

PLAYING IT SAFE FOR MY FAMILY: EXPLORING THE DUAL EFFECTS OF FAMILY MOTIVATION ON EMPLOYEE PRODUCTIVITY AND CREATIVITY

XIN-AN ZHANG
Shanghai Jiaotong University

HUIYAO LIAO
University of Iowa

NING LI
University of Iowa and Tongji University

AMY E. COLBERT
University of Iowa

Research has shown that family motivation exerts an energizing effect on employee performance. Challenging this, we argue that family motivation is a double-edged sword with both an energizing and a debilitating effect on employee performance, depending on the performance criterion in question. Specifically, drawing upon self-determination theory and the “hard work versus smart work” framework, we hypothesize that family motivation is positively related to employee productivity via enhanced work effort (i.e., energizing effect). However, family motivation also stimulates employees to see their jobs as a means to gain financial support for their family, rather than an end in itself, which is associated with lower levels of creativity (i.e., debilitating effect). We further propose that employees’ family motivation is higher when they experience higher levels of family financial pressure, and that financial pressure is more strongly related to family motivation for women than for men. We find support for our hypotheses in a sample of 187 low-wage, blue-collar workers and a sample of 439 relatively high-income, white-collar employees. We also conduct a qualitative study with 40 high-income employees; results provide a more nuanced understanding of the ways in which family motivation shapes perceptions of the job and subsequent behaviors and outcomes.

Human beings, along with other species on earth, are genetically motivated to benefit their families. The biologist J. B. S. Haldane reportedly quipped, “I would lay down my life for two brothers or eight cousins,” which is a fair deal in evolutionary terms because siblings are, on average, 50% identical by descent, whereas cousins share 12.5% of their genes. As manifested in the workplace, “family motivation” (i.e., the desire to expend effort to

benefit one’s family [Menges, Tussing, Wihler, & Grant, 2017]) may motivate employees to work hard to support their families (George & Brief, 1990; Menges et al., 2017; Tariq & Ding, 2018; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997) and is becoming an even more relevant motivator at a time when many families are walking a financial tightrope (American Psychological Association, 2015; Lyons & Liu, 2016). Financial concerns are experienced not only by low-wage workers (Leana & Meuris, 2015), but also by working adults in other income brackets. According to a study by Massachusetts Mutual Life Insurance Company (2017), household financial stress is a widespread concern among working Americans with annual household incomes between \$35,000 and \$150,000, a group that includes both low-wage workers and more affluent ones. Under such financial strain, employees might be even more motivated to work for their family’s welfare.

Correspondence regarding this article should be addressed to Ning Li (ning-li-1@uiowa.edu) or Xin-an Zhang (xinanzhang@sjtu.edu.cn).

We would like to thank Associate Editor Markus Baer and our three anonymous reviewers for their constructive and helpful comments. This research was supported by a grant from National Science Foundation of China (#71472123) and a grant from Shanghai Municipal Education Commission (#2017-01-07-00-02-E00043).

Recent research has shown that family motivation represents a strong motivational force in the work setting, energizing employees to work harder and more persistently (Menges et al., 2017; Tariq & Ding, 2018). However, when work is primarily about fulfilling one's family obligations rather than an end in and of itself, it may also have negative effects on employee performance (Wrzesniewski & Dutton, 2001)—a possibility that has been suggested in related streams, but largely overlooked in the family motivation literature. Drawing from self-determination theory, we extend theory on family motivation, proposing that family motivation may lead employees to see their jobs primarily as a source of financial rewards that can be used to support their families. This may reduce their willingness to engage in forms of performance that do not generate immediate and certain economic returns. For example, employees' creative performance in the workplace is highly uncertain, partly because employees engaging in creative efforts do not have a priori knowledge of the outcomes and the subsequent economic rewards that will be obtained (Dewett, 2006). The failure of creative endeavors may lead to short-term performance decline and even job loss (Dewett, 2007; Haefele, 1962; Madjar, Greenberg, & Chen, 2011). Even in a context in which creativity is considered a key indicator of performance (e.g., scientific research), creative endeavors still involve uncertainties. For example, Bromham, Dinnage, and Hua (2016) found that novel research proposals might have a lower probability of being funded. Similarly, Boudreau, Guinan, Lakhani, and Riedl (2016) reported that evaluators might give lower scores to highly novel research ideas. For employees to be creative, they must accept the uncertainties inherent in the creative process (George & Zhou, 2007), and employees with strong family motivation may be less willing to accept such uncertainties (Menges et al., 2017) because these employees tend to view their jobs as a means to support their families financially and will "play it safe" to keep their jobs secure. Thus, the first purpose of our research is to develop and test theory that suggests family motivation may have dual effects on employee performance by shaping the ways in which employees view their jobs.

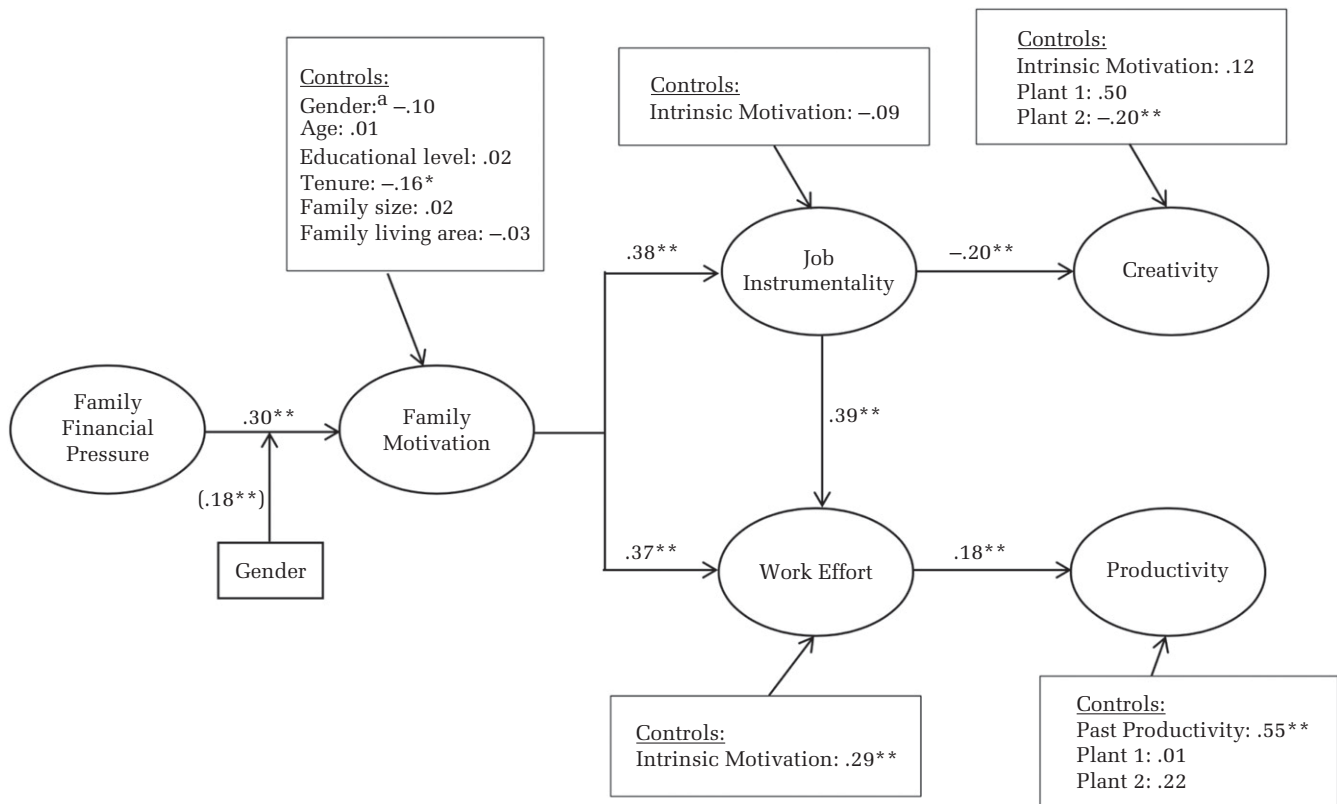
As evidence showing the impact of family motivation on important individual outcomes continues to accumulate, family motivation theory likewise needs to be expanded to include the antecedents of family motivation. This theoretical expansion is necessary to develop a key part of the nomological network surrounding family motivation and can help managers and organizations understand when

family motivation may be a dominant motive driving employee behavior. Thus, the second purpose of our research is to develop and test theory about the antecedents of family motivation. In this paper, we draw from self-determination theory to propose that financial pressure likely activates family motivation. Since one primary way to benefit one's family through work involves obtaining financial resources from work to support the family, we expect that the strength of family motivation will be driven by how much one's family relies on the financial resources from the work. Finally, as gender has been shown to affect family roles and responsibilities (Gutek, Searle, & Klepa, 1991; Judge & Livingston, 2008), we also examine how gender influences the relationship between family financial pressure and family motivation. Our full model is depicted in Figure 1.

Our research makes several theoretical contributions. First, we contribute to family motivation theory by demonstrating that strong family motivation can produce unintended unfavorable consequences. In doing so, we answer calls to explore the downsides of family motivation, and, more importantly, we provide a more nuanced and systematic view of the effects of family motivation on employee performance (Menges et al., 2017). From a theoretical perspective, motivation theories (Kanfer, 1990; Kanfer, Chen, & Pritchard, 2008) have asserted that motivation drives people in three ways: intensity (*how hard* a person works), persistence (*how long* a person works), and direction (*what* a person chooses to do). Whereas previous research has concentrated on how family motivation drives the intensity and persistence of one's efforts (e.g., Menges et al., 2017), less attention has been devoted to how employees with strong family motivation choose to allocate their effort toward achieving different aspects of job performance. Drawing upon this framework, we extend family motivation theory by demonstrating that, while family motivation enhances the intensity and persistence of employees' actions, it also changes how people view their jobs, thereby affecting the direction of effort.

Second, drawing on self-determination theory (Deci & Ryan, 2010) and the "hard work versus smart work" framework (Bracha & Fershtman, 2013), we explore the mechanisms by which family motivation exhibits its dual effects. Specifically, we examine "work effort" (i.e., the extent to which employees physically work hard and work long hours) and "job instrumentality" belief (i.e., the extent to which employees view their jobs as a means to acquire

FIGURE 1
Results of SEM Analysis in Sample 1



Notes: $n = 187$. The estimate in parentheses was obtained from the SEM with the interaction term. Fit for model without the interaction term: $\chi^2 = 46.93$, $df = 42$, CFI = .98, TLI = .96, RMSEA = .03. Fit for model with the interaction term: $\chi^2 = 49.12$, $df = 46$, CFI = .99, TLI = .97, RMSEA = .02.

^a Gender was added as a covariate in the main effect model but was added as moderator in the full model.

* $p < .05$

** $p < .01$

financial resources, instead of as an end in and of itself) as two distinct mechanisms linking family motivation to productivity and creativity, respectively. Through qualitative analyses, we find that employees with strong family motivation experience a “meaningfulness detachment” process, in which employees shift their priorities from pursuing a meaningful job to pursuing a job with high economic returns. Ultimately, they avoid uncertainty as they come to view the job as a means to support their family and, in turn, are less likely to engage in creative endeavors. In exploring this process, we challenge a key assumption of previous research—namely, that family motivation primarily energizes employees in the workplace (Tariq & Ding, 2018)—and examine why and how family motivation can place a creativity “tax” on employees who are motivated to benefit their families through work.

Third, we examine both consequences and antecedents of family motivation to comprehensively understand the nomological network of family motivation. Specifically, we focus on financial pressure and gender as two key factors that interactively influence family motivation. By investigating family financial pressure as an antecedent of family motivation, we go beyond the extant literature, which has predominantly examined the consequences of family motivation (Menges et al., 2017; Tariq & Ding, 2018). Further, by exploring the moderating role of gender, we not only uncover a boundary condition for activation of family motivation, but also integrate family motivation research with gender research, which has been found to play a critical role in a broader range of family-related research (e.g., Gutek et al., 1991; Joshi, Neely, Emrich, Griffiths, & George, 2015; Powell & Greenhaus, 2010).

HYPOTHESIS DEVELOPMENT

Family Motivation, Work Effort, and Productivity

“Family motivation”¹ is defined as the desire to expend effort to benefit one’s family (Menges et al., 2017) and has been conceptualized as a subtype of prosocial motivation (i.e., the desire to expend effort to benefit others; Grant, 2007, 2008). Whereas most research on traditional types of prosocial motivation (e.g., customer orientation) has examined coworkers, customers, or even animals as beneficiaries of work (e.g., Donavan, Brown, & Mowen, 2004; Grant & Berry, 2011; Hu & Liden, 2015), the beneficiaries of family motivation are specifically identified as family members. “Family” consists of people “related by biological ties, marriage, social custom, or adoption” (Edwards & Rothbard, 2000: 179). Based on the definition, family motivation is relevant not only in parent–offspring relationships (e.g., breeding responsibility and filial responsibility [Matthews & Rosner, 1988]) or marriage relationships, but also in other extended kin relationships with siblings, grandparents, or others (Burnstein, Crandall, & Kitayama, 1994).

Self-determination theory (Deci & Ryan, 2010) helps explain the motivating potential and possible outcomes of family motivation. Self-determination theory proposes that types of motivation can be arranged on a continuum ranging from autonomous to controlled. Specifically, autonomous motivation involves “acting with a sense of volition and having the experience of choice,” whereas controlled motivation involves “acting with a sense of pressure, a sense of having to engage in the actions” (Gagné & Deci, 2005: 334). Motivation that stems from valuing the purpose of the task (identified regulation), synthesis of the task’s purpose with the self (integrated regulation), or enjoyment of the task (intrinsic motivation) are relatively more autonomous as compared with motivation that stems from the desire to avoid guilt (introjected regulation) or from external

rewards and punishments (external regulation). These different forms of motivation exert different effects on employee behaviors, attitude, and outcomes (Koestner & Losier, 2002; Sheldon & Elliot, 1998). Autonomous motivation allows employees to fully engage in work with a sense of volition and choice, which leads to higher levels of discretionary performance and more sustained motivation. Controlled motivation, by contrast, narrows the range of employee effort. As a result, controlled motivation may be effective for motivating specific behaviors and can have positive short-term effects on targeted outcomes, but is unlikely to result in adaptive or innovative performance (Deci, Olafsen, & Ryan, 2017).

Drawing on self-determination theory, family motivation could be experienced as more or less controlled, depending on the reasons someone is working to benefit family members. For example, if family motivation is activated because of financial pressures or because of societal expectations, it will be experienced as more controlling. However, if family motivation becomes activated because of one’s identity as a breadwinner or a role model for the family, it can be experienced as more autonomous. We argue that family motivation is most likely to be experienced as a controlled form of motivation for most working adults. First and foremost, the primary way to benefit one’s family through work is to earn income to support one’s family financially. In other words, when people think about why they are working on behalf of their family, they are especially likely to think about the affordances that come with the work as a way to benefit their family (Menges et al., 2017). Thus, they are more likely to feel controlled by extrinsic aspirations.

Second, family motivation is a more controlled form of prosocial motivation than are traditionally studied forms of prosocial motivation. Like other types of prosocial motivation, family motivation may increase the effort that employees put into their work because it allows them to attach a valued purpose to their work—namely, supporting their family. However, family motivation differs from other forms of prosocial motivation in two important ways. First, the relationships on which other forms of prosocial motivation are based (e.g., work relationships, volunteer–beneficiary relationships) are *chosen* by individuals, are relatively easy to exit, and require only short-term personal involvement (Pahl & Spencer, 2004). In contrast, the relationships in which family motivation is most relevant are largely *given* through kinship ties, and, even when they are

¹ While the original definition of “family motivation” (i.e., the desire to expend effort to benefit one’s family [Menges et al., 2017]) does not explicitly specify family motivation as work-specific motivation, we focus on family motivation in the work domain, such that family motivation in our study captures employees’ desire to work to benefit their family. Our measurement in this study, which explicitly asked respondents about their family motivation at work, is consistent with our focus. Nevertheless, we acknowledge that family motivation could be conceptualized more broadly, such that a father stealing bread from a store to feed his children might be viewed as someone driven by general family motivation.

chosen (as one chooses a spouse), they tend to entail a lifelong commitment and are usually enforced by social expectations or even laws (Stein, 1992). For example, people have more discretion to choose the beneficiaries when they volunteer (Cnaan & Goldberg-Glen, 1991) than when they are driven by family motivation. Due to the different levels of perceived autonomy in family relationships versus nonfamily relationships (i.e., *chosen* versus *given*, or *personal choice* versus *fate*; Pahl & Spencer, 2004), family motivation might be experienced as less autonomously regulated than are traditional forms of prosocial motivation (Deci & Ryan, 2010). For example, individuals may expend effort to help co-workers or other beneficiaries because they “want to,” whereas they may seek to help their family primarily because they “should” (Janoff-Bulman & Leggatt, 2002).

Third, and relatedly, family motivation and other forms of prosocial motivation differ in the ways in which the beneficiaries are impacted by work effort. Beneficiaries of traditional forms of prosocial motivation are usually directly affected by employees’ task contributions, products, or services (Grant, 2007, 2008). For example, the work of a teacher benefits students, while the work of a zookeeper benefits the animals. In these cases, prosocial motivation drives employees to fully engage with their work because those efforts directly impact their beneficiaries. In contrast, beneficiaries of family motivation are external to the workplace and “are not affected directly by employees’ task contributions, products, or services, but rather by employment itself and its affordances” (Menges et al., 2017: 697). As a consequence, employees with high levels of traditionally studied forms of prosocial motivation are more likely to see the work itself as motivating, whereas employees with high family motivation are more likely to be concerned about the resources they get from working to support their families.

Premised on these distinctions, we put forward a theoretical model that suggests family motivation is likely to be experienced as a form of controlled motivation, thereby becoming a double-edged sword in driving individual performance. Consistent with self-determination theory, family motivation may be positively related to employee effort and performance quantity, but is unlikely to lead to creative performance, which is associated with more autonomous forms of motivation. The “hard work versus smart work” framework (Bracha & Fershtman, 2013; Klehe & Anderson, 2007; Sujun, Weitz, & Kumar, 1994) suggests a similar dual effect. In this context,

“smart work” refers to “the manifestation of a tendency to select clever and ingenious approaches to deal with a given task, and to modify those approaches, intelligently and resourcefully, where necessary” (i.e., creativity), whereas “hard work” comprises “the expenditure of effort in the performance of tasks” (Coad, 1996: 387). Creativity maps onto the “smart work” dimension because it is defined as the generation of ingenious and potentially valuable ideas concerning new products, services, and approaches to doing things (Amabile, 1988; Zhou & George, 2001); thus, it can be considered an outcome of “smart work.” Scholars argue that there is a potential trade-off between these two types of efforts when employees’ motivation is primarily directed toward one path or the other (Fang, Palmatier, & Evans, 2004).

We propose that family motivation is more likely to stimulate hard work than smart work. Motivation theories suggest that individuals put more labor efforts into their assigned jobs when they value the outcomes achieved through their efforts (i.e., valence; Vroom, 1964). When the desire to benefit one’s family is strong, employees will connect their work to the important value of benefiting the people who matter to them, which strengthens the valence of the rewards provided by that work (Grant, 2007; Menges et al., 2017). The valence of the rewards of hard work may be especially high in the case of family motivation, as individuals are bound with their beneficiaries (i.e., family members) by ties of kinship and share substantive history with the beneficiaries (Menges et al., 2017). Additionally, the perceived impact of rewards gained from hard work on the beneficiaries is especially visible when those beneficiaries are family members. Due to the increased valence of the rewards, we expect employees with higher levels of family motivation to exert more effort in their assigned work (Deci & Ryan, 2010; Grant, 2007). Supporting our argument, research shows that, when employees view their family roles as important to them, they invest more time in work (Rothbard & Edwards, 2003). Similarly, in their study of workers in a Mexican *maquiladora*, Menges et al. (2017) found that the need to support one’s family served as a source of work motivation energizing employees’ efforts.

Hypothesis 1. Family motivation is positively associated with employee work effort.

We further expect that work effort will increase employee productivity. “Productivity” describes an outcome of performance—the quantity of output that results from performance behaviors as well as

external contextual and opportunity factors (e.g., Blumberg & Pringle, 1982; Schmidt & Hunter, 1983). External contextual and opportunity factors being equal, an individual's productivity is determined by their goal-directed behaviors, such as work dedication and work effort. Supporting our argument, past research has shown that employees' work effort is positively associated with their productivity levels (e.g., Clark, Michel, Zhdanova, Pui, & Baltes, 2016; Johns, 2011). Taken together, we propose:

Hypothesis 2. Employee work effort is positively associated with employee productivity.

Hypothesis 3. Employee work effort mediates the relationship between family motivation and employee productivity.

Family Motivation, Job Instrumentality, and Creativity

Although family motivation may lead employees to work harder and achieve higher levels of productivity, it may also reduce the likelihood of creative performance. Because employees have less discretion to select their family members, they may feel obligated to work hard to support their family members. Additionally, because the benefits to one's family are often obtained through financial rewards, employees with higher levels of family motivation may become more focused on the financial rewards that come from work rather than the purpose of the work itself, leading to a more controlled form of motivation.

More specifically, like people with a job orientation (Wrzesniewski et al., 1997), employees with higher family motivation may see work not as an end in itself, but rather as a means by which they can acquire the resources needed to support their family. Based on Wrzesniewski et al.'s (1997) distinctions between job, career, and calling, people with strong family motivation are more likely to see their work as a job than a career or calling. Similar to Wrzesniewski et al.'s (1997) typology, Cherrington (1980) differentiated two psychological values of work: work as an instrumental value and work as a terminal value. The former perspective views work primarily as a means to an end, or as "a positive activity because it contributes, at least indirectly, to other worthwhile goals" (Cherrington, 1980: 26), whereas the latter perspective views work as a positive activity in and of itself (Brown & Peterson, 1994). Within this framework, employees with higher levels of family motivation would be more likely to perceive work as a means to an

end (i.e., support the family financially), resulting in higher levels of job instrumentality.

A focus on the job as an instrument for obtaining financial rewards is likely to be a self-reinforcing phenomenon. Research has shown that employees selectively notice, encode, and retain information that is consistent with their desires (Kunda, 1990; Nickerson, 1998). When individuals are driven by the desire to benefit their family, they will focus largely on monetarily relevant information, such as whether the job provides enough compensation to support their family, to the exclusion of other cues about the value of the work itself. After repeatedly noticing, encoding, and retaining information that focuses on the financial rewards of the job, people are more likely to develop a job instrumentality perspective, seeing the job as a means for obtaining external rewards rather than as an opportunity for growth or a source of purpose. Thus:

Hypothesis 4. Family motivation is positively associated with employee job instrumentality.

We further posit that family motivation has a detrimental effect on employee creativity through its impact on job instrumentality. Self-determination theory originally proposed that financial considerations would undermine one's motivation to engage in creative activities (Deci, Koestner, & Ryan, 1999). However, recent development of this theory has suggested that caring about financial rewards might not necessarily impede creativity, but instead might actually enhance creativity (e.g., Gerhart & Fang, 2015; Hennessey & Amabile, 2010). To reconcile these inconsistent findings, scholars have argued that financial considerations have both informational effects (i.e., signaling one's competence or contributions) and controlling effects (i.e., people feel pressured to think, feel, or behave in a particular way) (Deci et al., 2017), and that whether financial considerations undermine or enhance creativity depends on the relative "functional significance" of informational and controlling effects. That is, if the informational aspect were more salient, financial considerations would enhance creativity. Conversely, if the controlling aspect were more salient, those considerations would impede creativity (Amabile, 1993).

In the present study, we argue that job instrumentality due to family motivation exerts a controlling effect, rather than an informational effect, on employees, which undermines employees' creativity. According to the literature, a situation is more controlling if it includes the following features: (a)

instrumental values—that is, performance needed to achieve a specific outcome; (b) pressure to perform; (c) obligation or “should” motives; and (d) behavior needed for someone else’s purpose (Deci & Ryan, 1985; Pittman, Davey, Alafat, Wetherill, & Kramer, 1980; Shalley & Perry-Smith, 2001). In a laboratory experiment, Shalley and Perry-Smith (2001) found that individual creativity was lowest in situations featuring these four characteristics. Job instrumentality satisfies all of these features: employees with higher levels of job instrumentality need to achieve a specific outcome (i.e., earn money to support their family), face pressure to perform well, believe that they are obligated to help their family (“should”), and believe that their employment is needed by their family. As a result, we expect job instrumentality to exercise a strong controlling effect on employees, directing their cognitions and behaviors (e.g., avoiding uncertainty) in ways that eventually hurt their creativity.

Employees who view their job merely as a means to earn money to support their family are likely to be more concerned about immediate and certain economic returns. Consequently, they are less willing to engage in activities that do not generate such immediate and certain rewards. Creativity is a highly uncertain phenomenon, and the action–outcome link is often tortuous and spread out over time (Sethia, 1989). In other words, when employees engage in creative efforts, they do not have a priori knowledge of the outcomes and the subsequent economic rewards that will be obtained (Dewett, 2006). As lamented by Dewett (2006: 28), an employee “is most likely cognizant of the possibility that, ultimately, the work may or may not be creative and successful.” And, if creative activities fail, employees who initiate such activities may even face negative consequences (Zhou & George, 2001). Therefore, if employees fail to see a clear link between creative endeavors and successful outcomes as well as the subsequent economic returns, they will tend to invest less in creativity.

In addition, employees with strong job instrumentality will likely focus their cognitive resources almost exclusively on addressing their immediate concerns (e.g., monetary rewards and job security), and limit the cognitive resources devoted to long-term and future-oriented creative activities, such as skills acquisition (Shah, Mullainathan, & Shafir, 2012). According to Amabile’s (1996) componential model, creativity requires individuals to engage in a long-term, ego-demanding learning process to acquire domain-relevant and creativity-relevant skills

(Hirst, Van Knippenberg, & Zhou, 2009). However, when employees see their jobs primarily as a means to support their families, they inadvertently restrict their cognitive processing to focus on only those stimuli related to monetary aspects of their jobs (Mullainathan & Shafir, 2013). As people have a finite capacity to heed and process information (Baddeley, 1992; Baddeley & Hitch, 1974; Norman & Bobrow, 1975), devoting increased attention to the monetary aspects of their jobs leaves fewer cognitive resources available for skill acquisition—the so-called “tunneling effect,” whereby people tend to neglect information unrelated to their immediate source of concern (Mani, Mullainathan, Shafir, & Zhao, 2013). This phenomenon impedes employee creativity.

Thus, while less autonomous forms of motivation still motivate employees to work hard, they are less likely to drive creativity and cognitive flexibility, due to a strong controlling effect of job instrumentality (Gagné & Deci, 2005). Creativity is hindered when employee instrumentality is high, due to declines in individuals’ willingness to accept uncertain results as well as their cognitive resources devoted to acquiring skills relevant for generating creativity.

Hypothesis 5. Employee job instrumentality is negatively associated with employee creativity.

Hypothesis 6. Employee job instrumentality mediates the negative relationship between family motivation and employee creativity.

Financial Pressure, Gender, and Family Motivation

At this point, we shift our focus from the outcomes of family motivation to its antecedents. Family motivation theory has not yet considered these antecedents, and our theorizing about the outcomes of family motivation provides insights that allow us to propose an initial theory of the antecedents of family motivation. As noted previously, family motivation captures employees’ desire to benefit their families through work. We propose that the primary way to benefit one’s family through work is by earning income to support one’s family financially (Menges et al., 2017), leading employees to experience family motivation as a less autonomous, more controlled type of motivation. According to self-determination theory, the type of motivation experienced by an employee is shaped, at least partially, by that individual’s aspirations. When employees strive to achieve intrinsic aspirations, such as personal development or meaningful contributions, they are

more likely to experience autonomous forms of motivation. In contrast, controlled forms of motivation become more salient when employees have extrinsic aspirations, such as external rewards or recognition (Deci et al., 2017).

We propose that extrinsic aspirations are triggered when extrinsic needs are unmet. Thus, family financial pressure, which captures the extent to which a family is in need of financial support, may make extrinsic aspirations more salient. When faced with intense financial pressures (e.g., the pressure to pay a mortgage), an individual's primary goal is to reduce those pressures. The more urgent the need is, the higher the salience of this goal will be. Therefore, when employees are confronted with an urgent need to support their family (i.e., in case of great family financial difficulties), they are more likely to focus on obtaining extrinsic rewards. The emphasis on extrinsic aspirations will tend to trigger controlled forms of motivation. The link between family financial pressure and family motivation is likely to be especially strong because family financial pressure is an indicator that the need to support one's family is unmet.

Hypothesis 7. Family financial pressure is positively associated with family motivation.

However, financial pressure is not the only factor that triggers extrinsic aspirations. Extrinsic aspirations may be salient to the degree that employees see providing for the family as a part of their responsibility. According to gender role theory (Baugh, 1990; Gutek et al., 1991), men and women are socialized to view their primary roles within the family differently. Men are expected to work to benefit the family regardless of the family's financial condition. Research suggests that traditional gender roles dictate that men work outside the home to financially support their families (Judge & Livingston, 2008) and women work inside the home as caretakers (Moen & Roehling, 2005). Although some might argue that the era of "husband as breadwinner" is dead (Salam, 2009), recent research has found that the dominant familial image in many parts of the world remains the one in which married women are viewed as caretakers of the home and family, and married men are responsible for securing the family's financial well-being (Tinsley, Howell, & Amanatullah, 2015).

Thus, based on gender role theory, we expect men and women to react differently to financial pressures in developing their family motivation. Gender role theory suggests that extrinsic aspirations that result from the motive to provide for the family's financial

well-being are likely to be salient for men no matter the level of financial pressure they face. Men are expected to work outside the home to support the family regardless of external pressure; consequently, they develop higher levels of family motivation independent of the family's specific financial condition. In contrast, women tend not to view their jobs as an important means to support their family, but rather as ways to enrich their professional careers, ensure self-development, and create a social life (Scandura & Lankau, 1997), thereby allowing them to experience more autonomous motivation. Only when they feel strong financial pressure do extrinsic aspirations become salient for women. At this point, women start to focus on the job as a means to support their family.

Hypothesis 8. Gender moderates the relationship between family financial pressure and employee family motivation such that the relationship between family financial pressure and family motivation is stronger for women than for men.

QUANTITATIVE STUDY

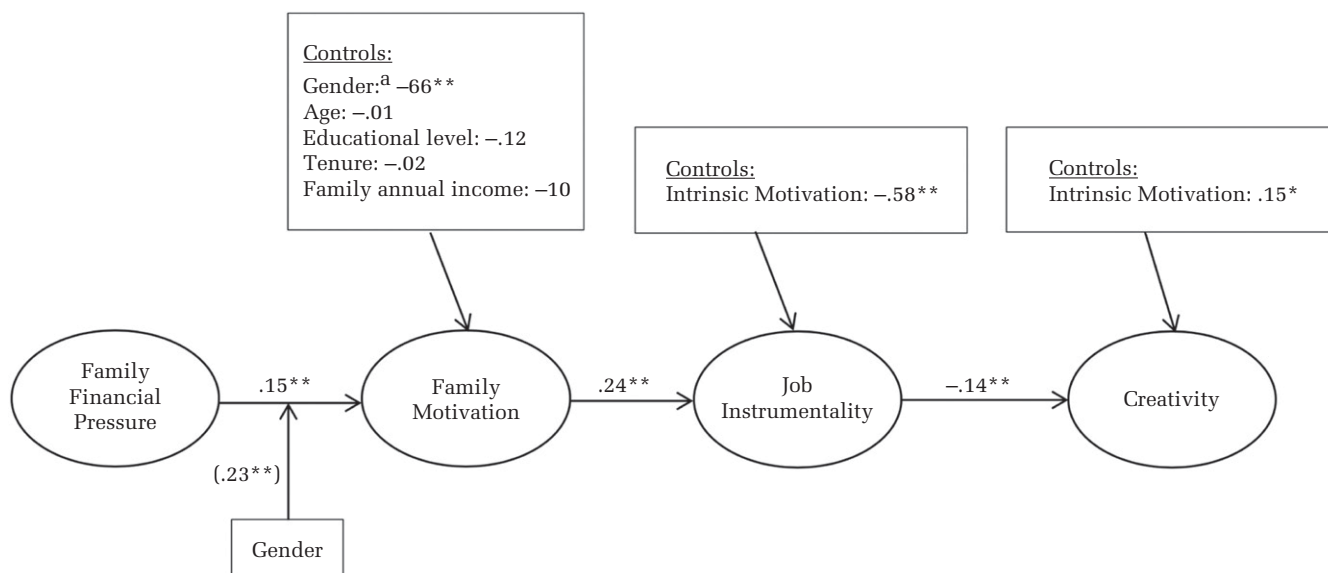
Samples and Procedures

We tested our hypotheses in two independent settings to determine if our findings could be generalized to employees in different jobs and at different income levels. Specifically, we tested our full model (Figure 1) in a sample of low-wage, blue-collar workers (Sample 1) and replicated the most novel part of our model (Figure 2) in a sample of higher-income, white-collar employees (Sample 2).

Blue-collar workers. We collected data from a textile manufacturing company in China with three factories in different regions. These three factories manufactured the same range of products, and all workers were paid using the same piece-rate system. An earlier interview with managers identified that worker creativity was important for shop floor workers in the company. For example, even though the company has designed routine work procedures for each position and trained workers to operate machines based on those procedures, the company also encourages workers to adjust the procedures on their own to improve efficiency once they became familiar with the standardized procedures. Workers were also encouraged to come up with new and practical ideas to improve their performance. For instance, several workers in the company came up with new sewing techniques to improve the quality of a product.

Data were collected at two different time points. In 2015, at Time 1, workers responded to questions

FIGURE 2
Interactive Effect of Family Financial Pressure and Gender on Family Motivation (Sample 1)



regarding family financial pressure, family motivation, job instrumentality, work effort, and our control variables. At Time 2, three months later, the direct supervisors of the surveyed workers rated the workers' creativity, and the human resources department provided workers' productivity data between Time 1 and Time 2. Our original sample consisted of 300 workers randomly selected from a pool of 9,161 workers in three factories. After accounting for missing data and excluding workers who quit the organization between the presentations of the two surveys, we obtained complete matched data from 187 workers and 163 supervisors (61.3% response rate). Of the employees in the final sample, 86 (46.0%) were men; 129 (69.0%) had graduated from middle school or below, 57 (30.5%) from high school or vocational school, and 1 (0.5%) from a three-year college. The average age was 29.99 years ($SD = 6.93$), and average tenure in the organization was 11.41 months ($SD = 9.70$). Their average monthly income during the study period was 4798.03 RMB ($SD = 568.22$; 1,000 RMB = approximately \$150). The average family size was 4.55 people ($SD = 1.50$), and 173 (92.5%) of the employees had family living in rural villages.

White-collar employees. Our second sample consisted of white-collar employees from a variety of industries, including finance, information technology, and nonprofit organizations, in Shanghai, China. These participants were more affluent than

those in Sample 1, and creativity was a key part of their jobs. For example, participants from the finance industry (e.g., financial analysts) were expected to come up with new ways to attract clients and to improve profitability.

In 2017, we distributed surveys to 492 employees in 86 teams. Team size ranged from three to 12 (mean = 6.12, $SD = 1.98$). Employees reported their financial pressure, family motivation, job instrumentality, and control variables. Employee creativity was rated by all team members with whom the employee had daily face-to-face interactions. The final sample consisted of 439 employees in 84 teams, for a response rate of 89.23%. Of the respondents, 276 were men (62.9%). Their ages ranged from 22 to 60 years, with an average age of 32.24 years ($SD = 6.20$). The average job tenure was 4.45 years ($SD = 4.25$). In terms of educational level, 32 (7.3%) had graduated from high school or below, 20 (4.6%) had graduated from technical school, 85 (19.4%) had an associate's degree, 219 (49.9%) had a bachelor's degree, and 83 (19%) had a graduate degree. In terms of family annual income, 84 were below 100,000 RMB (19.1%), 127 were between 100,000 and 200,000 RMB (28.9%), 107 were between 200,000 and 300,000 RMB (24.4%), 64 were between 300,000 and 400,000 RMB (14.6%), 29 were between 400,000 and 500,000 RMB (6.6%), 14 were between 500,000 and 600,000 RMB (3.2%), and 14 earned more than 600,000 RMB (3.2%).

Measures

Except for the job instrumentality scale, which was designed specifically for this study, all scales were translated into Chinese following the back-translation procedure recommended by Brislin (1986). Unless otherwise noted, subjects responded to all items on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Family motivation. We measured family motivation using the scale developed by Menges et al. (2017), which assesses the extent to which an employee works for the sake of benefiting their family. Sample items were “I care about supporting my family” and “My family benefits from my job.” Workers were asked to reflect on the reasons they took the current job, and then to rate the extent to which they agreed with each item (Sample 1, $\alpha = .72$; Sample 2, $\alpha = .92$).

Job instrumentality. We assessed the extent to which a worker viewed their job primarily as a means to earn money with six items designed for this study. After interviewing 15 full-time employees and six managers, we initially generated nine items to measure job instrumentality. To assess content validity, we invited five management scholars to assess whether each item was consistent with the definition of the construct. We retained six items that received consistent ratings from all five scholars: “I do this job to make money,” “This job is a means for me to earn money,” “I took this job in order to earn money,” “If I can earn more money by doing hard work, I will do it,” “Money is the only reason why I do this job,” and “To me, to work is to make money.” A pilot survey with 226 part-time MBA students revealed the items had sufficient reliability ($\alpha = .92$), and all items loaded on one dimension in an exploratory factor analysis, which accounted for 64.56% of the total variance. The scale reliability was .86 and .89 in the two samples, respectively.

Work effort. Work effort was measured only in Sample 1 with three items adopted from the work effort scale developed by Brockner, Grover, Reed, and Dewitt (1992) along with one item designed for this study.² We slightly modified the work effort scale items to accommodate the peculiarities of our sample of piece-rate workers. The four items were “I try to work as hard as possible,” “I am willing to work overtime whenever there is a chance,” “I am particularly hard-working at work,” and “I don’t want to take any days off work”; the last item was added

because workers were allowed to take leave on scheduled workdays and were allowed to work extra days at their discretion. The scale had sufficient reliability ($\alpha = .73$), and all four items loaded on a single dimension, accounting for 57.31% of the total variance in exploratory factor analysis.

Productivity. We assessed productivity in Sample 1 in terms of the total work value of the products that a worker made during the study period (i.e., productivity accumulated between Time 1 and Time 2), which was determined by the number of products a worker made multiplied by the work value of each product. Workers in this company manufactured a variety of products that differed in the complexity of the tasks and the time required to complete the product. Therefore, when measuring productivity, we needed to take into account not only the number of products produced, but also the complexity of the production process, both of which were indicated by the work value of a product. This productivity measure was also used by the company to calculate employees’ piece-rate pay. We obtained the productivity data from the company.

Creativity. In the blue-collar worker sample, we collected supervisors’ ratings of worker creativity with the 13-item scale ($\alpha = .97$) developed by Zhou and George (2001). A sample item was “This employee comes up with new and practical ideas to improve performance.”

In the white-collar employee sample, we collected workers’ creativity data from their peers. Since a team member needed to provide ratings for all other members, we chose the four-item scale developed by Farmer, Tierney, and Kung-Mcintyre (2003), to reduce the cognitive burden of rating multiple peers. A sample item was “This coworker seeks new ideas and ways to solve problems.” We received 2,198 ratings for the 439 employees included in our sample ($M = 5.55$, $SD = 1.91$), and aggregated ratings for each participant to indicate the participant’s creativity. Scale reliability was .95 at the individual level and .98 at the aggregated level. The average r_{WG} was .93, ICC(1) was .14, and ICC(2) was .48, $F(456, 1741) = 2.49$, $p < .01$.

Family financial pressure. Family financial pressure can be measured both subjectively and objectively. In the blue-collar worker sample, we measured family financial pressure subjectively. Participants in this sample were from rural areas and faced different types of family financial pressures (e.g., education fees, insurance, groceries, mortgage); thus, it would have placed a heavy cognitive burden on survey takers if we had set out to collect objective data on all of these family expenditures. Instead, we measured family financial pressure using seven items ($\alpha = .80$)

² We conducted sensitivity analyses by removing the added item from the work effort scale. The results were consistent with the reported results.

adapted from the scales used by Vinokur, Price, and Caplan (1996) and Song, Uy, Zhang, and Shi (2009). These items assessed the extent to which an individual worker perceived that their family had difficulties making ends meet. Sample items included “I feel pressured by all of the family expenditures” and “My family can hardly make ends meet.” Results of exploratory factor analysis indicated all items loaded significantly on the first extracted factor, which accounted for 51.19% of the total variance.

In the white-collar worker sample, we used both a subjective measure and an objective measure of family financial pressure. Specifically, we used unpaid mortgage as a proxy for family financial pressure, because this sample’s data was collected in Shanghai, which has a reputation for unsustainably high housing prices. Unlike the participants in Sample 1, who faced different types of family financial pressures, buying an apartment is the primary expense when people enter the workforce in Shanghai. A mortgage is considered the most important financial burden, with other financial obligations being negligible compared to the housing expense. In the past two decades, the price of real estate has skyrocketed in China, especially in large cities like Shanghai. The typical price for an apartment of 100 square meters was approximately 10 million RMB (\$1.5 million) in downtown Shanghai in 2016. Despite the high price, though, most people still choose to buy an apartment in Shanghai, for three reasons: (1) it provides a strong sense of security; (2) most people believe that the price of real estate will keep climbing in the next decade, due to the high demand, and it will be more difficult to buy later; and (3) Chinese society places a strong emphasis on owning a house instead of renting one, so people have great social pressure to buy their own apartment (e.g., they are reluctant to get married if they have only a rental property).

Most families in Shanghai choose to buy an apartment using a mortgage and pay monthly mortgage bills. In turn, this mortgage has a significant influence on the families’ financial situation and represents a specific form of family financial pressure. Of the 439 survey participants, 224 (51%) were paying on an apartment mortgage. We asked these participants to indicate the amount of their unpaid mortgage on a scale ranging from 1 to 5 (1 = *less than 0.5 million RMB*, 2 = *0.5–1 million RMB*, 3 = *1–1.5 million RMB*, 4 = *1.5–2 million RMB*, and 5 = *more than 2 million RMB*). Participants who did not have an unpaid apartment loan, which is a strong indicator of financial well-being in China (wealthy

individuals tend to pay off their mortgage or do not take out loans if they have sufficient cash to purchase a home), were coded as 0. The distribution of the amount of unpaid mortgage among participants was as follows: 88 = less than 0.5 million RMB (20%), 68 = 0.5–1 million RMB (15.5%), 31 = 1–1.5 million RMB (7.1%), 19 = 1.5–2 million RMB (4.3%), and 18 = more than 2 million RMB (4.1%).³

We acknowledge that there might be better indicators of family financial pressure than unpaid mortgage. However, many of the alternative options were either too sensitive (e.g., asking respondents to report about their bank loans or credit card debt) or would place too much cognitive burden on survey takers to recall the information (e.g., asking respondents to report their annual income and annual expenditures on all areas including education fees, insurance, groceries, mortgage, etc.). Due to the reasons we discussed above, we believe that unpaid mortgage was a satisfactory indicator in our research context. In addition, we included a subjective measure of family financial pressure; the results are reported in our supplementary analysis to demonstrate the robustness of the findings we obtained using unpaid mortgage as the indicator. Therefore, in the main analyses, we used unpaid mortgage as a proxy for family financial pressure because of the importance of objective pressure and its potential practical implications.

Gender. Participants indicated their gender in the questionnaire. Men were coded as 0, and women were coded as 1 in both samples.

Covariates.⁴ In the blue-collar worker sample, we included age, educational level, and tenure as controls when testing the effect of family financial pressure on family motivation, because previous research has found that these factors influence family obligations (Allen & Finkelstein, 2014; Joo & Grable, 2004; Lobel & Clair, 1992; Weller, 2012). In China, it is very common that children, their parents, and their grandparents (usually paternal grandparents) live together under the same roof. Also, due to China’s historical one child policy, most families have only one child. Therefore, in our sample, family size was largely affected by the number of grandparents in a family, and, to a lesser extent, by the

³ The measure of unpaid mortgage was correlated with a subjective self-assessment of financial pressure ($r = .62$, $p < .01$).

⁴ We conducted sensitivity analysis by removing all the control variables. The results were consistent with or without controls.

number of children in a family. To this end, we expected that family size would have little bearing on the family financial pressure. Although a bigger family has higher expenditures, it also has more breadwinners, which offsets the financial pressure a big family might experience. On the other hand, members of a bigger family might be expected to have stronger family motivation. Hence, we wanted to separate out this effect and examine whether family financial pressure has incremental predictive power beyond family size. Relatedly, we controlled for workers' residence areas, because individuals from rural areas are traditionally more family oriented than those from urban areas. For Hypotheses 4–6, to understand the incremental effect of family motivation on job outcomes, we controlled for the effect of intrinsic motivation to account for its motivational effect on job instrumentality, work effort, and creativity. Intrinsic motivation was measured using four items ($\alpha = .90$) adopted from Ryan and Connell (1989) and used by Grant (2008). Workers rated these four items immediately after they rated items related to family motivation. A sample item was "Because I enjoy the work itself." We also controlled for the plant location, when testing Hypotheses 2 and 5, because workers in different plants may have different levels of productivity and creativity. Finally, we controlled for the effect of productivity in the last three months (i.e., productivity accumulated in three months prior to Time 1) when testing Hypothesis 2.

Similarly, in the white-collar worker sample, we controlled for age, educational level, and organizational tenure to account for their potential confounding effects. Moreover, because wealthier families with higher annual income are more likely to finance a more expensive house (i.e., have a higher unpaid mortgage), we controlled for family annual income to remove the confounding effect. Annual income was coded as follows: 1 = *less than 100,000 RMB*, 2 = *100,000–200,000 RMB*, 3 = *200,000–300,000 RMB*, 4 = *300,000–400,000 RMB*, 5 = *400,000–500,000 RMB*, 6 = *500,000–600,000 RMB*, 7 = *more than 600,000 RMB*. We also controlled for intrinsic motivation using the same scale as in Sample 1 to account for its effect on job instrumentality and employee creativity ($\alpha = .95$). Nevertheless, we report results with and without controls to demonstrate the robustness of our findings.

Analytic Strategy

We tested our model using structural equation modeling (SEM) (Kline, 2015). Due to the relatively low sample size to number of items ratio in the blue-

collar sample ($n = 187$), we used single-indicator SEM with reliability correction (Little, Cunningham, Shahar, & Widaman, 2002). A simulation study has indicated that single-indicator SEM generates essentially the same results as those produced by SEM models with unparceled items (Sass & Smith, 2006). To correct for measurement unreliability, we set the path from a latent construct to its composite indicator as the square root of scale reliability. For single-item measures such as productivity, we assumed that they were measured without error and treated them as manifest variables, which provided a conservative model test. We further employed a bias-corrected bootstrap confidence interval (CI) to examine the significance of an indirect effect in path analysis, using 2,000 bootstrap samples to construct a 95% bias-corrected CI. Because workers in the white-collar sample were nested under teams, we used the sandwich estimator to account for additional nonindependence associated with multiple cluster sampling and to correct for potential estimation bias⁵ (Liu, Wang, Chang, Shi, Zhou, & Shao, 2015; Muthén & Muthén, 2012). We tested the significance of the indirect effects in the white-collar sample using the Monte Carlo method (Selig & Preacher, 2008) to construct a 95% CI, since this approach applies to nested data and shows comparable performance to bootstrapping (Bauer, Preacher, & Gil, 2006).

Results

Confirmatory factory analysis. We conducted confirmatory factory analysis to test the hypothesized measurement model of the self-rated variables in both samples. (Multilevel confirmatory factory analysis was conducted in Sample 2.) For Sample 1, the hypothesized five-factor model (family financial pressure, family motivation, intrinsic motivation, job instrumentality, and work effort) fit the

⁵ In the blue-collar sample, the 187 workers were from 163 teams and were rated by 163 supervisors. Therefore, data nonindependence is less of a concern in this sample. To test whether the nonindependence was significant, we did a within-and-between analysis (Dansereau & Yammarino, 2000). The corrected F from the within-and-between analysis was not significant for either creativity, $F(162, 24) = .86$, $p = .72$, or productivity, $F(162, 24) = 1.36$, $p = .19$, suggesting it was appropriate to treat each employee in the sample as independent. In addition, when we conducted analyses using the sandwich estimator (Muthén & Muthén, 2012) in Mplus, our conclusions did not change.

TABLE 1
Means, Standard Deviations, and Correlations among Variables in Sample 1

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Creativity	3.14	0.98															
2 Productivity	5.281.80	619.38	.33**														
3 Family financial pressure	4.60	1.06	-.08	-.01													
4 Family motivation	5.90	0.69	-.15*	.04	.28**												
5 Job instrumentality	5.16	1.09	-.18*	.05	.23**	.34**											
6 Work effort	5.45	0.85	-.01	.14	.25**	.43**	.37**										
7 Gender ^a	0.54	0.50	.05	-.01	-.09	-.14	-.10	-.02									
8 Age	29.99	6.93	.11	-.02	.08	-.01	-.07	.09	.05								
9 Education level ^b	1.32	0.48	.03	.12	-.01	.02	.01	-.05	-.16*	-.29**							
10 Tenure (months)	11.41	9.70	.17*	.19**	-.04	-.18*	-.04	-.11	.07	.23**	-.02						
11 Family size	4.55	1.50	-.14	-.09	-.11	-.05	-.07	.03	.15*	-.12	-.19**	.07					
12 Residence area ^c	0.07	0.26	.13	-.01	-.13	-.07	-.09	-.16*	.02	.02	.11	-.01	-.01				
13 Factory 1	0.36	0.48	.11	-.02	-.07	.02	.04	-.10	.07	-.13	.04	.02	-.06	.17*			
14 Factory 2	0.24	0.43	-.16*	-.12	.01	-.05	-.01	.01	-.06	.14	.13	.01	-.02	-.02	-.43**		
15 Prior productivity	4.886.27	1.013.63	.31**	.43**	-.08	-.07	-.04	-.03	.06	.13	.04	.33**	-.15*	.04	.01	-.11	
16 Intrinsic motivation	4.30	1.45	.06	.05	.23**	.12	.01	.28**	-.06	.11	-.04	-.04	-.06	.11	-.01	.09	.01

Note: $n = 187$.

^a Gender: 0 = man, 1 = woman.

^b Education level: 1 = middle school or below, 2 = high school, 3 = technical school, 4 = undergraduate or above.

^c Residence area: 0 = rural, 1 = urban.

* $p < .05$

** $p < .01$

TABLE 2
Means, Standard Deviations, and Correlations among Variables in Sample 2

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1 Creativity	5.03	0.85									
2 Unpaid mortgage	1.10	1.40	.04								
3 Family motivation	5.81	1.03	.14**	.11*							
4 Job instrumentality	3.48	1.31	-.26**	-.04	.12*						
5 Gender ^a	0.37	0.48	-.10*	.01	-.32**	-.02					
6 Age	32.23	6.20	.01	.13**	.05	.17**	-.07				
7 Education level ^b	3.69	1.07	.10*	.27**	-.15**	-.30**	.18**	-.22**			
8 Tenure	4.45	4.25	.05	.14**	.06	.16**	.11*	.42**	-.09		
9 Family annual income	2.83	1.50	.03	.39**	-.17**	-.15**	.25**	.13**	.43**	.07	
10 Intrinsic motivation	5.22	1.12	.24**	-.01	.25**	-.33**	-.11*	.01	.03	-.12**	-.03

Note: $n = 439$.

^a Gender: 0 = man, 1 = woman.

^b Education level: 1 = middle school or below, 2 = high school, 3 = technical school, 4 = undergraduate degree, 5 = master's degree, 6 = doctoral degree.

* $p < .05$

** $p < .01$

data well, $\chi^2(242) = 430.59$; TLI = .93, CFI = .94, RMSEA = .07, and was a significantly better fit than all other competing models in which the correlation coefficient between any two of the five variables was set to 1 ($\Delta\chi^2$ ranged between 146.50 and 492.20, $p < .01$), indicating that the five variables were distinct from one another. For Sample 2, the hypothesized three-factor model (family motivation, intrinsic motivation, and job instrumentality) fit the data well, $\chi^2(87) = 317.34$, $p < .01$; TLI = .94, CFI = .92, RMSEA_{within} = .08, having a better fit than all competing models in which the correlation coefficient of any pair of variables was set to 1 ($\Delta\chi^2$ ranged between 1,084.62 and 3,209.73, $p < .01$).

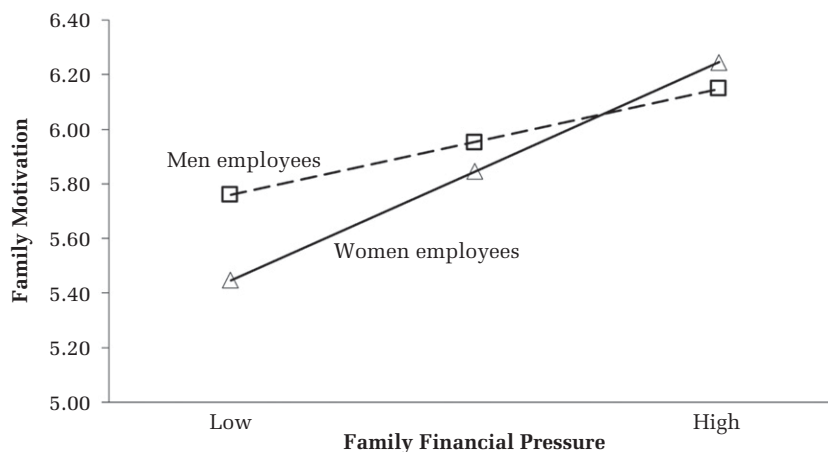
SEM. Tables 1 and 2 depict the descriptive statistics and correlation coefficients among study variables for the two samples.

We then ran a SEM model for the hypothesized model in Sample 1 and obtained a reasonable fit, $\chi^2(43) = 62.43$, $p = .03$; CFI = .94, TLI = .83, RMSEA = .05. We further compared a series of competing models that included paths that were not directly hypothesized (e.g., adding direct paths from family motivation to creativity and productivity, adding direct paths from family financial pressure to creativity and productivity). Most of the alternative models did not have a significantly better fit than the hypothesized model. However, we found that one model, in which we included a path from job instrumentality to effort, fit the data significantly better than the hypothesized model, $\chi^2(42) = 46.93$, $p = .28$; CFI = .98, TLI = .96, RMSEA = .03; $\Delta\chi^2 = 15.50$, $p < .01$. Therefore, this model was chosen as the final

model and was used to test our hypotheses. Similarly, we compared the hypothesized model with several alternative models in Sample 2 (e.g., adding a direct path from family motivation to creativity; adding a direct path from family financial pressure to creativity). However, none of the alternative models had a significant better fit than the hypothesized model, $\chi^2(274) = 789.15$, $p < .01$; CFI = .92, TLI = .91, RMSEA_{within} = .07.

We first tested the main effects model without specifying gender as the moderator (Figures 1 and 2). The paths from family motivation to work effort, $\beta = .37$, $p < .01$, and from work effort to productivity, $\beta = .18$, $p < .01$, were both positive and significant in Sample 1, supporting Hypotheses 1 and 2. To test Hypothesis 3, which posited that work effort would mediate the effect of family motivation on productivity, we estimated the size of the indirect effect in Sample 1 by multiplying the two componential path coefficients, and found it to be significant ($\theta = .08$, $z = 2.00$, $p < .05$). Using 2,000 bootstrap samples resulted in a 95% CI [0.01, 0.27], excluding zero. These results supported Hypothesis 3. In both samples, the path from family motivation to job instrumentality was positive and significant (Sample 1: $\beta = .38$, $p < .01$; Sample 2: $\beta = .24$, $p < .01$), supporting Hypothesis 4; and the path from job instrumentality to employee creativity was negative and significant (Sample 1: $\beta = -.20$, $p < .01$; Sample 2: $\beta = -.14$, $p < .01$), supporting Hypothesis 5. The estimated coefficient for the indirect effect of family motivation on creativity via job instrumentality was significant in both samples (Sample 1: $\theta = -.09$, $z = -2.35$, $p < .05$; Sample 2: $\theta = -.03$, $z = -2.65$, $p < .01$); 95% CI [-0.25, -0.01] for Sample 1 and 95% CI [-0.07, -0.003] for Sample 2, both

FIGURE 3
Results of Multilevel SEM Analysis in Sample 2



Notes: $n = 439$. The estimate in parentheses was obtained from the SEM with the interaction term. Fit for model without the interaction term: $\chi^2 = 775.76$, $df = 256$, CFI = .92, TLI = .91, RMSEA_{within} = .07. Fit for model with the interaction term: $\chi^2 = 789.15$, $df = 274$, CFI = .92, TLI = .91, RMSEA_{within} = .07.

^a Gender was added as a covariate in the main effect model but added as moderator in the full model.

* $p < .05$

** $p < .01$

of which excluded zero. These results supported Hypothesis 6, which posited that family motivation would have a negative effect on creativity via job instrumentality. Although not hypothesized, we found that job instrumentality was positively related to work effort, $\beta = .39$, $p < .01$, in Sample 1.

Regarding the antecedents of family motivation, we first tested Hypothesis 7, which postulated that family financial pressure would predict family motivation, and found a positive and significant relationship between the two constructs (Sample 1: $\beta = .30$, $p < .01$; Sample 2: $\beta = .15$, $p < .01$).⁶ Finally, we tested Hypothesis 8, which suggested that employee gender would moderate the relationship between family financial pressure and family

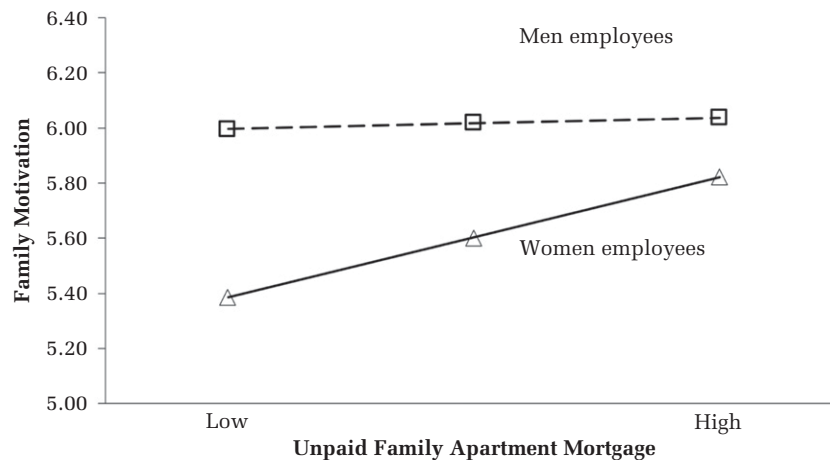
motivation. The structural model fit the data well when the interaction term was included as another exogenous predictor—Sample 1: $\chi^2(46) = 49.12$, $p = .35$, CFI = .99, TLI = .97, RMSEA = .02; Sample 2: $\chi^2(274) = 789.15$, $p < .01$; TLI = .92, CFI = .91, RMSEA_{within} = .07—and the interaction term was significant (Sample 1: $\gamma = .18$, $p < .01$; Sample 2: $\gamma = .23$, $p < .01$). As Figure 3 shows, in the blue-collar worker sample, family financial pressure was more strongly and positively related to family motivation for women, $\gamma = .38$, $p < .01$, than for men, $\gamma = .18$, $p < .05$. Similarly, for the white-collar worker sample (Figure 4), unpaid apartment mortgage had a significant and positive relationship with family motivation for women, $\gamma = .25$, $p < .01$, but not for men, $\gamma = .02$, n.s. Thus, Hypothesis 8 was supported.

Supplementary Analyses

We further examined whether different operationalization of family financial pressure in Sample 2 would generate different results. Employees in Sample 2 reported their perceived financial pressure caused by housing expenses via two items (“Are housing expenses causing you financial pressure?” and “Are housing expenses affecting the quality of your life?”; 1 = *not at all*, 5 = *very much*; $\alpha = .94$). We tested whether our

⁶ Although not hypothesized, we further tested whether family financial pressure had an indirect effect on employee productivity via family motivation and work effort, and had an indirect effect on employee creativity via family motivation and job instrumentality. The estimated coefficient for the indirect effect of family financial pressure on productivity was marginally significant in Sample 1 ($\theta = .02$, $z = 1.75$, $p = .08$), with a 95% CI [−0.01, 0.10]. The estimated coefficient for the indirect effect of family financial pressure on creativity was significant (Sample 1: $\theta = -.02$, $z = -1.99$, $p < .05$; Sample 2: $\theta = -.005$, $z = -2.17$, $p < .05$). A 95% CI [−0.0001, −0.07] was found for Sample 1 and a 95% CI [−0.0012, −0.0001] for Sample 2. However, the magnitudes of these indirect effects were small.

FIGURE 4
Interactive Effect of Unpaid Family Mortgage and Gender on Family Motivation (Sample 2)



results held when using this measurement. Results of multilevel SEM, $\chi^2(256) = 794.99, p < .01$; TLI = .92, CFI = .91, RMSEA_{within} = .07, showed perceived financial pressure had a significant and positive relationship with family motivation, $\gamma = .12, p < .05$, and employee gender moderated this relationship, $\gamma = .39, p < .05$. Perceived financial pressure had a significant and positive relationship with family motivation for women, $\gamma = .30, p < .01$, but not for men, $\gamma = .04, n.s.$

Discussion

We found that family motivation exerts a dual effect on employee performance, such that employees with stronger family motivation exhibit higher levels of work effort, leading to higher productivity, while, at the same time, they view their jobs as a means to earn financial resources to support their family, which is associated with lower creativity. Further, we found that family financial pressure is related to family motivation, and that this association is stronger for women than for men.

A potential limitation of our quantitative study is that we argued job instrumentality reduces creativity because it restrains employees' tendency to accept uncertainty and directs employees' focus to immediate returns, yet our model did not capture either of these mechanisms. Second, we contended that family is most likely to be experienced as controlling because, when people think about "benefiting the family through work," they most likely think about gaining financial rewards from the job to support their family. Nevertheless, we did

not obtain direct evidence regarding this premise in our quantitative studies.

To further understand the psychological mechanisms linking family motivation to job outcomes and the range of potential behaviors that might follow, and to validate our assumption about the controlling nature of family motivation, we conducted an additional, qualitative study. In this study, we asked 40 employees to reflect on how their family motivation had shaped their perceptions, behaviors, and outcomes at work, and how their family motivation was driven by their family's financial needs.

QUALITATIVE STUDY

Sample and Procedure

In 2018, we recruited and interviewed 40 employees from a wide variety of organizations using a snowball sampling technique: initial participants were recruited from a professional MBA program in China, with the remaining participants then being recommended by the MBA students. Interviews were transcribed, and the average length of an interview was about 47 minutes. Table 3 presents detailed background information on the interviewees. Their average age was 33.92 years ($SD = 3.98$); most were married (90%). To gain a better understanding of our research context, we asked interviewees about their family financial situation (i.e., level of income, level of family financial pressure). Interviewees were mostly high-income employees, with 87.5% having an annual family income higher than 400,000 RMB (as compared to 13% in Sample 2). Despite their high

TABLE 3
Background Information about the Interviewees

	Frequency	Percentage
<i>Family annual income (RMB)</i>		
≤ 400,000	5	12.5
400,000–500,000	9	22.5
500,000–600,000	4	10
≥ 600,000	22	55
<i>Family financial pressure</i>		
No pressure at all	7	17.5
A little	18	45
A considerable degree	4	10
Pretty high	8	20
High	3	7.5
<i>Gender</i>		
Woman	18	45
Man	22	55
<i>Industry</i>		
Financial	6	15
Manufacturing	13	32.5
IT	4	10
Medical	4	10
Other	13	32.5
<i>Job Level</i>		
Nonmanagerial	12	32.5
First-line manager	11	27.5
Middle manager	15	37.5
CEO	2	5
<i>Occupation</i>		
Administration	16	40
Salesperson	6	15
R&D	5	12.5
Other	13	32.5

Note: $n = 40$.

income, though, when asked to indicate the level of family financial pressure they were currently experiencing on a 5-point scale (1 = *not at all*, 2 = *a little*, 3 = *to a considerable degree*, 4 = *pretty high*, 5 = *very high*), most (33 out of 40) expressed that they were experiencing family financial stress at least to some degree (18 interviewees chose a rating of “2,” four chose “3,” eight chose “4,” and three chose “5”).

We created an interview protocol aimed at eliciting discussion about and examples of family motivation as well as its consequences. First, to understand whether family motivation plays a critical role in driving interviewees’ work effort, we asked interviewees two questions relevant to their work motives. First, we asked them to list their major work motives (“Why do you work?”). A variety of answers were provided, such as “to support my family,” “to help other people,” “to enjoy the work,” “to achieve self-accomplishment,” and “to keep myself occupied.” Of the 40 interviewees, 37 expressed

that a desire to support their family was a major motive for working. As a validation, we asked interviewees to answer a second question (“How often do you feel like you work mostly for your family?”) through reference to a Likert-type 5-point ratings scale (1 = *never*, 2 = *sometimes*, 3 = *to a considerable degree*, 4 = *pretty often*, 5 = *almost always*). Consistent with the responses to the first question, three interviewees answered “1,” 14 answered “2,” seven answered “3,” 14 answered “4,” and two answered “5.”

Next, to understand the consequences of family motivation on job perception, we asked the 37 interviewees who cited family as their major source of motivation the following questions: “Does the thought of ‘I work for my family’ influence the way you view your job? If so, how?” and “If supporting family was not a concern, what would you change at work?” We conducted a thematic analysis (Lee, 1999; Miles & Huberman, 1994) of these responses. Following Boyatzis (1998) and Owens and Hekman’s (2012) practice, the themes identified fell under four broad umbrella constructs that captured family motivation, job perceptions, behavioral tendencies, and performance outcomes. We generated 12 specific categories under these four umbrella constructs that captured the themes emerging from our responses. Figure 5 summarizes the themes that emerged from our data.

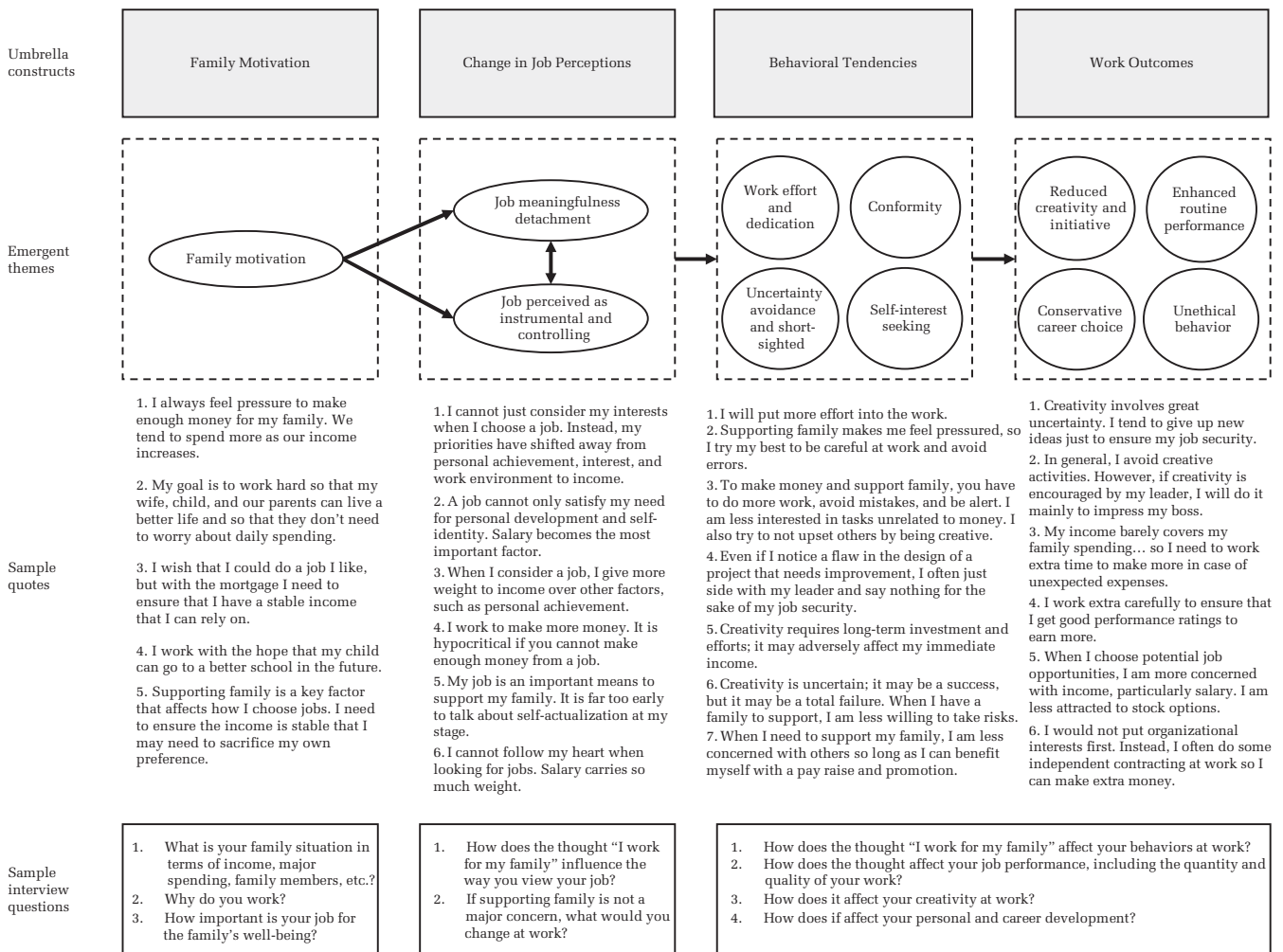
Major Findings

Family motivation as a primary work motive.

When asked “Why do you work?,” 37 participants reported that they worked to earn money to support their family (i.e., “My goal is to work hard so that my wife, my child, and my parents can have a better life and that they don’t need to worry about daily spending”; Interviewee 8). Additionally, they pointed out that this desire was stronger when their family was experiencing financial hardships and weaker in the absence of hardships. Interviewee 25 described his experience as follows: “At first, when we had huge pressure to pay our mortgage, I worked mostly to earn money. Now, things are better because our mortgage pressure is lighter.” These quotes suggest that family financial condition is a relevant factor in understanding the impact of family motivation among the research subjects.

Family motivation is most likely to be experienced as controlled. To validate our assumption that when people perceive that “I want to benefit my family through my job,” they think mostly about

FIGURE 5
Results of Thematic Analyses (Qualitative Study)



obtaining financial rewards from the job, we asked participants the following question: "In what major ways can you benefit your family through your work?" Ultimately, 39 of the 40 interviewees provided answers to this question, with one interviewee answering that family does not benefit from the work. All 39 interviewees listed "to get income to support family" as a primary way to benefit their family through work. Only two interviewees mentioned "setting a role model for the children," and one interviewee mentioned "maintaining a sense of gender equality in the family." These results suggest that, although "financial consideration" is not explicitly stated in the definition or measurement of family motivation, it is how most people perceive and experience family motivation; thus, most people tend to experience family motivation as a controlled form of motive.

Family motivation changes employees' job perceptions. Next, we sought to uncover the psychological mechanisms of how family motivation affects employees' job perceptions. Specifically, we asked, "Does the thought of 'I work for my family' influence the way you view your job? If so, how?" Of the 37 interviewees motivated by family motivation, 35 discussed how a focus on providing for their families influenced the ways they viewed their jobs, with two primary themes emerging from their responses. First, participants described turning their focus away from autonomous types of motivation. Their priorities shifted away from finding interesting work, satisfying the need for personal development and achievement, and finding self-actualization. We labeled this theme "meaningfulness detachment." Altogether, 10 out of the 37 interviewees

experienced meaningfulness detachment in response to strong family motivation. Participants also discussed turning their focus toward controlled types of motivation. They tended to view the job only as a means through which to gain financial resources to benefit their family. Specifically, nearly all of them (32) mentioned that, with strong family motivation, they tended to view the job as an important means by which to support their family and that they cared primarily about its monetary aspects. For example, Interviewee 25 said, "I cannot just consider my interests when I choose a job. Instead, my priority has shifted away from personal achievement, interest, [and] work environment to income." Similarly, Interviewee 9 indicated, "A job cannot only satisfy my need for personal development and self-identity. Salary becomes the most important factor." These two accounts show how a focus on family motivation predicates a shift from autonomous forms of motivation to more controlled forms of motivation. Associated with this shift, many interviewees reported that they viewed their jobs merely as a means to support their family rather than anything else. For example, Interviewee 18 said, "My job is an important means to support my family. It is far too early to talk about self-actualization at my stage." Interviewee 13 was more direct, saying, "Don't talk to me about passion when you can't pay me well." Many interviewees specifically described how focusing on financial rewards had restricted their actions and emotions at work: "Work is just a tool to support my family. There is no sentiment in it. Any of my actions at work are passive and restricted" (Interviewee 4).

Job instrumentality triggers employees' behavioral tendencies. When asked "Does the thought of 'I work for family' affect your behaviors at work? If so, how?," six out of the 37 interviewees mentioned that such a thought had no or little effect on their work behaviors; the other 31 interviewees answered "yes" and further articulated how their work behaviors had been influenced. Their answers reflected four themes.

First, eight mentioned that viewing the job as instrumental to financial rewards motivated them to exert more work effort and dedication ("I will put more effort into the work," "I become more alert and conscious; and, if possible, I am willing to work overtime to earn more money"; Interviewee 34). This is in line with our findings for the quantitative Sample 1, in which we found a positive and significant relationship between job

instrumentality and effort (although this relationship was not hypothesized).

The second category of behavioral outcomes involved employees' tendency to avoid uncertainty (six mentions) and short-term orientation (three mentions). Interviewees sought to avoid uncertainty that might lead to potential job loss, and to narrow their focus to those tasks with immediate returns rather than tasks that required long-term investment ("Creativity is uncertain; it may be a success, but it may be a total failure. When I have a family to support, I am less willing to take risks"; Interviewee 7), suggesting that job instrumentality triggered employees' tendency to avoid activities that do not generate certain returns. Job instrumentality also made employees shortsighted. Interviewee 5 expressed his reluctance to engage in creative activities because "creativity requires long-term investment and efforts; it may adversely affect my immediate income."

Related to the tendency to avoid uncertainty, the third theme included the notion that job instrumentality could increase employees' tendency to conform (i.e., unwilling to speak up, defer to leaders; mentioned six times). For example, Interviewee 1 said, "Even if I notice a flaw in the design of a project, I often just side with my leader and say nothing for the sake of my job security." Similarly, Interviewee 19 said, "I care more about how my leader views me, rather than sticking with my own opinion."

Finally, the last theme captured how job instrumentality activated employees' self-interest-seeking tendency (i.e., maximizing personal gains even at the expense of others; mentioned twice). As Interviewee 4 put it, "I am less concerned with others so long as I can benefit myself with a pay raise and promotion." Interviewee 1 said, "When work is all about money, I don't care much about the team; I only care for myself."

Behavioral tendencies result in outcomes. When asked about the ways in which working for their families had affected their work outcomes (e.g., "Does the thought of 'I work for my family' affect your job performance at work? If so, how?"), participants provided statements that can be coded into four themes. First, family motivation was associated with reduced creativity and initiative (20 mentions). This is in part due to the reasons discussed earlier: (a) employees are likely to avoid uncertainties inherent in creative endeavors; (b) creativity requires long-term investment, which might impede employees' immediate benefits; and (c) employees tend to conform to authorities and withhold their novel ideas or suggestions. As an illustration, Interviewee 33 said,

“Creativity might end up nowhere. For example, there was a chance to start a new venture but the probability of failure was high, and I did not consider it at all.” Interviewee 21 said:

My time is limited. I prefer to use my time improving my performance in standard and routine tasks. Creativity is too risky and needs a lot of time. The risk is just too high for someone who needs to support his family.

Interestingly, our interviews revealed that, even though family motivation in general had a detrimental effect on creativity, it could benefit creativity under certain circumstances—for example, when interviewees were certain that there was a direct link between creativity and financial resources (e.g., creativity is explicitly encouraged by leader, having instrumental values; mentioned 11 times). For example, Interviewee 30 said:

To benefit my family, I have to stand out in my job; one of the ways to stand out in my job is to impress my boss with innovative ideas; if my boss is impressed, I can get recognitions and promotions, then I can earn more and contribute more to reduce the financial pressure in my family.

Second, we found that family motivation can enhance routine performance such as productivity because employees with stronger family motivation work harder and commit fewer errors (15 mentions). For example, “I produced more outputs because I need higher performance before I can ask for a promotion and pay raise” (Interviewee 19); also, “My productivity increases because, the more I make, the more money I get” (Interviewee 24).

Third, family motivation can influence employees’ career choices (mentioned five times). Specifically, employees working to support their family tend to make more conservative career choices. For example, Interviewee 28 said, “When I choose potential job opportunities, I am more concerned with income, particularly salary. I am less attracted to stock options because they are not reliable.”

Finally, participants reported that family motivation might lead them to act unethically (three mentions). As Interviewee 21 explained, “I would not put the organizational interests first. Instead, I often do some independent contracting at work so I can make some extra money.”

Discussion

Substantiating and extending the findings from our quantitative study, our qualitative analyses provide

empirical evidence that two main mechanisms are responsible for the relationships between family motivation and job outcomes. As we theorized, our interviewees noted that family motivation influenced job perceptions such that the focus was on work as a source of financial resources rather than on intrinsic factors such as interest, self-development, or meaning. Our interviewees suggested that this instrumental focus was experienced as controlling. Our qualitative data also suggested additional behavioral tendencies and work outcomes that may stem from family motivation, providing guidance for future research. We discuss these findings in detail in the following session.

GENERAL DISCUSSION

Drawing on self-determination theory (Deci & Ryan, 2010), we posited family motivation as a double-edged sword for employee job performance. Specifically, family motivation was positively associated with employee productivity via enhanced work effort, whereas it was negatively associated with employee creativity due to heightened job instrumentality. Moreover, family financial pressure served as a key antecedent of family motivation, and family financial pressure was more strongly related to family motivation for women than for men. Finally, a qualitative study with 40 high-income employees provided additional empirical evidence of theoretical mechanisms linking family motivation with performance outcomes and suggested a more complete model of family motivation.

Theoretical Implications

Our study contributes to the family motivation literature and related research streams in several ways. First, challenging the traditional notion that family motivation primarily energizes employees in the workplace (Menges et al., 2017; Tariq & Ding, 2018), we discovered that family motivation exerts distinct effects on different aspects of performance. In addition to its energizing effect on employees’ effort and productivity, family motivation may change how employees view their jobs and consequently, place a creativity “tax” on employees. In other words, family motivation has both “energizing” and “debilitating” effects. This distinction suggests that family motivation may shape the direction of employee motivation. Specifically, our qualitative data

show that family motivation directs employees' work effort and dedication toward more standard and routine tasks with immediate returns, as captured by our "productivity" measures, and away from uncertain creative tasks whose action–outcome link is often weak and spread out over time (Sethia, 1989). This may partly explain why we did not observe a positive correlation between employees' effort and creativity in Sample 1. Although traditional wisdom asserts that creativity is partly driven by effort and persistence (e.g., Sauermann & Cohen, 2010), our findings suggest that, when employees' work effort and persistence are activated by a more controlled form of motivation (i.e., family motivation), they do not necessarily engender higher creativity.

Our quantitative data further suggest that the debilitating effect of family motivation might partially counter the energizing effect on productivity. Specifically, we observed a positive zero-order correlation between creativity and productivity in Sample 1 ($r = .33, p < .01$). This is not surprising considering that creativity involves generating novel and useful ideas, approaches, and procedures of doing things, which is conducive to productivity. Therefore, the debilitating effect of family motivation on creativity may result in lower levels of employee productivity, which partially diminishes the energizing effect of family motivation on productivity. This may explain why we observed a nonsignificant correlation between family motivation and productivity in Sample 1 ($r = .044, n.s.$). This finding again challenges the primarily energizing effect of family motivation in the workplace and reiterates the importance of considering the dark side of family motivation.

Our findings also inform research on the "hard work versus smart work" framework. Scholars argue that there is a potential trade-off between these two types of efforts when employees' motivation is directed toward only one path (Bracha & Fershtman, 2013; Fang et al., 2004). Our findings suggest that this trade-off does not necessarily imply a negative correlation between creativity (smart work) and productivity (hard work), but rather signals that creativity and routine performance require different, often opposite mindsets. Specifically, employees need to avoid uncertainty and focus more on immediate returns when they attempt to achieve higher productivity, whereas they need to tolerate high levels of uncertainties and focus more on long-term returns when they attempt to achieve higher creativity. Family motivation may push employees to choose between these mindsets,

resulting in increased productivity and decreased creativity.

It is notable that we found the dual effects of family motivation even in jobs in which creativity is considered a key driver of performance (e.g., scientific fields). For instance, our qualitative data show that even university professors (e.g., Interviewee 35) chose to put more effort into tasks with immediate and certain outcomes and less effort into creative tasks with uncertain rewards, when they viewed supporting family as their primary work motive. Our findings thus suggest that the dual effects of family motivation affect various types of jobs.

Second, and relatedly, our study indicates that family motivation could fundamentally change employees' perceptions of work. Specifically, our qualitative data show that employees who work to benefit their families will experience two related processes that may change how they view their jobs. First, they tend to experience "meaningfulness detachment"—that is, they psychologically depreciate the value of meaningfulness of the job (e.g., intrinsic value, personal growth, sense of achievement) and emphasize the monetary aspect of the job. This finding provides a different angle to understand how family motivation shapes the meaning of work. Specifically, past research indicates that, in jobs that do not provide meaningfulness for incumbents, family motivation gives meaning to work such that employees see work as a way of supporting and sustaining those who are most important to them (Menges et al., 2017; Rosso, Dekas, & Wrzesniewski, 2010). However, our findings suggest that family motivation may narrow employees' focus solely to the instrumental meaning of work, detaching them from the more intrinsically meaningful aspects of their jobs. These seemingly contrasting findings also make evident that family motivation is a doubled-edged sword, beneficial in certain contexts but detrimental in others. Furthermore, our study reveals that, after the meaning of work changes, employees' behaviors will change accordingly. Specifically, we found that employees are less motivated to engage in creative activities, and more likely to devote effort to routine tasks, as indicated by both our quantitative Sample 1 and the qualitative study.

Third, our findings establish key distinctions between family motivation and traditionally studied forms of prosocial motivation, thereby contributing to the growing body of knowledge about prosocial motivation. Research on other types of prosocial motivation has found a synergistic interaction

between prosocial motivation and intrinsic motivation, such that individual performance is highest when both motivations are strong (Grant, 2008). However, Menges and colleagues (2017) found a compensatory interaction between family motivation and intrinsic motivation, suggesting that family motivation can compensate for the lack of intrinsic motivation and still drive performance. Adding to the distinction, Grant and Berry (2011) found a positive association between prosocial motivation (geared toward benefiting clients) and employee creativity. They argued that prosocial motivation encourages individuals' perspective taking, which helps individuals develop ideas that are both novel and useful. Our research, however, revealed an indirect negative relationship between family motivation and individual creativity, suggesting that family motivation and other forms of prosocial motivation differ in their effects on creativity. These contrasting findings are consistent with the premise that different forms of prosocial motivation vary in their level of autonomy, with family motivation being more on the "controlled" end of the spectrum, whereas traditional forms of prosocial motivation are located more on the "autonomous" end.

Finally, we tested our theoretical model in two quantitative samples and drew additional insights about our core findings in a supplementary qualitative study. These three samples varied in their characteristics (quantitative Sample 1: low-wage, blue-collar workers; quantitative Sample 2: relatively high-income, white-collar employees in various jobs; qualitative sample: high-income, white-collar employees in various jobs), but our findings were consistent across all of the samples, which provides evidence of the generalizability of our model. Essentially, it suggests that the dual effect of family motivation affects people in different income groups and occupations, which broadens the theoretical scope and practical relevance of our research.

Practical Implications

In this study, we found that employees with strong family motivation have lower levels of creative performance. Further analyses revealed that the negative association between family motivation and creativity could be attributed to employees' tendency to avoid uncertainty and shortsightedness. Accordingly, we suggest that creativity can be encouraged if organizations can minimize employees' perceptions about the uncertainty in creativity. In other words, organizations should try to establish a

psychologically safe climate in the organization that facilitates employees' participation in creative activities (Edmondson, 1999). Specifically, our qualitative data show that creativity still takes place if it is explicitly encouraged by employees' direct managers. Thus, managers should actively ask employees for their suggestions and ideas, and practice providing positive feedback and even rewards or recognition for employees' engagement in creative activities even if the activities fail. In this way, organizations can form a positive link between creativity and rewards, reducing employees' concern about the uncertainties in creative efforts.

Related to the "shortsightedness" mechanism, our qualitative study suggests that employees may hesitate to engage in creativity because the effort-reward link is uncertain and spread out over time. Moreover, creativity-oriented endeavors might hurt their short-term financial rewards, thereby constraining their ability to help their family. Therefore, we suggest that organizations should safeguard employees' short-term financial rewards if they want to encourage employees to engage in long-term projects that require employee creativity. For example, instead of rewarding employees based on outcomes, organizations should design their compensation systems to encourage both outcomes and certain processes or behaviors (e.g., taking on creative initiatives, exploring alternatives [Gerhart & Rynes, 2003]).

Limitations and Future Directions

First, all of our samples were collected from China, which might limit the generalizability of our findings. Researchers have long realized that traditional Confucian China and its cultural offshores, including Japan and Korea, have evolved unique family systems and gender relations (e.g., Greenhalgh, 1985; Thornton & Lin, 1994). Therefore, our conclusions regarding the effects of family motivation, as well as the moderating effect of gender, might not be generalizable to other samples. For example, Chinese society places strong emphasis on family obligations (Thornton & Lin, 1994), as filial piety has served as a guiding principle governing Chinese patterns of socialization for thousands of years (Ho, 1994); this might explain why family motivation was experienced as a relatively more controlled form of motivation among our study participants. It is possible that, in other societies, family motivation may function as a more autonomous form of motivation. However, family life and gender roles in contemporary China have undergone major social changes in

the last decades, due to changes in education and economic structures (Xie, 2013), so they are not as distinctive from those in Western societies as they were in the past.

Second, although we used a time-lagged study design in our quantitative study, that study was still cross-sectional, which limits our ability to draw causal conclusions. To further strengthen the causal inference of our conclusions, future research could use a longitudinal research design or experiments to facilitate stronger causal inferences.

Third, although many of our arguments are premised on the notion that family motivation is likely to be experienced as a controlled form of motivation, we acknowledge that family motivation could potentially vary on a continuum from more autonomous to more controlled, depending on the sources of family motivation. In other words, under certain circumstances, family motivation could be experienced as more autonomous. For example, in our qualitative study, a few interviewees mentioned that family motivation could also be activated because they wanted to be a role model for their children, or because some women wanted to maintain their identity as an equally important breadwinner as their husbands. We expect that, when family motivation is underpinned by such internalized (rather than extrinsic) factors, it will be experienced as more autonomous and lead to different outcomes than those discovered in our study. In particular, we expect that the more autonomous form of family motivation may facilitate creativity and reduce unethical behavior (given the goal of being a good role model for family members). Future research could explore this path and offer a more systematic understanding of the ways in which family motivation is experienced.

Last, future research should continue to extend the nomological network of family motivation. For example, although we found a negative indirect relationship between family motivation and creativity mediated by job instrumentality in both quantitative samples, the zero-order correlation between family motivation and creativity in Sample 2 was positive. Responses from our qualitative study revealed that, under certain circumstances, family motivation could increase creativity (e.g., explicitly solicited by the leader, linked with instrumental values). Building on our qualitative data, future research could explore other mechanisms through which family motivation influences creativity. For example, in our qualitative study, we found that family motivation might activate one's

tendency to conform to authority. Research has shown that individuals with a tendency to conform are likely to restrict their cognitive attention to the ideas that do not comply with (or even violate) their existing expectations and norms. They will also have greater difficulty in combining and synthesizing diverse and dissimilar information to form novel responses and produce creative ideas, resulting in lower creativity (Zhou, Shin, Brass, Choi, & Zhang, 2009). Although our qualitative data did not speak directly to this connection, future research could build on our qualitative data to explore such a possibility.

Future research should continue to explore such contingencies to enhance the theoretical and managerial implications of family motivation research. For another example, our qualitative data showed that family motivation has detrimental effects not only on employee creativity, but also on other work-related outcomes and employee career outcomes. Our interviews suggested that strong family motivation might compel employees to make conservative career choices. We suspect uncertainty avoidance and shortsightedness partly explain this effect—a possibility that could be explored in future research. Additionally, although family motivation in general thwarts employees' tendency to avoid uncertainty, our interviewees nevertheless engaged in certain types of risk-taking behaviors, such as unethical behavior (probably through family motivation's effect on the self-interest-seeking tendency). It would be intriguing to examine the relationships between family motivation and employees' unethical behavior, as such a relationship is not intuitive. On the one hand, family motivation could reduce employees' unethical behavior due to employees' job security concerns. On the other hand, it could increase their unethical behavior due to employees' self-interest-seeking tendency. Exploring the contingencies of this relationship might prove a fruitful research endeavor.

Conclusion

Previous research has found that family motivation primarily exerts an energizing effect on employee performance. We challenged this notion and found family motivation to have both an energizing effect and a debilitating effect on employee performance, depending on the performance criterion in question. We also found that family financial pressure is likely to trigger family

motivation, especially for women. By capturing qualitative data, we learned more about the psychological processes that accompany family motivation. Employees with higher levels of family motivation often feel as though they have to leave intrinsic concerns behind and come to see work as a means by which to earn financial rewards to support their families. Our findings provide a more nuanced understanding of family motivation in the workplace and suggest new directions for future research.

REFERENCES

- Allen, T. D., & Finkelstein, L. M. 2014. Work–family conflict among members of full-time dual-earner couples: An examination of family life stage, gender, and age. *Journal of Occupational Health Psychology*, 19: 376–384.
- Amabile, T. M. 1988. A model of creativity and innovation in organizations. *Research in Organizational Behavior*, 10: 123–167.
- Amabile, T. M. 1993. Motivational synergy: Toward new conceptualizations of intrinsic and extrinsic motivation in the workplace. *Human Resource Management Review*, 3: 185–201.
- Amabile, T. M. 1996. *Creativity in context: Update to the social psychology of creativity*. Boulder, CO: Westview Press.
- American Psychological Association. 2015, February 4. *Stress in America: Paying with our health*. Retrieved from <http://www.apa.org/news/press/releases/stress/2014/stress-report.pdf>
- Baddeley, A. 1992. Working memory and conscious awareness. In A. F. Collins (Ed.), *Theories of memory*: 11–20. Hove, U.K.: Lawrence Erlbaum.
- Baddeley, A., & Hitch, G. 1974. Working memory. *Psychology of Learning and Motivation*, 8: 47–89.
- Bauer, D. J., Preacher, K. J., & Gil, K. M. 2006. Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. *Psychological Methods*, 11: 142–163.
- Baugh, S. G. 1990. Gender influences on organizational commitment. In D. F. Ray (Ed.), *Proceedings of the Southern Management Association*: 204–206. Mississippi State, MS: Southern Management Association.
- Blumberg, M., & Pringle, C. D. 1982. The missing opportunity in organizational research: Some implications for a theory of work performance. *Academy of Management Review*, 7: 560–569.
- Boudreau, K. J., Guinan, E. C., Lakhani, K. R., & Riedl, C. 2016. Looking across and looking beyond the knowledge frontier: Intellectual distance, novelty, and resource allocation in science. *Management Science*, 62: 2765–2783.
- Boyatzis, R. 1998. *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: SAGE.
- Bracha, A., & Fershtman, C. 2013. Competitive incentives: Working harder or working smarter? *Management Science*, 59: 771–781.
- Brislin, R. W. 1986. The wording and translation of research instruments. In W. Berry (Ed.), *Field methods in cross-cultural research*: 137–164. Beverly Hills, CA: SAGE.
- Brockner, J., Grover, S., Reed, T. F., & Dewitt, R. L. 1992. Layoffs, job insecurity, and survivors' work effort: Evidence of an inverted-U relationship. *Academy of Management Journal*, 35: 413–425.
- Bromham, L., Dinnage, R., & Hua, X. 2016. Interdisciplinary research has consistently lower funding success. *Nature*, 534: 684–687.
- Brown, S. P., & Peterson, R. A. 1994. The effect of effort on sales performance and job satisfaction. *Journal of Marketing*, 58: 70–80.
- Burnstein, E., Crandall, C., & Kitayama, S. 1994. Some neo-Darwinian decision rules for altruism: Weighing cues for inclusive fitness as a function of the biological importance of the decision. *Journal of Personality and Social Psychology*, 67: 773–789.
- Cherrington, D. J. 1980. *The work ethic: Working values and values that work*. New York, NY: Amacom.
- Clark, M. A., Michel, J. S., Zhdanova, L., Pui, S. Y., & Baltes, B. B. 2016. All work and no play? A meta-analytic examination of the correlates and outcomes of workaholism. *Journal of Management*, 42: 1836–1873.
- Cnaan, R. A., & Goldberg-Glen, R. S. 1991. Measuring motivation to volunteer in human services. *Journal of Applied Behavioral Science*, 27: 269–284.
- Coad, A. 1996. Smart work and hard work: Explicating a learning orientation in strategic management accounting. *Management Accounting Research*, 7: 387–408.
- Dansereau, F., & Yammarino, F. J. 2000. Within and between analysis: The variant paradigm as an underlying approach to theory building and testing. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions*: 425–466. San Francisco, CA: Jossey-Bass.
- Deci, E. L., Koestner, R., & Ryan, R. M. 1999. A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125: 627–668.

- Deci, E. L., Olafsen, A. H., & Ryan, R. M. 2017. Self-determination theory in work organizations: The state of a science. *Annual Review of Organizational Psychology and Organizational Behavior*, 4: 19–43.
- Deci, E. L., & Ryan, R. M. 1985. *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.
- Deci, E. L., & Ryan, R. M. 2010. Self-determination. In I. B. Weiner & W. E. Craighead (Eds.), *The Corsini encyclopedia of psychology*, vol. 4: 1530–1532. Hoboken, NJ: John Wiley & Sons.
- Dewett, T. 2006. Exploring the role of risk in employee creativity. *Journal of Creative Behavior*, 40: 27–45.
- Dewett, T. 2007. Linking intrinsic motivation, risk taking, and employee creativity in an R&D environment. *R & D Management*, 37: 197–208.
- Donavan, D. T., Brown, T. J., & Mowen, J. C. 2004. Internal benefits of service-worker customer orientation: Job satisfaction, commitment, and organizational citizenship behaviors. *Journal of Marketing*, 68: 128–146.
- Edmondson, A. 1999. Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44: 350–383.
- Edwards, J. R., & Rothbard, N. P. 2000. Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25: 178–199.
- Fang, E., Palmatier, R. W., & Evans, K. R. 2004. Goal-setting paradoxes? Trade-offs between working hard and working smart: The United States versus China. *Journal of the Academy of Marketing Science*, 32: 188–202.
- Farmer, S. M., Tierney, P., & Kung-Mcintyre, K. 2003. Employee creativity in Taiwan: An application of role identity theory. *Academy of Management Journal*, 46: 618–630.
- Gagné, M., & Deci, E. L. 2005. Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26: 331–362.
- George, J. M., & Brief, A. P. 1990. The economic instrumentality of work: An examination of the moderating effects of financial requirements and sex on the pay-life satisfaction relationship. *Journal of Vocational Behavior*, 37: 357–368.
- George, J. M., & Zhou, J. 2007. Dual tuning in a supportive context: Joint contributions of positive mood, negative mood, and supervisory behaviors to employee creativity. *Academy of Management Journal*, 50: 605–622.
- Gerhart, B., & Fang, M. 2015. Pay, intrinsic motivation, extrinsic motivation, performance, and creativity in the workplace: Revisiting long-held beliefs. *Annual Review of Organizational Psychology and Organizational Behavior*, 2: 489–521.
- Gerhart, B., & Rynes, S. 2003. *Compensation: Theory, evidence, and strategic implications*. Thousand Oaks, CA: SAGE.
- Grant, A. M. 2007. Relational job design and the motivation to make a prosocial difference. *Academy of Management Review*, 32: 393–417.
- Grant, A. M. 2008. Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology*, 93: 48–58.
- Grant, A. M., & Berry, J. W. 2011. The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54: 73–96.
- Greenhalgh, S. 1985. Sexual stratification: The other side of “growth with equity” in east Asia. *Population and Development Review*, 11: 265–314.
- Gutek, B. A., Searle, S., & Klepa, L. 1991. Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology*, 76: 560–568.
- Haefele, J. W. 1962. *Creativity and innovation*. New York, NY: Chapman & Hall.
- Hennessey, B. A., & Amabile, T. M. 2010. Creativity. *Annual Review of Psychology*, 61: 569–598.
- Hirst, G., Van Knippenberg, D., & Zhou, J. 2009. A cross-level perspective on employee creativity: Goal orientation, team learning behavior, and individual creativity. *Academy of Management Journal*, 52: 280–293.
- Ho, D. Y. 1994. Filial piety, authoritarian moralism, and cognitive conservatism in Chinese societies. *Genetic, Social, and General Psychology Monographs*, 120: 349–365.
- Hu, J., & Liden, R. C. 2015. Making a difference in the teamwork: Linking team prosocial motivation to team processes and effectiveness. *Academy of Management Journal*, 58: 1102–1127.
- Janoff-Bulman, R., & Leggatt, H. K. 2002. Culture and social obligation: When “shoulds” are perceived as “wants.” *Journal of Research in Personality*, 36: 260–270.
- Johns, G. 2011. Attendance dynamics at work: The antecedents and correlates of presenteeism, absenteeism, and productivity loss. *Journal of Occupational Health Psychology*, 16: 483–500.
- Joo, S. H., & Grable, J. E. 2004. An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues*, 25: 25–50.
- Joshi, A., Neely, B., Emrich, C., Griffiths, D., & George, G. 2015. Gender research in *AMJ*: An overview of five decades of empirical research and calls to action. *Academy of Management Journal*, 58: 1459–1475.

- Judge, T. A., & Livingston, B. A. 2008. Is the gap more than gender? A longitudinal analysis of gender, gender role orientation, and earnings. *Journal of Applied Psychology*, 93: 994–1012.
- Kanfer, R. 1990. Motivation theory and industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., vol. 1): 75–130. Palo Alto, CA: Consulting Psychologists Press.
- Kanfer, R., Chen, G., & Pritchard, R. D. 2008. The three C's of work motivation: Content, context, and change. In C.-C. Wang (Ed.), *Work motivation: Past, present and future*: 30–45. New York, NY: Routledge.
- Klehe, U. C., & Anderson, N. 2007. Working hard and working smart: Motivation and ability during typical and maximum performance. *Journal of Applied Psychology*, 92: 978–992.
- Kline, R. B. 2015. *Principles and practice of structural equation modeling*. New York, NY: Guilford.
- Koestner, R., & Losier, G. F. 2002. Distinguishing three ways of being highly motivated: A closer look at introjection, identification, and intrinsic motivation. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research*: 101–121. Rochester, NY: University of Rochester Press.
- Kunda, Z. 1990. The case for motivated reasoning. *Psychological Bulletin*, 108: 480–498.
- Leana, C. R., & Meuris, J. 2015. Living to work and working to live: Income as a driver of organizational behavior. *Academy of Management Annals*, 9: 55–95.
- Lee, T. W. 1999. *Using qualitative methods in organizational research*. Thousand Oaks, CA: SAGE.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. 2002. To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, 9: 151–173.
- Liu, Y., Wang, M., Chang, C. H., Shi, J., Zhou, L., & Shao, R. 2015. Work–family conflict, emotional exhaustion, and displaced aggression toward others: The moderating roles of workplace interpersonal conflict and perceived managerial family support. *Journal of Applied Psychology*, 100: 793–808.
- Lobel, S. A., & Clair, L. S. 1992. Effects of family responsibilities, gender, and career identity salience on performance outcomes. *Academy of Management Journal*, 35: 1057–1069.
- Lyons, L., & Liu, D. 2016. Worry and stress rises in China. Retrieved from <http://news.gallup.com/poll/189077/worry-stress-rise-china.aspx>
- Madjar, N., Greenberg, E., & Chen, Z. 2011. Factors for radical creativity, incremental creativity, and routine, noncreative performance. *Journal of Applied Psychology*, 96: 730–743.
- Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. 2013. Poverty impedes cognitive function. *Science*, 341: 976–980.
- Massachusetts Mutual Life Insurance Company. 2017, February 27. Financial security begins at work: MassMutual study finds nearly six in 10 workers feel more secure because of workplace benefits [Press release]. Retrieved from <https://www.massmutual.com/about-us/news-and-press-releases/press-releases/2018/02/27/17/06/financial-security-begins-at-work-massmutual-study-finds-nearly-six-in-10-workers-feel-more-secure>
- Matthews, S. H., & Rosner, T. T. 1988. Shared filial responsibility: The family as the primary caregiver. *Journal of Marriage and the Family*, 50: 185–195.
- Menges, J. I., Tussing, D. V., Wihler, A., & Grant, A. M. 2017. When job performance is all relative: How family motivation energizes effort and compensates for intrinsic motivation. *Academy of Management Journal*, 60: 695–719.
- Miles, M. B., & Huberman, A. M. 1994. *Qualitative data analysis: An expanded source book*. Thousand Oaks, CA: SAGE.
- Moen, P., & Roehling, P. 2005. *The career mystique: Cracks in the American dream*. Lanham, MD: Rowman & Littlefield.
- Mullainathan, S., & Shafir, E. 2013. *Scarcity: Why having too little means so much*. New York, NY: Times Books.
- Muthén, L. K., & Muthén, B. O. 2012. *Mplus version 7 user's guide*. Los Angeles, CA: Muthén & Muthén.
- Nickerson, R. S. 1998. Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2: 175–220.
- Norman, D. A., & Bobrow, D. G. 1975. On data-limited and resource-limited processes. *Cognitive Psychology*, 7: 44–64.
- Owens, B. P., & Hekman, D. R. 2012. Modeling how to grow: An inductive examination of humble leader behaviors, contingencies, and outcomes. *Academy of Management Journal*, 55: 787–818.
- Pahl, R., & Spencer, L. 2004. Personal communities: Not simply families of “fate” or “choice.” *Current Sociology*, 52: 199–221.
- Pittman, T. S., Davey, M. E., Alafat, K. A., Wetherill, K. V., & Kramer, N. A. 1980. Informational versus controlling verbal rewards. *Personality and Social Psychology Bulletin*, 6: 228–233.
- Powell, G. N., & Greenhaus, J. H. 2010. Sex, gender, and the work-to-family interface: Exploring negative and positive interdependencies. *Academy of Management Journal*, 53: 513–534.

- Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. 2010. On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, 30: 91–127.
- Rothbard, N. P., & Edwards, J. R. 2003. Investment in work and family roles: A test of identity and utilitarian motives. *Personnel Psychology*, 56: 699–729.
- Ryan, R. M., & Connell, J. P. 1989. Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, 57: 749–761.
- Salam, R. 2009. The death of macho. *Foreign Policy*, 173: 65–70.
- Sass, D. A., & Smith, P. L. 2006. The effects of parceling unidimensional scales on structural parameter estimates in structural equation modeling. *Structural Equation Modeling*, 13: 566–586.
- Sauermann, H., & Cohen, W. M. 2010. What makes them tick? Employee motives and firm innovation. *Management Science*, 56: 2134–2153.
- Scandura, T. A., & Lankau, M. J. 1997. Relationships of gender, family responsibility and flexible work hours to organizational commitment and job satisfaction. *Journal of Organizational Behavior*, 18: 377–391.
- Schmidt, F. L., & Hunter, J. E. 1983. Individual differences in productivity: An empirical test of estimates derived from studies of selection procedure utility. *Journal of Applied Psychology*, 68: 407–414.
- Selig, J. P., & Preacher, K. J. 2008. *Monte Carlo method for assessing mediation: An interactive tool for creating confidence intervals for indirect effects* [Computer software]. Retrieved from <http://quantpsy.org>
- Sethia, N. K. 1989. The shaping of creativity in organizations. *Academy of Management Proceedings*, 1: 224–228.
- Shah, A. K., Mullainathan, S., & Shafir, E. 2012. Some consequences of having too little. *Science*, 338: 682–685.
- Shalley, C. E., & Perry-Smith, J. E. 2001. Effects of social-psychological factors on creative performance: The role of informational and controlling expected evaluation and modeling experience. *Organizational Behavior and Human Decision Processes*, 84: 1–22.
- Sheldon, K. M., & Elliot, A. J. 1998. Not all personal goals are personal: Comparing autonomous and controlled reasons for goals as predictors of effort and attainment. *Personality and Social Psychology Bulletin*, 24: 546–557.
- Song, Z., Uy, M. A., Zhang, S., & Shi, K. 2009. Daily job search and psychological distress: Evidence from China. *Human Relations*, 62: 1171–1197.
- Stein, C. H. 1992. Ties that bind: Three studies of obligation in adult relationships with family. *Journal of Social and Personal Relationships*, 9: 525–547.
- Sujan, H., Weitz, B. A., & Kumar, N. 1994. Learning orientation, working smart, and effective selling. *Journal of Marketing*, 58: 39–52.
- Tariq, H., & Ding, D. 2018. Why am I still doing this job? The examination of family motivation on employees' work behaviors under abusive supervision. *Personnel Review*, 47: 378–402.
- Thornton, A., & Lin, H. S. 1994. *Social change and the family in Taiwan*. Chicago, IL: University of Chicago Press.
- Tinsley, C. H., Howell, T. M., & Amanatullah, E. T. 2015. Who should bring home the bacon? How deterministic views of gender constrain spousal wage preferences. *Organizational Behavior and Human Decision Processes*, 126: 37–48.
- Vinokur, A. D., Price, R. H., & Caplan, R. D. 1996. Hard times and hurtful partners: How financial strain affects depression and relationship satisfaction of unemployed persons and their spouses. *Journal of Personality and Social Psychology*, 71: 166–179.
- Vroom, V. 1964. *Motivation and work*. New York, NY: Wiley.
- Weller, S. A. 2012. Financial stress and the long-term outcomes of job loss. *Work, Employment and Society*, 26: 10–25.
- Wrzesniewski, A., & Dutton, J. E. 2001. Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26: 179–201.
- Wrzesniewski, A., McCauley, C., Rozin, P., & Schwartz, B. 1997. Jobs, careers, and callings: People's relations to their work. *Journal of Research in Personality*, 31: 21–33.
- Xie, Y. 2013, October. Gender and family in contemporary China (PSC Research Report No. 13-808). Ann Arbor, MI: Population Studies Center, Institute for Social Research, University of Michigan. Retrieved from <https://www.psc.isr.umich.edu/pubs/abs/8507>
- Zhou, J., & George, J. M. 2001. When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management Journal*, 44: 682–696.
- Zhou, J., Shin, S. J., Brass, D. J., Choi, J., & Zhang, Z. X. 2009. Social networks, personal values, and creativity: Evidence for curvilinear and interaction effects. *Journal of Applied Psychology*, 94: 1544–1552.



Xin-an Zhang (xinanzhang@sjtu.edu.cn) is a professor of management in Antai College of Economics & Management, Shanghai Jiao Tong University. He received his

PhD from Shanghai Jiaotong University. His research topics include leadership, teamwork, and Chinese contexts of management.

Huiyao Liao (huiyao-liao@uiowa.edu) is a doctoral candidate in the Department of Management & Entrepreneurship at the University of Iowa. He received his MS in organizational behavior from Shanghai Jiao Tong University, China. His research focuses on prosocial motivation, family motivation, and workplace interpersonal relationships.

Ning Li (ning-li-1@uiowa.edu) is an associate professor and Pioneer Research Fellow in the Department of Management & Entrepreneurship at the University of Iowa. He received his PhD in organizational behavior and human

resource management from the Texas A&M University. His current research focuses on team collaboration, social network, leadership, and big data in management.

Amy E. Colbert (amy-colbert@uiowa.edu) is a professor and the Leonard A. Hadley Chair in Leadership in the Department of Management & Entrepreneurship at the University of Iowa. She received her PhD in organizational behavior and human resource management from the University of Iowa. Her research interests include leadership, motivation, interpersonal relationships, and person–environment fit.



Copyright of Academy of Management Journal is the property of Academy of Management and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.