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## More Specific than “Small”: Identifying Key Factors to Account for the Heterogeneity in Stress Findings Among Small Businesses

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### Abstract

Small businesses are dominant in most economies and their owners likely experience high levels of distress. However, we have not fully explored how these common businesses meaningfully differ with respect to the stress process. Understanding the meaningful variations or subgroups (i.e., heterogeneity) in the small business population will advance occupational health psychology, both in research and practice (e.g., Schonfeld, 2017; Stephan, 2018). To systematize these efforts, the author identifies five commonly appearing “heterogeneity factors” from the literature as modifiers of stressors or the stress process among small business owners. These five heterogeneity factors include: owner centrality, individual differences, gender differences, business/ownership type, and time. After synthesizing the research corresponding to each of these five factors, the author offers specific suggestions for identifying and incorporating relevant heterogeneity factors in future investigations of small business owners’ stress. The author closes by discussing implications for advancing occupational health theories.

### Keywords

context, person-situation interaction, heterogeneity, small business, entrepreneurship, self-employment, occupational health, occupational stress, well-being

### Disciplines

Business Administration, Management, and Operations | Entrepreneurial and Small Business Operations | Occupational Health and Industrial Hygiene

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More Specific Than "Small": Identifying Key Factors to Account for  
the Heterogeneity in Stress Findings Among Small Businesses

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### Abstract

Small businesses are dominant in most economies and their owners likely experience high levels of distress. However, we have not fully explored how these common businesses meaningfully differ with respect to the stress process. Understanding the meaningful variations or subgroups (i.e., heterogeneity) in the small business population will advance occupational health psychology, both in research and practice (e.g., Schonfeld, 2017; Stephan, 2018). To systematize these efforts, I identify five commonly appearing "heterogeneity factors" from the literature as modifiers of stressors or the stress process among small business owners. These five heterogeneity factors include: owner centrality, individual differences, gender differences, business/ownership type, and time. After synthesizing the research corresponding to each of these five factors, I offer specific suggestions for identifying and incorporating relevant heterogeneity factors in future investigations of small business owners' stress. I close by discussing implications for advancing occupational health theories.

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I once read somewhere that 'context is everything'. It isn't, and simply naming an organization, describing a site in detail, doing a longitudinal study, or employing hierarchical linear modeling does not constitute a contextual contribution. Rather, these means of fostering context have to be used in a way that adds explanatory value to a manuscript. Perhaps the best question to ask oneself is this: Does the inclusion of this information or the use of this design feature explain the constraints on, or the opportunities for, the phenomenon I am studying? (Johns, 2001, pp. 39–40)

In most industries in the United States (US), small businesses are defined as those having under 500 employees (US Small Business Administration, 2017), and over 99.5% of private businesses in the US meet this criteria (US Bureau of Labor Statistics, 2018). In light of their dominant presence in the US and worldwide, the small business population is frequently noted to be a widely heterogeneous group (e.g., Schonfeld & Mazzola, 2015). However, the need for focused study of the heterogeneity among small business owners is often relegated to calls for future research, including mentions of variety across industries (e.g., Kaldenberg & Becker, 1992), stages of the entrepreneurial process (Shir, Nikolaev, & Wincent, 2019), and work characteristics (Annink, Den Dulk, & Amorós, 2016); or, investigations focus on one or a few such contextual factors at a time (e.g., necessity and opportunity entrepreneurs, Nikolova, 2019; forms of self-employment, Prottas & Thompson, 2006).

Beyond their majority presence, small business owners are also likely to experience high levels occupational stress (e.g., Cardon & Patel, 2015), and business size is generally negatively associated with mental health (Encrenaz et al., 2019). And despite the heterogeneity of this large

group of business owners, only 11% of studies investigating mental health and well-being among entrepreneurs explicitly examine differences in well-being across different "types" of entrepreneurs (Stephan, 2018). A comprehensive understanding of the meaningful subgroups and variations (i.e., heterogeneity) within this population is needed to advance our understanding of small business owners' experiences with their inescapable occupational stress. Therefore, this review synthesizes the occupational stress literature to identify a set of five factors comprising the "heterogeneity" of small business owners' experiences with occupational stress. These five factors, ordered generally from the "micro" to "macro" level, are: (1) owner centrality (i.e., being the owner, and the consistency and importance of owner contributions), (2) individual differences (i.e., internal locus of control, promotion focus, and psychological/human capital), (3) gender differences (i.e., women entrepreneurs experience higher non-work demands; social support and business resources are more salient to women entrepreneurs; and potential confounds of gender differences), (4) business/ownership type (i.e., entrepreneurship vs. small business ownership vs. self-employment; necessity versus opportunity entrepreneurship; family ownership and family employees; the presence of human resources and business size; and the business' industry), and (5) time (i.e., short- vs. long-term orientation; business phase and duration of self-employment; and new vs. serial entrepreneurs). Understanding the meaningful dimensions of the small business owner population can move occupational health psychology research forward (e.g., Schonfeld, 2017; Stephan, 2018). This work extends on the concept of the "small business construct" proposed by Cunningham, Sinclair, and Schulte (2014) to derive a version of this "construct," or heterogeneity factors, based on a review of occupational health research on the small business owner population.

This approach will identify promising avenues for future research on how particular forms of heterogeneity in the small business population impact particular stressors or portions of the stress process. Failing to examine these contextual factors or treating them as issues to be controlled can ignore vital information about how organizations function (Johns, 2001). Instead, examining context can strengthen both entrepreneurship (Zahra, 2007) and occupational health psychology research (Schonfeld, 2017; Stephan, 2018). In the spirit of Johns (2001), my goal is not to identify an exhaustive list of contextual factors, but rather those that specifically and commonly affect stress within the small business population.

Before reviewing the literature, one clarification is merited: the distinction between small business owners, entrepreneurs, and self-employed workers appears to be an important one with respect to occupational health research. Indeed, it appears in the list of identified heterogeneity factors in this paper's proposed framework. However, for accuracy's sake, I do maintain the terms used by each source wherever possible (as also done by Stephan, 2018). In the following sections, I synthesize research on five commonly appearing "heterogeneity factors," as listed above, in the small business occupational health literature. These results are also summarized in Tables 1-5, where I further divide the reviewed literature into two main parts, tailored to this literature: stressors (with subcategories for job demands and financial stressors) and the stress process (including subcategories for appraisals and coping, job control and autonomy, and sources of support).

#### KEY FACTORS AFFECTING STRESS AMONG SMALL BUSINESS OWNERS

In reviewing this literature, I identified five common factors impacting the stress process; these appear to be the most promising factors for capturing the heterogeneity in the stressor and stress process in small businesses. In the following sections, I'll briefly summarize patterns in the

findings regarding each factor. Tables 1-5 provide a different perspective, presenting the findings according to their placement in the stressor and stress categories described above, thereby making these tables a useful tool in designing future small business research to account for appropriate (i.e., relevant and important) heterogeneity factors.

### Owner Centrality

One way of conceptualizing small business ownership is by seeing the individual owner(s) as central to, and potentially synonymous with, the business. Small business owners are typically highly involved in the decision-making and operations of the company, and can thus be viewed as "shaping" each other (Gloss, Pollack, & Ward, 2017; Kariv, 2008; Morris, Kuratko, Schindehutte, & Spivack, 2012). In the literature, this concept of role centrality has been explored as one's straightforward status as the owner and as the necessary consistency of owner contributions.

### Being the Owner

As shown in Table 1, one's status as the small business owner, an entrepreneur, or as a self-employed worker is associated with an increased level and importance of role overload. Generally, role overload is argued to be more important than other types of role stressors among entrepreneurs (Harris, Saltstone, & Fraboni, 1999), and it can lead to varied negative outcomes – including fewer sick days (D Eden, 1973), fewer doctor visits (Lewin-Epstein & Yuchtman-Yaar, 1991), and lower chances of implementing health programming in one's small business (Cunningham et al., 2014). These results seem common despite the fact that owners can, in theory, manage their role overload given that they are in charge of establishing their own work roles (Harris et al., 1999). Being the founder of a business is by contrast associated with one

positive outcome, by way of mitigating the effects of rumination about injustice on emotional exhaustion (Soenen, Eib, & Torrès, 2019).

### Consistency and Importance of Owner Contributions

Another framing of owner centrality is the importance and necessary consistency of owners' contributions. Considering owner centrality may explain the absence of strong gain spirals in small business stress research: it may appear that relatively little is gained when the owner cannot discontinue their work involvement for long (Dijkhuizen, Gorgievski, Veldhoven, & Schalk, 2016). Role centrality in general is positively associated with both emotion-based and problem-based coping. However, moderation effects also show that lower role centrality combined with a larger founding team is associated with more emotion-based coping (Drnovsek, Örtqvist, & Wincent, 2010), suggesting that role centrality is generally associated with the more effective problem-focused coping. However, owners may also experience "competing" centrality from other life domains, such as a parenting role, and find that such roles cannot be easily substituted (Kim & Ling, 2001). Other potential downsides to this centrality of the individual owner to the business include the possibility of experiencing overcommitment (Wolfe & Patel, 2019b), which is suggested specifically by the effort-reward imbalance model to enhance negative outcomes of stress (Siegrist, 1996).

### Individual Differences

Owners' personal characteristics may be particularly critical given that the individual is so central to small businesses' success (e.g., Kariv, 2008). Interestingly, the characteristics investigated are generally "positive" traits, with common findings on internal locus of control and autonomy, a promotion-oriented regulatory focus, and psychological and human capital. There is only one notable exception to this pattern, with findings suggesting stronger loss spirals

experienced by owners with higher baseline psychological distress levels, regardless of their objective financial status (Gorgievski, Bakker, Schaufeli, van der Veen, & Giesen, 2010). The overall emphasis on positive traits is a stark contrast to the literature which otherwise emphasizes the stronger relative impact of negative workplace features, such as job demands over job control (Encrenaz et al., 2019). In general, small business owners tend to be framed as individuals who cope well in the face of adverse working conditions; but the positive slant of this literature may potentially miss other traits – e.g., psychological distress levels – that could be strong predictors or moderators of the stress process.

#### Internal Locus of Control and Autonomy

Internal locus of control among small business owners is associated with better coping strategies (Anderson, 1976) and learning from prior business failures (Yamakawa & Cardon, 2015), as well as a lower need for social support (Rahim, 1996) or higher perceived levels of social support (Yue Wah Chay, 1993). Several sources suggest that the related construct of autonomy is the key factor predicting higher well-being (Shir et al., 2019), offsetting otherwise-stressful reasons for entering small business ownership (Kibler, Wincent, Kautonen, Cacciotti, & Obschonka, 2019), and for explaining increased job satisfaction among self-employed workers – to the exclusion of other individual differences (Lange, 2012).

However, there are some caveats to keep in mind: researchers find that the related constructs of confidence (corresponding to internal locus of control) and engagement (a correlate of autonomy) may be built up over years of ownership experience (Annink & den Dulk, 2012), and these variables could be range-restricted in the population of entrepreneurs (Bujacz, Bernhard-Oettel, Rigotti, & Lindfors, 2017; Dijkhuizen, Gorgievski, et al., 2016). Such attraction-selection-attrition (ASA; Schneider, 1987) effects could bias the literature's findings

towards overrepresenting the traits of *successful* entrepreneurs; indeed, small business owners' successes can serve to reinforce an internal locus of control (Anderson, 1976). In one final caveat, autonomy may also need to be relinquished at times when the company is experiencing financial troubles (Gelderen, 2016), but on the other hand, psychological ownership does predict persistence in such circumstances (Zhu, Hsu, Burmeister-Lamp, & Fan, 2018).

### Promotion Focus

A promotion-oriented regulatory focus, as opposed to a prevention-oriented focus, is positively associated with entrepreneurs' levels of business networking (Pollack, Forster, Johnson, Coy, & Molden, 2015), business success (Hmieleski & Baron, 2008; Pollack et al., 2015), and the likelihood of founding multiple businesses (Simmons, Carr, Hsu, & Shu, 2016). As shown with internal locus of control, a few related constructs may be considered similar to promotion-oriented focus: many sources (e.g., Bradley & Roberts, 2004; Cardon & Patel, 2015; Eager, Grant, & Maritz, 2015; Stephan, 2018; Teoh & Foo, 1997; Wincent & Örtqvist, 2009) suggest that the tendency to make challenge appraisals, along with related characteristics like high levels of need for achievement, positive affect, tolerance for ambiguity, risk-taking, proactivity, future orientation, and passion – all of which might be associated with tendencies toward challenge appraisals – correlate with better well-being among entrepreneurs.

### Psychological and Human Capital

Last, the literature highlights positive associations between psychological capital levels among entrepreneurs and perceptions of resource adequacy (Worthington & Kasouf, 2018), work engagement (Laguna & Razmus, 2019; Laguna, Razmus, & Żaliński, 2017), and business success (Laguna & Razmus, 2019). Human capital levels among entrepreneurs are likewise positively associated with ability to manage work demands (Levasseur et al., 2019; Murnieks et

al., 2019; Stephan, 2018) and business success (Dijkhuizen, Gorgievski, Veldhoven, & Schalk, 2018). There is also a negative association between entrepreneurs' psychological capital and stress (Baron, Franklin, & Hmieleski, 2016). A number of these findings specifically underscore the importance of considering the personal traits of the small business owner as they are so central to – and directly associated with – the success of the overall small business.

### Gender

A few findings note no gender differences in some aspects of the stress process, including reported levels of role overload (Kariv, 2008) and job control (Parslow et al., 2004).

Additionally, Carland and Carland (1991) found no differences between men and women entrepreneurs on "traditional" entrepreneurial traits of preference for innovation, propensity for risk taking, and need for achievement. And a few suggest findings in "favor" of self-employed women compared to self-employed men, such as reporting more manageable job demands (Parslow et al., 2004) and experiencing less negative effects after obtaining a microloan (Bhuiyan & Ivlevs, 2019).

### Gender Differences in Non-Work Influences

But the majority of the evidence with respect to small business owners' gender indicates that women entrepreneurs experience more demands and influence from non-work domains. For example, women entrepreneurs experience higher time commitments to family (Parasuraman, Purohit, Godshalk, & Beutell, 1996), and higher family-to-work interference (Loscocco, 1997) than men entrepreneurs. Women entrepreneurs also experience higher role conflict compared to both men entrepreneurs (Kariv, 2008) and organizationally-employed women (D Eden, 1973). Such conflicts or the desire for work-family balance are associated with both entering and exiting self-employment among women (e.g., Breen, 2010; Hundley, 2000; Sardeshmukh, Goldsby, &

Smith, 2019), with the autonomy of self-employment considered as the key factor enabling women to effectively manage role conflict (Parasuraman et al., 1996).

#### Gender Differences in Social Support and Resource Salience

Findings also suggest that social support and business resources are more salient to women entrepreneurs compared to men entrepreneurs. Women entrepreneurs appraise low social support during business launch as more stressful than do men entrepreneurs (Chadwick & Raver, 2019); and women receiving high social support experience higher levels of profits (Kariv, 2008). High financial needs (Chadwick & Raver, 2019) as well as fundraising difficulties and lacking management experience (Heilbrunn, 2004) are also appraised as more stressful by women entrepreneurs, even in cases where women have equivalent educational backgrounds as men (Heilbrunn, 2004).

#### Gender's Potential Confounds

A few studies conceptualize owners' gender differences with more nuance, and thus suggest a number of other variables – beyond gender alone – that affect stressors and stress. For example, Patrick et al. (2016) found that the necessity-opportunity distinction among women entrepreneurs mirrored marital status, with opportunity entrepreneurship corresponding to being single. This finding suggests that the phenomenon of entering self-employment for the sake of reducing work-life conflict (e.g., Breen, 2010; Hundley, 2000; Sardeshmukh, Goldsby, & Smith, 2019) could be limited to women entrepreneurs who are married. Potentially reflecting the same heightened need for work-family balance only among married entrepreneurs, other findings show that women entrepreneurs only work more hours than men when they live alone (Georgellis & Yusuf, 2016). Likewise, the owner's status as a parent or provider impacts self-employed workers' perceived ability to manage a business (Loscocco, 1997) and their ability to effectively

cope with job demands (Kim & Ling, 2001). Providing a slightly different "confound" to consider, job characteristics and demographic factors explain the difference in work-family conflict between self-employed and organizationally-employed women (Tuttle & Garr, 2009). We should also consider evidence that self-employed women's businesses are often concentrated in particular industries (e.g., service) and may be smaller sized on average (Heilbrunn, 2004; Loscocco & Leicht, 1993). All of these "third" variables in the gender-stress relation suggest more precise reasons – e.g., marital status, parental status, job characteristics, industry differences, and/or business size – for the differences in stress experienced by men and women business owners.

#### Business/Ownership Type

Small business ownership comes in many different "types" that have an impact on the stress process. These include the "type" of small business ownership (e.g., entrepreneur vs. self-employed); owning a small business out of necessity versus opportunity; being family-owned or having family member employees; having *any* employees and human resources structures; the size of the business; and its industry.

#### "Types" of Ownership – Small Business Owners, Entrepreneurs, and Being Self-Employed.

Several sources find differences by directly comparing these ownership types. First, entrepreneurs are reported to experience lower or equivalent role overload, ambiguity, and conflict compared to managers (Rahim, 1996; Tetrick, Slack, Da Silva, & Sinclair, 2000), as well as lower levels of excessive working than employees (Dijkhuizen, Veldhoven, & Schalk, 2016). Entrepreneurs also report higher levels of entrepreneurial traits compared to managers (Carland & Carland, 1991). However, entrepreneurs appear to have less strong advantage when compared to employees with high autonomy (Hundley, 2001) and they also report lower levels of social

support than managers (Rahim, 1996). The latter finding is also true among both small business owners (Tetrick et al., 2000), and the self-employed (Eden, 1975).

By contrast, though, the literature generally paints a more distressed picture of self-employed workers than that of entrepreneurs. Compared to employees, self-employed workers are more likely to work excessively (Gorgievski, Bakker, Schaufeli, et al., 2010) and they report higher involvement (Parasuraman & Simmers, 2001), engagement (Gorgievski, Bakker, Schaufeli, et al., 2010), commitment (Thompson, Kopelman, & Schriesheim, 1992), and worry (D Eden, 1973). As noted before, engagement can lead to overcommitment (Wolfe & Patel, 2019b). Of course, there are variations in this general pattern of findings – as examples, one source found no differences in job involvement levels between self-employed workers to employees (Thompson et al., 1992), and sleep is surprisingly better on average among the self-employed compared to the organizationally-employed (Wolfe & Patel, 2019a). But the broader pattern of these results suggest a key contrast between self-employment and entrepreneurship with respect to work involvement, potential overcommitment, and worry. Overall, entrepreneurs appear immune to some of the job demands and overcommitment effects experienced by self-employed workers.

However, the three groups all experience lower levels of social support compared to managers, but recall that research on individual differences suggest a possibly reduced need for social support when entrepreneurs' internal locus of control is high (Rahim, 1996). By contrast, though, research on gender differences suggested that social support is more salient among women entrepreneurs (e.g., Chadwick & Raver, 2019). Therefore, there could be complex interactions across these factors of heterogeneity (e.g., ownership type  $\times$  individual difference  $\times$  gender) with regard to social support's effects on stress.

### Necessity Versus Opportunity Entrepreneurship

Findings here suggest that, while role demands, overload, and ambiguity remain relevant to both necessity and opportunity entrepreneurs (Wincent & Örtqvist, 2006), opportunity entrepreneurs are more likely to experience higher work-life balance (Annink & den Dulk, 2012) and job satisfaction (Larsson & Thulin, 2019) upon starting a business venture. It has been suggested that this distinction also predicts increases in job satisfaction among entrepreneurs over and beyond increased autonomy (Nikolova, 2019; Stephan, 2018). But by contrast, this variable may be a confound among women entrepreneurs: as noted by Patrick et al. (2016), this distinction mirrors marital status among women. And if we frame Gloss et al.'s (2017) investigation of personal and regional socioeconomic status as a representation of necessity and opportunity entrepreneurship, then we also see a reduced preference for risk-taking among necessity entrepreneurs.

### Family Ownership and Family Employees

Working with family members appears to have generally positive or neutral effects, despite expectations of the opposite (e.g., Beehr, Drexler, & Faulkner, 1997). Although working with family can impose relatively flexible and permeable role boundaries (Li, Miao, Zhao, & Lehto, 2013), this flexibility can enhance social support and reduce resource drain, given that each role is less exclusively uses one's resources (Halbesleben & Wheeler, 2007). Indeed, in an empirical comparison of family and non-family businesses, Beehr et al. (1997) found no differences in work-family conflict. There may also be a wider range of non-economic benefits for family employees (e.g., a shared identity), in addition to economic benefits like opportunities for advancement (Beehr et al., 1997; Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007). However, it is of note that family employees can face increased job

demands through a higher pressure to perform well, compared to non-family employees (Beehr et al., 1997).

#### Presence of Human Resources and Business Size

Although the presence of a human resources department is presumably a lacking source of support in many small businesses (Schonfeld & Mazzola, 2015), self-employed workers with employees actually report increased job demands compared to those working solo (Hessels, Rietveld, & van der Zwan, 2017). This finding appears to be at odds with research suggesting that lacking social support is a common stressor in small businesses (Akande, 1994; Grant & Ferris, 2012; Schonfeld, 2017), but might more specifically reflect the increased importance of *harmonious* working relationships and supportive cultures in smaller organizations (Akande, 1994; Dandridge, 1979; Grant & Ferris, 2012; Gray, Densten, & Sarros, 2003; Lai, Saridakis, & Blackburn, 2015; Nicolescu & Nicolescu, 2009). Indeed, in small companies, good working relationships more strongly predict decreased stress (Lai et al., 2015), so the presence of any employees – as opposed to effective, and thus supportive employees – may be a key distinction for understanding the surprising stress of having employees as a small business owner. This finding may also reflect the general quantitative role overload (Lai et al., 2015), psychological demand (Encrenaz et al., 2019), and need for efficiency (Cunningham et al., 2014; Dandridge, 1979) required in smaller companies. Small business owners may experience employees as contributors to their role overload.

One final consideration with respect to business size is that women entrepreneurs may, on average, operate smaller businesses (Heilbrunn, 2004; Loscocco & Leicht, 1993). Therefore, in addition to their other stressors of higher role conflict (e.g., Loscocco, 1997; Parasuraman et al., 1996) and a heightened importance of social support (e.g., Chadwick & Raver, 2019), women

entrepreneurs – by merit of operating smaller businesses – may be more likely to directly experience the stressful interpersonal relationships and/or role overload that accompanies hiring employees.

### Industry

A handful of sources suggest that industry differences can impact autonomy (Annink & den Dulk, 2012), the effectiveness of a promotion-oriented focus ((Hmieleski & Baron, 2008), and the relative presence of women entrepreneurs (Heilbrunn, 2004; Loscocco & Leicht, 1993). However, relatively few sources consider this factor, and it may merit more attention given its associations with the other individual and gender differences reviewed.

### Time

Like the "types" of business ownership, elements of time also appear in a various ways in the literature, including distinctions between short- and long-term orientation, the business phase or duration of one's self-employment, and one's status as either a serial or new entrepreneur.

### Short- Versus Long-Term Orientation

Examining this element of time has highlighted key distinctions in the duration of stressors and gains experienced by the self-employed and entrepreneurs. These observations include short-term spikes in job satisfaction (Georgellis & Yusuf, 2016) and life satisfaction (van der Zwan, Hessels, & Rietveld, 2016), as well as short-lived resource gains compared to loss spirals (Dijkhuizen et al., 2018; Laguna et al., 2017). Business owners may also need to endure short-term losses of autonomy, depending on business conditions (Gelderen, 2016).

Considering time also yields helpful recommendations for effective coping. For example, emotion-focused coping is helpful immediately, while problem-focused coping is helpful in the longer-term among entrepreneurs (Sánchez-García, Vargas-Morúa, & Hernández-Sánchez,

2018). This consideration also introduces a suggestion for *proactive coping*, which may be common among entrepreneurs. This coping strategy involves building up excess resources in anticipation of future stressors, as opposed to current ones (Eager et al., 2015). In general, these sources point to the importance of measuring phenomena over time, but also considering the long-term preparation for and response to stressors experienced by small business owners.

#### Business Phase and Duration of Self-Employment

During the start-up phase, self-employed workers may be more likely to make challenge appraisals (Bradley & Roberts, 2004), and these appraisals have a positive impact on personal attitude and control then (Nabi & Liñán, 2013). But owners may also experience more challenges to and limitations on their autonomy particularly when starting or growing the company (Geldereren, 2016).

Additionally, as noted previously, women entrepreneurs are more likely to appraise low social support and financial resources as particularly stressful during this phase (Chadwick & Raver, 2019), and starting self-employment in the first place is generally appraised as more feasible before having children or when children are older (Loscocco, 1997). On a similar note, women entrepreneurs experiencing work-family conflict are more likely to exit self-employment (Sardeshmukh et al., 2019). However, women who remain in self-employment are noted to gain the resource of confidence by merit of their years of experience (Annink & den Dulk, 2012).

The duration of one's self-employment may be considered stressful in itself, given that this variable is positively associated with allostatic load. However, to the extent that the self-employed worker uses problem-focused coping, the relationship between duration of self-employment and allostatic load is suppressed (Patel, Wolfe, & Williams, 2019).

#### New Versus Serial Entrepreneurs

In a variation on longer-term business ownership, we should also consider potential differences between new and serial business owners. Notably, the three factors of role overload, ambiguity, and conflict did not differ between these two groups (Wincent & Örtqvist, 2006). But in general, it appears that entrepreneurs learn from prior negative business experiences (Lafuente, Vaillant, Vendrell-Herrero, & Gomes, 2019), which could be conceptualized as a resource among serial entrepreneurs. What may help with this learning process, somewhat surprisingly, is emotion-based coping (Drnovsek et al., 2010; Shepherd, Wiklund, & Haynie, 2009). However, there also appear to be individual differences: a promotion focus is associated with higher levels of serial entrepreneurship (Simmons et al., 2016). By contrast, the "fit" between a prevention-focused entrepreneur and business failure is associated with a lower likelihood of serial entrepreneurship (Simmons et al., 2016).

#### DISCUSSION AND RECOMMENDATIONS

The heterogeneity factors identified here – owner centrality, individual differences, gender, types of businesses and ownerships, and time – are intended as guidelines for a more widely organized consideration of what factors might, as Johns notes, "explain the constraints on, or the opportunities for, the phenomenon" (Johns, 2001, p. 40) of stress as experienced by small business owners. However, depending on the stress model, different "heterogeneity factors" should be considered. Tables 1-5 are intended as signposts, suggesting the specific factors most likely to explain variability in the stress process, depending on the model or theory of stress in use. For example, if a researcher is focusing on job demands – perhaps through the job demands-control model (Karasek, 1979) or role theory (e.g., Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) – then role centrality could impact the observed stress process specifically through the operationalizations of entrepreneur, self-employed, or small business owner status

(see Table 1). Meanwhile, it appears rare that job demands are impacted directly by individual differences (see Table 2). Likewise, Tables 3-5 provide specific operationalizations of gender differences, business/ownership type differences, and time differences that have been shown to impact job demands. These factors should be considered for inclusion in one's model to achieve a more complete portrait of job demands as stressors in small businesses.

The same logic could be applied to investigations using the conservation of resources (COR) framework (Hobfoll, 1989), including its gain and loss spirals, or Lazarus and Folkman's (1984) transactional model, including its problem- and emotion-focused types of coping. These models could benefit primarily from examining the findings relating to financial stressors as well as those relating to appraisals and coping, shown in the corresponding section of Tables 1-5. And, last, when using job demands-control (Karasek, 1979), job-demands resources (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), or job demands-control-support (JDCS; Karasek & Theorell, 1990) should consider including factors listed in the job control and autonomy and/or support sections of Tables 1-5, along with the factors corresponding to job demands.

However, Not Every Factor Will Matter Every Time:

#### Consider Relative Importance

As Johns (2006) noted, context *isn't* everything; rather, we should be intentional in choosing the contextual factors that we investigate for particular phenomena. For example, studying the effect of gender on role overload (see Table 3) or family business ownership on role conflict (see Table 4) appears, based on present evidence, to be fruitless. Instead, studying gender's nuanced impact (e.g., along with marital status) on role conflict (see Table 3) or the experiences of family employees with respect to pressure to perform (see Table 4) directs us to significant and meaningful differences within the heterogeneous small business owner

population. Of course, it is important to strike the right balance and incorporate an appropriate level of complexity into one's model: it is unlikely that any stress process is affected by only one heterogeneity variable. Even within the context of a small business, where the owner is dominant, there is still a wide variety of other contextual factors to consider (Cunningham et al., 2014). Tables 1-5 provide an organized view of these factors.

Given such a large number of heterogeneity factors to potentially take into account, I highlight a few general suggestions on which factors appear relatively more important for small business owners' stress. Within this literature, there are several indications of a "negativity bias" (cf. Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). For example, demand has a three times stronger relationship with stress than does control (Encrenaz et al., 2019), strain more strongly predicts entrepreneurs' success than does engagement (Dijkhuizen, Gorgievski, et al., 2016), and quantitative role overload is a stronger predictor of entrepreneurs' stress than role ambiguity (Harris et al., 1999) or qualitative role overload (Lai et al., 2015). Similarly, the stronger association of good work relationships with decreased stress in small companies (Lai et al., 2015) can imply that the negative effects of interpersonal conflict may be relatively more important in this context. In a different example of this negativity bias, the necessity-opportunity distinction may more strongly predict increased job satisfaction among entrepreneurs than increases in autonomy (Nikolova, 2019; Stephan, 2018).

Although factors like control and autonomy are commonly noted for their relevance to small business ownership (e.g., Stephan, 2018), and, as noted in the review, the majority of individual differences investigated in this area of research are positive ones, it appears that negative experiences still remain the stronger factor in stress experiences in this context. This may indicate a needed shift in the area of individual difference research towards the study of

distress among small business owners (cf. Gorgievski, Bakker, Schaufeli, et al., 2010). This pattern of findings supports a continued and increased use of theories that foreground demands and financial stressors. Other areas of small business research do seem to reflect this pattern already, such as the relatively large amount of research on entrepreneurs' work-family conflict compared to their work-family enrichment (Stephan, 2018).

#### Highlighted Theoretical Implications

Purposely incorporating these "heterogeneity factors" will not only better our applied understanding of small business owners' stress, but can also contribute to the improvement of our theories' generalizability to the small business population. For example, recall that self-employed individuals with employees reported higher job demands than those without employees (Hessels et al., 2017). This suggests that the social dynamics in a small business demand more attention from owners, as opposed to providing them with support. The absence of support felt from a typical or expected source – i.e., one's employees – suggests that some predictions regarding social support could be less relevant in the small business context. Therefore, theories incorporating support (e.g., JDCS, COR) in particular may be refined through the continued application of their propositions to the small business context.

In another example, the two-factor model of problem- and emotion-focused coping proposed by Lazarus and Folkman (1984) appears to hold up in investigating small business owners' stress experiences. However, the types of coping may need extension for adequate study among small business owners: Eager et al. (2015) suggest that a third type of coping called proactive coping – i.e., building up resources for later stressors – is common among entrepreneurs. Interestingly, this type of coping is at odds with the transactional model of stress (Lazarus & Folkman, 1984), which predicts that stress and coping result from reactive appraisals

of stressors in the environment. This leaves an open question regarding what triggers this proactive type of coping among entrepreneurs. In order to study small business owners' coping fully, then, the transactional model would require modifications. On the other hand, the transactional model does capture a key distinction observed among entrepreneurs compared to other workers: they appraise role overload as a challenge instead of a hindrance (Eager et al., 2015; Stephan, 2018), especially in the business launch phase (Bradley & Roberts, 2004).

And other types of appraisals – such as internal attributions about past business failures (Yamakawa & Cardon, 2015) – appear to help small business owners revert losses into gains. This represents another interesting theoretical twist observed among small business owners, of the ability to reverse the direction of a possible loss spiral, as suggested by COR (Hobfoll, 1989). For example, entrepreneurs learn from prior negative entrepreneurship experiences (Lafuente et al., 2019). On the other hand, though, entrepreneurs do not typically experience strong gain spirals, either, perhaps by merit of their role centrality (Dijkhuizen, Gorgievski, et al., 2016; Laguna & Razmus, 2019). While weak gain spirals are commonly found with COR, the prevention of loss spirals could be a more uniquely entrepreneurial phenomena to incorporate into the COR framework.

#### Ruling Out Confounds and Alternative Explanations

One additional benefit of incorporating multiple, appropriate heterogeneity factors will be the ability to refine our understanding of interactive and/or confounding effects. As noted, a number of factors – particularly in investigations of gender differences (see Table 3) – may overlap. For example, women entrepreneurs may operate smaller-sized businesses on average, and disproportionately in certain industries (Heilbrunn, 2004; Loscocco & Leicht, 1993).

More generally, it is also critical to consider construct and measurement validity when using measures developed in non-small business contexts. Investigators have established the relevance of existing factor structures in some cases, such as with role overload, conflict, and ambiguity (Wincent & Örtqvist, 2006). But in the case of entrepreneurial orientation, researchers failed to support measurement equivalence among subgroups of entrepreneurs (Gloss et al., 2017). Grounded approaches to developing constructs and measures specific to the small business context (e.g., Grant & Ferris, 2012) will also help triangulate the reality of stress experiences in small businesses and rule out confounding measurement issues.

On a broader note, exploring these heterogeneity factors in more systematic fashion can also help narrow down what stress experiences are truly unique to the small business population, compared to owners of large businesses and workers in general. This can of course occur in part through more intentional comparisons between groups of small business owners and other types of workers (e.g., see Table 4), but this will also occur through the study of the other heterogeneity factors. For example, could some of the gender differences in the stress process in the small business setting extrapolate to all female non-owner managers, or to all female employees? Organizing our findings according to this framework of small business heterogeneity can thus contribute to a broader understanding of all workers' stress experiences. Doing so could also help determine similar boundary conditions of occupational health research in emerging work arrangements, such as the digital gig economy. For example, recent research (Churchill & Craig, in press) suggests gender differences in the gig economy similar to those in small businesses, in both the types of gig industries that men and women work in (Heilbrunn, 2004; Loscocco & Leicht, 1993) as well as women entering gig work in part for the flexibility (cf. Breen, 2010; Hundley, 2000).

### Consider Attraction-Selection-Attrition (ASA)

Last, with the goal of investigating heterogeneity in small business owners' experiences of stress, it is crucial to consider the impact of attraction-selection-attrition (ASA), which generally serves to reduce heterogeneity among people within a given work setting (Schneider, 1987). Such range restriction could make it difficult to fully investigate the small business population's heterogeneity. Additionally, it's likely that instead of these contextual differences in small businesses only impacting the stress process, the reverse also happens, with the stress process within the small business setting shaping the heterogeneity of small business owners and their companies that are available for investigation (cf. Morris et al., 2012).

Applications of ASA to entrepreneurship research often focus on what features might attract people to entrepreneurship, such as a preference for autonomy and high levels of risk tolerance (e.g., Douglas & Shepherd, 2002). More generally, people with initial resources (e.g., a home, an education, many social ties, an inheritance, healthy, married) are more likely to start and maintain businesses (Atherton, Wu, & Wu, 2018; Bates, 1990; Parker & Belghitar, 2006; Pollack, Vanepps, & Hayes, 2012; Taylor, 2001). In parallel, lacking startup capital may explain low self-employment rates among minority ethnicities as well as women in the US (Blanchflower, 2004). Other common features – like lacking health benefits – may result in a particular pool of workers who can feasibly work in a small business (Brawley & Pury, 2017). And broader trends in family structures may impact small business entry, but in varied ways: smaller nuclear families and the increase in working women and teens may result in fewer financial and human resources for a family-owned business, but the growth of blended families could enhance such resource availability (Aldrich & Cliff, 2003). While these findings are suggestive of gain and loss spirals per COR, we must also consider whether findings at large

overrepresent successful entrepreneurs, and whether the characteristics we observe are a product instead of a cause of entrepreneurship (Low & MacMillan, 1988). For example, lower stress among small business owners could be explained by attrition: only successful owners continue as entrepreneurs (Baron et al., 2016). Characteristics observed among entrepreneurs could also be range restricted. For example, engagement may be range restricted among entrepreneurs (Bujacz et al., 2017; Dijkhuizen, Gorgievski, et al., 2016); and good performance can reinforce an internal locus of control among business owners (Anderson, 1976).

This poses many questions then about this literature. For example, with range restriction, are significant findings understated? Conversely, are nonsignificant findings merely an effect of range restriction? With the potential increased chance of nonsignificant regarding the heterogeneity among this population, this approach to organizing our literature may also be particularly prone to publication bias and the file drawer problem (Rosenthal, 1979). One solution to this is, along with intentionally incorporating heterogeneity factors, intentionally considering the impact of ASA on specific future studies.

A few studies have more directly tested ASA among entrepreneurs. First, longitudinal findings show that individual health precedes self-employment, instead of the reverse (Rietveld, van Kippersluis, & Thurik, 2015). Second, assuming that age implies longer-term effects of ASA, Baron et al. (2016) found that age strengthened the negative association of psychological capital and stress among entrepreneurs. More broadly conceptualizing entrepreneurship as goal pursuit, empirical results support promotion-focused entrepreneurs as more likely to found subsequent businesses than prevention-focused entrepreneurs (Simmons et al., 2016). Furthermore, the "fit" between a prevention-focused entrepreneur and a distress exit resulted in further diminished intentions to found another business (Simmons et al., 2016). Several

researchers find that women report work-family balance as a motivation for entering or exiting self-employment (e.g., Breen, 2010; Hundley, 2000; Sardeshmukh, Goldsby, & Smith, 2019). But these findings should also be considered in light of broader effects of ASA: self-employed women may be concentrated in particular industries (e.g., service) and operate smaller businesses on average (Heilbrunn, 2004; Loscocco & Leicht, 1993). Perhaps operating within these industries and in smaller businesses increases work demands, and therefore work-family conflict, which might not otherwise impact womens' choices to exit self-employment. Intentionally considering ASA – perhaps by way of incorporating heterogeneity factors into future studies in this area – will enhance the accuracy of our understanding of the stress process among small business owners.

### Conclusion

This work's five-factor structure of heterogeneity impacting small business owners' stress experiences is intended to provide an organized way to advance our understanding of these phenomena. While not every element of heterogeneity will apply to a given owner, business, or study, this structure does provide a way to more intentionally choose the factors that help us explain the contextual differences – or lack thereof – affecting stress as it is experienced across the large population of small business owners.

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Table 1.

*Summary of Findings on Factor 1: Owner Centrality*

Operationalizations of Factor 1: Owner Centrality		Observations Related to Job Demands
Entrepreneur status		Role overload may be a more important predictor of entrepreneurs' stress levels than role ambiguity (Harris et al., 1999)
Self-employment status		Role overload can lead to a lower likelihood to visit a physician (Lewin-Epstein & Yuchtman-Yaar, 1991)
Self-employment status		Role overload can lead to a lower chance of taking sick days (D Eden, 1973)
Small business owner status		Role overload can lead to a lower chance of implementing workplace health programming (Cunningham et al., 2014)
		Observations Related to Financial Stressors
Consistency/importance of owner contributions		The absence of strong gain spirals may reflect the reality that entrepreneurs must consistently contribute to their organizations' functioning (Dijkhuizen, Gorgievski, et al., 2016)
		Observations Related to Appraisals and Coping
Owner's role centrality		Role centrality positively predicts both emotion- and problem-focused coping (Drnovsek et al., 2010)
Owner's role centrality, founding team size		Role centrality interacts with founding team size, such that low centrality and larger founding team size is associated with more emotion-based coping (Drnovsek et al., 2010)
Founder status		Rumination about injustice is associated with emotional exhaustion among entrepreneurs, but this is attenuated among founders, compared to non-founders (Soenen et al., 2019)
		Observations Related to Job Control and Autonomy
Consistency/importance of owner contributions		Overcommitment unfortunately appears to be especially relevant to small business owners, as they are highly involved in the operations and survival of the business (Wolfe & Patel, 2019b)
		Observations Related to Sources of Support
Owner centrality – to family as well as business		Housework support (e.g., hiring a cleaner) was reported to be helpful, while women's roles as parents could not be as easily substituted (Kim & Ling, 2001)

Table 2.

*Summary of Findings on Factor 2: Individual Differences*

Operationalizations of Factor 2: Individual Differences		Observations Related to Job Demands
Entrepreneurs' levels of sleep		Sleep enhances entrepreneurs' abilities to manage demands (Levasseur et al., 2019; Murnieks et al., 2019)
		Observations Related to Financial Stressors
Baseline psychological distress levels		Higher psychological distress was experienced by owners with higher baseline distress levels, regardless of their objective financial status (Gorgievski, Bakker, Schaufeli, et al., 2010)
		Observations Related to Appraisals and Coping
Internal locus of control		An internal locus of control relates to higher levels of problem-focused coping, lower levels of emotion-focused coping, and lower stress among small business owner-managers (Anderson, 1976)
Tendency to make challenge appraisals (and related individual differences)		Several sources (e.g., Bradley & Roberts, 2004; Cardon & Patel, 2015; Eager, Grant, & Maritz, 2015; Stephan, 2018; Teoh & Foo, 1997; Wincent & Örtqvist, 2009) suggest that the tendency to make challenge appraisals, along with a host of personal characteristics – such as internal locus of control, high levels of need for achievement, positive affect, tolerance for ambiguity, self-efficacy, risk-taking, proactivity, future orientation, and passion, which may be associated with tendencies toward challenge appraisals – correlate with better well-being among entrepreneurs
Preference for innovation, propensity for risk taking, need for achievement		Managers showed significantly higher scores than managers on "traditional" entrepreneurial traits (listed at left) (Carland & Carland, 1991)
Positive orientation, engagement		Positive orientation, engagement, and success are positively associated among entrepreneurs (Laguna & Razmus, 2019)
Self-efficacy, positive affect, engagement		Self-efficacy, positive affect, and work engagement are positively associated among entrepreneurs (Laguna et al., 2017)
Well-being		Well-being and financial performance are positively associated among entrepreneurs (Dijkhuizen et al., 2018)

Psychological capital	Psychological capital may enhance perceptions of resource adequacy among entrepreneurs (Worthington & Kasouf, 2018)
Entrepreneurs' internal attributions	Entrepreneurs learn more from prior negative entrepreneurship experiences when they make internal attributions about business failure (Yamakawa & Cardon, 2015)
Observations Related to Job Control and Autonomy	
Entrepreneurs' levels of autonomy	Entrepreneurship's effect of increasing psychological autonomy can more generally increase both competence and relatedness as well as subsequent well-being (Shir et al., 2019)
Autonomy vs. prosocial motivation	Autonomy is suggested to be a key condition itself for improving the stress and well-being resulting from entrepreneurs' prosocial motivations (Kibler et al., 2019)
Autonomy vs. personality, autonomy vs. financial resources	Autonomy is suggested as the key factor – to the exclusion of personality and financial resources – that accounts for the increased job satisfaction experienced by self-employed workers (Lange, 2012)
Confidence	Self-employed women build confidence as a resource over years of experience (Annink & den Dulk, 2012)
Observations Related to Sources of Support	
Entrepreneurial personality, entrepreneurial orientation, internal locus of control, extraversion	Small business owners may have a relatively low need for social support, by merit of their entrepreneurial personality, entrepreneurial orientation, internal locus of control, and/or extraversion (Fernet, Torrès, Austin, & St. Pierre, 2016; Low & MacMillan, 1988; Rahim, 1996; Yue Wah Chay, 1993)
Extroversion, internal locus of control	Extroversion and internal locus of control predicted higher levels of perceived social support among small business owners (Yue Wah Chay, 1993)

Table 3.

*Summary of Findings on Factor 3: Gender*

Operationalizations of Factor 3:	
Gender	Observations Related to Job Demands
Self-employed women vs. self-employed men	Self-employed women reported more manageable job demands than self-employed men (Parslow et al., 2004)
Women entrepreneurs vs. men entrepreneurs	Men and women entrepreneurs report equivalent levels of role overload (Kariv, 2008)
Women entrepreneurs vs. men entrepreneurs	Women entrepreneurs report higher mean levels of role conflict compared to men entrepreneurs (Kariv, 2008)
Women entrepreneurs vs. men entrepreneurs	Women entrepreneurs experience higher time commitments to family and lower time commitments to work than men (Parasuraman et al., 1996)
Women entrepreneurs vs. men entrepreneurs	Women entrepreneurs experienced higher family-to-work interference, while men experienced more work-to-family interference (Loscocco, 1997)
Women entrepreneurs who live alone vs. men entrepreneurs	Women entrepreneurs worked more hours than men entrepreneurs only when living alone (Georgellis & Yusuf, 2016)
Women entrepreneurs vs. women employees	Women entrepreneurs report higher mean levels of role conflict compared to organizationally-employed women (D Eden, 1973)
Women entrepreneurs vs. women employees	Work-family conflict does not differ between self-employed and organizationally-employed women after controlling for job characteristics and demographic factors (Tuttle & Garr, 2009)
Observations Related to Financial Stressors	
Women entrepreneurs vs. men entrepreneurs	Obtaining microcredit can increase worry and reduce life satisfaction, but these negative effects of microcredit may be mitigated for female entrepreneurs (Bhuiyan & Ivlevs, 2019)
Marital status among women entrepreneurs (vs. necessity-opportunity entrepreneur distinction)	Among women entrepreneurs, the necessity-opportunity distinction reflected marital status, with unmarried women being more likely to enter self-employment as an opportunity, based on personal attitudes and local business climate, rather than a necessity (Patrick et al., 2016)
Observations Related to Appraisals and Coping	
Women entrepreneurs vs. men entrepreneurs	Men and women entrepreneurs showed no significant differences on "traditional" entrepreneurial traits of preference for innovation, propensity for risk taking, and need for achievement (Carland & Carland, 1991)

Women entrepreneurs vs. men entrepreneurs	Compared to men entrepreneurs, women entrepreneurs are significantly more likely to appraise lacking managerial experience and issues with fundraising as difficulties, even despite reporting equivalent educational levels with men (Heilbrunn, 2004)
Family status: Parent or provider	Being a parent or a provider influenced self-employed workers' perceptions of their ability to manage a business (Loscocco, 1997)
Observations Related to Job Control and Autonomy	
Self-employed women	Self-employed women build confidence as a resource over years of experience (Annink & den Dulk, 2012)
Self-employed women vs. self-employed men	Self-employed women report job control levels equivalent with self-employed men (Parslow et al., 2004)
Women entrepreneurs vs. men entrepreneurs	Autonomy specifically relates to reduced family interference with work (as experienced more frequently by women entrepreneurs) (Parasuraman et al., 1996)
Observations Related to Sources of Support	
Women entrepreneurs vs. men entrepreneurs	Gender moderated support-profit relationship, such that women entrepreneurs (compared to men entrepreneurs) with high social support experienced highest profits (Kariv, 2008)
Women entrepreneurs vs. men entrepreneurs	Compared to men entrepreneurs, women entrepreneurs appraise low social support (as well as high financial need) as more stressful specifically during the business launch phase (Chadwick & Raver, 2019)
Women entrepreneurs vs. men entrepreneurs	The association of work-family conflict with exit intentions is stronger among women entrepreneurs than among men entrepreneurs (Sardeshmukh et al., 2019)
Family status: Parent or provider	Housework support (e.g., hiring a cleaner) was reported to be helpful, while women's roles as parents could not be as easily substituted (Kim & Ling, 2001)

Table 4.

*Summary of Findings on Factor 4: Business/Ownership Type*

Operationalizations of Factor 4: Business/Ownership Type	Observations Related to Job Demands
Business size	Smaller businesses may face higher demands given a higher need for efficiency (Cunningham et al., 2014; Dandridge, 1979)
Business size	Quantitative work overload is more strongly associated with stress in smaller businesses, while qualitative overload was the primary stressor in larger businesses (Lai et al., 2015)
Whether self-employed owner has employees	Self-employed workers with employees reported higher job demands than those without employees (Hessels et al., 2017)
Family-owned business, family employees	In family-owned businesses, family employees experienced higher performance pressure (Beehr et al., 1997)
Family-owned business	There were no differences in work-family conflict between family and non-family companies (Beehr et al., 1997)
Home-based, family-owned business	Working with family may impose flexible and permeable role boundaries, especially when the family operates a home-based business (Li et al., 2013)
Necessity vs. opportunity entrepreneurs	No differences in this three-factor structure of role demands, role overload, and role ambiguity were detected necessity and opportunity entrepreneurs (Wincent & Örtqvist, 2006)
New vs. established small business owners	New and established small business owners reported equivalent levels of job stressors (Bradley & Roberts, 2004)
Entrepreneurs vs. managers	Entrepreneurs reported lower or equivalent scores on all three role stressor types compared to managers (Rahim, 1996; Tetrick et al., 2000)
Entrepreneurs vs. employees	Entrepreneurs reported less excessive working than employees (Dijkhuizen, Veldhoven, et al., 2016)
Self-employed vs. employees	Self-employed workers' levels of excessive working were significantly higher than that of employees (Gorgievski, Bakker, & Schaufeli, 2010)
Observations Related to Financial Stressors	
Personal socioeconomic status, regional socioeconomic status	Tests of measurement noninvariance on the three factors of entrepreneurial orientation suggest that risk-taking is viewed less favorably as both personal and regional socioeconomic status declines (Gloss et al., 2017)

Necessity vs. opportunity entrepreneurs	Opportunity entrepreneurs – as opposed to necessity entrepreneurs – experienced higher levels of work-life balance (Annink et al., 2016)
Necessity vs. opportunity entrepreneurs	Opportunity entrepreneurs – as opposed to necessity entrepreneurs – experienced increased job satisfaction (Larsson & Thulin, 2019)
Business adversity	As business adversity increased, psychological ownership more strongly predicted persistence (Zhu et al., 2018)
Observations Related to Appraisals and Coping	
Self-employed vs. employees	Sleep is better on average among the self-employed compared to the organizationally-employed (Wolfe & Patel, 2019a)
N/A – see Table 5 for related findings on Factor 5: Time (e.g., serial entrepreneurship)	
Observations Related to Job Control and Autonomy	
Necessity vs. opportunity entrepreneurs	Increased job satisfaction among entrepreneurs may be limited only to the more autonomous opportunity entrepreneurs (Larsson & Thulin, 2019)
Necessity vs. opportunity entrepreneurs	Increase in job satisfaction among entrepreneurs is not explained by autonomy, but instead by the broader necessity-opportunity distinction (Nikolova, 2019; Stephan, 2018)
Business facing financial pressures	Owners' autonomy is often challenged and must be relinquished when facing financial pressure (Gelderen, 2016)
Industry differences: norms for working hours	Autonomy may be limited by industry-wide norms such as client-dependent working hours (Annink & den Dulk, 2012)
Entrepreneurs vs. employees	Entrepreneurs report higher levels engagement than employees (Dijkhuizen, Veldhoven, et al., 2016)
Entrepreneurs vs. employees	Entrepreneurs report higher levels of compulsive working than employees (Dijkhuizen, Veldhoven, et al., 2016)
Entrepreneurs vs. highly autonomous employees	Increased in job satisfaction among entrepreneurs may be restricted in comparisons to jobs where organizational workers already have high autonomy (Hundley, 2001)
Self-employed vs. employees	Self-employed workers report higher involvement than employees (Parasuraman & Simmers, 2001)
Self-employed vs. employees	Self-employed workers report higher levels of engagement than employees (Gorgievski, Bakker, & Schaufeli, 2010)
Self-employed vs. employees	No difference in job involvement levels for the self- and organizationally-employed (Thompson et al., 1992)
Self-employed vs. employees	Self-employed workers report higher levels of worry than employees (D Eden, 1973)

Self-employed men vs. employed men	Self-employed men report higher commitment than organizationally-employed men (Thompson et al., 1992)
Observations Related to Sources of Support	
Entrepreneurs vs. managers	Entrepreneurs report lower levels of social support than managers (Rahim, 1996)
Owners vs. managers	Owners report lower levels of social support than managers (Tetrick et al., 2000)
Self-employed vs. employees	Self-employed workers report less friendly coworker relations than organizationally-employed workers (Dov Eden, 1975)
Business size	Organization size is negatively associated with mental health; this is mediated by social support and autonomy, but more strongly mediated by psychological demand (Encrenaz et al., 2019)
Business size, company culture	Smaller organizations may have relatively supportive cultures or structures (Gray et al., 2003; Nicolescu & Nicolescu, 2009)
Business size, company culture	Smaller organizations sometimes even have a family-like environment (Dandridge, 1979)
Business size, company culture	In contrast to larger companies, good work relationships are more strongly associated with decreased stress in small companies (Lai et al., 2015)
Business size, company culture (or lack thereof)	Findings suggest that social support is lacking in smaller companies (Schonfeld, 2017)
Business size, company culture (or lack thereof)	Interpersonal conflict and loneliness are common stressors for entrepreneurs (Akande, 1994; Grant & Ferris, 2012)
Whether self-employed owner has employees	Self-employed individuals with employees report higher job demands than those without employees (Hessels et al., 2017)
Presence of an HR department	A human resources department is likely to be absent in smaller organizations (Schonfeld & Mazzola, 2015)
Family-owned business/family employees	Working with family increases social support and reduces resource drain since resources are less exclusively used by the family or business role (Halbesleben & Wheeler, 2007)
Family-owned business/family employees	There may also be a wider range of non-economic benefits for family employees (e.g., a shared identity), in addition to economic benefits like opportunities for advancement (Beehr et al., 1997; Gómez-Mejía et al., 2007)

Table 5.

*Summary of Findings on Factor 5: Time*

Operationalizations of Factor 5: Time	Observations Related to Job Demands
New and serial entrepreneurs	No differences in this three-factor structure of role demands, role overload, and role ambiguity were detected between new and serial entrepreneurs (Wincent & Örtqvist, 2006)
Observations Related to Financial Stressors	
Short-term vs. long-term change	Job satisfaction appears to spike only temporarily when entering self-employment (Georgellis & Yusuf, 2016)
Short-term vs. long-term change	Life satisfaction appears to spike only temporarily when entering self-employment or are outweighed by other factors (van der Zwan et al., 2016)
Short-term vs. long-term change	Resource gains may be shorter-term, and weaker or slower than loss spirals (Dijkhuizen et al., 2018; Laguna et al., 2017)
Observations Related to Appraisals and Coping	
Duration of self-employment (new)	The tendency to make challenge appraisals of high workloads is stronger among newly self-employed workers (Bradley & Roberts, 2004)
Duration of self-employment (long-term), problem-focused coping	When problem-focused coping is used, the relationship between duration of self-employment and allostatic load was suppressed (Patel et al., 2019)
Prior negative entrepreneurship experiences/serial entrepreneurship	Entrepreneurs learn from prior negative entrepreneurship experiences in general (Lafuente et al., 2019)
Prior entrepreneurship experiences/serial entrepreneurship	Emotion-based coping is helpful in learning from entrepreneurial experiences (Drnovsek et al., 2010)
Business phase: Start-up	Challenge appraisals positively affect personal attitude and control in the start-up phase (Nabi & Liñán, 2013)
Business phase: Start-up	Starting self-employment seemed more feasible before having children or when children were older (Loscocco, 1997)
Business phase: Failure/closure	When facing business failure, entrepreneurs benefit emotionally from a period of anticipatory grief by delaying closure, though the length of this phase has curvilinear effects: delaying business closure too long can worsen the emotional impact. (Shepherd et al., 2009)
Short-term vs. long-term solution	Emotion-focused coping was immediately beneficial, while still recommending problem-focused coping for longer-term solutions (Sánchez-García et al., 2018)

Short-term vs. long-term resource-building	A third type of coping called proactive coping – i.e., building up resources for later stressors, as opposed to responding only to current stressors – is common among entrepreneurs (Eager et al., 2015)
Observations Related to Job Control and Autonomy	
Business phase: start-up, growth	Owners' autonomy is often challenged and must be relinquished in early and growth phases of the business (Gelderen, 2016)
Duration of self-employment	Self-employed women build confidence as a resource over years of experience (Annink & den Dulk, 2012)
Short-term projects or clients	Owners' autonomy is often challenged and must be relinquished in light of particular customers or projects (Gelderen, 2016)
Observations Related to Sources of Support	
Business phase: Start-up	Compared to men entrepreneurs, women entrepreneurs appraise low social support (as well as high financial need) as more stressful specifically during the business launch phase (Chadwick & Raver, 2019)
Business phase: Exit	The association of work-family conflict with exit intentions is stronger among women entrepreneurs than among men entrepreneurs (Sardeshmukh et al., 2019)