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Job insecurity and well-being: Integrating life history and transactional stress theories

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JOB INSECURITY AND WELL-BEING: INTEGRATING LIFE HISTORY AND TRANSACTIONAL STRESS THEORIES

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The current research proposes and tests a novel model explaining how job insecurity shapes well-being and has consequences for stratification and inequality. I draw on evolutionary life history theory, which proposes that growing up in a poorer versus wealthier environment impacts the sense of control people feel when exposed to threat in adulthood. I integrate this perspective with transactional stress theory to propose that job insecurity has a disproportionately negative effect on employees from poorer backgrounds, leading to lower engagement and higher emotional exhaustion among such employees, while those from wealthier backgrounds are buffered against these effects. These responses to job insecurity, in turn, amplify job loss risk for employees from poorer backgrounds, regardless of employees' current job or financial situation. A preregistered, multisource, five-wave longitudinal study conducted at the height of the COVID-19 crisis in India found support for these predictions. A follow-up quasi-experiment conducted in India and the United States replicated the effects on engagement and exhaustion. The impact of job insecurity on well-being is stratified and acts as a mechanism that reproduces childhood inequalities.

Since the 1970s, work has become increasingly precarious—"uncertain, unstable, and insecure and in which employees bear the risks of work (as opposed to businesses or the government)" (Kalleberg & Vallas, 2017: 1; see also Kalleberg, 2009). Various factors have contributed to this trend, including changes in the legislation and practices related to employment relationships (Bidwell, Briscoe, Fernandez-Mateo, & Sterling, 2013), the increasing speed of industrial restructuring and changing nature of work (Sverke & Hellgren, 2002), and the persistent volatility in the business cycle (Hall, 2005). Organizational research has tried to understand the consequences of these changes, finding that workers' perception of job insecurity, or concern about potential involuntary job loss, causes strain and undermines well-being (see De Witte, Pienaar, & De Cuyper, 2016, and Sverke, Hellgren, & Näswall, 2002, for meta-analyses). I propose that job insecurity might have additional overlooked, insidious, and systemic consequences, in that it disproportionately undermines the well-being of workers who grew up in relatively poorer families, regardless of their current financial situation. In doing so, job insecurity acts as an invisible mechanism that reproduces childhood inequalities.

I introduce a novel theoretical perspective to the literature on job insecurity and well-being, based on evolutionary life history theory. Life history theory has been important for explaining individual differences in stress response in developmental and evolutionary social psychology (Belsky, Steinberg, & Draper, 1991; Ellis & Del Giudice, 2014, 2019; Hill & Kaplan, 1999), but has thus far remained disconnected from organizational research on job insecurity and stress. Life history theory proposes that the stress response system is sensitized by individuals' childhood environment, most notably its harshness, which is typically proxied by family financial standing during childhood (Del Giudice, Ellis, & Shirtcliff, 2011; McEwen, 2012; Taylor, 2010). This sensitization causes different responses to uncertainty in adulthood, with those from poorer backgrounds having a particularly reduced sense of control under conditions of uncertainty (Mittal & Griskevicius, 2014). I integrate this perspective with transactional stress theory (Lazarus & Folkman, 1984) to predict that job insecurity differentially impacts employees' well-being as a function of their childhood background. I focus on two key productivity-relevant facets of well-being: (1) engagement and (2)

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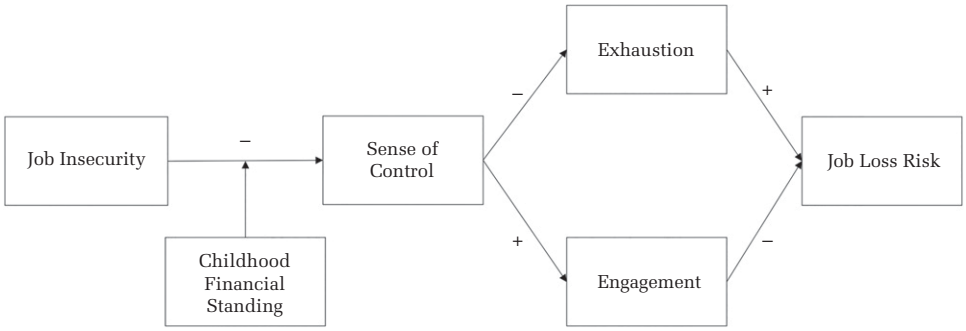
FIGURE 1
Conceptual Model



emotional exhaustion (Maslach, Schaufeli, & Leiter, 2001; Schaufeli, Taris, & van Rhenen, 2008). I propose that job insecurity more strongly undermines these aspects of well-being among employees from poorer backgrounds, while those from wealthier backgrounds are shielded from the effect. Importantly, these effects emerge even among employees who are currently in similar financial situations and job positions.

This theoretical integration suggests that job insecurity is systematically a greater burden for employees who grew up poorer due to the sensitization of the stress response system during childhood. Apart from being an important consideration in and of itself for humanistic reasons, this disproportionate psychological burden borne by employees from poorer backgrounds may also reproduce childhood inequalities because emotional exhaustion and engagement matter for employees' ability to contribute to their organization and in turn hold onto their job (Christian, Garza, & Slaughter, 2011; Van Scotter, Motowidlo, & Cross, 2000; Wright & Cropanzano, 1998). For this reason, I predicted that concerns over job insecurity might disproportionately amplify the real risk of job loss among employees who grew up poorer. Figure 1 summarizes the theoretical model.

I tested these ideas across two preregistered studies. Study 1 was a multisource, five-wave longitudinal field study conducted at the height of the COVID-19 crisis, which acted as a meaningful source of job insecurity. I surveyed 147 teams consisting of several employees who were in similar positions but who naturally varied in their childhood background, as well as their managers, who reported on employee job loss risk. Study 2 was a quasi-experimental replication of the effects of job insecurity on sense of control and well-being. Both studies also explored in a preregistered fashion the possibility that employees raised in environments that were particularly financially secure might be not only shielded from the adverse effects of job insecurity, but even energized by job insecurity due to a heightened sense of control, leading to higher engagement and lower emotional exhaustion.[1]

The contributions of the present research are as follows. First, I expand the theory on job insecurity, identifying a major individual difference of social importance that shapes how job insecurity impacts well-being. In doing so, I not only extend the explanatory power of extant job insecurity models, but also shed important new light on the role of job insecurity and well-being in societal fairness, stratification, and inequality reproduction. Second, the novel use of life history theory to explain responses to an important work-related stressor contributes to the organizational stress research more broadly. Life history theory has been leveraged in disciplinary streams of literature to derive novel predictions on a range of important social behaviors (e.g., Griskevicius, Tybur, Delton, & Robertson, 2011; Hill & Chow, 2002; Mittal & Griskevicius, 2016; White, Li, Griskevicius, Neuberg, & Kenrick, 2013). Its current integration with stress theory may open avenues for organizational research to similarly leverage this perspective to yield a better understanding of other stress-related

[1] Prior to the beginning of the studies, a time-stamped Open Science Framework webpage was set up, containing a preregistration of the theory and the hypotheses; the webpage contains study materials, data, and code for all analyses (tinyurl.com/life-history-wellbeing). There are several minor discrepancies between the hypotheses stated in the Study 1 preregistration and the hypotheses presented in the paper, and these are explained in detail online.

workplace phenomena. The General Discussion section elaborates on these contributions.

THEORY

Effects of Job Insecurity on Well-Being Are Stratified by Childhood Environment

Life history theory is an evolutionary framework that has been central in guiding research on human behavioral ecology and child development (Belsky et al., 1991; Ellis & Del Giudice, 2014, 2019; Hill & Kaplan, 1999). It suggests that early-life conditions influence the development of the stress response system, conditioning how individuals respond to threat and adversity encountered later in life (Del Giudice et al., 2011; McEwen, 2012; Taylor, 2010). The key features of the childhood environment impacting the development of the stress response system is environmental harshness, most commonly proxied by whether one comes from a relatively poorer or wealthier family (Griskevicius, Tybur, et al., 2011; Pepper & Nettle, 2014). Given the key instrumental value of material resources for buffering against various shocks in life (Banerjee & Duflo, 2012), coming from a poorer family tends to be associated with higher levels of uncertainty and harshness; for example, due to parental unemployment, job instability, residential instability, health insecurity, and various other everyday challenges associated with living in poor neighborhoods (McLoyd, 1998; Santiago, Wadsworth, & Stump, 2011).

These differences in childhood environment influence the development of the stress response system, which can to some extent remain evident later in life; for example, due to differences in the programming of the release of stress hormones such as cortisol under conditions of threat (McEwen & Stellar, 1993; Taylor, Lerner, Sage, Lehman, & Seeman, 2004). The early-life window during which the stress response is conditioned is considered akin to the early-life "critical period" for language acquisition (Belsky, Bakermans-Kranenburg, & van IJzendoorn, 2007; Belsky et al., 1991; Belsky, Steinberg, Houts, & Halpern-Felsher, 2010; Boyce & Ellis, 2005). This programming of the stress response system is believed to have been evolutionarily functional for adapting the child to environmental conditions, whether more or less harsh and unpredictable (Boyce & Ellis, 2005; Mittal, Griskevicius, Simpson, Sung, & Young, 2015; White et al., 2013).

To date, much of the research guided by life history theory has focused on explaining individual differences in temporal discounting. When the environment is abundant and predictable, it is adaptive to invest in longer-term fitness-maximizing activities, most notably delaying reproduction and accumulating resources by delaying gratification (Chisholm, 1999; Daly & Wilson, 2005; Ellis, Figueredo, Brumbach, & Schlomer, 2009). By contrast, when the environment is harsh and unpredictable, payoffs from investments in the future and resource accumulation are less certain; in this context, investing in immediate gratification and reproduction is more adaptive (Griskevicius, Tybur, et al., 2011; Pepper & Nettle, 2014). The programming of the stress response system during childhood sensitizes individuals to respond to threat later in life by adopting either a future-focused, self-reliant response (among those who grew up in wealthier families) or a present-focused, context-attentive response (among those who grew up in poorer families).

In line with this perspective, a series of studies found that individuals from poorer versus wealthier backgrounds responded differently when exposed to cues of threat later in life: those from poorer backgrounds demonstrated higher impulsivity and a desire to have children sooner; those from wealthier backgrounds exhibited the opposite responses (Griskevicius, Delton, Robertson, & Tybur, 2011; White et al., 2013). Importantly, because these differences arise from a conditioned stress response system, they only emerge when a contextual threat is salient in adulthood. Under nonthreatening conditions, individuals from poorer backgrounds and those from wealthier backgrounds behave similarly (Griskevicius et al., 2013; Mittal & Griskevicius, 2014).

As illustrated above, life history theory has been applied primarily to behaviors related to temporal discounting, likely because of their clear social importance (e.g., procrastination, health-related habits, family planning, etc.). However, the core logic of the theory implies that the differentially conditioned stress responses have broader psychological and behavioral consequences. The stress response system conditioned in abundant environments prepares one to see the self as having control over threatening conditions, eliciting self-reliant responses. The opposite is the case when the stress response system is conditioned in harsh environments. Indeed, recent research has begun the search for proximal psychological mediators of life history processes, identifying sense of control as an important psychological driver of the differential

responses to threat as a function of childhood environment (Mittal & Griskevicius, 2014).

"Sense of control" refers to an individual's general perception regarding the relative extent to which he or she can influence the context or the context can influence the self (Levenson, 1973; Presson, Clark, & Benassi, 1997; Rotter, 1966). In stress research, this is sometimes referred to as "generalized control expectancies" (Lazarus & Folkman, 1984: 66). Mittal and Griskevicius (2014) showed that the sense of control of participants from poorer backgrounds decreased when exposed to threat, whereas participants from wealthier backgrounds felt a *greater* sense of control. These differences in sense of control explain the divergent responses in terms of temporal discounting behaviors, with a higher sense of control (among those who grew up wealthier) facilitating future-oriented behaviors, such as a greater willingness to delay gratification, and a lower sense of control (among those who grew up poorer) facilitating present-oriented behaviors, such as a lower willingness to delay gratification.

I integrate this perspective with stress theory, which identified sense of control under conditions of threat as an important factor in shaping people's reactions to threat. Transactional stress theory (Lazarus & Folkman, 1984), the dominant perspective in the literature, conceptualizes responses to threat as shaped by situational appraisals. For example, people may perceive that the economic environment is unfavorable and thus that their jobs are becoming more insecure, after which people consider if and how they can cope with the situation (Lazarus & Folkman, 1984; Lyon, 2000). Consequently, different individuals may respond to the same objective situation in different ways, depending on whether they feel that the situation is likely to induce harm and be difficult to resolve (i.e., they experience low sense of control), or they view the situation as a challenge that can be overcome (i.e., they experience high sense of control).

Differences in sense of control under conditions of threat, in turn, have a broad-based impact on well-being (Ng, Sorensen, & Eby, 2006). The need for control has been proposed to be a fundamental human need (Adler, 1930). Accordingly, high levels of sense of control are desired and experienced positively (Miller, 1980; Rodin & Langer, 1977), whereas low levels of sense of control engender stress (Folkman, 1984). As Bandura (1977: 194) noted, "People fear and tend to avoid threatening situations they believe exceed their coping skills, whereas they get involved in activities and behave assuredly when they judge themselves capable of handling situations that would otherwise be intimidating." Therefore, employees who feel that they have control when faced with a threat to their job security are less likely to experience negative effects on their well-being, for example, in the form of "emotional exhaustion"—a state of physical and emotional depletion that results from the perception of excessive demands on one's time and energy (Maslach & Jackson, 1981; Wright & Cropanzano, 1998). Instead, they are more likely to maintain positive aspects of their well-being at work; for example, in the form of "engagement"—"a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, González-Romá, & Bakker, 2002: 74).

In line with previous job insecurity research, I focus on these two key well-being outcomes—*emotional exhaustion* and *engagement*—that matter for employees' positive experience at work as well as for their ability to perform well. Integrating life history and transactional stress theories, I propose that the effects of perceived job insecurity on well-being are stratified by employee childhood financial standing. For individuals raised in environments that were to some extent harsh, perception of job insecurity should decrease their sense of control, leading them to experience strain, anxiety, and fear (Bandura, 1977; Bandura & Adams, 1977; Bandura, Adams, Hardy, & Howells, 1980). By contrast, individuals raised in environments that were more abundant and predictable might be shielded from the negative effects of the perception of job insecurity, and might instead feel in control of the situation, as documented by Mittal and Griskevicius (2014). For the latter group of individuals, job insecurity might be perceived as a controllable challenge that energizes their efforts to cope with the situation, ultimately buffering them from a drop in well-being.

I predict that, depending on the childhood environment, employees' sense of job insecurity will differentially shape their sense of control and, in turn, their engagement and exhaustion. An average employee likely experienced some degree of harshness during childhood, conditioning his or her stress response in a way that leads to a lower sense of control and has adverse implications for well-being. This is in line with previous meta-analyses, which have noted that employees' perception of job insecurity does undermine their well-being, on average (De Witte et al., 2016; Sverke et al., 2002). The problem should be amplified among employees from poorer

backgrounds, such that their perception of job insecurity should particularly strongly lead to a lower sense of control and, in turn, lower engagement and higher emotional exhaustion. With increasing levels of childhood financial standing, the problematic effect should be attenuated. I predict as follows:

Hypothesis 1. The effect of perceived job insecurity on engagement is moderated by employee childhood background, such that perceived job insecurity more strongly undermines engagement among workers from poorer (compared to wealthier) backgrounds.

Hypothesis 2. The moderated effect of perceived job insecurity on engagement is mediated by sense of control.

Hypothesis 3. The effect of perceived job insecurity on emotional exhaustion is moderated by employee childhood background, such that perceived job insecurity more strongly promotes emotional exhaustion among workers from poorer (compared to wealthier) backgrounds.

Hypothesis 4. The moderated effect of perceived job insecurity on emotional exhaustion is mediated by sense of control.

Do Employees from Wealthy Backgrounds Benefit from Job Insecurity in Terms of Well-Being?

As detailed above, I expect workers from wealthier backgrounds to be to some extent shielded from the problematic effects of job insecurity. I also anticipate the possibility that, at some high level of employee childhood financial standing, the effect of job insecurity on sense of control and well-being might become *positive*. This possibility is worthwhile investigating as it might mean that the relative disadvantage of those from poorer backgrounds based on their reactions to job insecurity might be additionally amplified as compared to those from wealthy backgrounds.

The notion that job insecurity might have positive effects on well-being among employees who feel high levels of control in the face of a stressor is based on transactional stress theory, which suggests that an environmental demand or stressor may be evaluated as a controllable challenge, which can mobilize higher levels of energy as a coping response. Lazarus and Folkman (1984) noted:

> Challenge appraisals are more likely to occur when the person has a sense of control over the troubled person–environment relationship. *Challenge will not occur, however, if what must be done does not call for substantial efforts. The joy of challenge is that one pits oneself against the odds.* (Lazarus & Folkman, 1984: 36, emphasis added)

An external stressor can thus make salient one's need *and ability* to overcome a challenge; a person who construes a stressor as a controllable challenge may gain higher levels of energy compared to a person who is not being challenged.

Even in the face of serious threat, some individuals respond with aspirational and growth-focused behavior aimed at dealing with the problem and managing their own negative experience of stress. Indeed, Lazarus and Folkman (1984: 181) noted that some people seem to "gain strength from stress … they seem to grow from stress." Corroborating this notion, psychophysiological research has noted that "challenging but controllable tasks are likely to *induce effort without distress*. On the physiological level this means that catecholamine secretion will rise, whereas cortisol secretion may be actively suppressed" (Frankenhaeuser, 1980: 207–208, emphasis added). Organizational research corroborates the notion that, when stressors are appraised as controllable challenges, employees can be positively energized, resulting in *positive* employee outcomes, such as higher levels of engagement (Crawford, LePine, & Rich, 2010) and performance (LePine, Podsakoff, & LePine, 2005).

Life history theory suggests that employees who exhibit positive responses to job insecurity as a stressor are most likely to be individuals who come from privileged backgrounds and whose sense of control might increase in response to perceived threat. Recall that Mittal and Griskevicius (2014) found that, while threat had a negative effect on sense of control among those from poorer backgrounds, at higher levels of childhood financial standing, the effect became non-significant; the effect then became positive at even higher levels of childhood financial standing, such that threat *increased* sense of control among people at the high end of the spectrum of childhood financial standing. This suggests the possibility that, for individuals raised in environments that were abundant and predictable, perception of job insecurity might increase their sense of control, leading to an energizing response in the form of higher engagement and lower exhaustion.

Given these considerations, I entertained the possibility that, for employees from wealthier backgrounds, perception of job insecurity might lead to a higher sense of control in the face of threat, potentially boosting their engagement and helping to reduce emotional exhaustion through positive coping efforts. That said, given the established negative average effect of job insecurity on well-being

(De Witte et al., 2016; Sverke et al., 2002), I hypothesized that the effect would be amplified at lower levels of employee childhood financial standing and attenuated higher levels; I preregistered the exploratory possibility that the effects of job insecurity on sense of control and well-being might become positive toward the top end of the spectrum of employee childhood financial standing. This possibility is potentially important for understanding not only the extent of the relative *well-being* disadvantage of employees from poorer backgrounds, but also, as I argue next, the extent of their relative *career* disadvantage, through the effects engagement and exhaustion can have on job loss risk.

Implications for Job Loss Risk

The two key well-being facets examined here are important for employee ability to perform well at work. This relationship has been highlighted in previous job insecurity research from the perspective of organizational interests (Ashford, Lee, & Bobko, 1989; Greenhalgh & Rosenblatt, 1984; Matteson & Ivancevich, 1987). Here, I take a more employee-centric perspective, examining the implications for employee career prospects. I argue that concerns over one's job security can act as a self-fulfilling prophecy among workers from poorer backgrounds, amplifying their *job loss risk* by undermining engagement and increasing emotional exhaustion. Job loss is associated with "long-term earnings losses, and lower job quality; declines in psychological and physical well-being; loss of psychosocial assets; social withdrawal; family disruption; and lower levels of children's attainment and well-being" (Brand, 2015: 359). As such, if job insecurity amplifies job loss risk among employees from poorer backgrounds, while employees from wealthier backgrounds are shielded from the effect, that would mean that job insecurity, through its effects on well-being, acts as a mechanism that amplifies and reproduces childhood inequalities.

My argument linking engagement and emotional exhaustion on the one hand and job loss risk on the other is predicated on the fact that engagement and emotional exhaustion are important for different facets of employee performance and ultimately standing in the organization. A meta-analysis found that engagement is positively related to both task performance and citizenship performance (Christian et al., 2011), which are strong predictors of promotability (Jawahar & Ferris, 2011; Van Scotter et al., 2000). Similarly, emotional exhaustion has been linked to job performance (Cropanzano, Rupp, & Byrne, 2003; Leiter, Harvie, & Frizzell, 1998; Wright & Cropanzano, 1998) and organizational citizenship behavior (Cropanzano et al., 2003). My theory predicts that, when job insecurity is salient, employees from poorer backgrounds will exhibit lower levels of engagement and higher levels of emotional exhaustion, which should have broad-based negative consequences for employees' ability to perform to their full potential in various aspects of their work.

Supervisors' key goal is ensuring high levels of employee contributions to firm objectives (Barnard, 1968; Gouldner, 1959; Selznick, 1948). As such, their assessment of employees' level of energy demonstrated, effort exerted, and performance achieved at work is likely to impact their impressions of which employees are more versus less valuable to the organization and worth retaining. Supervisors are likely to form these impressions in most situations, as organizations can always benefit from having more rather than less productive workers. In more difficult times, supervisors are likely to be particularly strongly attuned to employee contributions, as the organization's efforts to adapt and survive in a competitive environment could be undermined by a drop in the level of contributions among some employees (Sarkar & Osiyevskyy, 2018; Staw, Sandelands, & Dutton, 1981). Under adverse conditions, supervisors might also *have to* reflect on job loss risk of particular employees, because firms often have to let part of their workforce go in such situations.

The differential effects of job insecurity on engagement and emotional exhaustion as a function of employee childhood background are particularly likely to impact individual employees' job loss risk given that supervisors make comparisons among employees. Supervisors are likely to notice who among their employees maintains high levels of energy (and contributions) and who shows signs of exhaustion and declining engagement, informing their perception of the relative value of a given employee to the organization and consequently the employee's job loss risk. I thus predict that perceived job insecurity will translate into higher job loss risk among employees from poorer backgrounds due to a lower sense of control and, in turn, lower engagement and higher emotional exhaustion. By contrast, employees from wealthier backgrounds should be shielded from this effect, as they are predicted to be

shielded from the adverse effects of job insecurity on well-being.[2] I posit the following:

Hypothesis 5. Perceived job insecurity more strongly amplifies leader-rated job loss risk among workers from poorer (compared to wealthier) backgrounds due to its effect on sense of control and, in turn, engagement.

Hypothesis 6. Perceived job insecurity more strongly amplifies leader-rated job loss risk among workers from poorer (compared to wealthier) backgrounds due to its effect on sense of control and, in turn, emotional exhaustion.

STUDY 1: LONGITUDINAL FIELD STUDY

In this study, I focused on employees and their supervisors working in small- and medium-sized firms that were objectively facing a great deal of threat and uncertainty due to the major economic downturn caused by the COVID-19 pandemic. This uncertainty was expected to act as a source of concern over job security among employees that would vary on a relatively short-term basis. I opted to survey employees every two weeks, which, in this environment, was deemed to be enough time for people to reflect on their job situation, leading to meaningful variation in the salience of job insecurity. I conducted a five-wave survey, covering two and a half months of the critical crisis period. I also collected data from supervisors, who rated each employees' job loss risk. Because all organizations in the sample were to some extent affected by the crisis, potential layoffs were a real consideration, and around 40% of the organizations in the sample had already fired some employees due to the crisis by the time data collection started (see Table 1, below). Given the challenging conditions the organizations were facing, I expected supervisors to be attuned to variation in employees' attitudes and behavior and for these observations to inform their thoughts on the job loss risk of a given employee.

[2] In line with the preregistered exploratory analyses detailed above, I again expected that those at high levels of childhood financial standing would be buffered against a positive indirect effect of job insecurity on job loss risk, and merely anticipated the possibility that, at some high point of childhood financial standing, employees might even experience lower levels of job loss risk in response to perceived job insecurity, if their sense of control and well-being increase and in turn their job loss risk decreases.

Participants and Design

Participants were recruited in major economic centers in India (e.g., Delhi, Mumbai, Hyderabad) by approaching organizations and requesting participation in this research in exchange for a financial incentive (around US$40). This process was carried out by a local data collection firm. One supervisor and several employees were recruited from each organization (mean = 3.05, range = 2–4). Employees held white-collar jobs in mid-level positions in the organization. I targeted small- and medium-sized firms (mean number of employees = 101.79, range = 10–460), anticipating that the contextual economic adversity would have a stronger psychological impact in such organizations (Iftikhar, Purvis, & Giannoccaro, 2021; Sharfman, Wolf, Chase, & Tansik, 1988). The research team approached supervisors and asked them to nominate several employees who were at the same job and pay level. This helped to ensure that employees were currently in comparable financial situations and job positions; however, they would naturally vary in their childhood background.

Of those initially approached, 32.79% agreed to participate. The study was described in a very general manner and without mentioning key constructs to reduce the risk of self-selection related to study variables. Of those who responded in the first wave (520 employees), 89.42% responded in the second wave, 86.73% in the third wave, 86.35% in the fourth wave, and 84.23% in the fifth wave. The surveys were administered online, and follow-ups were conducted over the phone to motivate participation. Participants responded to surveys distributed bi-weekly over two and a half months. At least three responses are needed to conduct longitudinal analyses, so participants with three or more responses were retained (Ployhart & Vandenberg, 2010), resulting in a final sample size of 449 employees nested under 147 supervisors. The final sample surpassed the preregistered target sample size due to oversampling in anticipation of unknown levels of attrition across waves. Average employee age was 30.40 (SD = 4.71) among employees and 35.19 (SD = 4.79) among supervisors. There were more men in the sample among both employees (59.24%) and supervisors (67.70%), which is in line with India's gender gap in both the population and the labor force (World Bank, 2021). There was a good distribution in terms of the industries the firms were drawn from, including firms from the finance (12.24%), manufacturing (11.56%), information technology (10.88%), health care and social assistance (8.16%), and retail trade (4.76%) sectors.

TABLE 1
Study 1: Variable Summaries and Correlations

	Time-variant variables	Mean	*SD* (between)	*SD* (within)	Min.	Max.	ICC leader	ICC employee	1	2	3	4	5
1	Job insecurity	2.18	0.50	0.51	1.00	4.86	.24	.35		−.14	−.24	.27	.14
2	Sense of control	3.90	0.51	0.55	1.00	5.00	.15	.33	−.16		.37	−.19	−.09
3	Engagement	3.81	0.48	0.65	1.00	5.00	.13	.19	−.10	.21		−.65	−.18
4	Exhaustion	2.30	0.67	0.64	1.00	5.00	.28	.40	.15	−.27	−.27		.22
5	Job loss risk	1.95	0.45	0.71	1.00	5.00	.10	.10	.24	−.11	−.20	.17	

	Time-invariant variables	Mean	*SD*	Min.	Max.	1	2	3
1	Employee childhood financial standing	2.43	0.87	1.00	5.00			
2	Employee current financial standing	3.74	0.72	1.20	5.00	.17		
3	Years of leadership experience	10.77	4.59	4.00	30.00	−.22	.13	
4	Number of employees fired due to crisis	3.12	6.20	0.00	30.00	.10	−.11	−.12

Notes: For time-variant variables, correlations below the diagonal are within-person correlations (n = 2,207) and all are significant at $p < .001$, while correlations above the diagonal are between-person correlations (n = 449) and all are significant at $p < .05$. All correlations among time-invariant variables (n = 449) are significant at $p < .05$.

Measures

The materials were in English, which was the official language of all firms in the sample. A 5-point scale (ranging from 1 = *strongly disagree* to 5 = *strongly agree*) was used unless otherwise noted. Appendix A contains details of all the measures. Childhood and current financial standing were measured only at Time 1; all other measures were administered in all five survey waves at two-week intervals.

Childhood and current financial standing. I used established measures from life history theory research (Griskevicius, Delton, et al., 2011; Griskevicius, Tybur, et al., 2011) to measure employees' childhood and current financial standing. I supplemented the three items from the original measures with two similar items to ensure that the measure would perform well. Sample items measuring participants' childhood financial standing were "My family had enough money to buy things I wanted" and "I grew up in a relatively wealthy neighborhood" (α = .88). In addition, participants reported how wealthy they felt currently. Sample items were "I have enough money to buy things I want" and "I don't have to worry too much about paying my bills" (α = .84). I conducted a separate preregistered scale validation study in India and the United States, which established the validity of both measures (a report describing this validation study is available in Online Supplement A in Additional Materials).

Job insecurity. I combined two established and similar but relatively short scales of job insecurity into one to increase the total number of items and thus the likelihood that the measure would perform well. One was a four-item measure of job insecurity developed by Vander Elst, De Witte, and De Cuyper (2014), and the other was a three-item measure developed by Hellgren, Sverke, and Isaksson (1999). Sample items were "Chances are, I will soon lose my job" and "I feel insecure about the future of my job" (α = .79).

Sense of control. Following the same rationale as above, I again combined two established and similar but short measures to capture sense of control. The first was a four-item measure by Lachman and Weaver (1998), supplemented with the four positively worded items by Mirowsky and Ross (1991). Sample items were "I can do just about anything that I really set my mind to" and "I am responsible for my own successes" (α = .87).

Engagement. Employees reported how engaged they were at work using a nine-item measure developed by Schaufeli, Bakker, and Salanova (2006). Sample items were "I am enthusiastic about my job" and "When I get up in the morning, I feel like going to work" (α = .91).

Exhaustion. Employees reported how exhausted they felt using the six-item measure by Wharton (1993). Sample items were "I feel emotionally drained from my work" and "I feel burned out from my work" (α = .91).

Subordinate job loss risk. Finally, supervisors reported on the extent to which they would be willing to let go each of the given subordinates if the situation demanded it, using a measure adapted

from Vander Elst et al. (2014). Sample items were "I would fire [employee name]" and "I would let go [employee name]" ($\alpha = .85$).

Control variables. In addition to the focal control variable of employee current financial standing, I measured several additional variables. I measured years of leadership experience, which may impact subordinates' sense of job insecurity, engagement, and emotional exhaustion (Wang, Le Blanc, Demerouti, Lu, & Jiang, 2019). I also measured the number of employees fired due to the current crisis, as previous work has found that layoffs have strong psychological effects on survivors (Brockner, Grover, Reed, DeWitt, & O'Malley, 1987). These variables were reported by leaders.

STUDY 1: RESULTS

Measurement Model

Table 1 contains variable summaries and correlations. Confirmatory factor analyses found that the model with all variables included (for employees and leaders separately) exhibited adequate fit to the data according to conventional thresholds (Browne & Cudeck, 1993) (employee-rated variables: RMSEA = .06, CFI = .91, TLI = .91, SRMR = .05; leader-rated job loss risk: RMSEA = .04, CFI = .99, TLI = .99, SRMR = .01). Furthermore, the average variance extracted value of each latent construct was larger (each surpassing .359) than its squared correlation with any other latent construct (each being lower than .224), indicating good discriminant validity of the measures (Fornell & Larcker, 1981).

Analytical Strategy

Multilevel modeling with cases within employees and supervisors (i.e., three-level model) was used to account for data non-independence. I person-centered time-variant predictors. This approach extracts between-person variance and thus any time-invariant factors that could introduce endogeneity (Finkel, 1995; Hamaker & Muthén, 2020; Wooldridge, 2002). The resulting estimates for person-centered time-variant variables represent within-person effects. See Table 1 for a decomposition of variance for every construct, which showed adequate levels of intra-individual variability to justify within-person analyses. Employee childhood background is a level-2 moderator and was grand mean-centered, as were the controls. There were time trends for most variables, so wave is included in all models as a predictor (Wang & Maxwell, 2015). All models control for current financial standing, the interaction between job insecurity and current financial standing (see Yzerbyt, Muller, & Judd, 2004, for rationale), and other controls. In both studies, the results hold with or without controls.

Life History Perspective on Job Insecurity and Well-Being (Hypotheses 1–4)

Table 2 presents the results of the regression analyses. As shown in Table 2 (Models 1 and 2), at the sample mean of employee childhood financial standing,[3] there was a negative main effect of job insecurity on engagement ($b = -0.14$, $p < .001$) and a positive effect on exhaustion ($b = 0.20$, $p < .001$), consistent with previous job insecurity research (De Witte et al., 2016; Sverke et al., 2002). However, employee sense of job insecurity also interacted with childhood background in predicting engagement ($b = 0.14$, $p < .001$) and emotional exhaustion ($b = 0.19$, $p < .001$). Figure 2 depicts the interactions. The pattern of the interactions was such that job insecurity was associated with lower engagement among workers from poorer backgrounds (1 *SD* below the mean; $b = -0.26$, $p < .001$), while, at higher levels of employee childhood financial standing, the effect was non-significant (1 *SD* above the mean; $b = -0.01$, $p = .726$). Regarding emotional exhaustion, job insecurity was associated with higher emotional exhaustion among workers from poorer backgrounds (1 *SD* below the mean; $b = 0.36$, $p < .001$) and the effect became non-significant at higher levels of employee childhood financial standing (1 *SD* above the mean; $b = 0.03$, $p = .392$). The pattern of the interactions supports Hypotheses 1 and 3.

The role of sense of control. The effects of job insecurity on engagement and exhaustion were explained by the fact that job insecurity was associated with a lower sense of control among employees from poorer backgrounds ($b = -0.29$, $p < .001$), while it had no effect among employees from wealthier backgrounds ($b = -0.05$, $p = .158$) (interaction: $b = 0.14$, $p < .001$; see Table 2, Model 3). Sense of control was, in turn, positively associated with engagement ($b = 0.20$, $p < .001$) and negatively associated with emotional exhaustion ($b = -0.29$,

[3] The regression coefficient for job insecurity in the main regression models expresses the simple slope of job insecurity at the sample mean because employee childhood financial standing is grand mean-centered.

TABLE 2
Study 1: Job Insecurity Effects on Well-Being

	Model 1: Engagement		Model 2: Exhaustion		Model 3: Sense of control		Model 4: Engagement		Model 5: Exhaustion	
	b	***SE***	***b***	***SE***	***b***	***SE***	***b***	***SE***	***b***	***SE***
Constant	4.02***	(0.04)	2.31***	(0.05)	4.01***	(0.04)	4.00***	(0.04)	2.34***	(0.05)
Wave	−0.07***	(0.01)	−0.00	(0.01)	−0.04***	(0.01)	−0.07***	(0.01)	−0.01	(0.01)
Years of leadership experience	0.03***	(0.01)	−0.03***	(0.01)	0.01	(0.01)	0.03***	(0.01)	−0.03***	(0.01)
Number of employees fired due to crisis	−0.01**	(0.00)	0.01	(0.01)	−0.01*	(0.00)	−0.01**	(0.00)	0.01	(0.01)
Employee current financial standing (A)	0.10**	(0.03)	−0.11**	(0.04)	0.16***	(0.03)	0.10***	(0.03)	−0.11**	(0.04)
Job insecurity (B)	−0.14***	(0.03)	0.20***	(0.03)	−0.17***	(0.02)	−0.10***	(0.03)	0.15***	(0.03)
A × B	0.05	(0.04)	−0.03	(0.04)	0.13***	(0.04)	0.02	(0.04)	0.00	(0.04)
Employee childhood financial standing (C)	0.10***	(0.03)	−0.07	(0.04)	0.10***	(0.03)	0.10***	(0.03)	−0.07	(0.04)
B × C	0.14***	(0.03)	−0.19***	(0.03)	0.14***	(0.03)	0.11***	(0.03)	−0.15***	(0.03)
Sense of control							0.20***	(0.03)	−0.29***	(0.03)
Observations	2,207		2,207		2,207		2,207		2,207	
Log likelihood	−2513		−2612		−2213		−2487		−2559	
Wald χ^2	148.5		110.8		168		202.9		224	
df	8		8		8		9		9	
$p > \chi^2$	< .001		< .001		< .001		< .001		< .001	
R^2	.081		.069		.091		.099		.095	

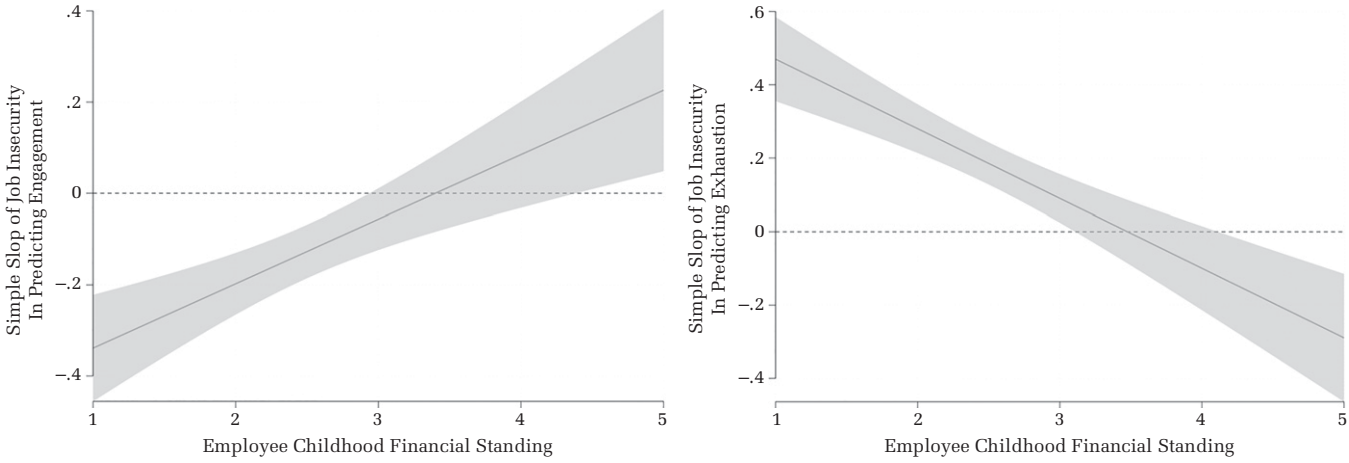
Notes: Multilevel linear regression analyses with cases nested within person and leaders (i.e., three-level models) are reported. For all analyses, I calculated R^2 as a squared correlation between observed and predicted values (see Cameron & Windmeijer, 1996; Cox, 2022; Zheng and Agresti, 2000).

*** $p < .001$

** $p < .01$

* $p < .05$

FIGURE 2
Study 1: Interaction between Job Insecurity and Employee Childhood Financial Standing in Predicting Engagement (*Left*) and Exhaustion (*Right*)



Note: Regions of significance of the effect of job insecurity across the range of the employee childhood financial standing variable are depicted, together with confidence bands calculated using the technique by Bauer and Curran (2005).

$p < .001$) (Models 4 and 5). A test of mediation[4] using the bootstrap method and 5,000 resamples found that the indirect effect of job insecurity on engagement via sense of control was significant and negative among workers from poorer backgrounds (95% CI [−0.09, −0.04]), but not significant among workers from wealthier backgrounds (95% CI [−0.03, 0.01]). Furthermore, the indirect effect of job insecurity on exhaustion via sense of control was significant and positive among workers from poorer backgrounds (95% CI [0.05, 0.12]), but not significant among workers from wealthier backgrounds (95% CI [−0.01, 0.04]). The results support Hypotheses 1–4.

It is also worth noting that workers from poorer and wealthier backgrounds did not differ in terms of their level of engagement, exhaustion, or sense of control when job insecurity was low (1 *SD* below the mean; all *p*s ≥ .388), but only when job insecurity was high (1 *SD* above the mean; all *p*s < .001). The finding that differences between workers from poorer and wealthier backgrounds only emerge at high levels of felt job insecurity is consistent with previous life history research (Griskevicius et al., 2013; Mittal & Griskevicius, 2014) and suggests that the observed responses are a result of the conditioning of the stress response system during childhood.

Implications for Job Loss Risk (Hypotheses 5–6)

Table 3 (Model 1) presents regression analysis results for job loss risk. Both engagement ($b = -0.13$, $p < .001$) and emotional exhaustion ($b = 0.11$, $p < .001$) predicted leader-rated job loss risk. A test of mediation found that job insecurity led to higher job loss risk among employees from poorer backgrounds via lower sense of control and, in turn, lower engagement and higher emotional exhaustion (95% CI [0.01, 0.03]). By contrast, the indirect effect of job insecurity on job loss risk (via higher sense of

[4] In line with previous research using similar study designs (Cooper, Kong, & Crossley, 2018; Frieder, Wang, & Oh, 2018; He & Kang, 2021; Kim, Cho, & Park, 2022; Lanaj, Johnson, & Lee, 2016; ten Brummelhuis, Calderwood, Rosen, & Gabriel, 2021; Wei, Zhang, & Chen, 2015; Wolfson & Mathieu, 2021), I used an equivalent to moderated path analysis, as described in Edwards and Lambert (2007), with all the linkages specified as multilevel models and then integrated into a moderated path analysis using the bootstrap method to test moderated indirect effects. Preacher, Zyphur, and Zhang (2010) noted the limitations of this design when between-person and within-person effects can be conflated; this was not an issue in the current analyses as there were no indirect between-person effects, given that these were removed through centering. The mediational chains specified in the analyses are such that in each subsequent step, all prior predictors and mediators are controlled for. Multilevel structural equation modeling was also attempted but could not converge, likely given the complexity of the data and the model tested.

TABLE 3
Study 1: Implications for Job Loss Risk and Lagged Effects

	Model 1: Job loss risk		Model 2: Engagement		Model 3: Exhaustion		Model 4: Sense of control	
	b	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Constant	1.68***	(0.04)	2.97***	(0.11)	1.63***	(0.08)	2.56***	(0.12)
Wave	0.09***	(0.01)	−0.07***	(0.02)	−0.03	(0.02)	0.01	(0.01)
Years of leadership experience	−0.01*	(0.01)	0.02***	(0.00)	−0.01*	(0.01)	0.00	(0.01)
Number of employees fired due to crisis	−0.00	(0.00)	−0.00	(0.00)	0.01	(0.00)	−0.00	(0.00)
Employee current financial standing (A)	−0.02	(0.03)	0.07*	(0.03)	−0.08*	(0.03)	0.10**	(0.03)
Job insecurity (B)	0.30***	(0.03)						
A × B	0.04	(0.04)						
Employee childhood financial standing (C)	−0.12***	(0.03)	0.04	(0.02)	−0.07*	(0.03)	0.06*	(0.03)
B × C	−0.05	(0.04)						
Engagement	−0.13***	(0.03)						
Exhaustion	0.11***	(0.03)						
Job insecurity (lagged) (D)			−0.01	(0.03)	0.11**	(0.03)	−0.03	(0.03)
A × D			0.01	(0.05)	−0.02	(0.05)	0.00	(0.04)
C × D			0.06	(0.04)	−0.12**	(0.04)	0.10**	(0.03)
Engagement (lagged)			0.27***	(0.02)				
Exhaustion (lagged)					0.34***	(0.02)		
Sense of control (lagged)							0.32***	(0.02)
Observations	2,207		1,741		1,741		1,741	
Log likelihood	−2585		−1928		−1954		−1746	
Wald χ^2	273.55		253.3		351.4		257.9	
df	10		9		9		9	
$p > \chi^2$	< .001		< .001		< .001		< .001	
R^2	.106		.150		.302		.236	

Notes: The analytical approach for all models was the same as described in the note to Table 2.
*** $p < .001$
** $p < .01$
* $p < .05$

control and, in turn, higher engagement and lower emotional exhaustion) was not significant among employees from wealthier backgrounds (95% CI [−0.001, 0.001]). Hypotheses 5 and 6 are thus supported.

Do Employees from Wealthy Backgrounds Benefit from Job Insecurity? (Preregistered Exploratory Analyses)

The results presented above show that workers who come from families of above-average financial standing (1 *SD* above the mean) are shielded from the adverse effects of job insecurity on well-being and job loss risk. What happens at even higher levels of childhood financial standing? Figure 2 depicts the simple effects of job insecurity on engagement and emotional exhaustion across the entire range of the employee childhood financial standing variable. I summarize critical points of significance here. Job insecurity had a negative effect on engagement at low levels of childhood financial standing (i.e., below the scale value of 2.93); those above that value were shielded from the effect (i.e., the effect became non-significant); and, finally, above a value of 4.39 on the scale of employee childhood financial standing, the effect became *positive*. Similarly, job insecurity had a positive effect on exhaustion at low and average levels of childhood financial standing (i.e., below the scale value of 3.10); those above that value were shielded from the effect (i.e., the effect became non-significant); and, finally, above a value of 4.12 on the scale of employee childhood financial standing, the effect became *negative*. Therefore, employees who grew up in particularly financially secure environments were not only shielded but even energized by the challenge of perceived job insecurity.

The positive effects of job insecurity on well-being among employees at the top of the childhood financial standing spectrum were explained by the fact that, among such workers, job insecurity was

associated with an increased sense of control (above a value of 4.51 on the scale of employee childhood financial standing), resulting in a positive indirect effect of job insecurity on engagement via sense of control above a value of 4.55 on the childhood financial standing scale, and a negative indirect effect of job insecurity on exhaustion through sense of control above a value of 4.59. Accordingly, the indirect effect of job insecurity on job loss risk through sense of control and, in turn, engagement and emotional exhaustion became negative above the value of 4.55 on the scale of employee childhood financial standing.

Therefore, in line with the possibility specified in the preregistered exploratory analyses, employees who grew up in particularly financially secure environments were not only shielded from the adverse implications of perceived job insecurity for job loss risk; instead, job insecurity brought about an energizing response (higher engagement and lower exhaustion), which resulted in lower rather than higher job loss risk. The results suggest that the relative disadvantage of employees from poorer backgrounds in terms of well-being and job loss risk in response to perceived job insecurity is especially stark vis-à-vis employees who grew up in particularly financially secure environments.

Supplementary Analyses

I explored several additional specifications to provide richer insight into the dynamics of job insecurity and its outcomes. I repeated the hypotheses tests using time-lagged job insecurity as a predictor, such that job insecurity at one time point was used to predict emotional exhaustion, engagement, and sense of control at the subsequent period, controlling for these variables measured in the previous period (see Table 3, Models 2–4). The analyses found that employee childhood financial standing interacted with lagged job insecurity in predicting exhaustion ($b = -0.12$, $p = .002$), such that lagged job insecurity positively predicted exhaustion among employees from poorer backgrounds ($b = 0.21$, $p < .001$), but had no effect among employees from wealthier backgrounds ($b = 0.01$, $p = .851$). The interaction between employee childhood financial standing and lagged job insecurity in predicting sense of control was also significant ($b = 0.10$, $p = .004$), such that lagged job insecurity negatively predicted sense of control among employees from poorer backgrounds ($b = -0.11$, $p = .011$), but had no effect among employees from wealthier backgrounds ($b = 0.06$, $p = .158$). These interaction patterns match those observed with concurrent effects. The interaction between employee childhood financial standing and lagged job insecurity was not significant ($b = 0.06$, $p = .101$). Therefore, in addition to shaping employees' engagement and emotional exhaustion in a concurrent fashion, the effects of job insecurity seem to have a cumulative effect on sense of control and exhaustion, although not on engagement.

I also tested for reciprocal effects by using the outcomes of one period to predict job insecurity in the subsequent time period (controlling for job insecurity in the prior period). I adopted this approach in light of the job insecurity research that has tested such reciprocal relationships to disentangle whether job insecurity undermines well-being or whether lower well-being leads to perceived job insecurity (De Witte et al., 2016). This question has generally been of interest in studies spanning longer time periods and, in many cases, focusing on health as a proxy of well-being (as health issues might impair functioning at work over longer periods of time). Such studies have found that job insecurity undermines well-being, rather than the other way around (see De Witte et al., 2016, for a summary). My results confirm this to be the case in my sample as well, as indicated by the non-significant effects of engagement and emotional exhaustion at time t on job insecurity at time $t + 1$, controlling for job insecurity at time t ($ps \geq .163$). I also do not find that sense of control at time t impacts job insecurity at time $t + 1$ ($p = .810$). Therefore, it seems that, in the current sample, job insecurity was exogenously shaped, which is not surprising given the dynamic and salient uncertainty of the economic adversity under which sense of job insecurity was studied.

Finally, I examined the lagged relationship between job insecurity and job loss risk to evaluate the possibility that job loss risk impacted job insecurity rather than the other way around. If, on the one hand, employees' sense of job insecurity was shaped by leaders' signals that their jobs were at risk, we would expect employees to gradually notice this and for leader-rated job loss risk to impact employees' job insecurity over time. If, on the other hand, job insecurity influenced leader-rated job loss risk, we would expect employees' job insecurity to impact leader-rated job loss risk over time (as their drop in engagement and rise in exhaustion becomes apparent). I found a significant lagged effect of job insecurity on job loss risk ($b = 0.10$, $p = .009$), while the lagged effect of job loss risk on job insecurity was not significant ($b = -0.03$, $p = .089$). This suggests that leader-rated job loss risk was influenced by

leaders' observations of differences in employee behavior (which are easily observable), rather than employees' perception of job insecurity being a response to leaders' thoughts about employees (which are more difficult to observe).

STUDY 2: QUASI-EXPERIMENTAL REPLICATION

I conducted a follow-up quasi-experiment to enhance the internal validity of the conclusions related to the life history perspective on job insecurity and well-being (Hypotheses 1–4). Another motivation for conducting a second study was the pattern of the interaction observed in Study 1, whereby the effect of job insecurity reversed among employees from wealthier backgrounds, leading to a higher sense of control and, in turn, having *positive* implications for well-being. Although preregistered, the finding was exploratory in nature, and an attempt to replicate it would more conclusively indicate whether it could be expected to consistently emerge. Study 2 also leveraged two samples—India and the United States—to examine the generalizability of the findings across these different cultures and institutional environments.

Participants and Design

I recruited 1,651 employees—818 from the United States ($mean_{age}$ = 38.79, SD_{age} = 12.08; 61.73% female) and 833 from India ($mean_{age}$ = 31.32, SD_{age} = 8.67; 60.26% male)—through Qualtrics Panel in exchange for a financial incentive (US$6). The sample size was determined after consulting previous studies using a similar manipulation to the job insecurity manipulation I used in this quasi-experiment (e.g., Mehta & Zhu, 2016; Mittal & Griskevicius, 2014; Roux, Goldsmith, & Bonezzi, 2015). I opted for a larger target sample size to provide a meaningful test of the theory across two countries and because larger samples minimize both error types and increase the precision of estimates (Button et al., 2013; Simmons, 2013). The final sample size slightly surpassed the preregistered target sample size (1,600) because of over-sampling by the data collection firm. I retained all responses. Participants worked in a range of industries, most commonly the information technology (9.99%), health care and social assistance (9.33%), manufacturing (9.27%), finance (8.84%), and education (7.87%) sectors. Participants were randomly assigned to either the job insecurity condition or the job security condition.

Materials

Childhood and current financial standing. Childhood and current financial standing were measured as in Study 1 (Griskevicius, Delton, et al., 2011; Griskevicius, Tybur, et al., 2011). For childhood financial standing, α was .89, and for current financial standing, α was .88.

Job insecurity manipulation and manipulation check. To manipulate participants' perception of how insecure their jobs were, I asked them to write about factors that contributed to the insecurity of their jobs (job insecurity condition) or about factors that made their jobs secure (job security condition). This guided reflection or episodic recall task was meant to induce the psychological experience of job insecurity (vs. security) and the associated distress; it is similar to tasks widely used in studies examining the effects of financial concerns and resource scarcity (e.g., Mehta & Zhu, 2016; Mittal & Griskevicius, 2014; Roux et al., 2015). Appendix A presents the manipulation content.

As a manipulation check, I used the same measure of job insecurity as in Study 1 (α = .89; Hellgren et al., 1999; Vander Elst et al., 2014).

Sense of control. Participants next responded to the same measure of sense of control as in Study 1 (α = .64; Lachman & Weaver, 1998; Mirowsky & Ross, 1991).

Job engagement and exhaustion. Finally, I administered the same measures of engagement (α = .89; Schaufeli et al., 2006) and exhaustion (α = .88; Wharton, 1993) as in Study 1.

STUDY 2: RESULTS

Manipulation Check

Table 4 contains variable summaries and correlations. Participants in the job insecurity condition reported higher levels of job insecurity (mean = 2.74, SD = 1.02), compared to participants in the job security condition (mean = 2.29, SD = 1.04), b = 0.45, $p < .001$. The manipulation was thus effective.

Life History Perspective on Job Insecurity and Well-Being (Hypotheses 1–4)

Childhood and current financial standing were again centered for the analyses, and all models controlled for the interaction between job insecurity condition and current financial standing. The job insecurity manipulation interacted with childhood background in predicting both engagement (b = 0.13, $p < .001$) and emotional exhaustion (b = −0.14,

TABLE 4
Study 2: Variable Summaries and Correlations

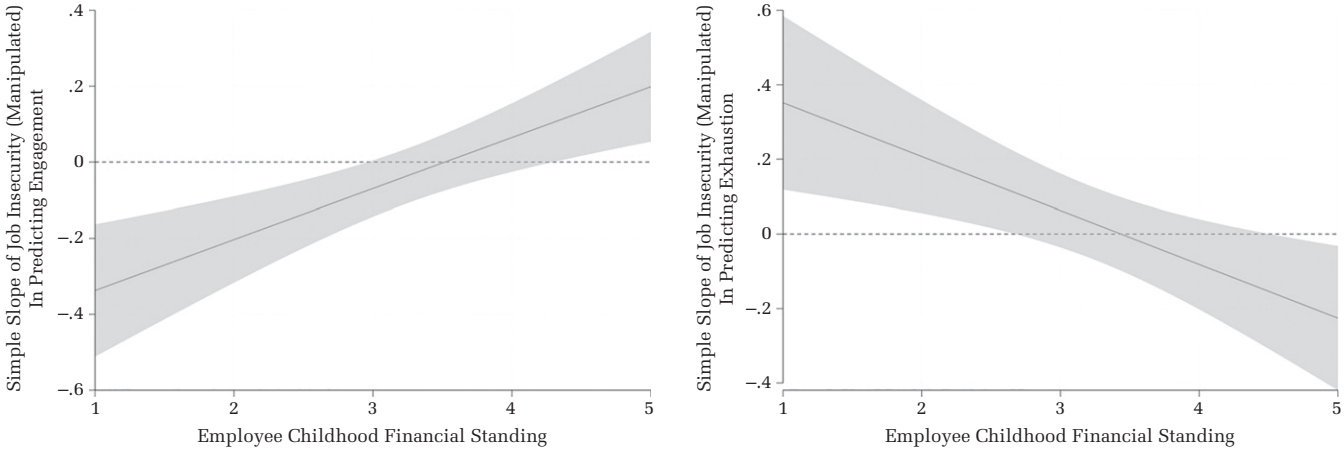
		Mean	*SD*	Min.	Max.	1	2	3	4	5
1	Job insecurity	0.49	0.50	0.00	1.00					
2	Sense of control	3.72	0.56	1.75	5.00	.01				
3	Engagement	3.96	0.78	1.00	5.00	−.02	.46			
4	Exhaustion	2.94	1.00	1.00	5.00	.01	−.27	−.36		
5	Employee childhood financial standing	3.29	0.98	1.00	5.00	.01	.09	.29	−.06	
6	Employee current financial standing	3.23	1.13	1.00	5.00	.01	.08	.20	−.05	.45

Notes: Correlations above |.02| are significant at $p < .05$ ($n = 1{,}651$).

$p = .003$). Figure 3 displays the interactions. As shown in Figure 3, job insecurity had a negative effect on engagement among workers from poorer backgrounds (1 *SD* below the mean; $b = -0.19$, $p = .001$); at higher levels of employee childhood financial standing, the effect was no longer negative (and became positive at 1 *SD* above the mean; $b = 0.11$, $p = .039$). The opposite pattern emerged with respect to emotional exhaustion, such that job insecurity had a positive effect on emotional exhaustion among workers from poorer backgrounds (1 *SD* below the mean; $b = 0.19$, $p = .009$); at higher levels of employee childhood financial standing, the effect became non-significant (1 *SD* above the mean; $b = -0.13$, $p = .069$). The pattern of the interactions supports Hypotheses 1 and 3.

The role of sense of control. The effects of job insecurity on engagement and exhaustion were explained by the fact that job insecurity had a negative effect on sense of control among employees from poorer backgrounds ($b = -0.11$, $p = .008$), while it had a positive effect among employees from wealthier backgrounds ($b = 0.12$, $p = .003$) (interaction: $b = 0.10$, $p < .001$). Sense of control was, in turn, positively associated with engagement ($b = 0.61$ $p < .001$) and negatively associated with emotional exhaustion ($b = -0.47$, $p < .001$). A test of mediation using structural equation modeling and the bootstrap method with 5,000 resamples found that the indirect effect of job insecurity on engagement via sense of control was significant and negative among workers from poorer backgrounds (95% CI [−0.12, −0.01]), but became positive among workers from wealthier backgrounds (95% CI [0.03, 0.12]). Furthermore, the indirect effect of job insecurity on exhaustion via sense of control was significant and positive among workers from poorer backgrounds (95% CI [0.01, 0.10]), but became

FIGURE 3
Study 2: Interaction between Job Insecurity and Employee Childhood Financial Standing in Predicting Engagement (*Left*) and Exhaustion (*Right*)



Note: Regions of significance of the effect of job insecurity across the range of the employee childhood financial standing variable are depicted, together with confidence bands calculated using the technique by Bauer and Curran (2005).

negative among workers from wealthier backgrounds (95% CI [−0.10, −0.02]). Together, the results support Hypotheses 1–4.

It is also worth noting that workers from poorer and wealthier backgrounds again did not differ in terms of their level of engagement, exhaustion, or sense of control when job insecurity was low (all *p*s ≥ .142), but only when job insecurity was high (all *p*s ≤ .002). The pattern of results is consistent with that found in Study 1, again strongly suggesting that the observed responses are a result of the stress response system conditioned during childhood. Finally, I explored whether participant country moderated any of the focal interactions between job insecurity and childhood financial standing in predicting sense of control, engagement, or exhaustion, and found country to be a non-significant moderator (all *p*s ≥ .252).

Do Employees from Wealthy Backgrounds Benefit from Job Insecurity in Terms of Their Well-Being? (Preregistered Exploratory Analyses)

As displayed in Figure 3, job insecurity had a negative effect on engagement at low levels of childhood financial standing (i.e., below the scale value of 2.96); those above that value were shielded from the effect (i.e., the effect became non-significant); finally, above the scale value of 4.30, the effect of job insecurity on engagement became *positive*. Similarly, job insecurity had a positive effect on exhaustion at low levels of childhood financial standing (i.e., below the scale value of 2.67); those above that value were shielded from the effect (i.e., the effect became non-significant); finally, above the scale value of 4.51, the effect of job insecurity on emotional exhaustion became *negative*.

The positive effects of job insecurity on well-being among employees at the top of the childhood financial standing spectrum were explained by the fact that, among such workers, job insecurity was associated with an increased sense of control (above a value of 3.76 on the childhood financial standing scale), resulting in a positive indirect effect of job insecurity on engagement through sense of control above a value of 3.74 on the childhood financial standing scale, and a negative indirect effect of job insecurity on exhaustion through sense of control above a value of 3.75. Therefore, again, employees who grew up in financially secure environments were not only shielded from the adverse implications of perceived job insecurity for well-being, but responded to perceived job insecurity with a positive, energizing response.

GENERAL DISCUSSION

The results of a five-wave, multisource longitudinal study and a follow-up quasi-experiment support the life history perspective on job insecurity and well-being at work. I found that job insecurity had particularly negative effects on employees from poorer backgrounds, leading to a lower sense of control and, in turn, higher emotional exhaustion and lower engagement. By contrast, employees from wealthier backgrounds were shielded from the effect, and, in exploratory preregistered analyses, both studies found that employees who grew up in particularly financially secure environments responded to job insecurity with higher levels of engagement and lower levels of emotional exhaustion. Importantly, these effects were obtained regardless of employees' current financial conditions. Study 1 also found that the stratified effects of job insecurity on well-being increased job loss risk among employees from poorer backgrounds, while employees from wealthier backgrounds were shielded from the effect, and those from particularly wealthy backgrounds were able to reduce their job loss risk due to higher levels of engagement and lower levels of exhaustion. The results support the notion that job insecurity has a disproportionately negative impact on employees from poorer backgrounds and acts as a mechanism that reproduces childhood inequalities.

Theoretical Implications

Organizational research on job insecurity has remained largely disconnected from the growing concerns voiced in the research on sociology of work and organizations that workers systematically differ in their vulnerability to the increasingly precarious nature of work (Kalleberg, 2009). Even within sociology, it has been argued that "the study of issues such as precarious work and insecurity and their links to social stratification, organizations, labor markets, and gender, race, and age has largely fallen through the cracks" (Kalleberg, 2009: 11). Moreover, the differences in vulnerability to job insecurity considered have been primarily between people in different life situations facing different opportunities, such as low- versus high-income workers, or workers with union protection versus those without (Shoss, 2017; Sverke, Hellgren, Näswall, & Chirumbolo, 2004;

Sverke, Låstad, Hellgren, Richter, & Näswall, 2019). The current research adds a novel perspective to the increasingly relevant study of the connection between job insecurity and inequality. The results uncover that, even among workers in similar jobs and financial situations, job insecurity may reproduce childhood inequalities because workers from poorer backgrounds are conditioned to respond to threat differently than those from more advantaged backgrounds.

The current psychological model linking job insecurity, well-being, and the reproduction of childhood inequalities contributes to the different bodies of work on precariousness and insecurity mentioned above. It contributes to the organizational job insecurity literature, which has paid surprisingly little attention to the connection between insecurity and stratification of any sort (Lee, Huang, & Ashford, 2018). Furthermore, the current perspective addresses gaps in the sociology of work and organizations, which has primarily taken a structural perspective, overlooking the possibility that *psychological* pathways linking job insecurity and inequality might play a role. The current theoretical work advances both streams of literature, generating novel predictions and adding an important perspective on questions concerning the societal fairness of job insecurity and its stratified nature. People have very little choice over whether they are born into a poorer or wealthier family. Yet, the increasingly precarious nature of modern work seems to place a disproportionate burden on those who were less fortunate in terms of their childhood financial standing, even when they manage to work their way up and achieve comparable job and financial positions in adulthood.

Beyond the literature on job insecurity, these insights may also be relevant for the organizational literature on achievement gaps. There is evidence that workers from poorer backgrounds have lower long-term earnings, even when they manage to obtain comparable education and job opportunities relative to their peers from more advantaged backgrounds (Laurison & Friedman, 2016; Pfeffer, 1977a, 1977b). The current study suggests that the fact that experiences of job insecurity are more burdensome for workers from poorer backgrounds may be a contributing factor. Suggestive evidence for this possibility comes from the leader-rated job loss risk examined in Study 1, which has a clear connection to objective career success. It seems that uncertainty itself is partly responsible for the long-term disadvantage of workers from poorer backgrounds, as it affects workers differently depending on the differences in stress response conditioned during childhood.

The disproportionate burden of job insecurity borne by employees from poorer backgrounds is most pronounced when compared to employees who grew up in particularly financially secure environments. Specifically, both studies found support for the preregistered possibility that employees who scored at the high end of the employee childhood financial standing spectrum would not only be shielded from the adverse effects of job insecurity, but would even be energized by this stressor, thereby reducing their job risk. This finding is noteworthy because it means that the disadvantage of those from poorer backgrounds in the face of job insecurity (in terms of well-being and job loss risk) is particularly stark relative to those who have been fortunate enough to grow up in the wealthiest homes. Furthermore, the positive response to job insecurity of those from affluent families means that the *average* person is also at a relative disadvantage in terms of coping with job insecurity. Psychologically speaking, it seems that the modern rise of job insecurity advantages those who are already advantaged.

The current research also makes a contribution to organizational stress theory by integrating the evolutionary and developmental life history theory with the transactional stress theory that has been the dominant perspective in the stress literature. As detailed above, life history theory has thus far been primarily applied to understand the various behaviors related to temporal discounting (Daly & Wilson, 2005; Griskevicius, Tybur, et al., 2011). The current theoretical integration opens the way for a broader application of this theory to how people respond to and cope with stressors, which is of key interest in organizational research (Driskell & Salas, 2013; Hunter & Thatcher, 2007). The finding that the stress response system is stratified by employee childhood environment, regardless of the employee's current conditions, may have implications for a range of phenomena occurring in organizations. Beyond job insecurity, work is replete with stress; how employees deal with that stress impacts many aspects of their work and private life. A broader application of life history theory to understand other instances of workplace stress might similarly help organizational research to be more sensitive to workers who might be disproportionately burdened and to identify solutions.

The likely breadth of the effects of childhood environment on responses to stress in adulthood is also

suggested by the fact that Study 2 documented the hypothesized effects in two rather different countries: India and the United States. The two countries have different levels of economic development as well as different institutional systems, yet the effects of job insecurity seem to operate in a similar fashion across the two environments. One potential contributing factor might be the nature of the job insecurity measure, which might subsume some of the context-specific considerations, such as the dynamism of the economy or the social safety net. Specifically, an employee might factor in such environmental conditions when evaluating the level of concern he or she feels (e.g., "I feel uneasy about losing my job in the near future"). It is also possible that the stress sensitization process that occurs during childhood is relatively universal, a possibility that is further suggested by the young age at which the sensitization occurs and the relatively fundamental and general nature of the environmental feature (harshness) that programs the stress response. At present, there are insufficient data from non-Western contexts in general (Henrich, Heine, & Norenzayan, 2010; Rad, Martingano, & Ginges, 2018), and this is certainly true with respect to life history processes; such cross-cultural research represents an important area of future work.

Practical Implications

The primary practical implications of the current findings are for public policy decisions, as the results uncover one hitherto invisible and likely large-scale cost of job insecurity. The results suggest that job insecurity, which is on the rise globally (Hewison & Kalleberg, 2013; Kalleberg & Hewison, 2013; Wartzman, 2017), conflicts with the core values of socioeconomic mobility and merit by undermining performance-relevant well-being facets and increasing job loss risk of workers born into poorer families and attempting to work their way up. The increasingly precarious work arrangements are often justified as being meritocratic in contrast to work arrangements that less tightly link performance to rewards (Wiengarten, Pagell, Durach, & Humphreys, 2021). My results might help make a case in public discourse and ultimately public policy for swinging the pendulum toward somewhat reduced job insecurity—and this would not be the first time that such a correction was attempted. For example, in the wake of the high levels of job insecurity in the 1920s, a "social contract between business and labor beginning in the 1930s solidified the growing security and economic gains of this period" (Kalleberg, 2009: 4). The current investigation might inform public policy decisions to similarly help shape work-related processes, structures, contracts, and attitudes toward the rising levels of job security.

Beyond these implications for policymakers, in the current research, I also examined a few potential solutions and attenuating factors at the level of managers and workers, although these are not reported in the main body of the manuscript. Most notably, as Study 1 was conducted during a time of crisis, I examined whether leaders' crisis leadership style might attenuate the problematic effects on workers from poorer backgrounds. Leaders play an important role in interpreting the environment and influencing the shared perception of the organizational and economic landscape among employees (Weick, 1995; Weick, Sutcliffe, & Obstfeld, 2005). I tested the idea that managerial emphasis and communication focused on the opportunities arising from contextual adversity ("opportunity framing") may be beneficial for how employees cope with perceived job insecurity. By highlighting opportunities rather than just threats, managers may heighten employees' sense of control in the face of adversity, thereby inducing a reevaluation of the contextual threat as something more controllable (Lazarus & Folkman, 1984). As detailed in Online Supplement B in Additional Materials, I found that leader opportunity framing attenuated the problematic effects of perceived job insecurity on engagement among workers from poorer backgrounds, although the buffering effect vis-à-vis emotional exhaustion was not significant.

I also examined in an exploratory manner whether employee age moderated the focal interactions—that is, whether early-life stress response sensitization effects become weaker as people age. I found that this was not the case, suggesting that the psychological imprint of growing up in a poorer versus wealthier family tends to remain relatively similar throughout adulthood. It seems that mere passage of time is not sufficient to weaken the differences in stress response system sensitization as a function of childhood financial standing. This is broadly consistent with other research guided by life history theory, which has tended to use samples of students drawn from relatively elite US institutes of higher learning (arguably a more prosperous context compared to growing up in a poor family characterized by harshness and uncertainty). Such research has found that having grown up in a poorer versus wealthier family still shapes how such students

respond to threat. Likely certain life events are more relevant, particularly to the extent that they directly impact people's sense of control or habits related to coping with stressors. This is potentially also the reason why leaders' years of experience did not impact sense of control in Study 1 (while it did have a direct effect on engagement and exhaustion; Table 2), whereas leader opportunity framing, which more directly relates to situational control-related construal, did play a role (albeit only with regard to engagement and not exhaustion). Overall, a search for solutions is an important avenue that will make both life history and job insecurity research more practically relevant, as most work has been dedicated to identifying individuals' problematic responses to threat (cf. Ellis, Abrams, Masten, Sternberg, Tottenham, & Frankenhuis , 2022), while paying less attention to attenuating factors apart from "trait-like individual difference characteristics that are relatively stable and therefore less amenable to modification or intervention" (Probst, Jiang, & Benson, 2018: 21).

CONCLUSION

Job insecurity is on the rise globally. The results of the present research suggest that this trend likely undermines core societal values of equality of opportunity and success based on merit. The stress response is conditioned during childhood, a process that makes job insecurity a disproportionately greater burden for those who grew up poorer, even if they manage to work their way up to the same level as those from more advantaged backgrounds. Therefore, the impact of job insecurity on well-being is stratified, and job insecurity acts as a mechanism that reproduces childhood inequalities.

REFERENCES

Adler, A. 1930. Individual psychology. In C. Murchison (Ed.), ***Psychologies of 1930***: 395–405. Worcester, MA: Clark University Press.

Ashford, S. J., Lee, C., & Bobko, P. 1989. Content, cause, and consequences of job insecurity: A theory-based measure and substantive test. ***Academy of Management Journal***, 32: 803–829.

Bandura, A. 1977. Self-efficacy: Toward a unifying theory of behavioral change. ***Psychological Review***, 84: 191–215.

Bandura, A., & Adams, N. E. 1977. Analysis of self-efficacy theory of behavioral change. ***Cognitive Therapy and Research***, 1: 287–310.

Bandura, A., Adams, N. E., Hardy, A. B., & Howells, G. N. 1980. Tests of the generality of self-efficacy theory. ***Cognitive Therapy and Research***, 4: 39–66.

Banerjee, A., & Duflo, E. 2012. ***Poor economics: A radical rethinking of the way to fight global poverty***. New York, NY: PublicAffairs.

Barnard, C. I. 1968. ***The functions of the executive, vol. 11***. Boston, MA: Harvard University Press.

Bauer, D. J., & Curran, P. J. 2005. Probing interactions in fixed and multilevel regression: Inferential and graphical techniques. ***Multivariate Behavioral Research***, 40: 373–400.

Belsky, J., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. 2007. For better and for worse: Differential susceptibility to environmental influences. ***Current Directions in Psychological Science***, 16: 300–304.

Belsky, J., Steinberg, L., & Draper, P. 1991. Childhood experience, interpersonal development, and reproductive strategy: An evolutionary theory of socialization. ***Child Development***, 62: 647–670.

Belsky, J., Steinberg, L., Houts, R. M., & Halpern-Felsher, B. L. 2010. The development of reproductive strategy in females: Early maternal harshness → earlier menarche → increased sexual risk taking. ***Developmental Psychology***, 46: 120–128.

Bidwell, M., Briscoe, F., Fernandez-Mateo, I., & Sterling, A. 2013. The employment relationship and inequality: How and why changes in employment practices are reshaping rewards in organizations. ***Academy of Management Annals***, 7: 61–121.

Boyce, W. T., & Ellis, B. J. 2005. Biological sensitivity to context: I. An evolutionary–developmental theory of the origins and functions of stress reactivity. ***Development and Psychopathology***, 17: 271–301.

Brand, J. E. 2015. The far-reaching impact of job loss and unemployment. ***Annual Review of Sociology***, 41: 359–375.

Brockner, J., Grover, S., Reed, T., DeWitt, R., & O'Malley, M. 1987. Survivors' reactions to layoffs: We get by with a little help for our friends. ***Administrative Science Quarterly***, 32: 526–541.

Browne, M. W., & Cudeck, R. 1993. Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), ***Testing structural equation models***: 136–162. Newbury Park, CA: SAGE.

Button, K. S., Ioannidis, J., Mokrysz, C., Nosek, B. A., Flint, J., Robinson, E. S., & Munafò, M. R. 2013. Power failure: Why small sample size undermines the reliability of neuroscience. ***Nature Reviews. Neuroscience***, 14: 365–376.

Cameron, A. C., & Windmeijer, F. A. G. 1996. R-squared measures for count data regression models with applications to health-care utilization. ***Journal of Business & Economic Statistics***, 14: 209–220.

Chisholm, J. S. 1999. ***Death, hope and sex: Steps to an evolutionary ecology of mind and morality***. New York, NY: Cambridge University Press.

Christian, M. S., Garza, A. S., & Slaughter, J. E. 2011. Work engagement: A quantitative review and test of its relations with task and contextual performance. ***Personnel Psychology***, 64: 89–136.

Cooper, C. D., Kong, D. T., & Crossley, C. D. 2018. Leader humor as an interpersonal resource: Integrating three theoretical perspectives. ***Academy of Management Journal***, 61: 769–796.

Cox, N. J. 2022. How can I get an R-squared value when a Stata command does not supply one? ***Stata***.

Crawford, E. R., LePine, J. A., & Rich, B. L. 2010. Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. ***Journal of Applied Psychology***, 95: 834–848.

Cropanzano, R., Rupp, D. E., & Byrne, Z. S. 2003. The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors. ***Journal of Applied Psychology***, 88: 160–169.

Daly, M., & Wilson, M. 2005. Carpe diem: Adaptation and devaluing the future. ***Quarterly Review of Biology***, 80: 55–60.

De Witte, H., Pienaar, J., & De Cuyper, N. 2016. Review of 30 years of longitudinal studies on the association between job insecurity and health and well-being: Is there causal evidence? ***Australian Psychologist***, 51: 18–31.

Del Giudice, M., Ellis, B. J., & Shirtcliff, E. A. 2011. The adaptive calibration model of stress responsivity. ***Neuroscience and Biobehavioral Reviews***, 35: 1562–1592.

Driskell, J. E., & Salas, E. 2013. ***Stress and human performance***. Hove, U.K.: Psychology Press.

Edwards, J. R., & Lambert, L. S. 2007. Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. ***Psychological Methods***, 12: 1–22.

Ellis, B. J., Abrams, L. S., Masten, A. S., Sternberg, R. J., Tottenham, N., & Frankenhuis, W. E. 2022. Hidden talents in harsh environments. ***Development and Psychopathology***, 34: 95–113.

Ellis, B. J., & Del Giudice, M. 2014. Beyond allostatic load: Rethinking the role of stress in regulating human development. ***Development and Psychopathology***, 26: 1–20.

Ellis, B. J., & Del Giudice, M. 2019. Developmental adaptation to stress: An evolutionary perspective. ***Annual Review of Psychology***, 70: 111–139.

Ellis, B. J., Figueredo, A. J., Brumbach, B. H., & Schlomer, G. L. 2009. Fundamental dimensions of environmental risk. ***Human Nature (Hawthorne, N.Y.)***, 20: 204–268.

Finkel, S. E. 1995. ***Causal analysis with panel data***. Thousand Oaks, CA: SAGE.

Folkman, S. 1984. Personal control and stress and coping processes: A theoretical analysis. ***Journal of Personality and Social Psychology***, 46: 839–852.

Fornell, C., & Larcker, D. F. 1981. Evaluating structural equation models with unobservable variables and measurement error. ***Journal of Marketing Research***, 18: 39–50.

Frankenhaeuser, M. 1980. Psychobiological aspects of life stress. In S. Levine & H. Ursin (Eds.), ***Coping and health***: 203–223. New York, NY: Plenum Press.

Frieder, R. E., Wang, G., & Oh, I.-S. 2018. Linking job-relevant personality traits, transformational leadership, and job performance via perceived meaningfulness at work: A moderated mediation model. ***Journal of Applied Psychology***, 103: 324–333.

Gouldner, A. W. 1959. Organizational analysis. In R. K. Merton, L. Broom, & L. S. Cottrell (Eds.), ***Sociology today***: 400–428. New York, NY: Basic Books.

Greenhalgh, L., & Rosenblatt, Z. 1984. Job insecurity: Toward conceptual clarity. ***Academy of Management Review***, 9: 438–448.

Griskevicius, V., Ackerman, J. M., Cantú, S. M., Delton, A. W., Robertson, T. E., Simpson, J. A., Thompson, M. E., & Tybur, J. M. 2013. When the economy falters, do people spend or save? Responses to resource scarcity depend on childhood environments. ***Psychological Science***, 2: 197–205.

Griskevicius, V., Delton, A. W., Robertson, T. E., & Tybur, J. M. 2011. Environmental contingency in life history strategies: The influence of mortality and socioeconomic status on reproductive timing. ***Journal of Personality and Social Psychology***, 100: 241–254.

Griskevicius, V., Tybur, J. M., Delton, A. W., & Robertson, T. E. 2011. The influence of mortality and socioeconomic status on risk and delayed rewards: A life history theory approach. ***Journal of Personality and Social Psychology***, 100: 1015–1026.

Hall, R. E. 2005. Job loss, job finding, and unemployment in the U.S. economy over the past fifty years. ***NBER Macroeconomics Annual***, 20: 101–137.

Hamaker, E. L., & Muthén, B. 2020. The fixed versus random effects debate and how it relates to centering in multilevel modeling. ***Psychological Methods***, 25: 365–379.

He, J. C., & Kang, S. K. 2021. Covering in cover letters: Gender and self-presentation in job applications. ***Academy of Management Journal***, 64: 1097–1126.

Hellgren, J., Sverke, M., & Isaksson, K. 1999. A two-dimensional approach to job insecurity: Consequences for employee attitudes and well-being. ***European***

Journal of Work and Organizational Psychology, 8: 179–195.

Henrich, J., Heine, S. J., & Norenzayan, A. 2010. The weirdest people in the world. ***Behavioral and Brain Sciences***, 33: 61–83.

Hewison, K., & Kalleberg, A. L. 2013. Precarious work and flexibilization in South and Southeast Asia. ***American Behavioral Scientist***, 57: 395–402.

Hill, E. M., & Chow, K. 2002. Life-history theory and risky drinking: Life-history theory and risky drinking. ***Addiction***, 97: 401–413.

Hill, K., & Kaplan, H. 1999. Life history traits in humans: Theory and empirical studies. ***Annual Review of Anthropology***, 28: 397–430.

Hunter, L. W., & Thatcher, S. M. B. 2007. Feeling the heat: Effects of stress, commitment, and job experience on job performance. ***Academy of Management Journal***, 50: 953–968.

Iftikhar, A., Purvis, L., & Giannoccaro, I. 2021. A meta-analytical review of antecedents and outcomes of firm resilience. ***Journal of Business Research***, 135: 408–425.

Jackson, S. E., & Dutton, J. E. 1988. Discerning threats and opportunities. ***Administrative Science Quarterly***, 33: 370–387.

Jawahar, I. M., & Ferris, G. R. 2011. A longitudinal investigation of task and contextual performance influences on promotability judgments. ***Human Performance***, 24: 251–269.

Kalleberg, A. L. 2009. Precarious work, insecure workers: Employment relations in transition. ***American Sociological Review***, 74: 1–22.

Kalleberg, A. L., & Hewison, K. 2013. Precarious work and the challenge for Asia. ***American Behavioral Scientist***, 57: 271–288.

Kalleberg, A. L., & Vallas, S. P. 2017. Probing precarious work: Theory, research, and politics. In A. L. Kalleberg & S. P. Vallas (Eds.), ***Precarious work***: 1–30. Bingley, U.K.: Emerald Publishing.

Kim, S., Cho, S., & Park, Y. 2022. Daily microbreaks in a self-regulatory resources lens: Perceived health climate as a contextual moderator via microbreak autonomy. ***Journal of Applied Psychology***, 107: 60–77.

Lachman, M. E., & Weaver, S. L. 1998. The sense of control as a moderator of social class differences in health and well-being. ***Journal of Personality and Social Psychology***, 74: 763–773.

Lanaj, K., Johnson, R. E., & Lee, S. M. 2016. Benefits of transformational behaviors for leaders: A daily investigation of leader behaviors and need fulfillment. ***Journal of Applied Psychology***, 101: 237–251.

Laurison, D., & Friedman, S. 2016. The class pay gap in higher professional and managerial occupations. ***American Sociological Review***, 81: 668–695.

Lazarus, R. S., & Folkman, S. 1984. ***Stress, appraisal, and coping***. New York, NY: Springer.

Lee, C., Huang, G.-H., & Ashford, S. J. 2018. Job insecurity and the changing workplace: Recent developments and the future trends in job insecurity research. ***Annual Review of Organizational Psychology and Organizational Behavior***, 5: 335–359.

Leiter, M. P., Harvie, P., & Frizzell, C. 1998. The correspondence of patient satisfaction and nurse burnout. ***Social Science & Medicine***, 47: 1611–1617.

LePine, J. A., Podsakoff, N. P., & LePine, M. A. 2005. A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. ***Academy of Management Journal***, 48: 764–775.

Levenson, H. 1973. Multidimensional locus of control in psychiatric patients. ***Journal of Consulting and Clinical Psychology***, 41: 397–404.

Lyon, B. L. 2000. Stress, coping, and health. In V. H. Rice (Ed.), ***Handbook of stress, coping, and health: Implications for nursing research, theory, and practice***: 3–23. Thousand Oaks, CA: SAGE.

Maslach, C., & Jackson, S. E. 1981. The measurement of experienced burnout. ***Journal of Organizational Behavior***, 2: 99–113.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. 2001. Job burnout. ***Annual Review of Psychology***, 52: 397–422.

Matteson, M. T., & Ivancevich, J. M. 1987. ***Controlling work stress: Effective human resource and management strategies***. Hoboken, NJ: Jossey-Bass.

McEwen, B. S. 2012. Brain on stress: How the social environment gets under the skin. ***Proceedings of the National Academy of Sciences of the United States of America***, 109: 17180–17185.

McEwen, B. S., & Stellar, E. 1993. Stress and the individual: Mechanisms leading to disease. ***Archives of Internal Medicine***, 153: 2093–2101.

McLoyd, V. C. 1998. Socioeconomic disadvantage and child development. ***American Psychologist***, 53: 185–204.

Mehta, R., & Zhu, M. 2016. Creating when you have less: The impact of resource scarcity on product use creativity. ***Journal of Consumer Research***, 42: 767–782.

Miller, S. M. 1980. Why having control reduces stress: If I can stop the roller coaster, I don't want to get off. In J. Garber & M. E. P. Seligman (Eds.), ***Human helplessness: Theory and applications***: 71–95. New York, NY: Academic Press.

Mirowsky, J., & Ross, C. E. 1991. Eliminating defense and agreement bias from measures of the sense of control: A 2 × 2 index. ***Social Psychology Quarterly***, 54: 127–145.

Mittal, C., & Griskevicius, V. 2014. Sense of control under uncertainty depends on people's childhood environment: A life history theory approach. ***Journal of Personality and Social Psychology***, 107: 621–637.

Mittal, C., & Griskevicius, V. 2016. Silver spoons and platinum plans: How childhood environment affects adult health care decisions. ***Journal of Consumer Research***, 43: 636–656.

Mittal, C., Griskevicius, V., Simpson, J. A., Sung, S., & Young, E. S. 2015. Cognitive adaptations to stressful environments: When childhood adversity enhances adult executive function. ***Journal of Personality and Social Psychology***, 109: 604–621.

Naidoo, L. J. 2016. Leader opportunity versus threat verbal framing and nonverbal emotional expressions impact followers' creative performance. ***Leadership Quarterly***, 27: 869–882.

Ng, T. W., Sorensen, K. L., & Eby, L. T. 2006. Locus of control at work: A meta-analysis. ***Journal of Organizational Behavior***, 27: 1057–1087.

Pepper, G. V., & Nettle, D. 2014. Socioeconomic disparities in health behaviour: An evolutionary perspective. In M. Gibson & D. Lawson (Eds.), ***Applied evolutionary anthropology: Advances in the evolutionary analysis of human behaviour***: 225–243. New York, NY: Springer.

Pfeffer, J. 1977a. Toward an examination of stratification in organizations. ***Administrative Science Quarterly***, 22: 553–567.

Pfeffer, J. 1977b. Effects of an MBA and socioeconomic origins on business school graduates' salaries. ***Journal of Applied Psychology***, 62: 698–705.

Ployhart, R. E., & Vandenberg, R. J. 2010. Longitudinal research: The theory, design, and analysis of change. ***Journal of Management***, 36: 94–120.

Preacher, K. J., Zyphur, M. J., & Zhang, Z. 2010. A general multilevel SEM framework for assessing multilevel mediation. ***Psychological Methods***, 15: 209–233.

Presson, P. K., Clark, S. C., & Benassi, V. A. 1997. The Levenson locus of control scales: Confirmatory factor analyses and evaluation. ***Social Behavior and Personality***, 25: 93–103.

Probst, T. M., Jiang, L., & Benson, W. 2018. Job insecurity and anticipated job loss: A primer and exploration of possible. In U. Klehe & E. van Hooft (Eds.), ***The Oxford handbook of job loss and job search***: 31–53.

Rad, M. S., Martingano, A. J., & Ginges, J. 2018. Toward a psychology of Homo sapiens: Making psychological science more representative of the human population. ***Proceedings of the National Academy of Sciences of the United States of America***, 115: 11401–11405.

Rodin, J., & Langer, E. J. 1977. Long-term effects of a control-relevant intervention with the institutionalized aged. ***Journal of Personality and Social Psychology***, 35: 897–902.

Rotter, J. B. 1966. Generalized expectancies for internal versus external control of reinforcement. ***Psychological Monographs***, 80: 1–28.

Roux, C., Goldsmith, K., & Bonezzi, A. 2015. On the psychology of scarcity: When reminders of resource scarcity promote selfish (and generous) behavior. ***Journal of Consumer Research***, 42: 615–631.

Santiago, C. D., Wadsworth, M. E., & Stump, J. 2011. Socioeconomic status, neighborhood disadvantage, and poverty-related stress: Prospective effects on psychological syndromes among diverse low-income families. ***Journal of Economic Psychology***, 32: 218–230.

Sarkar, S., & Osiyevskyy, O. 2018. Organizational change and rigidity during crisis: A review of the paradox. ***European Management Journal***, 36: 47–58.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. 2006. The measurement of work engagement with a short questionnaire: A cross-national study. ***Educational and Psychological Measurement***, 66: 701–716.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. 2002. The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. ***Journal of Happiness Studies***, 3: 71–92.

Schaufeli, W. B., Taris, T. W., & van Rhenen, W. 2008. Workaholism, burnout, and work engagement: Three of a kind or three different kinds of employee well-being? ***Applied Psychology***, 57: 173–203.

Selznick, P. 1948. Foundations of the theory of organization. ***American Sociological Review***, 13: 25–35.

Sharfman, M. P., Wolf, G., Chase, R. B., & Tansik, D. A. 1988. Antecedents of organizational slack. ***Academy of Management Review***, 13: 601–614.

Shoss, M. K. 2017. Job insecurity: An integrative review and agenda for future research. ***Journal of Management***, 43: 1911–1939.

Simmons, J. 2013, November 4. Samples can't be too large [Blog post]. Retrieved from http://datacolada.org/6

Staw, B. M., Sandelands, L. E., & Dutton, J. E. 1981. Threat rigidity effects in organizational behavior: A multilevel analysis. ***Administrative Science Quarterly***, 26: 501–524.

Sverke, M., & Hellgren, J. 2002. The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. ***Applied Psychology***, 51: 23–42.

Sverke, M., Hellgren, J., & Näswall, K. 2002. No security: A meta-analysis and review of job insecurity and its consequences. ***Journal of Occupational Health Psychology***, 7: 242–264.

Sverke, M., Hellgren, J., Näswall, K., & Chirumbolo, A. 2004. ***Job insecurity and union membership: European Unions in the wake of flexible production***. Lausanne, Switzerland: Peter Lang.

Sverke, M., Låstad, L., Hellgren, J., Richter, A., & Näswall, K. 2019. A meta-analysis of job insecurity and employee performance: Testing temporal aspects, rating source, welfare regime, and union density as moderators. ***International Journal of Environmental Research and Public Health***, 16: 2536.

Taylor, S. E. 2010. Mechanisms linking early life stress to adult health outcomes. ***Proceedings of the National Academy of Sciences of the United States of America***, 107: 8507–8512.

Taylor, S. E., Lerner, J. S., Sage, R. M., Lehman, B. J., & Seeman, T. E. 2004. Early environment, emotions, responses to stress, and health. ***Journal of Personality***, 72: 1365–1394.

ten Brummelhuis, L. L., Calderwood, C., Rosen, C. C., & Gabriel, A. S. 2021. Is physical activity before the end of the workday a drain or a gain? Daily implications on work focus in regular exercisers. ***Journal of Applied Psychology***, 107: 1864–1877.

Van Scotter, J., Motowidlo, S. J., & Cross, T. C. 2000. Effects of task performance and contextual performance on systemic rewards. ***Journal of Applied Psychology***, 85: 526–535.

Vander Elst, T., De Witte, H., & De Cuyper, N. 2014. The job insecurity scale: A psychometric evaluation across five European countries. ***European Journal of Work and Organizational Psychology***, 23: 364–380.

Wang, H.-J., Le Blanc, P., Demerouti, E., Lu, C.-Q., & Jiang, L. 2019. A social identity perspective on the association between leader-member exchange and job insecurity. ***European Journal of Work and Organizational Psychology***, 28: 800–809.

Wang, L. P., & Maxwell, S. E. 2015. On disaggregating between-person and within-person effects with longitudinal data using multilevel models. ***Psychological Methods***, 20: 63–83.

Wartzman, R. 2017. ***The end of loyalty: The rise and fall of good jobs in America***. New York, NY: PublicAffairs.

Wei, X., Zhang, Z.-X., & Chen, X.-P. 2015. I will speak up if my voice is socially desirable: A moderated mediating process of promotive versus prohibitive voice. ***Journal of Applied Psychology***, 100: 1641–1652.

Weick, K. E. 1995. ***Sensemaking in organizations***. Thousand Oaks, CA: SAGE.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. 2005. Organizing and the process of sensemaking. ***Organization Science***, 16: 409–421.

Wharton, A. S. 1993. The affective consequences of service work: Managing emotions on the job. ***Work and Occupations***, 20: 205–232.

White, A. E., Li, Y. J., Griskevicius, V., Neuberg, S. L., & Kenrick, D. T. 2013. Putting all your eggs in one basket: Life-history strategies, bet hedging, and diversification. ***Psychological Science***, 24: 715–722.

Wiengarten, F., Pagell, M., Durach, C. F., & Humphreys, P. 2021. Exploring the performance implications of precarious work. ***Journal of Operations Management***, 67: 926–963.

Wolfson, M. A., & Mathieu, J. E. 2021. Deploying human capital resources: Accentuating effects of situational alignment and social capital resources. ***Academy of Management Journal***, 64: 435–457.

Wooldridge, J. M. 2002. ***Econometric analysis of cross section and panel data***. Cambridge, MA: MIT Press.

World Bank. 2021. Labor force participation rate, female (% of female population ages 15+) (modeled ILO estimate). Retrieved from https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS

Wright, T. A., & Cropanzano, R. 1998. Emotional exhaustion as a predictor of job performance and voluntary turnover. ***Journal of Applied Psychology***, 83: 486–493.

Yzerbyt, V. Y., Muller, D., & Judd, C. M. 2004. Adjusting researchers' approach to adjustment: On the use of covariates when testing interactions. ***Journal of Experimental Social Psychology***, 40: 424–431.

Zheng, B., & Agresti, A. 2000. Summarizing the predictive power of a generalized linear model. ***Statistics in Medicine***, 19: 1771–1781.

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APPENDIX A: MEASURES

Unless otherwise noted, all measures were on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Childhood and Current Financial Standing

(Griskevicius, Delton, et al., 2011; Griskevicius, Tybur, et al., 2011)

My family had enough money to buy things I wanted.

My family didn't worry too much about paying our bills.

I felt relatively wealthy compared to the other kids in my school.

I grew up in a relatively wealthy neighborhood.

I felt relatively wealthy compared to others my age.

I have enough money to buy things I want.

I don't have to worry too much about paying my bills.

I feel relatively wealthy compared to the colleagues in my office.

I live in a relatively wealthy neighborhood.

I feel relatively wealthy compared to others my age.

Job Insecurity

(Hellgren et al., 1999; Vander Elst et al., 2014)

Chances are, I will soon lose my job.

I am sure I can keep my job.

I feel insecure about the future of my job.

I think I might lose my job in the near future.

I am worried about having to leave my job before I would like to.

There is a risk that I will have to leave my present job in the near future.

I feel uneasy about losing my job in the near future.

Sense of Control

(Lachman & Weaver, 1998; Mirowsky & Ross, 1991)

I can do just about anything that I really set my mind to.

Whatever happens in the future mostly depends on me.

When I really want to do something, I usually find a way to succeed at it.

Whether or not I am able to get what I want is in my own hands.

There is no sense planning a lot—if something good is going to happen, it will.

The really good things that happen to me are mostly luck.

I can do anything I really set my mind to.

I am responsible for my own successes.

Exhaustion

(Wharton, 1993)

I feel emotionally drained from my work.

I feel used up at the end of the workday.

I dread getting up in the morning and having to face another day on the job.

I feel burned out from my work.

I feel frustrated by my job.

I feel I'm working too hard on my job.

Job Engagement

(Schaufeli et al., 2006)

At my work, I feel like I'm bursting with energy.

At my job, I feel strong and vigorous.

I am enthusiastic about my job.

My job inspires me.

When I get up in the morning, I feel like going to work.

I feel happy when I am working intensely.

I am proud of the work that I do.

I am immersed in my work.

I get carried away when I am working.

Opportunity Framing

(Jackson & Dutton, 1988; Naidoo, 2016)

I communicated that we need to focus on achieving gains.

I proposed that we need to realize opportunities that the current situation affords.

I communicated that, in the current situation, we need to focus on achieving better results.

I described the current situation as offering avenues for achieving positive outcomes.

I explained that the current situation should be seen as an opportunity for realizing gains.

I highlighted that we need to treat the current situation as an opportunity for achieving better results.

Subordinates Job Loss Risk

(Adapted from Vander Elst et al., 2014)

In case the firm needs to downsize, and I need to make a decision who to let go, I…

… would fire [employee name].

… would discharge [employee name].

… would let go [employee name].

… would lay off [employee name].

Job (In)Security Manipulation

(E.g., Mehta & Zhu, 2016; Mittal & Griskevicius, 2014; Roux et al., 2015)

Over the past few decades, most jobs were impacted by transformative technological, economic, and political developments. As a result, some jobs became more secure while others became more insecure. We are interested to hear about the (in)security of your own job. Using the text box below, please reflect on factors that make your job (in)secure. For example, you could reflect on the nature of your job contract, (un)favorable situation(s) within the industry, (un)favorable situation(s) within the firm, your department, or your team. You may also reflect on your relevant personal characteristics, such as your age or education, or similar other specific factors that (negatively) positively impact the security of your job.