mood. Indirectly supporting our hypothesis, existing literature suggests that performing ritual is one of effective ways for many people to cope with negative moods such anxiety. For example in their experiment conducted in both student sample and Amazon's Mechanical Turk sample, Brooks and his colleagues found that performing ritual was negatively associated with the feeling of anxiety (Brooks et al., 2016), offering indirect supports for our theorizing. Second, employees' experience of ritual sense at work should also be positively associated with the increase of their competence need satisfaction. Specifically, competence need satisfaction is one of the work-related fundamental needs satisfaction (Deci & Ryan, 2000; Van den Broeck, Vansteenkiste, De Witte, Soenens, & Lens, 2010), which emphasizes on the importance of motivating employees by fulfilling their psychological needs of facilitating competence or effectance. We theorize in the present thesis that employees' experience of ritual sense would be positively associated with increase efficacy related resource such as competence need satisfaction. Specifically, rituals have long been characterized as full of symbolic meanings (Smith & Stewart, 2011), which often explicitly and visibly demonstrate the focal employees' work progress or performance, enhancing the focal employees' belief that he or she is capable in succeeding on a specific task (Bandura, Freeman, & Lightsey, 1999; Brooks et al., 2016). Therefore, the experience of ritual sense often serves as a "signal" for employees that depicting different stages they are in, thereby offering feedbacks for their work progress or

performance. We therefore propose that the experience of ritual sense should also elicit the fulfillment of competence needs satisfaction.

In particular, our theorizing of the effects of ritual sense in ensuring competence needs satisfaction is similar to the role of badges in gaming environment, and other similar interventions (Sailer, Hense, Mayr, & Mandl, 2017). Specifically, badges and rituals share the same characteristic of symbolism, and both of them can serve as indicators of work progress, personal or collective achievements, or performance (Werbach & Hunter, 2012). These characteristics are the prominent predictors of people's competence needs satisfaction, as such symbolling characters signifies the focal individual's capability in getting tasks done. Moreover, as rituals are often performed regularly and characterized by repetition (Smith & Stewart, 2011; Tian et al., 2018), such symbols are reinforced overtime, and making the focal individual believe that he or she is continuously follow the "schedule" of getting things done, thereby also ensure the satisfaction of competence needs. Although to our knowledge there is no direct empirical findings support our argument of the positive relationship between employees' ritual sense and their competence needs satisfaction, existing literature provides indirect supports for our theorizing. Specifically, delivering symbolic meaning and signifying feedbacks associated with achievements, gaming interventions such as badges was found to be positively associated with individual competence needs satisfaction (Sailer et al., 2017). We therefore propose that employees' experience of ritual sense is also positively associated with their competence needs satisfaction.

The third important category of psychological resources is energy, such as employees' dedication invested into their works. We propose in the present research that employees' experience of ritual prove helpful in enhancing employees' energy invested at work because it creates an opportunity for employees to actively improve attention and increase control at work (Brooks et al., 2016). Specifically, the experience of ritual sense should serve as a conduit that shifts employees to the working mode and enhances their subjective feelings of self-disciplines (Tian et al., 2018), thereby allocating more efforts and personal resources into work. Supporting our theorizing, prior literature on social psychology indicates that enacting rituals, even when that set of ritualized gestures were not explicitly labeled as a ritual, were positively associated with individuals' subjective feeling of self-discipline in terms of food choice (Tian et al., 2018). Given that the sense of self-discipline is irreplaceable in driving employees to engage in their daily works in many organizations, findings derived from Tian's (2018) research indicate that enacting rituals in organizations should also play a critical role in guiding employees' works and efforts. Additionally, Sailer and his colleagues (2017) also summarized in their systematic review that organizational rituals play an essential role in motivating employees. Building on these ideas, we further propose that employees' experience of ritual sense would also be positively related to their dedication at work.

Taken together, we propose that the experience of ritual sense at work are predictable for employees' psychological resources conservation, building and maintaining. Specifically, the experience of ritual sense should not only be beneficial in alleviating resource depletion (indicated as reducing negative mood),

but also be helpful in maintaining and even accumulating positive psychological resources (indicated as increasing competence needs satisfaction and facilitating dedication at work). Therefore, we propose:

*Hypothesis 1*: Ritual sense is (a) negatively related to negative mood and is (b) positively related to competence need satisfaction and (c) dedication at work.

## 2.Role of Psychological Resource in Mediating the Effects of Ritual Sense

Given the critical roles of protecting and maintaining psychological resources in facilitating employees' work-related consequence, the present study continues to explore the indirect effects of ritual sense in impacting work-related outcomes, including affective commitment, role overload, and turnover intention. Specifically, we posit that the facilitating effects of employee's ritual sense on various forms of psychological resources (such as mood, efficacy, and energy) would subsequently associated with the focal employees' positive workplace outcomes, as the sufficient of psychological resources are critical in ensuring employees' well-being and effectiveness (Gilbert et al., 2017; Hobfoll et al., 2018).

Employees' reduced negative mood initiated by higher ritual sense should subsequently impact their responses to their jobs, such as triggering various attitudinal outcomes at work (Cropanzano, James, & Konovsky, 1993; Panaccio & Vandenberghe, 2012). Specifically, affective commitment refers to "an affective or emotional attachment to the organization such that the strongly committed individual identified with, is involved in, and enjoys the membership in, the organization" (Allen & Meyer, 1990, p. 2). The decreased negative mood initiated by ritual sense is promising in facilitating affective commitment, as employees would be able to endure less negative experience in the workplace, thereby counterbalance the potential negative impression associated with the present organization, and also enhance their psychological attachment toward their present organizations.

Further, role overload exists when an employee has too much to do in the limited time (Beehr, Walsh, & Taber, 1976; Marrone, Tesluk, & Carson, 2007). Higher level of negative mood is one of the important indicators of employee stress (Barling & Macintyre, 1993; Bolger, DeLongis, Kessler, & Schilling, 1989; Wang et al., 2013), and therefore the reduced negative mood results from ritual sense should be able to alleviate the focal employees' attention from present negative experience or environmental stressors such as the perception of role overload.

Last but not least, turnover intention captures the extent to which employee is willing to quit from their current job in the present organization. Given that turnover intention often signified the focal employees' dissatisfaction associated with their present job or present organization (Chen, Brown, Bowers, & Chang, 2015; Chinomona & Mofokeng, 2016), the reduced negative mood initiated by ritual sense should therefore also offset the negative affective response to their job or organizations, rendering lower level of turnover intention as a result.

Supporting our theorizing, prior literature shows that negative mood was indeed positively related to role overload and turnover intention, and was positively related to affective commitment (e.g., Jung, 2013; Panaccio & Vandenberghe, 2012; Williams, Gavin, & Williams, 1996). Therefore, we propose:

Hypothesis 2: Negative mood mediates the effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention.

Another psychological resource-related mechanism initiated by ritual sense is the facilitated competence need satisfaction. The core idea of the essential role of ensuring employees' competence need satisfaction is that people often engage in

activities that they are able to experience efficacy or competence (Deci & Ryan, 2000). The competence need satisfaction strengthened by ritual sense should further results in favorable outcomes such as the focal employee's attitudinal outcomes in the workplace.

First, employees would be more commitment to their organizations, as their psychological need of gaining competence, and if they leave the present organization, the possibility of satisfying psychological needs would be decreased (Greguras & Diefendorff, 2009). This rationale also corroborates the embeddedness argument (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001), which suggests that employees are more likely to be attached with their present jobs or organizations when they perceive higher fit or link, or lower sacrifice regarding quitting from their present jobs. As such, the increased competence need satisfaction could spotlight the positive psychological experience with the focal employees' job or organization, thereby enhance their affective commitment in the organization. Second, competence need satisfaction can serve as one of the critical buffers for employees to counterbalance their experience of role overload in the workplace. Specifically, experiencing higher competence need satisfaction could indicate to the focal employee that he or she is capable in performing the task at hand, therefore offset the perception of overload by alleviating the negative experience associated with role overload. Our theorizing also corroborates previous literature suggests that individual's feeling of self-worth is critical buffer that assist oneself to confront with existential anxiety such as the perception or role overload (Lehman, Chiu, & Schaller, 2004).

Third, the fulfillment of competence need satisfaction can also reduce the focal employee's turnover intention by highlighting the positive psychological experience that derived from performing task at work, thereby reinforcing the positive attachment that the focal employee has with the company (Greguras & Diefendorff, 2009), which should subsequently reduce his or her turnover intention. Given that employees are less likely to quit their job if they feel that there were able to achieve value and prove their capabilities, the fulfillment of competence need satisfaction derived from ritual sense can therefore reduce turnover intention.

Hypothesis 3: Competence need satisfaction mediates the effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention.

The third forms of psychological resource that facilitated by ritual sense, dedication at work, offers employee the sense of fulfillment, thereby may also strengthen employees' involvement and identification with their jobs or their organizations. Specifically, investing personal resources and effort at work demonstrate the focal employee's sufficient engagement and energy at work, and it is usually highly related to the focal employee's intrinsic motivation attached to his (her) jobs or works and feel that their works are important and meaningful (Bakker, Demerouti, & Schaufeli, 2005). Therefore, higher dedication at work initiated by ritual sense should also increase employees' affective commitment towards their organizations via spotlighting the positive experiences of satisfaction.

Further, dedication at work should also help with alleviating the perception of role overload. Specifically, the increased of energy represents more psychological

resources that employees can allocate to tackle issues at different perspective in their jobs. The increased dedication invested to jobs can alleviate the experience by facilitating work progress (Bakker & Bal, 2010; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009), which relieves the negative affective and cognitive experiences associated with falling behind the schedule.

Further, the increased dedication at work should triggered by ritual sense should also reduce the focal employee's turnover intention. Specifically, indicating the focal employee's higher level of energy derived from ritual sense, higher level of dedication at work signifies that employees are driven by their intrinsic motivation (Bakker et al., 2005), which therefore strengthen their affective attachment towards their jobs. Taken together, we propose:

*Hypothesis 4:* Dedication at work mediates the effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention.

### 3. The Moderating Roles of the Characteristics of the Ritual

In addition to the three different forms of psychological resources increased by ritual sense, as well as the mediating role of such increased psychological resources in transmitting the effect of ritual sense on employees' attitudinal outcomes in the workplace, the present study also aims to investigate how the above-mentioned effects can be shaped by different characteristics of the ritual itself. This investigation is both theoretically and practically important, as the current investigation would demonstrate that ritual itself can serve as a feasible intervention that facilitate employees' favorable attitudinal outcomes. Therefore, our current investigation focusing on the boundary conditions of the favorable effects of ritual sense is promising in generating implications regarding what kinds of ritual can particularly amplify the positive effects of ritual sense, or how to develop an organizational ritual that is able to maximize the positive effects of ritual sense. In particular, the present study incorporated three characteristics of ritual into consideration. These characteristics include frequency of the ritual, the priming process associated with the ritual sense, and the extent to which the ritual is workrelated. First, frequency of the ritual indicates how often the ritual will be performed. The effects of ritual sense may be bounded by the frequency of the ritual, it indicates the extent to which the effects of ritual sense on employees' psychological resource could be reinforced in their daily working routine and the extent to which the experience of ritual sense has the opportunity to be integrated by employees. As the three psychological resources examined in the current study reflects employees' malleable and state-like resources that are experience-based and open to

development through intervention (Avey, Luthans, Smith, & Palmer, 2010), such increased in psychological resources would be bounded by frequency of the intervention itself. In other words, the state-like psychological resources induced by ritual senses investigated in the present study (i.e., decreased negative mood, increased competence need satisfaction, and increased dedicated at work) are relied on the aroused ritual sense. As such, the extent to which the aroused ritual sense is integrated to the conventional work or habit should profoundly impact peoples' conservation and accumulation of psychological resources. Therefore, higher frequency of the focal ritual, which demonstrates that the focal employee has more opportunities to integrate the experience of ritual sense into their routine and habit, should amplify the effects of ritual sense on the three psychological resources. We therefore propose:

*Hypothesis 5:* Frequency of the ritual moderates the effects of ritual sense on (a) negative mood, (b) competence need satisfaction, and (c) dedication at work, such that the effects of ritual become stronger (versus weaker) with higher (versus lower) frequency.

In addition to frequency of the ritual, the present study also considers the process in which the ritual is perform, and examine whether the process-side of the ritual character will moderate the effects of ritual sense. Specifically, we propose in the present study that the extent to which ritual sense could generate favorable effects on conserving or accumulating employees' psychological resources could be bounded on the process associated with the ritual performance. In particular, the effects of ritual sense should be amplified if there is a priming process associated

when performing the ritual. The priming process captures the pre-performance strategy such as explicitly mention trying to calm down or relax or get excited or psyched up etc. (Brooks et al., 2016). A ritual that accompanied with such pre-performance strategy may serve as an amplifier of the ritual, as it actively allocates the focal employee's attention to experience the ritual itself, which aims to maximize the effects of the ritual sense. On the country, for the situation of ritual performance with the pre-performance strategies such as typical priming process, employees can perform the ritual by just be there or just finish the routine actions without actively immersing in the experience of ritual sense, thereby may not completely show its capability in conserving or building psychological resources. Therefore, we propose:

*Hypothesis 6:* Priming before the ritual moderates the effects of ritual sense on (a) negative mood, (b) competence need satisfaction, and (c) dedication at work, such that the effects of ritual become stronger (versus weaker) with higher (versus lower) priming before the ritual.

Last but not least, as the present study is aimed to how and when ritual sense would initiate employees' favorable attitudinal outcomes in the workplace, we incorporated another boundary effect associated with the characteristics of the ritual itself, that is, the extent to which employees perceive that the ritual itself is work-related. Specifically, when the ritual is perceived to be work-related, it is more likely that the psychological resources that can be fulfilled by ritual sense in the workplace should be particularly maximized, as the aroused ritual sense is specified to be work-related and is particularly relevant in driving employees to improve

concentration and the sense of perceived sense of control at work (Brooks et al., 2016). Although prior literature shows that ritual was effective in enhancing individuals' self-regulation behaviors even when the ritual itself is not directly relevant (e.g., Tian et al., 2018), the existing effect of ritual might not be fully maximized in this situation. Given that the psychological resources associated with the aroused ritual sense would be particularly work-related in the present study, we expect that the favorable effects of the experience of aroused ritual sense should be amplified when the ritual itself is work-related.

Hypothesis 7: The extent to which the ritual is work related moderates the effects of ritual sense on (a) negative mood, (b) competence need satisfaction, and (c) dedication at work, such that the effects of ritual become stronger (versus weaker) when the ritual is more (versus less) work-related.

### **4.Integrated Model**

To integrate our mediating and moderating hypotheses, we propose moderated mediation model in which the indirect effects of ritual sense on employee workplace outcomes mediated by psychological resources will be bounded by the characteristics of the focal ritual. That is, the effects of ritual sense on employee outcomes through reducing their negative mood will be amplified by the frequency of the ritual, the priming process of the ritual, and the extent to which the ritual is work-related. Further, the effects of ritual sense on employee outcomes through facilitating their competence need satisfaction will be amplified by the frequency of the ritual, the priming process of the ritual, and the extent to which the ritual is work-related. Additionally, the indirect effect of ritual sense on employee outcomes through increasing their dedication at work will be amplified by the frequency of the ritual, the priming process of the ritual, and the extent to which the ritual is work-related. Taken together, we propose the following moderated mediation hypotheses:

*Hypothesis* 8: Frequency of the ritual moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through negative mood.

*Hypothesis 9:* Priming process of the ritual moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through negative mood.

*Hypothesis 10:* The extent to which the ritual is work related moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through negative mood.

*Hypothesis 11:* Frequency of the ritual moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through competence need satisfaction.

*Hypothesis 12:* Priming before the ritual moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through competence need satisfaction.

*Hypothesis 13:* The extent to which the ritual is work related moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through competence need satisfaction.

*Hypothesis 14:* Frequency of the ritual moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through dedication at work.

*Hypothesis 15:* Priming before the ritual moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through dedication at work.

*Hypothesis 16:* The extent to which the ritual is work related moderates the indirect effects of ritual sense on (a) affective commitment, (b) role overload, and (c) turnover intention through dedication at work.

Taken together, our hypothesized model is presented in Figure 1.

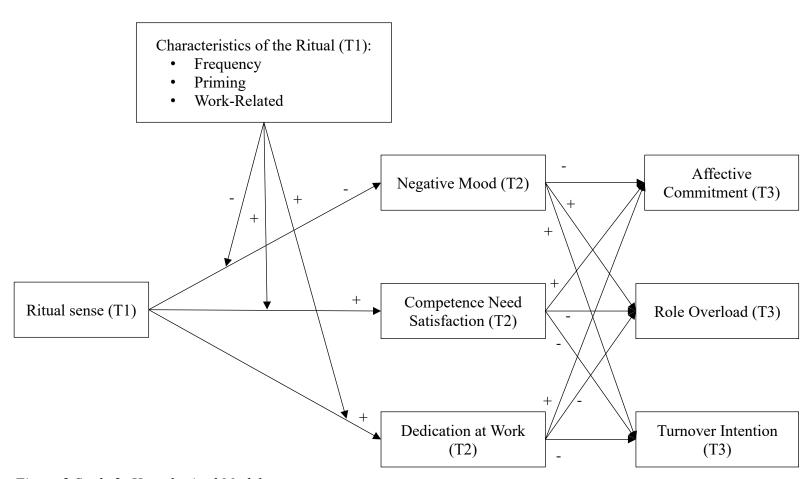


Figure 2 Study 2: Hypothesized Model

### 5.2 Method

### 1.Sample and Procedure

We collect the data from a large industries group corporation in China. All the questionnaires were sent to employees through online platform, Sojump. Our final sample contains 453 participants. The average age was 34.68 (SD = 5.92), 45% of the participants were female, and their average time spending in the organization was 7.53 years (SD = 4.93). Data was collected at three time points with one months in between. At Time 1, employees reported demographic information, and completed measures on ritual sense and the characteristics of the particular ritual. At Time 2, employees completed measures on negative mood, competence need satisfaction, and dedication at work. At Time 3, participants were completed survey measuring their affective commitment, role overload, and turnover intention.

### 2.Measures

**Ritual sense**. Ritual sense was measured by the 12-item scale we developed in the present study. The Cronbach's  $\alpha$  of this measure was 0.90.

Characteristics of the ritual. We measured frequency of the ritual with an item asking participants how many times they will perform the ritual in a month. A higher score indicates that the participant will perform the ritual more often, therefore demonstrating a higher frequency of performing the certain ritual.

The priming process was measure by asking participants the extent to which they will explicitly mention trying to calm down/relax/get exited/psyched up. A five-point Likert scale was used (1 = strongly disagree, 5 = strongly agree). A higher

score indicates that there is a stronger or more explicit priming process associated with the ritual.

The extent to which the ritual was work-related was measured by one item asking the extent the particular ritual was work-related. A five-point Likert scale was also used (1 = strongly disagree, 5 = strongly agree). A higher score indicates that the ritual is more work-related.

Negative mood. We measured negative mood using the 5 items developed by Thompson (2007), asking participants the extent to which they experience negative mood after performing ritual. The five items are: afraid, nervous, upset, ashamed, and hostile. A five-point Likert scale was also used (1 = strongly disagree, 5 = strongly agree). A higher score indicates a higher level of negative mood. The Cronbach's  $\alpha$  of this measure was 0.75.

Competence need satisfaction. Participants' competence need satisfaction was measured by the 3-item scale developed by La Guardia, Ryan, Couchman, and Deci (2000). A sample item is "I feel like a competent person". A five-point Likert scale was also used (1 = strongly disagree, 5 = strongly agree). A higher score indicates a higher level of competence need satisfaction. The Cronbach's  $\alpha$  of this measure was 0.70.

**Dedication at work**. Participants' dedication at work was measured by the 3 items developed by Schaufeli, Bakker, and Salanova (2006). A sample item is "I can continue working for very long periods at a time". A five-point Likert scale was also used (1 = strongly disagree, 5 = strongly agree). A higher score indicates a

higher level of participants' dedication at work. The Cronbach's  $\alpha$  of this measure was 0.72.

Affective commitment. Affective commitment to organization was measured by the 6-item scale developed by Rhoades, Eisenberger, and Armeli (2001). A sample item is "I am always proud when I am talking about my organization". A five-point Likert scale was also used (1 = strongly disagree, 5 = strongly agree). A higher score indicates a higher level of affective commitment. The Cronbach's  $\alpha$  of this measure was 0.87.

**Role overload**. We measured role overload using the 3-item scale developed by Marrone, Tesluk, and Carson (2007). A sample item is "it often seems like I have too much work for one person to do". A five-point Likert scale was also used (1 = strongly disagree, 5 = strongly agree). A higher score indicates a higher level of role overload. The Cronbach's  $\alpha$  of this measure was 0.82.

**Turnover intention**. We measured turnover intention using the 3 items adapted from Mobley, Horner, and Hollingsworth (1978). A sample item is "I am thinking about leaving this organization". A five-point Likert scale was also used (1 = strongly disagree, 5 = strongly agree). A higher score indicates a higher level of role overload. The Cronbach's  $\alpha$  of this measure was 0.83.

**Control variables**. We included participants' age, gender, organizational tenure, and income as control variables in the present study.

## 3. Analytical Strategy

We used path analysis to test our hypotheses. The predictors were centered before creating interaction team to test the moderation effects. We also plotted these moderation effects at conditional values of team members' accomplishment striving and status striving (+1/-1 SD) (Cohen, Cohen, West, & Aiken, 2013). We followed Preacher, Zyphur and Zhang's (2010) recommendations, and using Monte Carlo simulation to test the proposed mediation effects. Therefore, the Monte Carlo confidence intervals (CI) was conducted to test the significance of the hypothesized indirect effect of ritual sense on employee outcomes (affective commitment, role overload and turnover intention) via employees' own psychological resource (i.e., reduced negative mood, increased competence need satisfaction, and increased dedication at work), as well as the significance of the moderated mediation effects.

#### **5.3 Results**

### 1.Preliminary Analysis

Table 11 shows the descriptive statistics and correlations of the studied variables. As shown in Table 11, ritual sense was negatively correlated with employees' negative mood (r = -0.28, p < .01); ritual sense was positively correlated with employees' competence need satisfaction (r = .49, p < .01) and dedication at work (r = .57, p < .01). Further, negative mood was negatively correlated with employees' affective commitment (r = -0.27, p < .01), and was positively correlated with role overload (r = .26, p < .01) and turnover intention (r = .31, p < .01). Employees' competence need satisfaction was positively correlated with affective commitment (r = .47, p < .01), but was negatively correlated with role overload (r = -0.28, p < .01) and turnover intention (r = -0.40, p < .01). Employees' dedication at work as found to be positively correlated with affective commitment (r = .51, p < .01), but was negatively correlated with role overload (r = -0.24, p < .01) and turnover intention (r = -0.32, p < .01). Taken together, these findings provided preliminary supports for Hypothesis 1, Hypothesis 2, Hypothesis 3, and Hypothesis 4.

# 2. Confirmatory Factor Analysis

Confirmatory factor analysis was conducted to examine the construct validity of multiple-item measures used in Study 2 (i.e., ritual sense, negative mood, competence need satisfaction, dedication at work, affective commitment, role overload, and turnover intention). Results of confirmatory factor analysis were summarized in Table 12. Specifically, the seven-factor model hypothesized in the present study incorporated one second-order general ritual sense with three

subcomponents and six unidimensional factors (i.e., negative mood, competence need satisfaction, dedication at work, affective commitment, role overload, and turnover intention). Results of confirmatory factor analysis indicates that the seven-factor model fits the data well, with a chi-square value of 942.75 (p < .01, df = 536), a CFI = .95, a TLI = .94, a RMSEA = .04, and a SRMR = .05. Further, this model fits the data better than any other comparative model with items measuring two different constructs at the same time point loading onto the same factor (with  $114.83 < \Delta \chi^2 < 496.79$ ,  $\Delta df = 6$ ). Therefore, results of confirmatory factor analysis support the construct validity of the measures used in Study 2.

Table 11 Study 2: Means, Stan Deviation, and Correlations of the Studied Variables

Variables	Mean	S.D. 1	2	3	4	5	6	7	8	9	10	11	12	13	14
1Age	34.68	5.92													
2Gender <sup>a</sup>	.45	.5008													
3Organizational tenure	7.53	4.93 .60*	*03												
4Income <sup>b</sup>	3.61	.81 .15*	*21**	.08											
5Ritual sense	4.04	.6203	04	01	.06	(.90)									
6Ritual characteristics:	7.45	10.3809	01	08	08	11*									
Frequency															
7Ritual characteristics:	3.96	.9705	02	05	.06	.53**	09								
Priming															
8Ritual characteristics:	4.05	1.07 .01	06	07	.01	.43**	02	.30**							
Work-related															
9Negative mood	1.77	.5802	07	06	02	28**	13**	·09*	09*	(.75)					
10Competence need	4.02	.61 .02	03	.03	.13**	.49**	11*	.32**	.23**	30**	(.70)				
satisfaction															
11Dedication at work	3.56	.8303	01	04	.08	.57**	06	.40**		20**	.48**	(.72)			
12Affective commitmen	t 3.69	.81 .03	.04	.04	02	.48**	03	.30**	.17**	27**	.47**	.51**	(.87)		
13Role overload	2.75	.9401	06	02	.00	22**		20**	08				45**	` /	
14Turnover intention	2.14	.9707	06	11*	07	28**	.07	20**	13*	.31**	40**	32**	66**	.52**	* (.83)

*Note.* N = 453. Alpha reliabilities appear in the parentheses along diagonal.  $^a$ 0 = female, 1 = male. Organization tenure was measured by years.  $^b$ 1 = less than 2000 CNY per month, 2 = 2000-4999 CNY per month, 3 = 5000-9999 CNY per month, 4 = 10000-19999 CNY per month, 5 = 20000-29999 CNY per month, 6 = more than 30000 CNY per month.  $^*p$  < .05,  $^**p$  < .01.

Table 12 Study 2: Results of Confirmatory Factor Analysis

Model	$\chi^2$	df	RMSEA	CFI	TLI	SRMR	$\Delta \chi^2$	∆df	Sig.
Seven-factor model: RS; NA; CNS; DAW; AC; RO; TI	942.75	536	.04	.95	.94	.05			
Six-factor model A: RS; NA + CNS; DAW; AC; RO; TI	1269.86	542	.05	.91	.90	.07	327.11	6	<i>p</i> < .01
Six-factor model B: RS; NA; CNS + DAW; AC; RO; TI	1057.58	542	.04	.93	.93	.05	114.83	6	<i>p</i> < .01
Six-factor model C: RS; NA + DAW; CNS AC; RO; TI	1413.68	542	.06	.89	.88	.06	470.93	6	<i>p</i> < .01
Six-factor model D: RS; NA; CNS; DAW; AC + RO; TI	1439.54	542	.06	.88	.88	.06	496.79	6	<i>p</i> < .01
Six-factor model E: RS; NA; CNS; DAW; AC; RO + TI	1330.9	542	.05	.90	.89	.05	388.15	6	<i>p</i> < .01
Six-factor model F: RS; NA; CNS; DAW; AC + TI; RO	1173.83	542	.05	.92	.91	.05	231.08	6	<i>p</i> < .01

Note.  $\Delta \chi^2$  was calculated as the difference between  $\chi^2$  of the seven-factor model and of each alternative model.  $\Delta df$  was calculated as the difference between df of the seven-factor model and of each alternative model. "Sig" indicates the p-value associated with the significance test of  $\Delta \chi^2$  with  $\Delta df$ . RS = ritual sense; NA = negative mood; CNS = competence need satisfaction; DAW = dedication at work; AC = affective commitment; RO = role overload; TI = turnover intention; + indicates loading items measuring the two constructs onto the same factor.

### 3. Hypothesis Testing

Table 13 presents the results of the path analysis model that simultaneously tested all of our hypotheses. Figure 3 depicts the path analysis model with the estimated path coefficients of the hypothesized relationships. Taken together, the path analysis model explained 12% of the variance in negative mood, 30% of the variance in competence need satisfaction, 39% of the variance in dedication at work, 35% of the variance in affective commitment, 17% of the variance in role overload, and 22% of the variance in turnover intention. Table 14 summarizes the mediation effects and Table 15 presents the moderated mediation effects.

Hypothesis 1 states that ritual sense is positively related to employees' psychological resources, including the decrease negative mood, the increase in competence need satisfaction, and the increase in dedication at work. We found that ritual sense was negatively related to negative mood ( $\gamma = -.34$ , p < .01), but was positively related to competence need satisfaction ( $\gamma = .49$ , p < .01) and dedication at work ( $\gamma = .82$ , p < .01). These findings support Hypothesis 1.

Hypothesis 2 posits that negative mood mediates the effects of ritual sense on outcome variables including affective commitment, role overload, and turnover intention. As shown in Table 3, we found the indirect effect of ritual sense on affective commitment through negative mood was .0611, with a 95% confidence interval (CI) of [.0055, .1256], excluding zero. Further, the indirect effect of ritual sense on role overload via negative mood was -.0943, with a 95% CI of [-.1506, -.0471], excluding zero. Additionally, the indirect effect of ritual sense on turnover intention was -.0573, with a 95% CI = [-.0774, -.0377], excluding zero. These

findings indicate that the indirect effects of ritual sense on affective commitment, role overload, and turnover intention were significant, supporting Hypothesis 2. Hypothesis 3 states that competence need satisfaction mediates the effects of ritual sense on outcome variables. We found that the indirect effect of ritual sense on affective commitment through competence need satisfaction was .2099, with a 95% CI of [.1043, .3299], and the indirect effect of ritual sense on role overload through competence need satisfaction was -.1208, with a 95% CI of [-.2353, -.0159]. Both of these confidence intervals exclude zero. However, the indirect effect of ritual sense on turnover intention was -.0638, with a 95% CI of [-.1447, .0129], including zero. As such, these findings indicate that the indirect effects of ritual sense on affective commitment and role overload through competence need satisfaction were significant, whereas the indirect effect of ritual sense on turnover intention via competence need satisfaction was not. This is not surprised given that the effect of competence need satisfaction on turnover intention was not significant, either ( $\gamma =$ -.13, p = .11). Hence, Hypothesis 3 was partly supported.

Hypothesis 4 posits that dedication at work will mediate the indirect effects of ritual sense on affective commitment, role overload, and turnover intention. As shown in Table 3, our findings show that the indirect effect of ritual sense on affective commitment though dedication at work was .3509, with a 95% CI of [.1800, .5377], and the indirect effect of ritual sense on role overload was -.2650, with a 95% CI of [-.4495, -.0889]. Nevertheless, the indirect effect of ritual sense on turnover intention via dedication at work was -.1055, with a 95% CI of [-.2377, .0205], including zero. These findings suggest that the indirect effects of ritual sense on

affective commitment and role overload through dedication at work were significant, whereas the indirect effect of ritual sense on turnover intention via dedication at work was not. This is not surprised given that the effect of dedication at work on turnover intention was not significant, either ( $\gamma = -.13$ , p = .10), either. Hence, Hypothesis 4 was also partly supported by data.

Table 13 Study 2: Unstandardized Coefficients of the Path Model

Variables	Negative Mood		Competence Need Satisfaction		Dedication at Work		Affective Commitment		Role Overload		Turnover Intention	
	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.
Intercept	1.76**	.03	4.04**	.03	3.54**	.03	2.27**	.40	3.47**	.55	3.16**	.54
Control variables												
Age	.00	.01	.00	.01	.00	.01	01	.01	.01	.01	.01	.01
Gender	08	.05	.02	.05	.04	.06	.06	.08	08	.10	09	.10
Organizational tenure	01	.01	.01	.01	01	.01	.02	.01	01	.01	03*	.01
Income	.00	.03	.10**	.03	.07	.04	05	.05	.07	.07	02	.07
Independent variable												
Ritual sense	34**	.06	.49**	.06	.82**	.07	.37**	.11	.09	.15	01	.14
Moderators												
Ritual characteristics: Frequency	01**	.00	00	.00	.00	.00	.00	.00	.01	.01	.00	.01
Ritual characteristics: Priming	.02	.03	.03	.03	.11**	.04	.04	.05	12	.07	11	.07
Ritual characteristics: Work-related	.03	.03	.00	.02	03	.03	.02	.04	04	.05	03	.05
Interaction terms												
Ritual sense ×												
Ritual characteristics: Frequency	01*	.00	.01*	.00	.00	.00	01	.01	.00	.01	.00	.01
Ritual sense ×												
Ritual characteristics: Priming	12**	.04	02	.04	.01	.06	02	.08	.03	.10	.00	.10
Ritual sense ×												
Ritual characteristics: Work-related	.04	.04	.10**	.04	.10*	.05	.09	.06	12	.08	.00	.08
Mediators												
Negative mood							18*	.08	.43**	.11	.43**	.11
Competence need satisfaction							.28**	.08	25*	.11	32**	.11
Dedication at work							.17**	.06	13	.08	13	.08
Residual variance	.26**	.02	.23**	.02	.41**	.03	.39**	.03	.72**	.06	.69**	.06

Note. N = 453. Alpha reliabilities appear in the parentheses along diagonal.  $^a$ 0 = female, 1 = male. Organization tenure was measured by years.  $^b$ 1 = less than 2000 CNY per month, 2 = 2000-4999 CNY per month, 3 = 5000-9999 CNY per month, 4 = 10000-19999 CNY per month, 5 = 20000-29999 CNY per month, 6 = more than 30000 CNY per month.  $^*p$  < .05,  $^**p$  < .01.

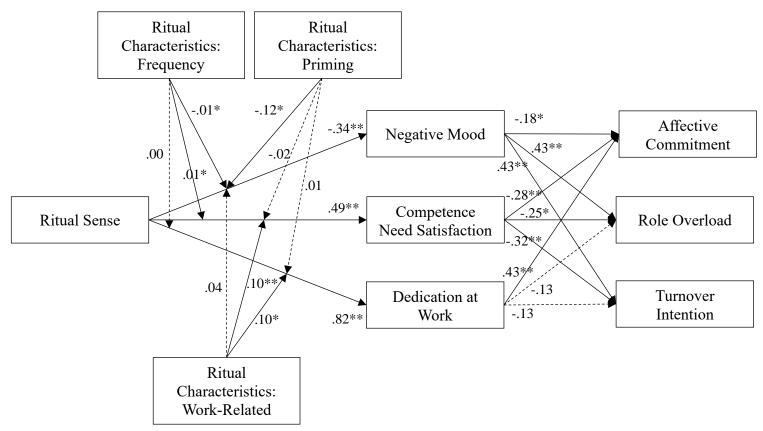


Figure 3 Study 2: Unstandardized Coefficients of Path Model

Table 14 Study 2: Summary of the Mediation Effects

Mediator	Outcome variable	Est.	95% CI
Negative mood	Affective commitment	.0611*[	.0055, .1256 ]
Negative mood	Role overload	0943*[	1506,0471 ]
Negative mood	Turnover intention	0573*[	0774,0377 ]
Competence need satisfaction	Affective commitment	.2099*[	.1043, .3299 ]
Competence need satisfaction	Role overload	1208*[	2353,0159 ]
Competence need satisfaction	Turnover intention	0638 [	1447, .0129 ]
Dedication at work	Affective commitment	.3509*[	.1800, .5377 ]
Dedication at work	Role overload	2650*[	4495,0889 ]
Dedication at work	Turnover intention	1055 [	2377, .0205 ]

Notes. \*Significant based on 95% confidence interval.

Hypothesis 5 suggests that the frequency of the ritual may amplify the effects of ritual sense on mediators (negative mood, competence need satisfaction, and dedication at work). We found that the negative relationship between ritual sense and negative mood was amplified by frequency of the ritual ( $\gamma = -.01, p < .05$ ), and the positive relationship between ritual sense and competence need satisfaction was also strengthened by frequency of the ritual ( $\gamma = .01$ , p < .05), whereas the relationship between ritual sense and dedication at work was not impacted by frequency of the ritual ( $\gamma = .00$ , p = .50). Following recommendations of Cohen et al. (2013), we plotted the moderation effects in Figure 4 and Figure 5. As shown in Figure 4, the negative relationship between ritual sense and negative mood was stronger when frequency of the ritual is higher ( $\gamma = -.42$ , p < .01) than lower ( $\gamma =$ -.27, p < .01). As shown in Figure 5, the positive relationship between ritual sense and competence need satisfaction was stronger when frequency of the ritual is higher ( $\gamma = .56$ , p < .01) than lower ( $\gamma = .41$ , p < .01). Thus, Hypothesis 5 was partly supported.

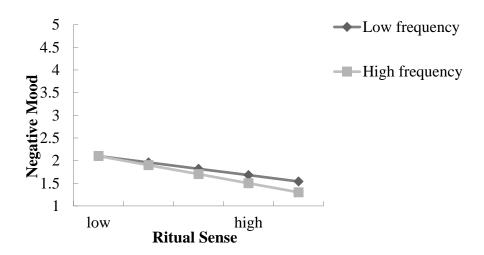


Figure 4 Study 2: The Moderating Role of Frequency on the Effect of Ritual Sense on Negative Mood

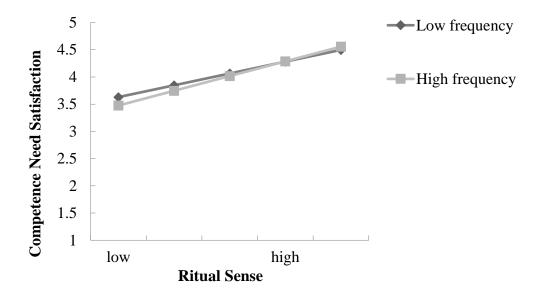


Figure 5 Study 2: The Moderating Role of Frequency on the Effect of Ritual Sense on Competence Need Satisfaction

Hypothesis 6 posits that the effects of ritual sense on psychological resources (including negative mood, competence need satisfaction, and dedication at work) are shaped by the priming before the ritual. We found that the negative relationship between ritual sense and negative mood was amplified by the priming process ( $\gamma = -.12$ , p < .05). We also plotted the moderation effect in Figure 6. As depicted in Figure 6, the negative relationship between ritual sense and negative mood was stronger when the priming process is higher ( $\gamma = -.46$ , p < .01) than lower ( $\gamma = -.22$ , p < .01). Nevertheless, we found that the effects of ritual sense on competence need satisfaction and dedication at work were not influenced by priming ( $\gamma = -.02$ ,  $\gamma = .63$  for competence need satisfaction, and  $\gamma = .01$ ,  $\gamma = .90$  for dedication at work). As such, Hypothesis 6 was also partly supported.

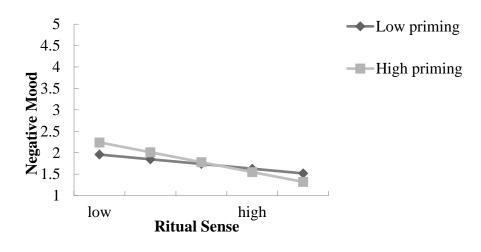


Figure 6 Study 2: The Moderating Role of Priming on the Effect of Ritual Sense on Negative Mood

Hypothesis 7 states that the effects of ritual sense on psychological resources are bounded by the extent to which the ritual is work related. Our findings show that the extent to which the ritual is work related did not moderate the relationship between ritual sense and negative mood ( $\gamma = .04$ , p = .31). However, as shown in Figure 7, our findings indicate that the positive relationship between ritual sense and competence need satisfaction was stronger when the ritual is more work-related ( $\gamma = .59$ , p < .01) than when the ritual is less work-related ( $\gamma = .38$ ,  $\gamma < .01$ ). Further, as showed in Figure 8, the positive effect of ritual sense on dedication at work was also amplified when the ritual is more work-related ( $\gamma = .93$ ,  $\gamma < .01$ ) than when the ritual is less work-related ( $\gamma = .93$ ,  $\gamma < .01$ ) than when the ritual is less work-related ( $\gamma = .93$ ,  $\gamma < .01$ ) than when the ritual is less work-related ( $\gamma = .93$ ,  $\gamma < .01$ ) than when the ritual is less work-related ( $\gamma = .93$ ,  $\gamma < .01$ ) than when the ritual is less work-related ( $\gamma = .93$ ,  $\gamma < .01$ ) than when the ritual is less work-related ( $\gamma = .93$ ,  $\gamma < .01$ ) than when the ritual is less work-related ( $\gamma = .93$ ,  $\gamma < .01$ ) than when the

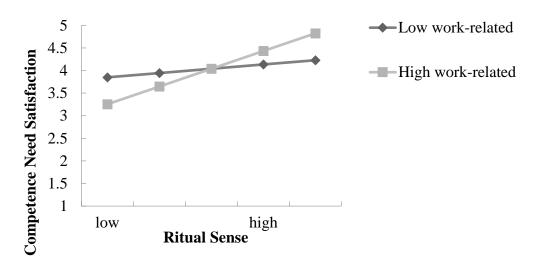


Figure 7 Study 2: The Moderating Role of the Extent to Which the Ritual is Work-Related on the Effect of Ritual Sense on Competence Need Satisfaction

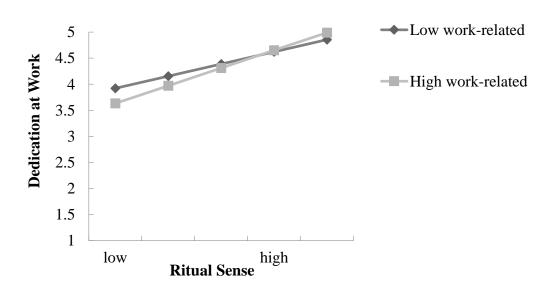


Figure 8 Study 2: Moderating Role of the Extent to Which the Ritual is Work-Related on the Effect of Ritual Sense on Dedication at Work

We conducted Monte Carlo simulation in order to test our moderated moderation hypotheses, and results are depicted in Table 4. Specifically, our findings indicated that the indirect effects of ritual sense on outcome variables (i.e., affective commitment, role overload, and turnover intention) through negative mood was significantly moderated by the frequency of the ritual and the priming process before the ritual, whereas these indirect effects of ritual sense on outcome variables through negative mood were not impact by the extent to which the ritual is work-related. These findings support our Hypothesis 8, Hypothesis 9, but not support Hypothesis 10.

Further, the indirect effects of ritual sense on outcome variables through employees' competence need satisfaction were significantly shaped by frequency of the ritual and the extent to which the ritual is work-related, whereas these indirect effects of ritual sense on outcome variables via competence need satisfaction were not impacted by the priming process. Therefore, our Hypothesis 11 and Hypothesis 13 were supported by the data, but Hypothesis 12 was not supported by the data.

Last but not least, our findings show that the indirect effects of ritual sense on outcomes variables through employees' dedication at work were moderated by the extent to which the ritual is work related, but these indirect effects were not impacted by frequency of the ritual or the priming process. Therefore, Hypothesis 14 and Hypothesis 15 were not supported by the data, but Hypothesis 16 was supported by the data.

Table 15 Study 2: Summary of Moderated Mediation Effects

Mediator	Outcome variable	Est.	95% CI
Negative mood	Affective commitment	.0011*	[ .0002 , .0020 ]
Negative mood	Role overload	0017*	[0023 ,0010 ]
Negative mood	Turnover intention	0010*	[0011 ,0009 ]
Negative mood	Affective commitment	.0221*	[ .0011 , .0526 ]
Negative mood	Role overload	0341*	[0663 ,0093 ]
Negative mood	Turnover intention	0207*	[0355 ,0062 ]
Negative mood	Affective commitment	0068	[0254 , .0064 ]
Negative mood	Role overload	.0105	[0101 , .0328 ]
Negative mood	Turnover intention	.0063	[0058 , .0189 ]
Competence need	Affective commitment	.0026*	[ .0013 , .0039 ]
-	Role overload	0015*	[0027 ,0003 ]
	TD ' '	0000 *	r 0110 0002 l
-	Turnover intention	0008*	[0110 , .0083 ]
	A ffactive commitment	0001	r 0509 0200 1
-	Affective communent	0091	[0308 , .0290 ]
	Role overload	0052	[0180 , .0325 ]
-	itole overload	.0032	[ .0100 ; .0323 ]
	Turnover intention	.0028	[0103 , .0192 ]
satisfaction			[ , ]
Competence need	Affective commitment	.0431*	[ .0096 , .0868 ]
satisfaction			- , -
Competence need	Role overload	0248*	[0587 ,0016 ]
satisfaction			
Competence need	Turnover intention	0131*	[0360 , .0027 ]
satisfaction			
Dedication at work	Affective commitment		[0915 , .0947 ]
Dedication at work	Role overload	0006	[0742 , .0720 ]
Dedication at work	Turnover intention		[0349 , .0332 ]
Dedication at work	Affective commitment	.0030	[0461 , .0529 ]
		0023	[0452 , .0363 ]
Dedication at work	Turnover intention		[0191 , .0169 ]
			[ .0030 , .0948 ]
Dedication at work	Role overload		[0771 ,0020 ]
	Turnover intention	0132*	[0385 , .0032 ]
	Negative mood Competence need Satisfaction Competen	Negative mood Ne	Negative mood Role overload0017* Negative mood Turnover intention0010* Negative mood Affective commitment Negative mood Role overload0341* Negative mood Role overload0341* Negative mood Turnover intention0207* Negative mood Affective commitment Role overload0068 Negative mood Role overload .0105 Negative mood Turnover intention .0063 Negative mood Turnover intention .0063 Competence need Affective commitment ratisfaction Competence need Role overload .0026* Competence need Role overload .0052 Competence need Role overload .0028 Competence need Role overload .00431* Competence need Role overload .00431* Competence need Role overload .0099 Competence need Turnover intention .00431* Competence need Role overload .0009 Codication at work Affective commitment .0009 Codication at work Role overload .0006 Codication at work Role overload .0006 Codication at work Role overload .0003 Codication at work Role overload .0003 Codication at work Role overload .0009 Codication at work Role overload .0003

Notes. \*Significant based on 95% confidence interval.

#### 4. Supplementary Analysis

Two sets of supplementary analyses were conducted to advance our understanding about employees' ritual sense in the organization. Specifically, we noticed two characteristics about the scale that was developed in our research and the about the rituals that have been reported by out participants, and we believe that such key characteristics about our research worth to be further developed. First, as the first dimension of employees' ritual sense that has been identified in the present research directly captures employees' perception or personal interpretation about the focal ritual, it should be valuable to examine whether such direct perceptions would lead to positive psychological states as we theorized. Second, during the data collection process, we were able to collect participants' responses regarding various forms of ritual senses (collective and formal rituals that were required or initiated by the organization, or the relatively individual and informal rituals that were developed by participants themselves and manifested as their personal habits in life or works). Hence, our data warrants the possibility to investigate the impacts of ritual sense regarding these two different forms of rituals.

We therefore conducted two supplementary analyses: (1) investigate the impacts of the first dimension of the ritual sense scale; (2) investigate the impacts of ritual sense (using the first dimension in the newly developed scale) in either collective ritual groups (accounts for 59% of the total participants) or individual rituals (accounts for 41% of the total participants). Results of the first set of supplementary analysis were presented in Table S1, and results of the second set of supplementary analysis were presented in Table S2a and Tale S2b. Results showed that the first

dimension of ritual sense significantly reduces employees' negative mood, increases competence need satisfaction and dedication at work, and these results stayed robust in the supplementary analysis for the two separate groups.

Table S1 Unstandardized Coefficients for Supplementary Analysis 1

Variables	Negative r		Competence need satisfaction		Dedication at work		Affective commitment		Role overload		Turnover intention	
	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.
Intercept	2.792**	.227	2.296**	.23	1.018**	.291	1.392**	.438	3.538**	.592	4.068**	.573
Age	.00	.01	.00	.01	.00	.01	.00	.01	.00	.01	.00	.01
Gender	09	.05	.00	.05	.03	.06	.04	.07	10	.10	12	.10
Organizational tenure	01	.01	.00	.01	01	.01	.01	.01	.00	.01	02	.01
Income	01	.03	.07*	.03	.07	.04	07	.05	.02	.06	04	.06
Independent Variables												
Ritual sense	23**	.03	.35**	.03	.57**	.04	.12*	.06	02	.08	01	.07
Mediators												
Negative mood							17*	.07	.32**	.10	.34**	.09
Competence need satisfaction							.30**	.07	23*	.10	41**	.10
Dedication at work							.30**	.05	13	.07	17*	.07
Residual variance	.30**	.02	.30**	.02	.50**	.03	.42**	.03	.77**	.06	.72**	.06

Table S2a Unstandardized Coefficients for Supplementary Analysis 2a (Non-Collective Rituals)

Variables	Negative	Negative mood		Competence need satisfaction		Dedication at work		Affective commitment		Role overload		Turnover intention	
	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	
Intercept	2.72**	.38	1.89**	.36	1.10*	.46	1.29	.68	2.73**	.80	2.74**	.93	
Age													
Gender	01	.01	.01	.01	.00	.01	.01	.01	.03	.02	.02	.02	
Organizational tenure	06	.09	06	.08	16	.10	02	.12	17	.14	20	.16	
Income	.01	.01	01	.01	01	.01	.00	.02	02	.02	03	.02	
Independent Variables Ritual sense	.09	.05	.07	.05	.10	.06	02	.08	02	.09	03	.10	
Mediators Negative mood	27**	.05	.38**	.05	.52**	.06	.14	.09	.13	.11	.11	.12	
Competence need satisfaction							05	.11	.42**	.12	.51**	.15	
Dedication at work							.25*	.12	26	.14	42*	.16	
Residual variance							.18*	.08	17	.10	08	.11	
	.37**	.04	.32**	.03	.54**	.05	.47**	.06	.64**	.08	.88**	.10	

Table Sb Unstandardized Coefficients for Supplementary Analysis 2b (Collective Rituals)

Variables	Negative	mood	Competence need satisfaction		Dedication at work		Affective commitment		Role overload		Turnover intention	
	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.	γ	S.E.
Intercept	2.93**	.27	2.68**	.30	1.00**	.37	1.66**	.58	3.61**	.87	5.12**	.72
Age												
Gender	.00	.01	01	.01	.00	.01	01	.01	01	.01	.00	.01
Organizational tenure	09	.06	.03	.06	.17*	.08	.06	.09	03	.14	05	.11
Income	02*	.01	.01	.01	.00	.01	.01	.01	.00	.02	02	.01
Independent Variables Ritual sense	09*	.04	.05	.04	.04	.05	11	.06	.06	.09	09	.08
Mediators	20**	.04	.33**	.04	.63**	.05	.11	.07	12	.11	06	.09
Negative mood							26**	.10	.29*	.14	.15	.12
Competence need satisfaction							.33**	.09	16	.13	38**	.11
Dedication at work Residual variance							.36**	.07	09	.11	27**	.09
	.25**	.02	.28**	.02	.46**	.04	.35**	.04	.80**	.08	.55**	.06

#### 5.4 Discussion

Empirical research conducted in Study 2 revealed the mechanisms of the impacts of employee' ritual sense on their workplace outcomes. Specifically, findings indicate that ritual sense significantly improved employees' affective commitment to the organization via reducing negative mood, increasing competence need satisfaction, and facilitating dedication at work; ritual sense indirectly weakened role overload by and turnover intention by reducing negative mood and facilitating competence need satisfaction. Additionally, findings of Study 2 also suggest that certain characteristics of the ritual can serve as boundary conditions of the effects of ritual sense. In particular, results show that the negative effect of ritual sense on negative mood was amplified by frequency of the ritual and the priming process associated with the ritual; the positive relation between ritual sense and competence need satisfaction was magnified by frequency of the ritual and the extent to which the ritual is work-related; and the role of ritual sense in impacting dedication at work was strengthened the extent to which the ritual is work-related. The indirect effects of ritual sense on employee outcomes through psychological resources were also moderated by the extent to which the ritual is work-related. These findings revealed how and when employees' experience of ritual sense would elicit employees' favorable attitudinal outcomes, depicting the three different forms of psychological resources increased by ritual sense, as well as the mediating role of such increased psychological resources in transmitting the effect of ritual sense on employees' attitudinal outcomes in the workplace. Further, in investigating boundary conditions of the above-mentioned effects, the present study also

revealed important findings regarding how the favorable effects of ritual sense can be shaped by different characteristics of the ritual itself. This investigation is both theoretically and practically important, as the current investigation shows that ritual itself can serve as a feasible intervention that facilitate employees' favorable attitudinal outcomes. Therefore, our current investigation focusing on the boundary conditions of the favorable effects of ritual sense is promising in generating implications regarding what kinds of ritual can particularly amplify the positive effects of ritual sense, or how to develop an organizational ritual that is able to maximize the positive effects of ritual sense.

Although most of our hypotheses were supported by the data, exceptions were found in Study 2. Specifically, in terms of the effects of accumulated positive psychological resources on employees' attitudinal outcomes, we found employees' dedication at work was not significant related to their perception of role overload and turnover intention. This is probably because the efforts invested at work may not only represent employees' intrinsic motivation at work as we proposed, rather, the relationship between dedication at work and employees' work-related outcomes are more complicate, which may also incorporate dark-side mechanisms such as the fatigue or stress initiated by long-working hour, thereby might not necessarily lead to the decrease of role overload or turnover intention. Future study may therefore build on our findings and further investigate the different mechanisms that underlying the effects of employees' dedication invested at work.

Further, we found that not all the ritual characteristics investigated in the present study were significantly moderated the effect of ritual sense on the three forms of

the psychological resources. Specifically, frequency of the ritual strengthened the effects of ritual sense on negative mood and competence need satisfaction but did not moderated the relationship between ritual sense on dedication at work. Further, we found the priming process associated with the ritual was able to moderate only the effect of ritual sense on negative mood. This is probably because the priming process investigated in the current study was adapted from exiting literature (Brooks et al., 2016), which was developed to mainly focus on the affective related pre-performance preparation. Therefore, this priming process should be more relevant with the affective responses elicited by the experience of ritual sense. Moreover, we found the extent to which the ritual is work-related did not significantly moderate the effect of ritual sense on negative mood. This character of ritual (work-related) was shown to be prominent in shaping the effect of ritual sense on only employees' negative mood satisfaction and their dedication invested at work. Such findings were probably due to the nature of different forms of psychological resources. Given that the mood can be non-work specified, whereas competence need satisfaction and dedication at work are more specified to employees' psychological experience associated with work tasks (i.e., the extent to which they were capable in performing the work-related tasks, and extent to which they have invested personal efforts and energies into their works), the extent to which the ritual itself is work-related would be more relevant in impacting the effects of ritual sense in impacting those two mechanisms.

#### CHAPTER 6.GENERAL DISCUSSION

## **6.1 Theoretical Implication**

The present thesis reported two studies that investigating the measurement and the effects of employees' ritual sense. The major purposes for this research were to (1) develop a psychometrically robust measure of employees' ritual sense, and (2) investigate how and when employees' experience of ritual sense can trigger favorable attitudinal outcomes in the workplace. The two studies we have reported in the current thesis general several theoretical implications to the literature.

First, our scale of ritual sense reflects the focal employees' psychological experiences and responses initiated by performing the ritual. Focusing on different aspects of employees' perceptions, our measure reflects general psychological reflections and responses that employee may attach to the performed rituals. Our measure can therefore be extended to different rituals to capture different individual's psychological perceptions rituals in different forms. Therefore, the present research offered a measurement tool for further empirical research that is aimed to explore the role of ritual sense in impacting individual's daily work or non-work behaviors.

Second, our findings demonstrate that rituals, though in various forms, were promising in eliciting favorable employees' attitudinal outcomes in the workplace. Specifically, the ritual sense associated with various rituals was found to play salient a salient role in conserving and establishing employees' psychological resources, and subsequently resulted in increased affective commitment, decreased role overload, and decreased turnover intention. Such findings corroborate previous

literature that interventions at work, such as various rituals that might be performed by employees, could serve as critical buffers that protect employees from resources depletion and help employees with building and maintaining resources at work (Gilbert et al., 2017). Therefore, our research contributes to organizational intervention literature by theoretically and empirically revealing the effectiveness of ritual, and ritual sense in impact employees' attitudinal outcomes in the workplace.

Third, our investigation focusing on the underlying mechanisms of the effectiveness of ritual sense spotlighted the important roles of conserving, building, and maintaining employees' psychological resources in transmitting effects of interventions (such as performing rituals) on employee outcomes. These findings, therefore, corresponds to the arguments that various tangible and intangible resources play irreplaceable roles in employee well-being and effectiveness (Gilbert et al., 2017; Hobfoll et al., 2018).

Fourth, our investigation regarding the boundary conditions of the effectiveness of ritual sense offered a nuanced perspective to examine the effects of rituals with different characteristics. Specifically, although the current investigation is aimed to reveal the effects of ritual sense on employee outcomes in the workplace, the activation and the arouse of ritual sense is closely related to the particular ritual that was performed. As such, one of the underlying assumptions of our investigation is that the ritual that the focal individual perform should play an important role in influencing employees' attitudinal outcomes. Our investigation, therefore, further offered a more nuanced prospect to understand that effects of such interventions in

the organizations. Specifically, although the moderating and moderated mediation hypotheses were not completely supported by the data collected in the resent study, findings in the present study demonstrated that the three characteristics we have taken into consideration significantly impacted at least parts of underlying mechanisms of the effectiveness of the experience of ritual sense. Therefore, our findings offered implications for the design of organizational intervention design.

### **6.2 Practical Implication**

We are now turning our attention to practical implications derived from the present thesis. First, given that the experience of ritual sense should be closely associated with the performing of ritual itself, the scale developed in Study 1 can serve as a tool of manipulation check for organizations or individuals to measure their psychological experience associated with performing the ritual sense. As such, the ritual sense scale developed in our research can be used to measure employees' psychological responses associated with a particular ritual, thereby offering a feasible tool to empirically examine the effectiveness of ritual and ritual sense. Second, our findings indicate that employees' experience of ritual experience indeed was effective in eliciting favorable employee attitudinal outcomes, and such effects were transmitted by the maintenance of psychological resources in terms of mood, efficacy, and energy (i.e., reduced negative mood, increased competence need satisfaction, and increased dedication at work). As such, our findings indicate that organizations or individuals can actively adjust attitudinal experience at work by performing rituals and arouse the experience of ritual sense. Therefore, organizations might be beneficial by encouraging their employees to get engaged in small rituals at work. For example, recent positive psychology literature regarding mindfulness and meditation in the workplace (e.g., Creswell, 2017; Gilbert et al., 2017; Yu & Zellmer-Bruhn, 2018) offers several feasible actions for organizations or individuals to actively build up and maintain positive psychological resources at work.

Third, our investigation of the mediating role of psychological resources spotlights the critical role for organizations to actively preserve, build up, and maintain employees' psychological resources at work. Given that mood, efficacy, and energy were identified as the three essential psychological resources that profoundly impact employees' well-being and working effectiveness (Gilbert et al., 2017), it is critical for organizations to pay attention to employees' psychological resources in the above-mentioned aspects. For example, as for the mood perspective, our findings demonstrated that the decreased negative mood was significantly related to increased affective commitments, reduced role overload, and reduced turnover intention. Organizations can therefore offer training programs regarding how to evaluate and process stressful events at work and how to effectively cope with the stressors (e.g., Song et al., 2018), thereby alleviating the negative affective experiences associated with work event. Further, as for the efficacy perspective, our research present that it is critical to let employees to experience of achievement. It is therefore essential for organizations or managers to offer timely feedbacks, supports, and guidance for employees (Hagger, Koch, & Chatzisarantis, 2015; Schüler, Sheldon, & Fröhlich, 2010). In terms of the energy perspective, exiting literature suggests that the recovery experience, the establishment of positive relation at work, increasing meaning of the tasks, and focusing on learning perspective were critical in assisting individuals to restore energy (Demerouti, Bakker, Sonnentag, & Fullagar, 2012; Fritz, Lam, & Spreitzer, 2011). As such, organizations can benefit from more scientific job-design that emphasizes on the

learning perspectives of the task or, increases the meaning of job tasks for employees.

Fourth, our investigation of the role of different characteristics of the particular ritual in impacting the effectiveness of ritual sense also signifies a springboard for practical implications. Specifically, our findings demonstrate that frequency of the ritual, the pre-performed strategy such as eliciting a priming process, and the extent to which the ritual itself is work related were effective in amplifying the favorable effects of ritual sense on attitudinal outcomes. Although the three characteristics of the ritual were not all completely moderated all the three mechanisms, they were shown to be effectively moderated at least one or two mechanisms that were tested in the current research. In other words, organizations can still try to enhance the favorable effects of ritual sense by encourage employees to perform the ritual in a regular pace and keep a stable frequency as well.

Additionally, in the process of performing the ritual, our findings suggest that organizations or individuals can benefit from actively engage in a priming process in which explicitly require themselves to get involved in a specific psychological state. This pre-performed strategy ensures that employees concentrate on performing the ritual and the experience of ritual sense, thereby should amplify the favorable effects of ritual sense.

The last moderator, the extent to which the ritual is work-related demonstrated that the relevant rituals should be particularly effective in maximizing the effects of ritual sense on employees' psychological resources that are task-specified or task-related. As such, organizations or individuals can be benefit by (re)designing or

tailoring the existing rituals, thereby building a stronger connection between ritual and the working task, and therefore, maximize the potential positive effects of ritual and ritual sense.

#### **6.3 Limitation and Future Direction**

This research has some limitations which point to future research directions. First, the present research investigated ritual sense at individual level, investigating single individual's psychological experience associated with performing certain rituals. Therefore, our aim was to investigate ritual sense at individual levels. However, it is possible that ritual sense can be emerged to a collective pattern into a collective ritual sense. However, investigating the emergent process as well as the effectiveness of collective ritual sense is beyond the scope of the present investigation. Nevertheless, it is possible that the experience of ritual sense can be developed or emerged at a collective level, especially when the associated ritual is performed collectively as well. Specifically, when the performance and the participation of the certain ritual is required to be a collective behavior, thereby the arouse of ritual sense can be an emergent state that collectively shared by members who were involved in the ritual. Therefore, future study can build on our findings and further explore how employee's individual perception would develop and emerge into a shared norm or collective state among members, and how such collective ritual sense would be associated with consequences at different level s in the organization. Having said that, our research offered a starting point for the exploration regarding the critical role of ritual sense in impacting employees' attitudinal outcomes.

Second, in examining mechanisms underlying the effectiveness of ritual sense, the present investigation conceptualizes ritual sense as a form of intervention, and the three underlying mechanisms examined in our study were derived from the resource

perspective, spotlighting the importance of conserving and maintaining employees' psychological resource in impacting employees' well-being and effectiveness. Nevertheless, the three mechanisms examined in the present study were aimed to mood, efficacy, and energy, respectively. Although the three forms of resource were shown to be the most typical and effective resources in influencing employees' well-being and effectiveness (Gilbert et al., 2017), future study can build on our findings and investigate whether other forms of resource may play a role in transmitting the effects of ritual sense. Notably, in terms of the impacts of ritual sense on adjusting employees' affective mood, our investigation focused on the impacts of ritual sense on relieving negative mood, but the current investigation was not able to further investigate the potential impact of ritual sense on positive mood. As such, it would be both theoretically and practically meaningful further investigate the impacts of ritual sense on both positive and negative mood, thereby advancing our understanding about the effects of ritual sense.

Third, in investigating boundary conditions that impact the effects of ritual sense, our findings indicated that frequency of the ritual, the pre-performed strategy such as priming process, and the extent to which the ritual is work-related impact the effect of ritual sense on employees' state-like resources and subsequent attitudinal outcomes. Nevertheless, we were not able to collect data in terms of all the characteristics of the specific ritual, future studies can therefore build on our findings and further investigate if there is any other characteristics associated with the ritual that would shape the effects of ritual and ritual sense.

Fourth, in examining the effectiveness of ritual sense, we incorporated employees' attitudinal outcomes into investigation, exploring how ritual sense lead to favorable attitudinal outcomes, including increased affective commitment, reduced role overload, and reduced turnover intention. However, we were not able to collect objective data that reflecting employees' behavioral outcome induced by ritual sense in the workplace. Future study, therefore, can build on our research and conduct experiment research or collect objective data that reflecting employees' behavioral responses in the workplace, thereby expanding our understanding regarding the effectiveness regarding ritual and ritual sense. Additionally, drawing on the positive psychological resource (Gilbert et al., 2017), we investigated the role of negative mood, competence need satisfaction, and dedication at work as the three underlying mechanisms of the effects of ritual sense. However, there is potential concern about reversed causality between mediators and dependent variables. Nevertheless, due to the limitation in data collection process, we were not able to collect longitudinal data to fully investigate the causality between mediation variables and dependent variables. We therefore relied on the positive psychological resource framework to design and develop our study, and further examine our key research question.

### CHAPTER 7 SUMMARY of CONCLUSION

Although the role of ritual in organizations has attracted numerous scholarly attentions in the field of human resource management and organizational behavior, this field of research has been stymied because of the difficulty of measurement. The present research develops and validates the three-dimension, twelve-item scale of ritual sense in Study 1, in the hope to offer a research tool to examine and reveal the real impact of ritual sense in impacting organizational process and outcomes at different levels.

Further, using the scale developed in Study 1, Study 2 empirical tested how and when employees' ritual sense will shape their work-related outcomes at individual level. Specifically, our findings show that ritual sense indirectly improved employees' affective commitment to the organization and reduced role overload and turnover intention by effectively building and maintaining psychological resources. In particular, ritual sense significantly improved employees' affective commitment to the organization via reducing negative mood, increasing competence need satisfaction, and facilitating dedication at work; ritual sense indirectly weakened role overload by and turnover intention by reducing negative mood and facilitating competence need satisfaction.

Moreover, findings of Study 2 revealed several boundary conditions of the effects of ritual sense. Specifically, results indicate that the negative effect of ritual sense on negative mood was amplified by frequency of the ritual and the priming process associated with the ritual; the positive relation between ritual sense and competence need satisfaction was magnified by frequency of the ritual and the

extent to which the ritual is work-related; and the role of ritual sense in impacting dedication at work was strengthened the extent to which the ritual is work-related. The indirect effects of ritual sense on employee outcomes through psychological resources were also moderated by the extent to which the ritual is work-related.

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## **APPENDIX**

## **Scales Used in the Present Research**

#### Characteristics of the ritual

Please recall a ritual that you would typically perform in your organization, and answer the questions related to that ritual.

1.	Please list the name of the ritual (or contents of the ritual if it does not
	have a name:
2.	This ritual has been held fortimes, around every,
	times (e.g., every season three times, every two days once).
3.	This ritual is closely related to my work later on.
4.	I will intentionally mention myself to try to calm down/relax/get
	excited/psyched up.

#### Ritual sense

- 1. This ritual is very important to me.
- 2. This ritual is special to me.
- 3. This ritual is meaningful to me.
- 4. I am able to take my work-related goals more seriously.
- 5. I do care if I achieve my work-related goals.
- 6. I am strongly committed to pursuing my work-related goals.
- 7. I am willing to put forth a great deal of effort beyond what I'd normally do to achieve my work-related goals.
- 8. I feel that I am able to experience considerable personal growth in the process of achieving work-related goals.

- 9. I am growing in positive ways.
- 10. I am finding new ways to develop.
- 11. I am developing a lot.
- 12. I am continuing to develop.

# **Demographic information**

1.	Year of birth:
2.	Your gender: omale ofemale
3.	Organizational tenure:years and months
4.	Your highest education:
	○Elementary school
	ojunior high school
	oprofessional high school
	osenior high school
	∘Junior college
	○undergraduate
	○master
	∘Ph.D.
5.	Monthly income:
	○ less than 2000 RMB
	○ 2000 RMB-4999 RMB
	○ 5000 RMB -9999 RMB
	o 10000 RMB -19999 RMB

 $\circ$  20000 RMB -19999 RMB

#### o more than 30000 RMB

## **Negative mood**

- 1. Afraid
- 2. Nervous
- 3. Upset
- 4. Ashamed
- 5. Hostile

## **Competence need satisfaction**

- 1. I feel like a competent person.
- 2. I rarely feel inadequate or incompetent.
- 3. I feel very capable and effective.

#### **Dedication at work**

- 1. I feel happy when I am working intensely.
- 2. I am immersed in my work.
- 3. I can continue working for very long periods at a time.

## **Affective commitment**

- 1. I have strong commitment to my organization.
- 2. I have strong emotional bonds with my organization.
- 3. I am always proud when I am talking about my organization.
- 4. Working in the current organization means a lot to me.
- 5. I would be very happy if I can work in this organization until retire.
- 6. I feel like my organizations' problems are my own problems.

# Role overload

- 1. It often seems like I have too much work for one person to do.
- 2. The expectations for what I should do are too high
- 3. I feel that I have taken on too much.

## **Turnover intention**

- 1. I am thinking about leaving this organization.
- 2. I am planning to look for a new job.
- 3. I intend to ask people about new job opportunities.