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**When job performance is all relative: how family motivation energizes effort and
compensates for intrinsic motivation**

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When Job Performance is All Relative: How Family Motivation Energizes Effort and Compensates for Intrinsic Motivation

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Abstract:	Supporting one's family is a major reason why many people work, yet surprisingly little research has examined the implications of family motivation. Drawing on theories of prosocial motivation and action identification, we propose that family motivation increases job performance by enhancing energy and reducing stress, and it is especially important when intrinsic motivation is lacking. Survey and diary data collected across multiple time points in a Mexican maquiladora generally support our model. Specifically, we find that family motivation enhances job performance when intrinsic motivation is low—in part by providing energy, but not by reducing stress. We conclude that supporting a family provides a powerful source of motivation that can boost performance in the workplace, offering meaningful implications for research on motivation and the dynamics of work and family engagement.

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When Job Performance is All Relative: How Family Motivation Energizes Effort and Compensates for Intrinsic Motivation

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When Job Performance is All Relative:

How Family Motivation Energizes Effort and Compensates for Intrinsic Motivation

ABSTRACT

Supporting one's family is a major reason why many people work, yet surprisingly little research has examined the implications of family motivation. Drawing on theories of prosocial motivation and action identification, we propose that family motivation increases job performance by enhancing energy and reducing stress, and it is especially important when intrinsic motivation is lacking. Survey and diary data collected across multiple time points in a Mexican maquiladora generally support our model. Specifically, we find that family motivation enhances job performance when intrinsic motivation is low—in part by providing energy, but not by reducing stress. We conclude that supporting a family provides a powerful source of motivation that can boost performance in the workplace, offering meaningful implications for research on motivation and the dynamics of work and family engagement.

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4 When work is interesting, employees are motivated to perform better. Considerable
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6 research has linked intrinsic motivation, the desire to invest effort due to enjoyment of the work
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8 itself (Ryan & Deci, 2000), to higher job performance (e.g., Grant, 2008a; Piccolo & Colquitt,
9
10 2006; Rich, LePine, & Crawford, 2010). Intrinsic motivation makes effort less aversive, leading
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12 employees to work harder, smarter, longer, and more productively (Amabile, 1993; Gagne &
13
14 Deci, 2005).

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16
17 However, many jobs are not designed to enable intrinsic motivation. Across the
18
19 manufacturing, service, and agricultural sectors, it is common for employees to have little
20
21 discretion in tasks, decisions, work methods, and schedules (Davis, 2010; Morgeson &
22
23 Humphrey, 2006), especially in developing countries (Huang & Van de Vliert, 2003). This
24
25 deprives them of autonomy, which is the most widely studied contributor to intrinsic motivation
26
27 in both psychological research on self-determination theory (Deci & Ryan, 2000) and
28
29 organizational research on the job characteristics model (Hackman & Oldham, 1976, 1980). In
30
31 addition, the emphasis on routine, repetitive tasks provides little skill variety and few
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33 opportunities to develop a sense of competence, which is another central antecedent of intrinsic
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35 motivation (Deci & Ryan, 2000; Hackman & Oldham, 1980). In jobs on assembly lines, fast
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37 food restaurants, and retail stores, for example, the work itself remains devoid of the conditions
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39 that foster intrinsic motivation for many employees (Davis, 2010; Leana, Mittal, & Stiehl, 2012).
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46 When the process of doing work is not intrinsically motivating, scholars have long
47
48 recognized that valued outcomes can serve as a substitute (Vroom, 1964). According to action
49
50 identification theory (Vallacher & Wegner, 1987, 1989), individuals can mentally construct a
51
52 given activity according to the activity's lower-level process or its higher-order purpose. When
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54 pure intrinsic motivation is not tenable, rather than attending to the monotonous aspects of a job,
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3 individuals may find meaning by focusing on how the outcomes of work align with their values.
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6 Although one of the values that drives many employees to work is the desire to support
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8 their families (Bernard, 1981; Brief, Brett, Raskas, & Stein, 1997; Brief & Nord, 1990; George
9
10 & Brief, 1990; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997), surprisingly little theory
11
12 and research has examined the family as a source of motivation. As Rosso, Dekas, and
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14 Wrzesniewski (2010: 102) lament, “few have directly studied the influence of family on the
15
16 *meaning* of one’s work.” Existing research often portrays having a family as a distraction from
17
18 work, a source of interference that weakens performance. Such depletion accounts suggest that
19
20 families draw employees away from work, diluting employees’ work focus by diverting attention
21
22 to those at home and demanding time for activities with family that could otherwise be spent at
23
24 work (e.g., Greenhaus & Beutell, 1985; Lapierre, Hammer, Truxillo, & Murphy, 2012). In
25
26 contrast, enrichment accounts acknowledge that family life may enhance work life and that
27
28 having a family may provide additional impetus to get work done (e.g., Greenhaus & Powell,
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30 2006; Rothbard, 2001).
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36 We address this debate by suggesting that families matter for job performance to the
37
38 extent that employees derive motivation from seeing their jobs as benefitting their families.
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40 Family motivation is a special case of prosocial motivation—the desire to benefit others (Grant,
41
42 2008a)—where employees are driven to expend effort in order to take care of their spouses and
43
44 dependents. Building on theories of action identification and prosocial motivation, we propose
45
46 that providing for a family can serve as a potent source of meaning that drives performance by
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48 fostering energy that is needed to get work done and by buffering against stress that interferes
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50 with one’s job. More specifically, as depicted in Figure 1, we suggest that family motivation
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52 becomes *especially* consequential when employees lack intrinsic motivation, mitigating the costs
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3 of low intrinsic motivation for job performance by serving as an alternative source of energy
4 external to the work itself and reducing stress. We test these hypotheses in a field study with
5 factory workers in Mexico, using objective daily measures of performance, survey measures of
6 intrinsic and family motivations, and daily diary measures of the mediating mechanisms of
7 energy and stress.
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15 Our research offers four key contributions to research on motivation and work-family
16 dynamics. First, we answer calls to examine the family as a source of meaning and motivation
17 (George & Brief, 1996; Rosso et al., 2010). Second, we challenge the assumption that prosocial
18 and intrinsic motivations will always interact positively (Grant, 2008a; Grant & Berry, 2011).
19
20 Third, in demonstrating the compensatory role of family motivation, we extend knowledge about
21 the psychological forces that fuel performance when intrinsic motivation is lacking. Fourth, we
22 advance work-family research by identifying a novel psychological path through which family
23 can enrich emotional experiences and effectiveness at work.
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36 Insert Figure 1 about here
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39 **FAMILY MOTIVATION**

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41 In recent years, organizational scholars have devoted growing attention to prosocial
42 motivation, the desire to expend effort to benefit other people (Grant, 2007, 2008a). Research on
43 prosocial motivation builds on a tradition of examining concern for others as a driver of
44 motivation (Meglino & Korsgaard, 2004). When employees are prosocially motivated, they are
45 typically focused on helping a particular group of beneficiaries (Grant, 2007; McNeely &
46 Meglino, 1994). Whereas existing studies have examined coworkers and customers as
47 beneficiaries (e.g., Bellé, 2012; Grant & Berry, 2011; Hu & Liden, 2015), we study the family as
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3 an important beneficiary of work.
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5 We define family motivation as the desire to expend effort to benefit one's family.
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7 Hence, it is a form of prosocial motivation for which the beneficiary is specifically the family.
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9 Family motivation is likely to be most relevant when an employee has dependents at home, but
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11 "family" need not only refer to spouses and children; it may also extend to parents and
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13 grandparents, aunts and uncles, cousins, or other kin (Burnstein, Crandall, & Kitayama, 1994).
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15 As Edwards and Rothbard (2000: 179) define it, family consists of people "related by biological
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17 ties, marriage, social custom, or adoption."
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22 It is widely recognized that supporting one's family is a fundamental reason that many
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24 people work, from North America (Brief et al., 1997; Wrzesniewski et al., 1997) to Southeast
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26 Asia (Morling & Kitayama, 2008). In one study, for example, when Amway employees shared
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28 their dreams, 86 percent emphasized "being a good family member" (Pratt, 2000: 465). Further,
29
30 research on boundary management suggests that working to support the family is one way that
31
32 employees psychologically integrate their families into work, connecting different identities
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34 (e.g., Edwards & Rothbard, 1999; Greenhaus & Powell, 2006; Lambert, 1990). However, the
35
36 family as a source of work motivation has received little theoretical or empirical attention (Brief
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38 & Nord, 1990; Rosso et al., 2010).
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43 Family motivation differs from traditional forms of prosocial motivation in that it focuses
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45 on beneficiaries outside the workplace, who are not affected directly by employees' task
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47 contributions, products, or services, but rather by employment itself and its affordances. Thus,
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49 whereas prosocial motivation directed toward coworkers and customers depends on high task
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51 significance (Grant, 2007), family motivation can be strong even when the job does not have a
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53 meaningful positive impact on others. Further, whereas other forms of prosocial motivation are
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3 often dependent on the job and the organization (Grant, 2007), family motivation should be more
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5 consistent across different contexts, as employees can take their families with them from one job
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7 and organization to another. Although family motivation belongs to the wider construct of
8
9 prosocial motivation, it is also likely to be more intense than general forms of prosocial
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11 motivation, making it a special case. “Intensity of motivation,” Brehm and Self (1989: 110)
12
13 explain, is the “magnitude of motivational arousal.”
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18 Family motivation is likely to involve intense motivational arousal because of its deep
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20 connection with one of the most fundamental values in society. Of the 58 guiding principles
21
22 covered in surveys of values across cultures (Schwartz et al., 2012), caring for the family ranks
23
24 as the second most important priority in life, trailing only behind avoiding sickness. This
25
26 devotion to family members not only trumps priorities related to independence, influence,
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28 recognition, enjoying life through leisure, and a world at peace, but also concern for all other
29
30 groups of people (Schwartz, 2015). When employees are motivated to work for their families,
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32 because they have an especially rich and deep relationship with their beneficiaries, their
33
34 willingness to work long and hard on the job should be strengthened (Grant, 2007).
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39 Building on this evidence, there are at least five other reasons for which family
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41 motivation is likely to be a uniquely potent source of effort at work. First, employees are likely
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43 to care more about assisting their family members than other groups of beneficiaries by the sheer
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45 nature of kinship (Burnstein et al., 1994). Research has established that kinship is a powerful
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47 driver of emotional closeness (Korchmaros & Kenny, 2001), which in turn influences the degree
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49 to which employees expend effort on behalf of a beneficiary (Grant, Campbell, Chen, Cottone,
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51 Lapedis, & Lee, 2007). Second, in the special case of family motivation, employees typically
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53 have a substantive past history with their beneficiaries (family members), and a relationship with
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3 those beneficiaries is likely to extend well into the future. The frequency of contact with
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5 beneficiaries is also often higher in the case of family motivation than for other forms of
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7 prosocial motivation. That is, because family members typically live together, family members
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9 should be encountered more often than other types of beneficiaries, motivating employees to be
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11 ever more committed to helping their families (Grant, 2007; Schoenrade, Batson, Brandt, &
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13 Loud, 1986).
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17 Third, when the family is the beneficiary, the nature of prosocial motivation is likely to
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19 be especially powerful because employees can directly see the consequences of their work for
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21 their families. This awareness of impact is one of the driving forces behind the desire to expend
22
23 effort to benefit others (Grant, 2008b, 2012; Grant et al., 2007). Fourth, employees are likely to
24
25 feel a greater sense of responsibility for supporting their families than other beneficiaries. When
26
27 the beneficiary is coworkers or end users, there are usually other employees in the organization
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29 with similar jobs and similar skills who can help, which can lead to diffusion of responsibility
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31 and social loafing (Harkins & Petty, 1982). When the beneficiary is the family, employees may
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33 feel that their spouses and children are dependent only on them, experiencing the feeling of
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35 personal responsibility that is known to motivate effort (Morrison & Phelps, 1999; Pearce &
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37 Gregersen, 1991; Weiner, 1985).
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43 Fifth, whereas prosocial motivation toward other beneficiaries often focuses on large
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45 groups of colleagues, the beneficiary pool is often more concentrated in the case of family
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47 motivation. An employee working to support a nuclear family only needs to focus on a handful
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49 of individuals, as compared to a teacher working to help dozens of students or a lawyer
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51 defending a large number of clients. Research shows that people are typically more motivated to
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53 help smaller groups than larger groups, which is conducive to greater perceived identification
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3 and impact (Slovic, 2007; Small, Loewenstein, & Slovic, 2007). Further, since the family unit is
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5 a bounded entity, it is easier to focus on how one's actions will have a common impact on a
6
7 coherent group (Smith, Faro, & Burson, 2013).
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10 In summary, following Grant's (2007) theoretical model, the desire to support one's
11 family should be more intense than other forms of prosocial motivation due to heightened
12 perceived impact (for example, because of the enduring, visible effect employees often have on
13 their families and their sense of personal responsibility for their families). The resulting
14 motivation is further strengthened by the stronger affective commitment between employees and
15 their beneficiaries (for example, because of the frequent, physically proximate contact employees
16 have with their families). Due to this intensity, we expect family motivation to have a greater
17 influence on employees' attention, effort, and persistence than other forms of prosocial
18 motivation (Brehm & Self, 1989; Mitchell & Daniels, 2003).
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32 Finally, as a powerful form of prosocial motivation, family motivation is likely to be
33 more autonomously regulated than extrinsic motivation. According to self-determination theory
34 (Gagne & Deci, 2005), whereas extrinsic motivation involves working solely to obtain rewards
35 or avoid punishments, family motivation involves identifying work as attached to a core value or
36 integrating it into an entire value system. Interestingly, family motivation nonetheless shares
37 similarities with having a job orientation toward work, which involves viewing work as a means
38 to other ends, such as supporting one's family, lifestyle, and leisure time (Wrzesniewski et al.,
39 1997). However, it differs in that having a job orientation is negatively correlated with having a
40 calling orientation, which involves viewing work as an enjoyable, meaningful end in and of itself
41 (Elangovan, Pinder, & McLean, 2010). When employees experience strong family motivation,
42 this does not preclude them from finding work enjoyable and meaningful. In fact, as we argue,
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3 family motivation can coexist with enjoyment, but serves as a particularly important source of
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5 meaning when enjoyment is lacking.
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8 As such, family motivation should be an important source of work identity and a driver of
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10 job performance. Job performance is the effectiveness of employees' contributions toward
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12 organizational goals (Motowidlo, 2003). In the following sections, we examine the role of family
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14 motivation in shaping job performance, both directly and in tandem with intrinsic motivation.
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17 We hypothesize that when family motivation is strong, employees will connect their
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19 work to the important value of supporting the people who matter most to them, enhancing the
20
21 valence of work (Vroom, 1964). This will give them the grit (Duckworth, Peterson, Matthews, &
22
23 Kelly, 2007) to work harder and longer for both utilitarian and identity reasons (Rothbard &
24
25 Edwards, 2003). From a utilitarian perspective, achieving high performance can increase job
26
27 security, prevent pay cuts, and provide additional income to support one's family. From an
28
29 identity perspective, when employees perform well, they reinforce their self-concepts as
30
31 responsible breadwinners and good role models. Indeed, research shows that when employees
32
33 view family roles as an important part of their identities, they invest more time in work
34
35 (Rothbard & Edwards, 2003), and that men and women with children are more productive at
36
37 work than those who do not have dependents (Krapf, Ursprung, & Zimmermann, 2014). As such,
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39 we expect that family motivation will drive employees to attain higher performance.
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45 *Hypothesis 1. Family motivation is positively associated with job performance.*
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48 **Family Motivation, Intrinsic Motivation, and Job Performance** 49

50 However, the impact of family motivation on performance is likely to vary as a function
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52 of intrinsic motivation. Intrinsic motivation, as mentioned above, is the desire to invest effort
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54 based on interest in the work itself (Ryan & Deci, 2000). When intrinsic motivation is high,
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3 employees do not need to exercise self-regulation to “push” themselves to work; they are
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5 naturally “pulled” into the work (Grant, 2008a). Since the work is enjoyable rather than aversive,
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7 employees are more likely to focus their attention, invest considerable effort, and persist in the
8
9 face of obstacles (Mitchell & Daniels, 2003).
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13 It is not realistic, though, for high levels of intrinsic motivation to exist in every job or for
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15 every employee (Frese & Fay, 2001). For example, research suggests that intrinsic motivation is
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17 often impoverished in lower-level jobs (Deal, Stawiski, Graves, Gentry, Weber, & Ruderman,
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19 2013) and developing countries (Huang & Van de Vliert, 2003). In the absence of intrinsic
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21 motivation, the quality and quantity of performance tend to suffer (e.g., Grant, 2008a; Piccolo &
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23 Colquitt, 2006; Rich et al., 2010).
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27 We propose that family motivation can compensate for a lack of intrinsic motivation. The
28
29 fundamental difference between intrinsic motivation and family motivation is rooted in a
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31 distinction first introduced by Aristotle (350 BCE/1985) between hedonic and eudaimonic
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33 pursuits. Hedonic aspirations involve seeking pleasure and avoiding pain; eudaimonic aspirations
34
35 focus on seeking meaning and expressing important values (McGregor & Little, 1998; Ryan &
36
37 Deci, 2001; Waterman, 1993, 2007). Intrinsic motivation is hedonic, as it is governed by a desire
38
39 to experience enjoyment and pleasure in one’s activities. Family motivation is eudaimonic, as it
40
41 is concerned not with affective experiences for oneself, but with the important responsibility of
42
43 providing for one’s dependents. Research has established that family is a central source of
44
45 meaning in life (Ryff, 1989; Ryff & Singer, 1998), and that it is a universal value prized by the
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47 majority of people in the majority of the world’s cultures (Pew Research Center, 2010; Schwartz,
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49 1994; Schwartz & Bilsky, 1987; Schwartz et al., 2012; World Values Survey, 2010-2014).
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55 According to action identification theory (Vallacher & Wegner, 1987, 1989), any task
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3 can be identified psychologically at different levels of analysis. At a low level of analysis,
4 employees focus on *how* the task is being performed, directing their attention to the process for
5 carrying it out. At a high level of analysis, they focus on *why* the task is being performed,
6 focusing on the purpose for doing it. For example, consider the act of unlocking a door. A low-
7 level identification would be “I turned the key.” A high-level identification would be “I let my
8 spouse into our new home.” Although any task can be identified in terms of lower processes and
9 higher purposes, Vallacher and Wegner (1987: 5) argued that in general, “when both a lower and
10 a higher level act identity are available, there is a tendency for the higher level identity to
11 become prepotent. The idea here is simply that people are always sensitive to the larger
12 meanings, effects, and implications of what they are doing.”
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27 Family motivation facilitates higher-level identifications, which are likely to be
28 especially attractive when intrinsic motivation is lacking. By definition, employees do not enjoy
29 the process of doing tasks that are devoid of intrinsic motivation. Under these circumstances, the
30 motivation to support one’s family can provide a purpose that changes the psychological
31 experience of work. Although family motivation offers an important reason for effort regardless
32 of whether or not employees enjoy their work, in the absence of intrinsic motivation, family
33 motivation can transform a task from uninteresting to worthwhile. Thus, when intrinsic
34 motivation is high, family motivation can still be beneficial, but family motivation becomes
35 especially consequential when intrinsic motivation is low. In line with this logic, a recent series
36 of studies with high school and college students demonstrated that when learning tasks are
37 inherently boring, a prosocial, self-transcendent purpose for learning can effectively increase
38 students’ diligence and persistence on those tasks (Yeager et al., 2014). For many employees,
39 there is no purpose more significant than caring for their families. When employees lack interest
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3 in the work itself, they can nevertheless perceive it as meaningful because it gives them the
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5 opportunity to express core values of providing for their families. Thus, we predict that when
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7 intrinsic motivation is lacking, family motivation can compensate to enhance job performance.¹
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9

10 *Hypothesis 2. Intrinsic motivation moderates the relationship between family motivation*
11 *and job performance, such that family motivation is more positively associated with*
12 *performance when intrinsic motivation is low rather than high.*
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14

15 To provide further insight into the moderating role of intrinsic motivation, we examine
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17 two different psychological processes. When psychologists have explained the performance
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19 effects of intrinsic motivation, they have turned their attention to the key processes of energy and
20
21 stress. According to self-determination theory, autonomous regulation has an energizing effect
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23 and a stress-reducing effect (Gagne & Deci, 2005; Ryan & Frederick, 1997). When the work
24
25 itself is interesting, employees are excited to engage and less likely to experience stress, which
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27 leads them to work harder, longer, and smarter (Amabile, 1993; Grant, 2008a). As such, we
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29 focus on energy and stress as the key psychological processes through which family motivation
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31 will operate. We predict that family motivation will enhance performance by providing a sense
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33 of meaning that boosts energy and reduces stress, and that these effects will be more pronounced
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35 when intrinsic motivation is low.
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41 **Energy.** First, we expect that family motivation will enhance energy, particularly when
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43 intrinsic motivation is absent. Energy is a form of high-arousal positive affect, reflecting the
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45 extent to which an employee feels a sense of vitality—psychologically vigorous and alert (Reis,
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47 Sheldon, Gable, Roscoe, & Ryan, 2000; Ryan & Frederick, 1997). Extensive research has shown
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49 that intrinsic motivation confers energy: when people choose to work on tasks because they find
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54 ¹ This compensation effect does not preclude the possibility that employees will fare best when they have high
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56 intrinsic motivation *and* high family motivation. Rather, we suggest that the positive relationship between family
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58 motivation and job performance is stronger when employees do not enjoy their work, because the relative
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60 importance of family motivation in driving performance increases in such instances.

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3 them interesting, they experience greater vitality, enthusiasm, and excitement (Nix, Ryan,
4 Manly, & Deci, 1999; Saavedra & Kwun, 2000; Sheldon & Kasser, 1995). People also
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6 experience greater energy if intrinsic goals are more central in their lives than extrinsic goals
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8 (Kasser & Ryan, 1996).
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12 In the absence of intrinsic motivation, energy is likely to falter: when the process of
13 carrying out tasks is not interesting, employees lack enthusiasm for their work and have to push
14 themselves to work, which is often exhausting (Grant & Sonnentag, 2010). However, a
15 meaningful purpose can render energy. When employees work to benefit their families, the job
16 becomes a vessel to express personal values, resulting in more engagement at work (Kahn,
17 1990). This is a reason to focus attention and concentrate on work, as opposed to becoming
18 distracted (Rothbard, 2001). Further, energy spills over to increase task-related effort (Brown &
19 Leigh, 1996), and because energized employees feel more mentally refreshed than their
20 counterparts, they have enhanced resources for persevering on the job. For example, several
21 studies have shown that people with a strong other-orientation were energized to persist longer
22 than their peers on tedious tasks after being depleted (Seeley & Gardner, 2003; see also Balliet &
23 Joireman, 2010). In another study, when students were able to connect tedious tasks to a purpose
24 of benefiting others, they reported stronger enthusiasm about doing their schoolwork (Yeager et
25 al., 2014). Whereas perceiving a task as boring is unlikely to fuel energy, viewing it as “boring
26 but important” is more energizing, enabling employees to work harder.
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48 From an action identification standpoint (Vallacher & Wegner, 1987, 1989), employees
49 are likely to be energized by framing their tasks in terms of the meaningful purpose of providing
50 for their families. For example, when working on an uninteresting task like stuffing envelopes,
51 instead of focusing on the repetitive process of folding papers and sealing flaps, employees can
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3 reflect on the important purpose of how doing the job helps caring for their families, which may
4 rejuvenate their energy. Indeed, there is evidence that reminding people of their romantic
5 partners is enough to energize them to work harder on tasks that benefit these partners (Shah,
6 2003). Employees often post family photographs in their workspaces, which provide them with
7 salient reminders of why they are working (Elsbach, 2003; George & Brief, 1996).

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13 “Meaningfulness connects present to future” (Baumeister, Vohs, Aaker, & Garbinsky, 2013:
14 512), and even if the present tasks are not interesting, employees can shift their focus to why
15 effort will be valuable down the road in creating a better future for their families.
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22 In turn, energy is likely to enhance job performance. The burnout and engagement
23 literatures provide extensive evidence that when employees lack emotional energy, their
24 performance suffers (Rich et al., 2010; Taris, 2006). Without energy, employees struggle to
25 focus their attention, expend effort, and persist to overcome barriers. For example, Goldberg and
26 Grandey (2007) found that when participants were depleted of energy, they made more errors in
27 a customer service interaction. When employees are energized, on the other hand, they tend to be
28 more effective (Quinn, Spreitzer, & Lam, 2012). Additionally, energy is an indicator of well-
29 being (Ryan & Frederick, 1997), which has been linked to improved job performance (Wright &
30 Cropanzano, 1998).
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44 To summarize, we predict that family motivation energizes employees to carry out their
45 work, enhancing performance. When employees are intrinsically motivated, they already
46 experience energy stemming from enjoyment in the work itself. When intrinsic motivation is
47 low, family motivation becomes all the more important, as it serves as a primary source of
48 energy external to the job. Thus, we predict that the strength of the relationship between family
49 motivation and energy is contingent upon an employee’s level of intrinsic motivation.
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3 Particularly among those who are low in intrinsic motivation, employees high in family
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5 motivation will experience greater energy, yielding improved performance.
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8 *Hypothesis 3a. Intrinsic motivation moderates the relationship between family motivation*
9 *and energy, such that family motivation is more positively associated with energy when*
10 *intrinsic motivation is low rather than high.*
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12 *Hypothesis 3b. Energy is positively related to job performance.*
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14 *Hypothesis 3c. The indirect effect of family motivation on job performance through*
15 *energy is moderated by intrinsic motivation.*
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18 **Stress.** Along with providing energy, we predict that family motivation is likely to reduce
19
20 feelings of stress. Although employees experience stress at work for a variety of reasons, it is
21
22 especially pronounced when intrinsic motivation is low. When employees lack intrinsic
23
24 motivation, they are more prone to burnout, emotional exhaustion, and stress (Grant &
25
26 Sonnentag, 2010; Houkes, Janssen, de Jonge, & Nijhuis, 2001). They experience a sense of
27
28 pressure, and are likely to view their work as externally controlled and less congruous with the
29
30 self (Gagne & Deci, 2005; Ryan & Deci, 2000). Moreover, monotonous work, often associated
31
32 with low levels of intrinsic motivation (Deci & Ryan, 2000; Hackman & Oldham, 1980), is
33
34 associated with increased stress (Kahn & Byosiere, 1992), risk for heart attack (Alfredsson,
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36 Karasek, & Theorell, 1982), and even mortality (Britton & Shipley, 2010).
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42 There is a wealth of evidence that other-oriented motivation can provide a sense of
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44 meaning that reduces stress and enhances health (Ferrari, Luhrs, & Lyman, 2007; Konrath,
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46 Fuhrel-Forbis, Lou, & Brown, 2012). As Konrath et al. (2012: 88) explain, “other-oriented
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48 motives may buffer... against potential stressors that occur in daily life,” as “these motives may
49
50 help to promote a sense of deep and lasting well-being originating from service to something
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52 bigger than the self.” Further, when employees have strong family motivation, they will view the
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54 job as serving the purpose of benefiting their families. This is a form of cognitive job crafting
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3 (Wrzesniewski & Dutton, 2001), whereby employees imbue the work with greater meaning by
4 connecting it to their identities as breadwinners, good providers, and caregivers. In the words of
5
6 Sherman and Cohen (2006: 229), “In a difficult situation, reminders of these core qualities can
7
8 provide people with perspective on who they are and anchor their sense of self-integrity.” As a
9
10 result, employees may experience a stronger fit between the work and their personal values and
11
12 goals, increasing relatedness and reducing stress (Ryan & Deci, 2000).
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18 We posit that this negative relationship between family motivation and stress is especially
19
20 pronounced when employees lack intrinsic motivation. When employees can find meaning in
21
22 unpleasant or difficult events, they experience less stress (Davis, Nolen-Hoeksema, & Larson,
23
24 1998; Park & Folkman, 1997; Pennebaker & Seagal, 1999). Using the lens of action
25
26 identification theory (Vallacher & Wegner, 1987, 1989), a strong motivation to take care of
27
28 one’s family provides a justification for doing unpleasant work. When employees are finding the
29
30 process uninteresting, they can turn their attention to the purpose. Indeed, employees report
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32 looking at photos and other family-related objects while at work to be reminded of what they are
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34 working for and to reduce stress (Belk & Watson, 1998), and making family relationships salient
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36 can reduce blood pressure (Carlisle et al., 2011), increase resilience in the face of threats
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38 (Kumashiro & Sedikides, 2005; Murray, Bellavia, Feeney, Holmes, & Rose, 2001), and restore
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40 confidence and self-esteem (Chen & Boucher, 2008; Gabriel, Renaud, & Tippin, 2007). As
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42 Sherman and Cohen (2006: 229) observe, “personal relationships seem to be an important
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44 affirmational resource that people draw on in times of stress.”
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51 Furthermore, a substantial body of research indicates that stress is linked to reduced
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53 productivity (Abramis, 1994; Cooper & Cartwright, 1994; Jamal, 1984; Motowidlo, Packard, &
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55 Manning, 1986; Westman & Eden, 1996), including several meta-analyses and reviews (Fried,
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3 Shirom, Gilboa, & Cooper, 2008; Gilboa, Shirom, Fried, & Cooper, 2008; Kahn & Byosiére,
4 1992).² Stress can undermine the quality and quantity of performance by distracting attention
5
6 away from work (Cohen, 1980; Jex, 1998) and generating feelings of depression (Motowidlo et
7
8 al., 1986), making effort more onerous.
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12 Thus, we propose that family motivation will enhance performance by decreasing stress
13
14 levels. Paralleling the aforementioned hypotheses related to energy, this stress-reducing effect
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16 will be more important and pronounced when intrinsic motivation is low, as intrinsically
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18 motivated employees experience less stress in the first place, regardless of family motivation.
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21
22 *Hypothesis 4a. Intrinsic motivation moderates the relationship between family motivation*
23 *and stress, such that family motivation is more negatively associated with stress when*
24 *intrinsic motivation is low rather than high.*
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26
27 *Hypothesis 4b. Stress is negatively related to job performance.*
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30 *Hypothesis 4c. The indirect effect of family motivation on job performance through stress*
31 *is moderated by intrinsic motivation.*
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33 In summary, we propose that family motivation compensates when intrinsic motivation is
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35 low, providing an alternative route to the energy needed to get work done and buffering the
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37 stress that interferes with performance.
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40 METHOD

41 Participants and Procedures

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43 The study was conducted in a Mexican company that specializes in processing coupons.
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47 ² We recognize that other researchers have found a curvilinear relationship between stress and job performance,
48 stemming back to the Yerkes-Dodson law (Yerkes & Dodson, 1908). This and subsequent models about activation
49 (Scott, 1966) suggest that moderate amounts of stress yield optimal job performance by “activating” employees,
50 who can then divert these energies to work (whereas at higher levels of stress, energy is deployed to coping with the
51 stress, hindering performance). Although the U-shaped relationship has been found in the field (e.g., Anderson,
52 1976; Chen, Silverthorne, & Hung, 2006), in general, more empirical support has been found for a negative
53 relationship between stress and performance (e.g., Abramis, 1994; Fried et al., 2008; Gilboa et al., 2008; Kahn &
54 Byosiére, 1992; Jamal, 1984; Motowidlo et al., 1986; Westman & Eden, 1996). We also recognize that challenge
55 stressors have been shown to positively relate to job performance (LePine, Podsakoff, & LePine, 2005), but we
56 believe that the challenges associated with low intrinsic motivation are more directly related to hindrance stressors.
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3 The company is one of several thousand so-called *maquiladoras* that are located along the
4 Mexico-United States border. These companies operate under a tax-free agreement with the
5 United States and provide cheap labor for jobs involving assembly, processing or manufacturing.
6
7 In this company, employees spend their working day scanning discount coupons that are shipped
8 to Mexico from U.S. retailers for accounting purposes. The scanning is a standardized manual
9 process that involves taking each coupon out of its shipping container, scanning the barcode, and
10 checking that the system counted and categorized the coupon correctly.
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20 Depending on the individual circumstances of employees at home, some are doing this
21 job primarily to support their family, whereas others do the job for other reasons. Therefore,
22 there are likely to be differences in employees' family motivation levels. Furthermore, even
23 though the work does not provide skill variety or autonomy, we expect that some employees
24 perceive their jobs as intrinsically motivating because the work gives them a limited opportunity
25 for growth and skill development. This can confer a sense of competence, which is one of the
26 fundamental drivers of intrinsic motivation (Ryan & Deci, 2000). Thus, employees who find it
27 gratifying to gain speed and accuracy in scanning coupons are likely to be intrinsically motivated
28 even in this monotonous work environment.³
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41 The company runs four working shifts, and for this study we invited the 151 employees
42 from one shift to participate. We collected the data at multiple measurement points and from
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48 ³ Differences in extrinsic motivation are likely limited, because the actual payments that employees receive depend
49 on the number of hours that they work, not on the number of coupons that they scan. Nonetheless, there are a few
50 incentives for high job performance that may serve to raise some employees' extrinsic motivation. Specifically,
51 every three months, employees' performance is evaluated by the company. The 15% best employees are then
52 considered for a change in their assignment and a promotion to a higher salary level. Such promotions depend on the
53 availability of positions at a higher salary levels, and in practice do not seem to occur frequently: only 6 out of 23
54 supervisor positions were filled with employees that previously scanned coupons. Beyond pay, there are some
55 benefits of working for the company (as opposed to being unemployed) that are guaranteed by law. These benefits
56 include medical services for employees and their dependants, access to child care, and the possibility to apply for a
57 mortgage to buy a house.
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3 several sources. First, we ran a survey to measure employees' motivations. Then, a two-week
4 period followed during which employees were asked each morning of the ten working days to
5 fill out a diary prior to starting their jobs. In addition, we collected from the performance
6 monitoring system of the company an objective job performance score for each employee for
7 every day during the two-week period.
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11 Of the 151 invited employees, 97 provided complete data for the survey and at least three
12 diary entries, and were thus included in our analyses (response rate: 64.2%). On average,
13 participants provided 9 diary entries ($SD = 2$ days).⁴ All employees of the company, except for
14 some managers, are women, and so the participants of the study were exclusively women.⁵ Their
15 mean age was 31 years ($SD = 8.98$) and they had worked for the company on average for 6.43
16 years ($SD = 6.15$).
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29 **Measures**

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31 The items were translated from English to Spanish, following the common back-
32 translation procedure to check for semantic equivalence with the original items (Brislin, 1986;
33 Schaffer & Riordan, 2003).
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39 ***Family and intrinsic motivations.*** Motivation can be viewed hierarchically at three levels
40 (Vallerand, 1997, 2001): global (dispositional, trait-like reasons for action that employees carry
41 across time and situations), contextual (reasons for action that employees bring to a particular
42 role or life domain), and situational (reasons for action that employees experience at a specific
43 moment in time). As we were interested in how family and intrinsic motivations affect overall
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52 ⁴ We ran our model at different cutoffs. The results did not change in direction or significance when we included
53 data from employees with one or more diary entries ($N = 98$). The results also did not change in direction when we
54 raised the cutoff to include data only from employees with at least four ($N = 95$) diary entries, but some probabilities
55 dropped to marginal significance, likely because of the reduced sample size and the attendant loss of statistical
56 power.

57 ⁵ This gender composition of the workforce is representative for most maquiladoras (Sklair, 2011).
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3 job performance, we focused on motivation at the contextual level—why employees expend
4 effort at work. Whereas daily measures would be appropriate for the situational level, a survey is
5 better suited to the contextual level (Vallerand, 1997). Thus we assessed both family and
6 intrinsic motivations in a survey by adapting existing measures (Grant, 2008a; Ryan & Connell,
7 1989). The items used a 7-point Likert-type scale ranging from 1 = *strongly disagree* to 7 =
8 *strongly agree*. An introductory question asked, “Why are you motivated to do your work?,” and
9 items were preceded by “I do this job because.”

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20 For the family motivation measure, although the family typically refers to a domestic
21 group of people, it technically involves whomever employees consider to be their kin (Burnstein
22 et al., 1994). In our sample, employees were working to support a variety of different
23 beneficiaries, including spouses, children, parents, and extended family members. Thus, we treat
24 the family as a perceptual entity, based on each individual’s unique circumstances, as in much of
25 the work-family literature. The family motivation items were “I care about supporting my
26 family,” “I want to help my family,” “I want to have a positive impact on my family,” “it is
27 important for me to do good for my family,” and “my family benefits from my job” ($\alpha = .86$).
28 For intrinsic motivation, the items were “I enjoy the work itself,” “I find the work engaging,”
29 and “I find the work interesting” ($\alpha = .90$).
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44 ***Energy and stress.*** Energy and stress are naturally fluctuating variables that vary on a
45 day-to-day basis. Thus we assessed energy and stress with a diary, using items from existing
46 measures (Cohen, Kessler, & Gordon, 1995; Van Katwyk, Fox, Spector & Kelloway, 2000).
47 Participants answered the items each morning during the two-week period before starting their
48 work on a 7-point Likert-type scale ranging from 1 = *not at all* to 7 = *very much*. The items were
49 preceded by “This morning I feel.” We used four items for energy: “energetic,” “mentally
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3 refreshed,” “enthusiastic,” and “satisfied” ($\alpha = .85$); and three items for stress: “stressed,”
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6 “exhausted,” and “strained” ($\alpha = .81$).
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8 **Job performance.** Each employee’s performance was measured objectively through the
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10 company’s automated performance monitoring system. The system records for each employee
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12 the number of coupons processed per day. This value is then divided by the target number of
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14 coupons expected for each employee. The expected value differs depending on the experience
15
16 level of the employee and the relative difficulty of processing certain types of coupons. The final
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18 job performance score indicates the extent to which the employee has met, failed to meet or
19
20 exceeded the target score. For ease of interpretation, we multiplied the job performance score by
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22 100. For example, if an employee has a target of 800 coupons and processes 800 coupons, then
23
24 she receives a job performance score of 100. If the employee fails to meet the target and
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26 processes 720 coupons only, her score drops to 90, but if she exceeds the target and processes
27
28 880 coupons, her score increases to 110. The job performance scores are automatically generated
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30 at the end of each day, and we gauged them from the system during the two-week period to
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32 measure participant’s daily job performance ($\alpha = .84$).
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38 **Control variables.** To avoid spurious relationships, we included external motivation as a
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40 control variable, using items adapted from Ryan and Connell (1989) to measure motivation
41
42 regulated by rewards and punishments. This allowed us to examine the possibility that working
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44 because of need would influence both family motivation and performance. The items were listed
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46 in the survey with the other motivation items described above and assessed on a 7-point Likert-
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48 type scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. After the introductory
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50 question, “Why are you motivated to do your work?” and the statement, “I do this job because,”
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52 the items included “it allows me to buy things I need,” “I will get in trouble if I don’t have a job,”
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3 and “I can earn money to buy things for myself” ($\alpha = .61$).
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6 **Analyses**

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8 The proposed model consists of a 2-1-1 multilevel moderated mediation model with
9
10 multiple mediators. The dependent variable (job performance) and the mediator variables
11
12 (energy, stress) were nested within participants, thus we used multilevel analysis to test
13
14 Hypotheses 1 and 2, and multilevel structural equation modelling (*MSEM*, Preacher, Zang, &
15
16 Zyphur, 2011; Preacher, Zyphur, & Zang, 2010) with manifest variables and maximum
17
18 likelihood estimation with robust standard errors (Muthén & Muthén, 1998-2012) to test
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20 Hypotheses 3 and 4. As part of these analyses, the variances in the daily measures (energy,
21
22 stress, and job performance) are partitioned into two components: a stable component that
23
24 captures individual differences *between* employees, and a variable component that captures
25
26 fluctuations *within* employees across time. We were interested in whether the stable components
27
28 of energy, stress, and job performance will be affected by family motivation and intrinsic
29
30 motivation as hypothesized. The stable components of the variances in all daily measures were
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32 sufficiently large (energy: 60%, stress: 70%, job performance: 36%) to examine differences in
33
34 energy, stress, and job performance between employees. Thus in the analyses, we used
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36 employees’ motivations to predict the stable components in energy, stress, and job performance
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38 between different employees, while controlling for the variable components in energy, stress,
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40 and job performance within employees.⁶ Prior to the analysis, the independent, moderator, and
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42 control variables (i.e., family, intrinsic, and external motivation) were centered to avoid
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51 ⁶ This approach to measuring and analyzing constructs with different degrees of daily fluctuations is superior to
52 approaches that involve the disaggregation of relatively stable constructs or the aggregation of relatively variable
53 constructs, because this approach does not involve information loss or reduced statistical power (Cohen, Cohen,
54 West & Aiken, 2003; Hox, 2010; Tabachnick & Fidell, 2007). Another advantage of this approach is that it avoids
55 common method bias, which can result from assessing constructs at a single point in time and can inflate
56 relationships between the predictor and the outcome variables. In robustness checks, we found that the pattern of
57 results remains the same when we use aggregated, rather than daily, data.
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3 multicollinearity (Cohen et al., 2003). We used Mplus 7.0 for all analyses (Muthén & Muthén,
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5
6 1998-2012).

7 8 RESULTS

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10 To examine whether family motivation, intrinsic motivation, and external motivation
11
12 were distinct constructs, we conducted a confirmatory factor analysis. The fit-indices were good:
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14 $\chi^2(41) = 57.28$, $RMSEA = .06$, $CFI = .97$, $SRMR = .05$. Following methodological
15
16 recommendations (Farrell, 2010; Fornell & Larcker, 1981), we computed the average variances
17
18 extracted (AVE) for each motivation factor from the respective item indicators, as well as the
19
20 shared variance (SV; i.e., the squared correlation) across the motivation factors. An AVE value
21
22 greater than .50 provides evidence of convergent validity. The AVE values were .62 for family
23
24 motivation, .75 for intrinsic motivation, and .55 for external motivation. AVE values that are
25
26 greater than SV values between two constructs provide evidence of discriminant validity. The
27
28 SV values were .08 for family and intrinsic motivation, .12 for family and external motivation,
29
30 and .21 for external and intrinsic motivation. Thus family motivation, intrinsic motivation, and
31
32 external motivation are distinct constructs with sufficient convergent and discriminant validity.
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38 To assess the distinctiveness of the remaining constructs, we ran multilevel confirmatory
39
40 factor analyses. In the first model, items of each construct loaded onto their respective factor.
41
42 The fit-indices were good: $\chi^2(138) = 185.30$, $RMSEA = .02$, $CFI = .98$, $SRMR$ -within = .04, and
43
44 $SRMR$ -between = .06. In the second model, items for family, intrinsic, and external motivation
45
46 loaded together on one factor and items for daily stress and daily energy loaded together on
47
48 another factor. The fit-indices were worse in this second model: $\chi^2(148) = 811.58$, $RMSEA = .08$,
49
50 $CFI = .68$, $SRMR$ -within = .07, and $SRMR$ -between = .19. Furthermore, the first model exhibited
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52 a significantly better fit than the second model: $\Delta \chi^2 = 626.28$, $\Delta df = 10$, $p < .001$.
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3 Table 1 presents the means, standard deviations, correlations, and internal consistency
4 reliability estimates for all variables. Job performance correlated significantly with family
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6 motivation ($r = .13, p < .01$).
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11 -----
12 Insert Table 1 about here
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15 The results of the hypothesis tests are shown in Tables 2 and 3. We report both
16 unstandardized and standardized estimates (γ), as well as standard errors (SE). All estimates are
17 at the between level, concerning the stable components of energy, stress, or job performance.
18 Estimates at the within level are not reported, because these estimates are irrelevant to our
19 research question and our theory is not concerned with within-person fluctuations of energy,
20 stress, and job performance. Models 1a, 3a, and 4a present the estimates for the average effects,
21 and Models 1b, 2, 3b and 4b present the estimates for the interaction effects. All models were
22 fully saturated for perfect model fit with $\chi^2(0) = 0$ (Preacher et al., 2010).
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34 Hypothesis 1 suggested that family motivation is positively associated with job
35 performance. As indicated in Model 1a of Table 2, the results support this hypothesis. Even
36 when we control for intrinsic and external motivation, we find a significant positive association
37 between family motivation and job performance (estimate = 2.58, $SE = 1.09, \gamma = .24, p < .05$).
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43 Hypothesis 2 stated that intrinsic motivation moderates the relationship between family
44 motivation and job performance, such that family motivation is more positively associated with
45 performance when intrinsic motivation is low rather than high. Model 1b of Table 2 shows that
46 the effect of family motivation on job performance was, indeed, dependent on intrinsic
47 motivation: the interaction term for family motivation and intrinsic motivation was significant
48 and negative (estimate = -2.00, $SE = .56, \gamma = -.32, p < .01$), even when external motivation and
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3 the interaction term of external motivation and intrinsic motivation were entered as control
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5 variables. In Figure 2 we plotted the values of the moderator at one standard deviation above and
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7 below the mean. When intrinsic motivation was low, family motivation was positively related to
8
9 job performance ($b = 4.47, p < .01$); but, when intrinsic motivation was high, family motivation
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11 was unrelated to job performance ($b = -.39, ns$). Thus there was support for Hypothesis 2: the
12
13 relationship between family motivation and job performance depends on intrinsic motivation,
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15 such that family motivation compensates for low levels of intrinsic motivation,
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21 Insert Tables 2 and 3, and Figure 2, about here
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24 **Energy**

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26 Hypothesis 3a suggested that the relationship between family motivation and energy
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28 depends on intrinsic motivation, such that family motivation is more positively associated with
29
30 energy when intrinsic motivation is low rather than high. Model 3b of Table 3 indicates that the
31
32 interaction effect of family motivation and intrinsic motivation on energy was significant and
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34 negative (estimate = $-.11, SE = .05, \gamma = -.18, p < .05$), even when external motivation and the
35
36 interaction term of external motivation-intrinsic motivation were entered as control variables.
37
38 The corresponding plot is shown in Figure 3. When intrinsic motivation was low, family
39
40 motivation was positively related to energy ($b = .19, p < .05$); when intrinsic motivation was
41
42 high, however, family motivation was unrelated to energy ($b = -.09, ns$). Thus there was support
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44 for Hypothesis 3a: family motivation spurs energy for those with low intrinsic motivation, but
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46 not for those with high intrinsic motivation.
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54 Insert Figure 3 about here
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3 Hypothesis 3b put forth a positive relationship between energy and job performance. The
4 results supported this hypothesis. As evident in Model 2 of Table 2, energy was positively
5 associated with job performance (estimate = 2.69, $SE = 1.14$, $\gamma = .28$, $p < .05$).
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10 Hypothesis 3c suggested an indirect effect of family motivation on job performance
11 through energy, that is contingent upon intrinsic motivation. To test this hypothesis, we first
12 computed the conditional values of the moderator (i.e., intrinsic motivation) one standard
13 deviation above and below the mean, and then inserted these into the equation of the multilevel
14 mediation model to estimate simple effects of the independent variable (i.e., family motivation)
15 at these conditional values (Bauer, Preacher, & Gil, 2006; Cohen et al., 2003). We used the
16 resulting values to compute the indirect effects of the family motivation-intrinsic motivation
17 interaction at the two different levels of the moderator. We also computed the corresponding
18 confidence intervals for the indirect effects. Since it is not possible to use bootstrapping in
19 multilevel analyses (Preacher et al., 2010), we used a Monte-Carlo simulation with 20,000
20 replications to estimate the confidence intervals of the conditional indirect effects (Selig &
21 Preacher, 2008). This procedure has been demonstrated to produce accurate confidence intervals
22 (Bauer et al., 2006). The results show that the conditional indirect effect of family motivation on
23 performance mediated by energy was significant when intrinsic motivation was low (.51, 95% *CI*
24 [.01;1.28], standardized estimate = .05), but not when intrinsic motivation was high (-.24, 95%
25 *CI* [-1.01; .37], standardized estimate = -.02). These results support Hypothesis 3c, showing that
26 energy partially mediated the moderating effect of intrinsic motivation on the relationship
27 between family motivation and job performance.
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52 53 **Stress**

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55 Hypothesis 4a stated that the relationship between family motivation and stress is
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contingent upon intrinsic motivation such that family motivation is more negatively associated with stress when intrinsic motivation is low rather than high. As indicated in Model 4b of Table 3, we found a significant and positive interaction effect for family motivation and intrinsic motivation interaction on stress (estimate = .22, $SE = .07$, $\gamma = .33$, $p < .01$). The form of the interaction is depicted in Figure 4. In contrast to the expected effect, stress increased with increasing family motivation only when intrinsic motivation was high ($b = .40$, $p < .01$), but not when intrinsic motivation was low ($b = -.13$, *ns.*). Thus Hypothesis 4a was not supported. As Model 2 of Table 2 shows, stress was also not a significant predictor of job performance, which fails to support Hypothesis 4b⁷, and rules out Hypothesis 4c.⁸

Insert Figure 4 about here

DISCUSSION

This research suggests that the desire to benefit one's family through work is an important source of motivation that facilitates job performance, especially in the absence of intrinsic motivation. We theorized that when monotonous work is transformed into a vehicle for expressing important values, such as caring for the family, it can take on a new level of meaning

⁷ In post-hoc analyses, we tested for a curvilinear relationship between stress and performance. We found a significant inverted U-shaped relationship between stress and performance for employees at the level of the daily data (i.e., within employees across time), but not between employees. We found no support for a curvilinear mediated moderation. The within-employee effect of stress on performance provides support for models in line with the Yerkes-Dodson law (Yerkes & Dodson, 1908), but is of limited interest for this research because our theory is about the effects of family motivation, and family motivation differs between and not within employees. The curvilinear relationship between stress and performance does not affect the results reported above.

⁸ In further robustness analyses, we entered additional control variables. Including segmentation of work and family life (Rothbard, Phillips, & Dumas, 2005), the personality traits conscientiousness, extraversion and neuroticism (Benet-Martinez & John, 1998), or task significance (Morgeson & Humphrey, 2006) as control variables in the analyses does not change the results. Including employees' number of children and relationship status (with vs. without partner) as control variables does not change the pattern of results, but significance sometimes drops from $p < .05$ to $p < .10$, likely due to a lower response rates on those questions and attendant loss of statistical power. Overall, these findings demonstrate the robustness of the role of family motivation. Finally, we tested possible effects of a three-way-interaction of intrinsic motivation x family motivation x external motivation on energy, stress, and performance. Results showed that this interaction had no effect on any of the outcome variables.

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3 even though the inherent interest in the work remains unchanged. Survey, daily diary, and
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5 objective performance measures suggest that family motivation compensates for uninteresting
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7 work by enhancing energy, but not by reducing stress. These findings have important
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9 implications for theory and research on motivation and work-family dynamics.
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12 **Theoretical Contributions**

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15 Our research identifies the desire to support the family as an important, and heretofore
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17 neglected, source of meaning and work motivation. Although scholars have established that
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19 families are a primary reason for working (Bernard, 1981; Brief et al., 1997; Brief & Nord, 1990;
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21 Wrzesniewski et al., 1997), they have paid scant theoretical and empirical attention to the role of
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23 this motivation in shaping job performance. The majority of existing studies on prosocial
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25 motivation in the workplace have focused on the desire to help beneficiaries such as the
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27 organization (Rioux & Penner, 2001), other members of one's workplace such as coworkers
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29 (McNeely & Meglino, 1994), and—as originally designated by Blau and Scott (1962)—the end
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31 users of the organization's products and services, such as clients, patients, citizens, or students
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33 (Bellé, 2012; Grant, 2008a; Hu & Liden, 2015). We present family motivation as a special case
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35 of prosocial motivation due to the higher level of identification employees have with their
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37 beneficiaries as compared to more distal contacts in other research, and provide fresh evidence
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39 about how the motivation to help the family through work relates to objective performance.
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46 Our research thus adds to a growing conversation about the meaning of work. Even
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48 though family motivation is unlikely to make tedious work itself more interesting, it gives
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50 meaning to work such that employees see work as a way of supporting and sustaining those who
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52 are most important to them (Rosso et al., 2010). When people ask themselves why they do a job
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54 that does not provide intrinsic motivation, those high on family motivation are likely to answer,
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3 they do the job to provide for their family. As Weiss (1985: 50) observed in an interview study
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5 of occupationally successful men, for most “having a family made work meaningful.” Family
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7 motivation enables employees to attach a sense of volition and meaning to their otherwise
8
9 mundane jobs; in the terms of action identification theory, executing simple tasks is viewed as
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11 caring for the family. As Wrzesniewski, Schwartz, Cong, Kane, Omar, & Kolditz (2014: 10990)
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13 put it, “the desired outcome is intimately, intrinsically connected to the activity itself.”
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18 Moreover, our research contributes to an expanding body of knowledge about prosocial
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20 motivation. As shown previously, the absence of both intrinsic and other-oriented motivation
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22 proves detrimental to job performance. Our research extends this literature by introducing a new
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24 form of interaction with intrinsic motivation. Five previous studies have identified a synergistic
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26 interaction between prosocial and intrinsic motivations, indicating that the quality and quantity
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28 of performance is highest when both motivations are strong (Grant, 2008a; Grant & Berry,
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30 2011). In contrast, we found a compensatory interaction, suggesting that when intrinsic
31
32 motivation is lacking, employees with high family motivation perform just as effectively as their
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34 intrinsically motivated peers. Our research hence suggests that when the beneficiary in question
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36 is one’s own family—rather than strangers or student scholarship recipients—prosocial
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38 motivation may be sufficient to drive performance. In doing so, we challenge Grant’s (2008a:
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40 54) speculation that “In the absence of intrinsic motivation... prosocial motivation may not be
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42 sufficient to enhance persistence, performance, and productivity.” Our study thus contributes to a
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44 larger body of work anchored in self-determination theory indicating that in some contexts,
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46 values-based motivation may be an alternative route to the same ends as intrinsic motivation
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48 (e.g., Green-Demers, Pelletier & Menard, 1997; Losier & Koestner, 1999).
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55 This compensatory effect introduces a fresh lens on the drivers of job performance when
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3 intrinsic motivation is lacking. Traditionally, researchers have attempted to substitute for
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5 intrinsic motivation with extrinsic rewards, particularly monetary incentives (Calder & Staw,
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7 1975), which has not consistently been shown to compensate for low intrinsic motivation (Grant
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9 & Berry, 2011; Grant, Nurmohamed, Ashford, & Dekas, 2011; Vansteenkiste, Sierens, Soenens,
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11 Luyckx, & Lens, 2009; Wrzesniewski et al., 2014). Although they often boost performance
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13 (Gerhart, Rynes, & Fulmer, 2009), such incentives can have the side effects of overjustifying
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15 tasks (Sandelands, Ashford, & Dutton, 1983) and crowding out other reasons to work (Deci,
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17 Koestner, & Ryan, 1999), and thus reducing performance (Bareket-Bojmel, Hochman & Ariely,
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19 in press; Weibel, Rost, & Osterloh, 2010). In contrast, family motivation, which we empirically
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21 show matters over and above external motivation, is unlikely to carry these risks, as it is a core
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23 principle that employees are likely to internalize into their value systems. Therefore, strategies to
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25 boost family motivation may increase worker performance without detrimental side effects.
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32 Our research also contributes to the work-family literature, demonstrating a novel way in
33
34 which the family can enhance functioning at work. Extant work describes the family either as a
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36 source of potential conflict with work that can pull employees away from work, or as a source of
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38 enrichment that can improve employees' work life. We address this tension around work-family
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40 conflict versus enrichment by presenting family motivation as a neglected way that the family
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42 can enrich work. The relationship between work and family has traditionally been studied in
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44 terms of segmentation (e.g., trying to keep work and personal activities separate), compensation
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46 (e.g., spending more time at work when one is dissatisfied with family life), and spillover (e.g.,
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48 emotions, attitudes, skills, and behaviors that travel from one domain to the other; Edwards &
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50 Rothbard, 1999; Lambert, 1990). While our findings very much relate to spillover by
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52 demonstrating how attitudes about one's family influence work behaviors, researchers have not
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3 specifically investigated the family as a source of energy and its objective performance
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5 consequences. Also, research tends to emphasize how work experiences influence family life,
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7 whereas we answer calls to examine the other direction of family influencing work behaviors
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9 (Rothbard & Wilk, 2011). Feelings related to home life that likely underlie family motivation,
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11 such as concern for one's family, a sense of pride in one's family, and the desire to provide for
12
13 one's family, can have an energizing function at work, bolstering effort and performance.
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16 17 **Limitations and Future Directions**

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19 The nomological network of family motivation needs to be explored. In the present work,
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21 we did not examine the antecedents of family motivation. In addition to values, we expect that
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23 family motivation is underpinned by dispositional factors such as communal orientation, and it
24
25 would be interesting to explore its relationship with employees' work orientation. Because our
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27 study took place in one organization, we also could not observe structural antecedents of family
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29 motivation, including family benefits offered by employers like college support, adoption
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31 support, childcare, eldercare, employee assistance programs, and mentoring opportunities for
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33 employees' children. We suspect that these offerings may help employees to mentally link their
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35 work to their families, strengthening family motivation. Relatedly, we encourage scholars to
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37 examine antecedents of family motivation related to organizational culture, such as the extent to
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39 which an organization is imbued with family values (e.g., Pratt, 2000) or responds to employee
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41 tragedies with compassion (Dutton, Worline, Frost, & Lilius, 2006).
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49 In terms of the consequences of family motivation, we encourage future researchers to
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51 examine factors beyond job performance, such as organizational commitment and turnover
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53 intentions. In most cases, we expect that family motivation would increase the cost of switching
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55 one's job, and thus, according to research on job embeddedness (Lee, Mitchell, Sablinski,
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3 Burton, & Holtom, 2004) we would expect lower turnover among employees working for their
4 families. We also predict lower counterproductive work behaviors among employees with high
5 family motivation, not only because of job security concerns (Ashford, Lee, & Bobko, 1989), but
6 also because employees may want to serve as a role model for their children.
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13 Future research should also explore the downsides of strong family motivation. To the
14 extent that family motivation increases concerns about job security, it may reduce instances of
15 voice. Interestingly, prosocial motivation typically predicts greater voice (Grant & Mayer, 2009),
16 as employees who care about the organization are more likely to feel that the collective benefits
17 of speaking up outweigh the personal costs. This may be an important outcome on which family
18 motivation and prosocial motivation differ. Family motivation may also limit organizational
19 citizenship behaviors to those that are particularly instrumental for obtaining rewards or
20 increasing job security. At extreme levels, family motivation could even cause unethical
21 behavior if employees will stop at no end to support their families. For example, in a series of
22 experiments, participants cheated more if the “spoils” were split with another (versus kept for the
23 self), revealing how some use important ends to justify immoral means (Wiltermuth, 2011).
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39 Countering our predictions, we did not find that family motivation lowered stress levels
40 when intrinsic motivation was lacking; instead family motivation actually amplified stress levels
41 for employees with high levels of intrinsic motivation. We assumed that family motivation is
42 generally integrated into employees’ value systems, which would reduce stress according to self-
43 determination theory (Gagne & Deci, 2005). But the leap from caring about helping one’s family
44 to knowing that the family depends on the job may mean that prosocial motivation could add
45 some pressure to the pleasure that intrinsic motivation imbues (Gebauer, Riketta, Broemer, &
46 Maio, 2008). Hence, our hypotheses should be tested against the alternative notion that family
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3 motivation could simultaneously be a source of energy *and* stress. Even when family motivation
4 is identified or integrated, employees may feel an inherent sense of pressure because the impact
5 of their work extends beyond the organization's walls to those who matter most in their lives.
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7 This is consistent with the notion of meaning-manageability tradeoffs, whereby the roles that
8 give us the most meaning are often the most stressful—not in spite of their significance, but
9 because of it (McGregor & Little, 1998). And this raises an important question for self-
10 determination theorists to explore: can motivation be simultaneously identified or integrated
11 (“Supporting my family is a guiding principle in my life, and I see myself as a breadwinner and
12 good provider”) and introjected (“My self-esteem depends on supporting my family, and I will
13 feel guilty if I don't serve them well”)?
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27 The positive relationship between family motivation and work stress may further be due
28 to the unique nature of our sample, as most maquiladora workers live below the poverty line.
29 When family motivation is largely driven by financial need, the pressure to perform well in order
30 to provide for the family may be stressful. When family motivation is decoupled from monetary
31 concerns, it may instead buffer against feelings of stress, especially when intrinsic motivation is
32 low. Due to the potential interplay between financial pressure and family motivation, our study is
33 limited in that we did not measure the level of financial need experienced by each participant.
34 Although our control variables included a measure of external regulation, which is the form of
35 regulation most driven by financial need according to self-determination theory, the precise
36 nature of these items captured participants' individual level of need more than their family's
37 financial need. This measure did not squarely measure extrinsic motivation or financial need, and
38 it is further limited by its low alpha (.61). Controlling for marital status and number of children,
39 which heavily influence financial pressure (Lino, 2014; Rector, 2012), did not change the pattern
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3 of results (see footnote 9). The sample had relatively little variance in employees' financial need,
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5 and harder work was not a viable way to better meet financial needs (because employees were
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7 paid hourly regardless of performance). And yet, we still found considerable variance in family
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9 motivation, suggesting that although money may play an instrumental role, family motivation
10
11 likely operates above and beyond economic pressures. Nonetheless, we suggest future research
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13 should include a more direct examination of how financial pressure and rewards relate to caring
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15 for one's family, especially in regards to stress. In doing so, researchers will need to carefully
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17 tease apart extrinsic motivation from family motivation, as existing extrinsic motivation scales
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19 often reference financial need without examining whether the family is a beneficiary (Ryan &
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21 Connell, 1989).
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27 In a related sense, we recognize that family motivation may occur indirectly, reflecting
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29 when employees work harder because they want to keep their jobs and earn money that will
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31 allow them to sustain their family. That is, for some employees, income may be instrumental for
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33 experiencing family motivation. Although family motivation may entail more external regulation
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35 in such instances due to the salience of earnings, we still expect that it will lead to enhanced job
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37 performance and also well-being, as research has shown that spending money on others promotes
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39 happiness (Dunn, Aknin, & Norton, 2008). And if the employee's performance comes with any
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41 incentives, then family motivation should specifically increase the valence of earning income,
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43 increasing motivation (Van Eerde & Thierry, 1996; Vroom, 1964). The extrinsic factor of money
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45 is a key factor in a scenario involving financial pressure from home, but the resulting motivation
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47 is not inherently extrinsic (Amabile, 1993), which is supported by the notion that money takes on
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49 different meanings to different employees (Mitchell & Mickel, 1999).
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55 Further research is also necessary to explore the conditions under which the form of the
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3 interaction between family and intrinsic motivations might change. In our data, the mean for
4 family motivation was quite high, with one standard deviation above the mean reaching the
5 ceiling of the scale. In samples of employees with fewer family responsibilities and more
6 enriched tasks, intrinsic motivation may be more powerful. We also encourage scholars to take a
7 more dynamic perspective on intrinsic and family motivations. We examined motivation at the
8 contextual level to capture the reasons for action that individuals bring to the domain of work
9 (Vallerand, 1997, 2001); it would also be interesting to examine how family motivation is
10 affected by task or day-level fluctuations in intrinsic motivation, and subsequently how
11 performance changes as a result. Indeed, since tasks often change on a daily basis, intrinsic
12 motivation is likely to fluctuate more frequently than family motivation.
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27 The generalizability of our findings may be limited by the fact that the sample was
28 completely comprised of women. Given sex and gender differences around work-family issues
29 (Hochschild, 1989; Senécal, Vallerand, & Guay, 2001), family motivation may interact with
30 intrinsic motivation differently for men versus women. For example, despite the increase of
31 women in the workforce, the breadwinner role is still attached to men (George & Brief, 1990),
32 who are implicitly expected to work hard to be a good provider for their families (Bernard, 1981;
33 Christiansen & Palkovitz, 2001). As such, family motivation for men may center more heavily
34 around earning income than for women. Additionally, enrichment from family to work has been
35 found for women more so than for men, who tend to experience fewer family-to-work spillovers
36 (Rothbard, 2001). Cultural factors may also limit the generalizability of our results. For example,
37 the meaning of family and sense of responsibility for family are likely to be influenced by
38 employees' cultural backgrounds, even though caring for the family is a universal value
39 (Schwartz et al., 2012).
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Family motivation may manifest itself differently depending on the family structure of the focal employee, and a fruitful avenue for future research is to consider how the unique types of relationships employees hold with their family members and different mental models of the family influence family motivation, including the relative extent to which employees identify with their beneficiaries. Because parenthood influences work experiences (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005), family motivation may be a more potent energizing source when the beneficiary is a child versus a less-dependent family member (such as a sibling). Contingent upon the employee's life stage, the motivating forces stemming from the family may differ (Erikson, 1950). For example, in early adulthood, employees may feel motivated to please their parents by living up to the parents' expectations. When employees become parents themselves, their motivation is likely to derive from the need to provide for the family and to foster their children's development (McAdams & de St. Aubin, 1992; Peterson & Stewart, 1996). Beyond financial motivators, at this stage, family motivation may be underpinned by a desire to maintain employment and prevent moving the entire family elsewhere. In later life stages, employees may be motivated by the generative concern of leaving for their family (Wade-Benzoni, Sondak, & Galinsky, 2009; Zacher, Rosing, & Frese, 2011). Hence, family motivation may be underpinned by a variety of factors, monetary and beyond, and further exploration of how different family structures and life stages relate to our hypotheses would enhance our understanding of family motivation.

48 **Practical Implications and Conclusion**

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Many jobs stifle intrinsic motivation and lack opportunities for employees to work on products and services that make a meaningful difference in the lives of coworkers and customers (Grant, 2007; Hackman & Oldham, 1976; Leana et al., 2012). Especially in impoverished areas,

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3 employees face rough working conditions (Davis, 2010). We have explored here a form of
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5 motivation that does not change employees' enjoyment of their work per se, but nonetheless
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7 makes their work feel important. For employees, one benefit of family motivation is that it is
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9 conducive to cognitive job crafting (Wrzesniewski & Dutton, 2001) without demanding a great
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11 deal of effort or extensive resources. By reminding themselves of how their work contributes to
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13 their family lives, employees can reframe it as more meaningful and motivating. Interestingly,
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15 because family motivation is less dependent on the nature and context of one's work than other
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17 forms of prosocial motivation, it may foster more consistency in effort across jobs within and
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19 between organizations. For leaders, our findings suggest that they may be able to facilitate higher
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21 levels of job performance by creating opportunities for employees to experience family
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23 motivation, for example, by making the family more salient for employees while at work.
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25 Moreover, our results encourage employers to make structural changes to job design and pay to
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27 increase the benefits of the job to the family, which is likely to boost performance by enhancing
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29 family motivation.
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37 At the same time, we found that family motivation does not interact with intrinsic
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39 motivation in such a way that reduces stress, and thus we caution that family motivation can be
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41 wrongly exploited. If employers create an environment in which employees' work is linked to
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43 family outcomes, there is the possibility that burnout and additional stress will follow, which
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45 could have negative ramifications for performance and turnover along with crippling effects on
46
47 well-being, potentially causing depression or withdrawal from loved ones (Cordes & Dougherty,
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49 1993). Threats of sanctions at work or of job loss are likely to hurt employees more to the extent
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51 that they fear the consequences for their families.
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55 Given that maquiladora work is similar to many other settings around the globe involving
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3 vulnerable populations working for low pay, we expect our findings to apply to many contexts.
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5 Due to recent economic changes, numerous employees lack the resources they need; of the
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7 working population with children in the United States, 25% do not earn enough to maintain a
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9 reasonable standard of living (Bureau of Labor Statistics, 2014; Meuris & Leana, 2015). Despite
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11 the prevalence of these individuals, scholars have noted that the working poor is an understudied
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13 population (Meuris & Leana, 2015). Further, the negative cognitive, psychological, and
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15 interpersonal consequences of financial scarcity are likely to be especially pronounced when
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17 people have others at home depending on them (Leana & Meuris, 2015).
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22 Our findings may also offer preliminary insights for other working populations across
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24 income strata and job conditions. The motivation to serve the family through one's work is likely
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26 to hold performance benefits in a variety of jobs, thus also companies offering more complex
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28 jobs could profit from appealing to employees' family motivation. For example, family events
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30 like company picnics and "bring your child to work day" allow employees to bring their home
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32 lives into the workplace more clearly. Managers may also be able to help by understanding the
33
34 nature of their employees' family motivation and offering employees opportunities to meet their
35
36 families' needs. For example, those with high family motivation may especially benefit from
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38 flextime by enabling them to better manage their work and family demands.
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43 In conclusion, the poet Maya Angelou wrote, "I sustain myself with the love of family."
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45 Our research suggests that the love of family plays a critical role in sustaining employees' energy
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47 and effectiveness at work.
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TABLE 1

Descriptive Statistics, Correlations, and Cronbach's Alpha Reliabilities

<i>Variables</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
<i>Within Level</i>								
1 Job Performance	102.70	17.14	(.84)					
2 Energy	3.74	1.26	.12**	(.85)				
3 Stress	2.20	1.36	-.03	-.45**	(.81)			
<i>Between Level</i>								
4 Family Motivation	6.16	.96	.13**	.12**	.04	(.86)		
5 Intrinsic Motivation	4.87	1.22	.08*	.41**	-.26**	.29**	(.90)	
6 External Motivation	5.28	1.20	-.03	.08*	.00	.26*	.44**	(.61)

Note. $N_{\text{Between Level}} = 97$ employees, $N_{\text{Within Level}} = 791$ daily ratings. Correlations between constructs 1, 2, and 3 are on the within level; correlations between constructs 4, 5 and 6 are on the between level; correlations for constructs 1, 2, 3 with constructs 4, 5, and 6 are on the within level, based on disaggregated values for constructs 4, 5, and 6; Internal consistencies are provided in parentheses. * $p < .05$; ** $p < .01$.

TABLE 2

Between-Level Coefficients of the Multilevel Models for Testing Moderation and Moderated Mediation Effects on Job Performance

Dependent Variable	Job Performance								
	Model 1a			Model 1b			Model 2		
	Estimate	S.E.	γ	Estimate	S.E.	γ	Estimate	S.E.	γ
Between-level Predictors									
Intercept	101.77**	1.13		102.36**	1.15		90.04**	5.63	
External Motivation (EM)	-1.11	1.07	-.13	-1.61	1.09	-.19	-1.50	1.14	-.17
Family Motivation (FM)	2.58*	1.09	.24	2.04*	.83	.19	1.75*	.85	.16
Intrinsic Motivation (IM)	1.31	1.11	.15	1.00	1.08	.12	.14	1.37	.02
EM x IM				.08	.49	.02	.02	.52	.00
FM x IM				-2.00**	.56	-.32	-1.94**	.65	-.31
Energy							2.69*	1.14	.28
Stress							1.10	1.19	.11
Between-Level Residual	95.95**	16.30		88.76**	14.60		84.05**	13.92	
R^2			.09			.17			.22
ΔR^2						.08			.05

Note. $N_{Between\ Level} = 97$, $N_{Within\ Level} = 791$; the reported values are unstandardized and standardized (γ) between-level estimates; within-level estimates are omitted; ΔR^2 refers to the change in R^2 when adding the hypothesis relevant variables; * $p < .05$; ** $p < .01$.

TABLE 3

Between-Level Coefficients of the Multilevel Models for Testing Moderation Effects on Energy and Stress

Dependent Variable	Energy						Stress					
	Model 3a		Model 3b			Model 4a		Model 4b				
<i>Between-level Predictors</i>	<i>Estimate</i>	<i>S.E.</i>	γ	<i>Estimate</i>	<i>S.E.</i>	γ	<i>Estimate</i>	<i>S.E.</i>	γ	<i>Estimate</i>	<i>S.E.</i>	γ
Intercept	3.67**	.10		3.67**	.10		2.22**	.11		2.19**	.11	
External Motivation (EM)	-.09	.09	-.10	-.10	.09	-.11	.12	.10	.13	.15	.10	.17
Family Motivation (FM)	.07	.09	.07	.05	.08	.05	.08	.13	.07	.13	.09	.12
Intrinsic Motivation (IM)	.46**	.08	.52	.48**	.09	.54	-.39**	.11	-.44	-.39**	.10	-.44
EM x IM				.06	.05	.12				-.07	.08	-.15
FM x IM				-.11*	.05	-.18				.22**	.07	.33
Between-Level Residual	.84**	.12		.82	.11		.96**	.15		.89**	.14	
R^2			.26			.28			.15			.23
ΔR^2						.02						.08

Note. $N_{\text{Between Level}} = 97$, $N_{\text{Within Level}} = 791$; the reported values are unstandardized and standardized (γ) between-level estimates; within-level estimates are omitted; ΔR^2 refers to the change in R^2 when adding the hypothesis relevant variables; * $p < .05$; ** $p < .01$.

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FIGURE 1
Theoretical Model

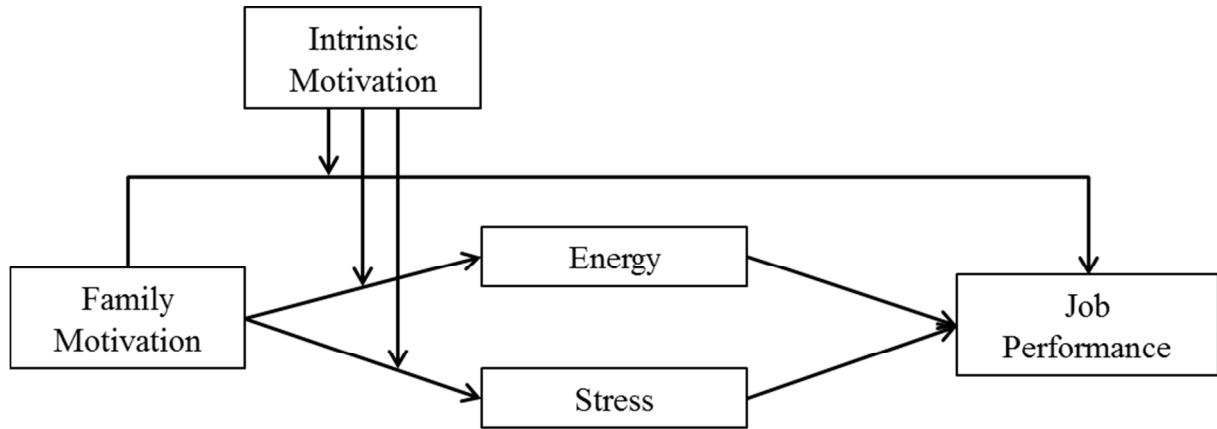
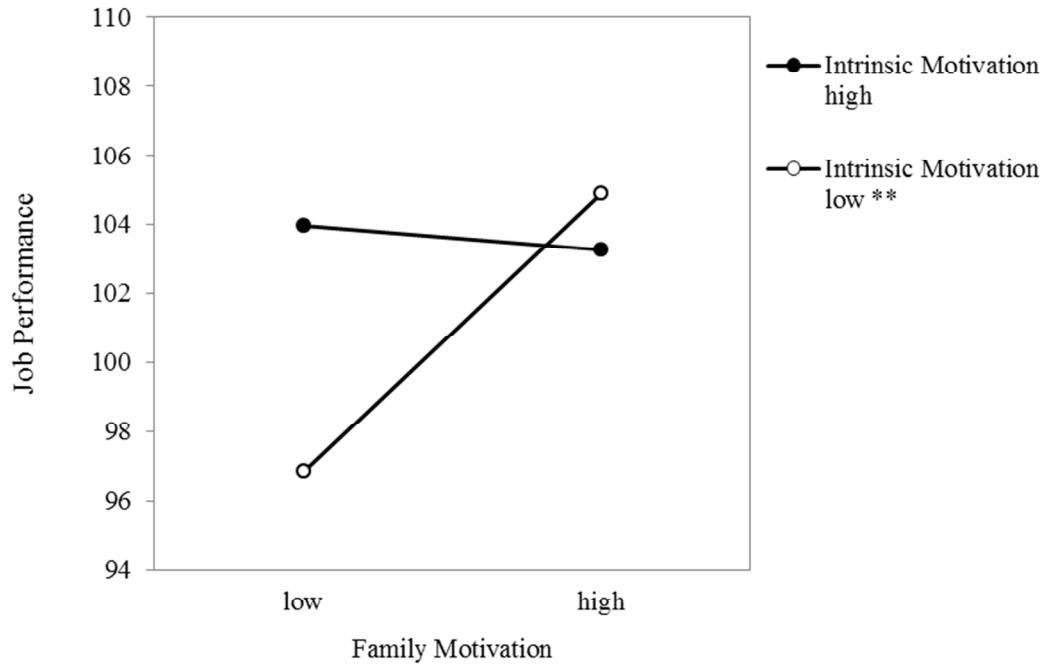


FIGURE 2

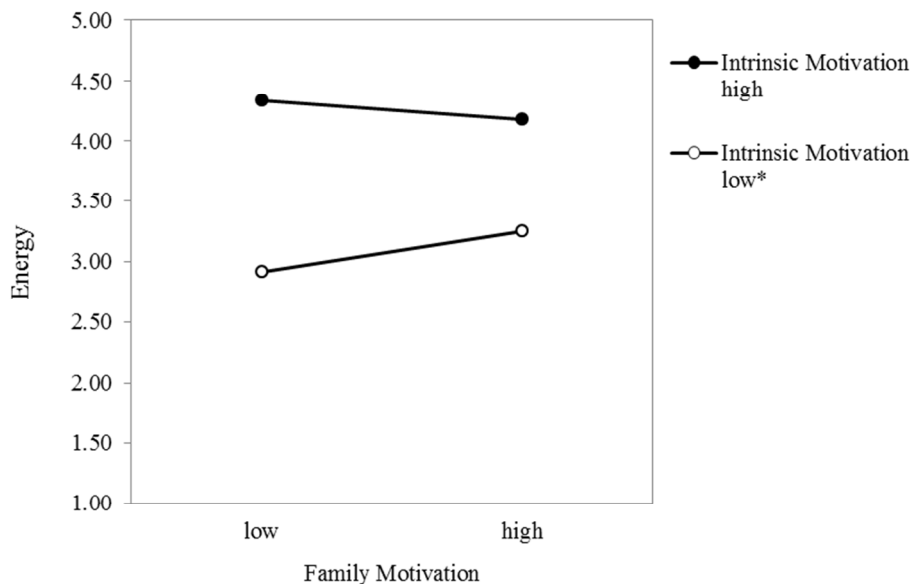
Simple Slopes for Job Performance



Note. $N_{Between\ Level} = 97$, $N_{Within\ Level} = 791$; regression slope for low intrinsic motivation: $**p < .01$.

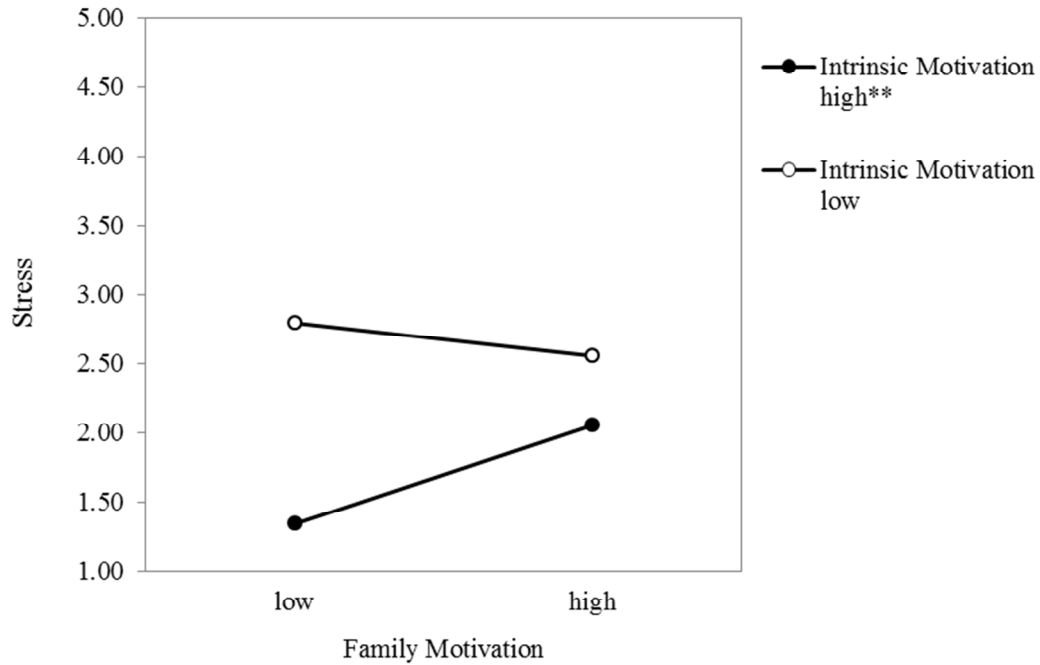
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FIGURE 3
Simple Slopes for Energy



Note. $N_{Between Level} = 97$, $N_{Within Level} = 791$; regression slope for low intrinsic motivation: $*p < .05$.

FIGURE 4
Simple Slopes for Stress



Note. $N_{Between\ Level} = 97$, $N_{Within\ Level} = 791$; regression slope for high intrinsic motivation: $**p < .01$.

BIOGRAPHIES

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