Greater fit and a greater gap: how environmental support for entrepreneurship increases the life satisfaction gap between entrepreneurs and employees

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Abstract

Purpose – This study seeks to understand how national institutional environments contribute to differences in life satisfaction between entrepreneurs and employees.

Design/methodology/approach – Leveraging person–environment fit and institutional theories, and using a sample of more than 70,000 entrepreneurs and employees from 43 countries, the study investigates how the impact of entrepreneurial activity on life satisfaction differs in various environmental contexts. An entrepreneur's life satisfaction arguably should increase when a high degree of compatibility or fit exists between his or her choice to be an entrepreneur and the informal and formal institutional environment.

Findings – Differences in life satisfaction between entrepreneurs and employees are greater in countries marked by low individualism, high power distance, low uncertainty avoidance, supportive entrepreneurship policies, low commercial profit taxes, and weak worker rights.

Originality/value – This study sheds new light on how entrepreneurial activity affects life satisfaction, contingent on the informal and formal institutions in a country that support entrepreneurship by its residents.

Keywords: Entrepreneurship, Life satisfaction, Culture, Institutions

1. Introduction

Extant research features an on-going debate about the relationship between entrepreneurship and psychological well-being (e.g., Hahn et al., 2012; Hessels et al., 2017; Johansson Sevä et al., 2016; Naudé et al., 2014). Self-employed entrepreneurs may obtain more satisfaction from their work than employees, yet entrepreneurs also confront greater income volatility and a worse work–life balance, even while they enjoy substantial autonomy, independence, and flexibility (Benz and Frey, 2004, 2008; Binder and Coad, 2013; Frey et al., 2004). Evidence generally indicates that entrepreneurs enjoy higher levels of work satisfaction than employees, but few studies explicitly consider the relationship between entrepreneurship and *life* satisfaction. Among those that do, some findings imply greater life satisfaction among entrepreneurs (Andersson 2008; Binder and Coad, 2013; Blanchflower and Oswald, 1998; Hessels et al., 2017; Stephan and Roesler, 2010), others indicate no significant relationship (Di Tella et al., 2003), and still others suggest a negative relationship (Salinas-Jiménez et al., 2013). Yet they all agree that the relationship between entrepreneurship and life satisfaction is not trivial and somewhat ambiguous, an ambiguity that is explained by the motivation behind the decision to start a business (e.g., whether it is informed by opportunity versus necessity; Binder and Coad, 2013) or the nature of the work undertaken (e.g., the amount of work skills needed; Hessels et al., 2017).

Another angle for understanding the ambiguous findings of previous research may be to focus on the environmental context and how it shapes the extent to which entrepreneurs gain satisfaction with their life situation, compared with employees. If entrepreneurs enjoy high levels of work satisfaction, it may spill over to their life satisfaction, yet their strong focus on work also may come at the expense of other domains that determine overall life satisfaction, such as the time they spend with family or at leisure (Stephan, 2018; Van der Zwan et al., 2018). In contexts marked by institutional environments that favour

entrepreneurship, entrepreneurs may be able to make *fewer* sacrifices with respect to their daily lives, so then it may be even more likely that their work satisfaction spills over to life satisfaction, leaving them generally happier than employees. Limited attention has been devoted to the potential influence of environmental factors on the life satisfaction of entrepreneurs versus employees though.

The core contribution of this study is that it provides expanded understanding of how being an entrepreneur (i.e., entrepreneurial activity) versus an employee affects life satisfaction differently across environmental contexts. This issue is of critical importance in that it addresses the need to consider contextual forces that impact the mental well-being of entrepreneurs (Stephan et al., 2018), and acknowledges that the happiness that people experience with their career choices is intricately linked with the broader environment in which they operate (Mihelic, 2014; Shen et al., 2015). In particular, this study draws on person–environment fit theory (Lee et al., 2010; Schneider, 2001; Yang et al., 2008) to argue that the relationship between entrepreneurial activity and life satisfaction depends on the extent to which the choice to become an entrepreneur or employee *matches* the characteristics of the macro environment—that is, on strong person–environment fit. The life satisfaction of entrepreneurs then may tend to be higher than that of their employed counterparts when the environment meets their entrepreneurial needs to a greater extent, marked by shared fundamental interests and goals. An institutional perspective guides the consideration of this potential moderating role of the environment. Institutional theory differentiates formal (e.g., rules, laws, regulations) from informal (norms, values, habits) institutions (North, 1990), and both forms might be supportive of entrepreneurial activity or not. Thus they may determine the degree to which entrepreneurs derive "procedural utility" and life satisfaction from their work. The current study considers three informal aspects of a country's cultural value system (individualism, power distance, and uncertainty avoidance) and three formal characteristics of

its regulatory system (entrepreneurship policy, commercial profit taxes, and worker rights) to determine their moderating effects on differences in life satisfaction between entrepreneurs and employees.

Notably, the focus is on differences in their *overall life* satisfaction, not satisfaction with work or with specific subdomains (e.g., leisure, health; Van der Zwan et al., 2018). This focus reflects the research objective of understanding how favourable institutional conditions might extend beyond the work domain and make the daily lives of entrepreneurs more enjoyable. This impact arguably should operate similarly across distinct facets of daily life. Therefore, the extent of congruence between entrepreneurship and the presence of supportive informal and formal institutions should determine entrepreneurs' general happiness and also reveal life satisfaction gaps, relative to their employed counterparts.

The tests of these moderating impacts of informal and formal institutions in the relationship between entrepreneurial activity and life satisfaction rely on an extensive data set, covering more than 70,000 entrepreneurs and employees from 43 countries. The multilevel modelling method establishes empirical evidence that informal and formal institutions can provide critical explanations of the levels of life satisfaction of entrepreneurs versus employees. In turn, the key contribution of this study is that it reveals novel insights into how country-level factors can account for differences in life satisfaction (Fritsch et al., 2019), because a better match between entrepreneurial activity and institutional environments results in more life satisfaction, compared with the case of employees (Ostroff and Schulte, 2007). In particular, it extends prior investigations of the effects of favourable informal and formal institutions on the level and nature of entrepreneurship (e.g., Bowen and De Clercq, 2008; Busenitz et al., 2000; De Clercq et al., 2013; Muralidharan and Pathak, 2017) by including considerations of how such institutions also might explain the varying life satisfaction levels achieved by entrepreneurs versus employees.

2. Theory and hypotheses

2.1. Entrepreneurship and life satisfaction

Entrepreneurs must master various challenges to set up and run their businesses. They frequently confront job and financial insecurities, earn relatively low incomes, may experience poor work–life balance compared with employees, and take on relatively more responsibilities for themselves and others (e.g., workers) (Hamilton, 2001; Johansson Sevä and Oun, 2015; Nordenmark et al., 2012). Yet entrepreneurs also tend to be more satisfied with their work than employees (Andersson, 2008; Benz and Frey, 2004, 2008; Blanchflower and Oswald, 1998; Blanchflower, 2000; Hundley, 2001; Lange, 2012; Millán et al., 2013; Naudé et al., 2014), seemingly because they experience procedural utility from their higher job autonomy and independence and have more freedom to determine the type of work and how to execute it (Benz and Frey, 2008; Frey et al., 2004; Hessels et al., 2017). Entrepreneurs also encounter more task and skill variety but less need to coordinate work routines with co-workers (Hundley, 2001; Hyytinen and Ruuskanen, 2007; Johansson Sevä et al., 2016; Millán et al., 2013). Personal values and interests also strongly determine their work satisfaction, such that they tend to exhibit strong self-direction and self-enhancement values, so they seek independence as well as success (Lange, 2012; Liñán et al., 2016; Noseleit, 2010). Ultimately, entrepreneurs want to prove themselves through their work, which then may provide a sense that they make a difference and are doing something useful, not just with their work but also with their *lives* (Lange, 2012).

The baseline hypothesis for this study therefore predicts a positive relationship between entrepreneurial activity and life satisfaction. Person–environment fit theory provides a basis for this claim, as well as for the subsequent predictions about the moderating effect of the institutional environment in this positive relationship (see Section 2.2). This useful framework from interactional psychology (Lee et al., 2010; Schneider, 2001; Verquer et al.,

2003; Yang et al., 2008) has been applied in diverse research contexts, including organizational psychology, organizational behaviour, and human resource management, particularly with respect to work-related outcomes such as well-being and occupational stress (Edwards and Cooper, 1990; Edwards and Rothbard, 1999; Kristof-Brown et al., 2005; Lauring and Selmer, 2018; Yang et al., 2008). It establishes the premise that individual attitudes, intentions, behaviours, and outcomes (e.g., life satisfaction, health, stress) result from the interaction of the person and the environment (Edwards, 1996; Edwards and Rothbard, 1999; Lewin, 1935; Murray, 1938; Pervin, 1989; Yang et al., 2008). Fit therefore refers to "compatibility between an individual and a work environment that occurs when their characteristics are well matched" (Schneider, 2001, p. 142), and people should experience greater well-being if fit exists between their characteristics and those of their environment.

Entrepreneurship—as a career choice that enables people to express their personal interests in their working lives—should provide a stronger fit between personal preferences and work (Lange, 2012; Morales and Holtschlag, 2013; Stephan, 2018), compared with employment (Judge and Watanabe, 1993). Clearly employees might derive life satisfaction from their daily jobs too, but such an outcome may be even more likely if people have the autonomy and freedom to pursue their personal goals through entrepreneurial endeavours (Benz and Frey, 2004, 2008; Lange, 2012), due to the match between their personal interests and their work activities. Despite some findings of no or a negative relationship between entrepreneurial activity and life satisfaction (Di Tella et al., 2003; Salinas-Jiménez et al., 2013), Andersson (2008) and Binder and Coad (2013) show that people moving from regular employment to self-employment experience increased life satisfaction, and Hessels et al. (2017) present evidence that self-employed people are more satisfied with their lives than employees. Therefore,

H1: Entrepreneurial activity is positively related to life satisfaction.

2.2. Person–environment fit theory and the moderating role of institutions

The environment should affect the *extent* to which entrepreneurs enjoy greater life satisfaction than do employees. Person–environment fit entails two closely related versions: how well individual abilities, skills, and attitudes match the demands and requirements of the environment (demands–abilities fit) or how well the environment provides resources to meet individual needs (needs–supplies fit) (Edwards and Cooper, 1990; Furnham and Schaeffer, 1984; Lee et al., 2010). With respect to the demands–abilities fit, an entrepreneur's life satisfaction depends on whether he or she has the capacities to meet the demands of the environment (Stephan, 2018). For a needs–supplies fit, entrepreneurship requires a supportive environment that provides financial, physical, and psychological resources, as well as sales and growth opportunities, for example (Hechavarría and Ingram, 2018).

To explicate the influence of the environment on the strength of the association between entrepreneurial activity and life satisfaction, this study focuses on the fit between entrepreneurs and their *institutional* environment. North (1990, p. 3) defines institutions as "humanly devised constraints that structure political, economic and social interaction," and they can be informal or formal. Informal institutions are implicit, unwritten codes of conduct, such as societal norms, habits, and values, that are culturally transmitted (North, 1990; Stephan et al., 2015); formal institutions are explicit, formally accepted rules, laws, and regulations that govern society (North, 1990; Pathak and Muralidharan, 2016). These two institutions mirror the aforementioned facets of person–environment fit: informal institutions speak to the abilities and skills that are positively evaluated in a country (e.g., maintaining group harmony or taking risks), and formal institutions describe the extent to which the environment provides easy access to resources (e.g., labour or money). Both informal and formal institutional environments can have direct and indirect bearings on entrepreneurship (Brieger and De Clercq, 2019; Morales et al., 2019; Pathak et al., 2013; Urban and Kujinga,

2017), taking supportive or prohibitive positions and shaping the incentives that lead people to choose between entrepreneurship and paid employment (Morales and Holtschlag, 2013).

If institutions support entrepreneurship—such as by providing resources, infrastructure, or normative support or by lowering tax payments—the interests and goals of the entrepreneur match those of the environment, signalling greater fit. The point here is not to predict that an entrepreneur's value system must be congruent with the national value system; in many cases, outliers, such as people with stronger autonomy values than the average in society, are the ones who prefer to launch and run their own businesses (Baum et al., 1993; Liñán et al., 2016). Rather, the life satisfaction that entrepreneurs enjoy should be greater when the surrounding environment supports their business endeavours, particularly because the personal sacrifices they must make to dedicate themselves fully to their daily, sometimes stressful, entrepreneurial activities diminish (Edward and Rothbard, 1999). Accordingly, the difference in the life satisfaction of entrepreneurs versus employees should be greater in the presence of stronger entrepreneur–environment fit.

2.3. Moderating role of informal institutions

Entrepreneurial activity is influenced by cultural dimensions, such as individualism-collectivism (Bullough et al., 2017; Pinillos and Reyes, 2011; Shane, 1993), uncertainty avoidance (Shane, 1993; Wennekers et al., 2007; Zhao et al., 2012), performance orientation (Stephan and Uhlaner, 2010), postmaterialism (Morales and Holtschlag, 2013; Uhlaner and Thurik, 2007), trust (Pathak and Muralidharan, 2016; Turkina and Thai, 2013), and the social status of entrepreneurship at the cultural level (Begley and Tan, 2001). Culture, as an informal institution, is a set of shared basic values and beliefs that distinguishes different groups (Hofstede, 1980; Hofstede et al., 2010; Triandis, 1995) and shapes human thought, intentions, and behaviours through unconscious processes. Values form under the influence of national culture and generally remain stable over time, so people's thoughts, feelings, and behaviours

tend to be consistent with their cultural context (Inglehart, 1997; Tranter and Western, 2009). This study addresses specifically individualism, power distance, and uncertainty avoidance, which have been shown to be particularly important determinants of entrepreneurial activity (Hayton et al., 2002; Lee and Peterson, 2000; Lim et al., 2016; Liñán et al., 2016; Morris et al., 1994; Mueller and Thomas, 2001; Tiessen, 1997; Wennekers et al., 2007).

First, a large body of research documents the instrumental role of collectivism for entrepreneurship, in the form of in-group support from family, friends, and peers that can help entrepreneurs overcome various obstacles (e.g., Bullough et al., 2017; Kwon and Arenius, 2010; Stephan and Uhlaner, 2010). For example, social support from family members, friends, and colleagues relates positively to entrepreneurs' well-being (Nguyen and Sawang, 2016; Stephan, 2018). Second, high power distance cultures support entrepreneurs in leading their ventures toward success, but these cultures tend to be less able to provide enjoyable working environments for employees, such that employees may suffer from the strict control and monitoring of key decision makers (Shane, 1994). Third, Mueller and Thomas (2001) find that entrepreneurial orientation is more prevalent in low uncertainty avoidance cultures. De Clercq et al. (2008) similarly report a negative relationship between uncertainty avoidance and entrepreneurial growth orientation, and Saeed et al., (2014) highlight the strong skepticism that entrepreneurs may face among their customer bases with respect to their products and services in uncertainty-avoidant cultures.

2.3.1. Individualism. Individualism (versus collectivism) reflects people's self-concept, such that individualism refers to the "I," whereas collectivism is linked to the "we." In individualist cultures, people embrace a personal identity, distinct from other identities (Hofstede et al., 2010), and perceive themselves as independent of the in-groups to which they belong, such that they emphasize self-sufficiency, self-reliance, self-control, and their own interests over those of their in-groups (Basáñez, 2016; Hauff et al., 1995; Triandis, 1995;

Weaver, 2001). In collectivist cultures, members instead think of themselves as part of a "we"-group (Bullough et al., 2017; Hofstede et al., 2010; Morales et al., 2019) or collective, such as a family, group of friends, work unit, or local community. Hofstede (2001, p. 225) notes that collectivism "stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty." People in collectivist cultures thus tend to prioritize the in-group's interests and subordinate their personal goals, to achieve overall outcomes.

Cultures who score high on individualism (or low on collectivism) encourage individual personal achievement and independence, which aligns with the typical profile of people who start and run their own businesses, who desire personal achievement, control, independence, and autonomy (Autio et al., 2013; McGrath et al., 1992; Morris et al., 1994). However, it is expected that this mechanism is superseded by the fact that entrepreneurs in collectivistic cultures derive significant satisfaction from receiving prevailing in-group support (Triandis, 1993), in line with extant research that underscores the primary role of such support, and the associated sense of solidarity, for entrepreneurial well-being and success (Kwon and Arenius, 2010; Stephan and Uhlaner, 2010). Therefore, this study predicts *weaker* entrepreneur–environment fit in individualist cultures, which should diminish the gap in life satisfaction between entrepreneurs and employees in these cultures. In collectivist cultures, entrepreneurs benefit greatly from supportive network relationships, both at work and in their daily lives (Kwon and Arenius, 2010; Stephan and Uhlaner, 2010). For example, collectivist cultures may help entrepreneurs cope with financial challenges or work–family conflicts (Pinillos and Reyes, 2011), making it easier for them to receive necessary support. A smaller life satisfaction gap between entrepreneurs and employees also might arise in individualist countries because their organizations already tend to give employees freedom, autonomy, and agency, compared with organizations in collectivist societies (Hofstede, 2001; Hofstede et al.,

2010). People thus might be able to express their desire for autonomy and self-achievement through their work even if they are employees, such that the differences in life satisfaction between the two groups would be smaller. Formally,

Hypothesis 2a: Higher levels of individualism weaken the positive relationship between entrepreneurial activity and life satisfaction.

2.3.2. Power distance. Less powerful members of society might expect and accept that power and status are distributed unequally (Hofstede et al., 2010), in which case they accept their place in the hierarchy and regard inequality as a natural, static, and unchangeable fact. In business contexts, people in high power distance cultures tend to be less inventive, innovative and entrepreneurial, because of the rigidity that this cultural value invokes in terms of how decisions are made (Lee and Peterson, 2000; Shane 1992; 1993). In contrast, members of low power distance cultures are less likely to tolerate inequality or institutionalized hierarchies. They view unequal power distributions as undesirable, prefer flatter hierarchies, and are more likely to be driven toward entrepreneurship (Hayton et al., 2002).

According to Shane (1993), there are five constraining mechanisms that underpin the negative relationship between power distance and innovation: the prominence of hierarchical relationships, top-down communication flows, centralized decision making, the exercise of strict control, and a reluctance to embrace change. Because entrepreneurs often consider their ventures as vehicles that help them *avoid* these constraints (e.g., Benz and Frey, 2008; Frey Hessels et al., 2017), *low* levels of power distance might increase the extent to which they derive joy from their work, compared with their employed counterparts. Low power distance also has been associated with the value of exhibiting a strong work ethic and limited fatalism (Shane, 1992), features that are important for people who start and run their own businesses (Baum and Locke, 2004). Further, activities that entail deviance and playfulness—such as starting new businesses that disrupt existing business practices (Hjorth, 2004)—are supported

and valued in low power distant countries, such that entrepreneurs should experience high levels of person–environment fit in this scenario (Hofstede, 1980). In contrast, in countries that put great value on hierarchical relationships, people who are employed might be more accepting of the fact that they are not able to express disagreement, formulate criticisms, participate in decision making, or explore their capacities. That is, environments marked by high power distance, compared with low power distance cultures, are more in line with the reality that employees often must comply with the directives of their employing organization. Accordingly,

Hypothesis 2b: Higher levels of power distance weaken the positive relationship between entrepreneurial activity and life satisfaction.

2.3.3. Uncertainty avoidance. A culture's tolerance for uncertainty or ambiguity reflects the extent to which members feel uncomfortable or threatened by unpredictable, unknown situations (Hofstede, 2001). Members of high uncertainty avoidance cultures avoid risks and prefer a structured, controllable environment (Luque and Javidan, 2004), such that they exhibit inclinations toward conformity, formal rules, and codes of conducts (Hofstede et al., 2010) that make "events clearly interpretable and predictable" (Hofstede, 2001, p. 148). Conversely, in low uncertainty avoidance cultures, people accept uncontrollable situations, tolerate a certain level of uncertainty, and perceive risks as part of life. Accordingly, they are more open to new experiences and change, with stronger willingness to enter into risky ventures (Hofstede, 2001; Wennekers et al., 2007).

Uncertainty avoidance thus should have a negative influence on the relationship between entrepreneurial activity and life satisfaction. In high uncertainty-avoidant cultures, the uncertainties of entrepreneurial activity are salient, including the risk of entrepreneurial activity and associated income fluctuations, and entpreneurs also expect lower rewards or benefits (Wennekers et al., 2007). Previous research similarly reports that entrepreneurs'

growth orientations tend to be lower in high uncertainty-avoidant cultures (Bowen and De Clercq, 2008; Mueller and Thomas, 2001). Moreover, Saeed et al. (2014) note that in such cultures, entrepreneurial firms have trouble acquiring customers, because those customers tend to be loyal to established firms or to known products or services. Even if the entrepreneurs exhibit less risk aversion than their surrounding culture (Baum et al., 1993; Morales et al., 2019), they thus might still be hindered by an uncertainty-avoidant culture, which features general attitudes, desires, and values that do not fit the entrepreneurs' (Kirkley, 2016). These societies usually have better safety nets and job security (Hauff et al. 2015), so the person–environment fit should be stronger for employees. The combination of low fit for entrepreneurs and higher fit for employees might then reduce the life satisfaction gap between entrepreneurs and employees. That is, uncertainty avoidance should negatively moderate the positive relationship of entrepreneurial activity with life satisfaction and reduce the life satisfaction gap.

Hypothesis 2c: Higher levels of uncertainty avoidance weaken the positive relationship between entrepreneurial activity and life satisfaction.

2.4. Moderating role of formal institutions

Regulations such as taxes (Darnihamedani et al., 2018; Djankov et al., 2010; Gentry and Hubbard, 2000), business rules (Van Stel et al., 2007), bankruptcy laws (Lee et al., 2011), the rule of law (Estrin et al., 2016; Goltz et al., 2015), property rights (Nyström, 2008), autonomy rights (Brieger et al., 2018), and regulations for education and financial systems (De Clercq et al., 2013) affect entrepreneurship. They also might influence the relationship between entrepreneurial activity and life satisfaction. Formal institutions are visible "rules of the game" that tend to be enforced by governments (North, 1990). They also set the boundaries for entrepreneurial activity and thereby influence how entrepreneurs define their goals and strategies (Estrin et al., 2016; Hörisch et al., 2017; Stephan et al., 2015). This study focuses

on three notable formal institutions that cover a complementary set of factors: context-specific regulations (i.e., entrepreneurship policy; Bowen and De Clercq, 2008), the fiscal system (i.e., commercial profit taxes; Djankov et al., 2010), and laws with respect to human resources (i.e., worker rights; Arnold and Hartman, 2006).

2.4.1. Entrepreneurship policy. Entrepreneurs can benefit from various government policies, such as specific financial and other assistance for growing firms or general policy support. According to Nyström (2008, p. 269), "better legal structure and security of property rights, as well as less regulation of credit, labor, and business tend to increase entrepreneurship" and lead to larger populations of entrepreneurs (Terjesen et al., 2016). Favourable policies that mandate the provision of resources and services by governments can help overcome significant barriers to entrepreneurial activity and growth (Bowen and De Clercq, 2008). Research also notes the importance of entrepreneur-friendly bankruptcy laws or regulations that lower entry and exit barriers (Djankov et al., 2002; Peng et al., 2010).

Such favourable government policies also should enhance the relationship between entrepreneurial activity and life satisfaction. This environment demands entrepreneurial abilities and skills, so it provides a particularly good person–environment fit for entrepreneurs. If governments supply resources and ideal conditions to strengthen entrepreneurship, entrepreneurs' needs for good governance and institutional support structures also are met. Further, entrepreneurship-friendly policies reduce transaction costs, such as bargaining or decision costs, as well as costs associated with enforcing business contracts, so entrepreneurial activities become more efficient. This congruence of individual goals (start and run a business successfully) and environmental goals (help entrepreneurs start and run a business successfully) should significantly enhance entrepreneurs' well-being and thereby increase the life satisfaction gap with employees. Formally,

Hypothesis 3a: Better entrepreneurship policies strengthen the positive relationship between entrepreneurial activity and life satisfaction.

2.4.2. Commercial profit taxes. Higher taxes, as a share of commercial profits, may reduce formal business activity and encourage informal business activity (Djankov et al., 2010). They also might lead to expansionary fiscal policies that crowd out private business activities. Empirical studies document the substantial adverse effect of taxes on entrepreneurship and investment (Djankov et al., 2010), such that marginal and average tax rates imposed on self-employment earnings are negatively linked to entrepreneurship (Gentry and Hubbard, 2000). High corporate tax rates also relate negatively to entrepreneurial entry (Cullen and Gordon, 2007) and can discourage growth and job creation by reducing small business owners' incentives to expand their businesses (Carroll et al., 2001).

Entrepreneurs instead tend to prefer an environment that gives them autonomy and independence in their investing and financing decisions. Because higher taxes limit entrepreneurs' room to manoeuvre, they experience stronger heteronomy and dependency, in contrast with their needs and interests. Higher taxes also might threaten diminished profits and financial resources, which also conflicts with their needs and interests (Darnihamedani et al., 2018). Many entrepreneurs sense a higher subjective tax burden, such that they perceive a greater imbalance in their tax burden than other taxpayers (Kamleitner et al., 2012). Thus, person–environment fit likely is poor for entrepreneurs in environments that feature higher tax rates. They instead prefer environments with lower tax rates (Djankov et al., 2010), such that they can reap more fruit from their business endeavours, in the form of more income and wealth, which should spill over into greater life satisfaction. If entrepreneurs perceive that their interests are compatible with the tax environment, their resulting high life satisfaction levels may create a greater gap relative to employees' satisfaction. Therefore,

Hypothesis 3b: Higher levels of commercial profit taxes weaken the positive relationship between entrepreneurial activity and life satisfaction.

2.4.3. Worker rights. Although not uniformly defined, the International Labor Organization identifies four fundamental and widely recognized rights at work: freedom of association and the right to collective bargaining, the elimination of forced or compulsory labour, the abolition of child labour, and the elimination of discrimination. Each right is important for a decent, healthy life (Arnold and Hartman, 2006).

An environment characterized by strong worker rights should be especially attractive to employees, relative to entrepreneurs. Employees seek fair conditions with regard to wages, occupational safety and health, and working hours. If an environment supplies worker rights that meet these needs, person–environment fit is higher for employees, and their life satisfaction should improve (Edwards and Rothbard, 1999). In contrast, if employees function in formal institutional environments marked by weak worker rights, the environment does not appear to supply sufficient resources to meet their needs and desires, which creates poor person–environment fit. The strong worker rights also might reduce entrepreneurship tendencies, because the entrepreneurs in turn face higher costs, bureaucracy, and restrictions on their freedom of action in relation to their workers. Employees working for start-ups have the right to engage in collective bargaining, strike, or join trade unions, so they may demand more decision-making power or a bigger share of the start-up firm's profits, which could be contrary to the interests and objectives of the entrepreneurs. That is, entrepreneurs likely derive greater utility from their autonomy when employees have fewer legal rights to participate. This argument should not be taken to imply that entrepreneurs derive satisfaction simply from violating worker rights. Rather, the point is that employees, compared with entrepreneurs, should be more positively affected by strong worker rights, which diminishes the gap in life satisfaction between entrepreneurs and employees. Therefore,

Hypothesis 3c: Stronger worker rights weaken the positive relationship between entrepreneurial activity and life satisfaction.

Figure 1 summarizes all the hypotheses.

Insert Figure 1 about here

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2. Data and methods

3.1. Data collection

The tests of the hypotheses merge individual- and country-level data from different sources. The individual-level data come from the Global Entrepreneurship Monitor's (GEM) Adult Population Survey database, which provides standardized data about people's entrepreneurial attitudes, capacities, and engagement (Brieger et al., 2018; Sternberg and Wennekers, 2005). The survey is administrated to a representative sample of adults in many countries around the world (Hörisch et al., 2019). In 2013, GEM added survey questions that gathered information about respondents' life satisfaction. This study includes respondents who are self-employed or employed by others in half- or full-time work but excludes those who report being both self-employed and employed by others at the same time. Measures of a country's institutional environment come in part from GEM's National Experts' Survey (NES) database 2013, which includes responses from selected experts about factors that influence entrepreneurial activity in their country (De Clercq et al., 2013). Furthermore, this study uses country-level data from the Cingranelli and Richards (CIRI) (2010) Human Rights data set for the last available year (2011), Hofstede's (2001) cultural data, and World Bank data for the year 2013. After matching these secondary data sources with the GEM data, the final sample comprises 74,517 people from 43 countries, including 21,930 entrepreneurs (29.43%) and 52,587 employees (70.57%).

3.2. Measures

Life satisfaction, the dependent variable, measures a respondent's broad satisfaction with her or his own life, based on Diener et al.'s (1985) satisfaction with life scale. It reflects an average score (five-point scale, 1 = "strongly disagree" and 5 = "strongly agree") of five statements: "In most ways my life is close to my ideal," "The conditions of my life are excellent," "I am satisfied with my life," "So far I have obtained the important things I want in life," and "If I could live my life again, I would not change anything." The Cronbach's alpha was .805.

Entrepreneurial activity, the independent variable, is a binary measure, equal to 1 if the respondent is an entrepreneur and 0 if the respondent is a full- or half-time employee. The broad definition of entrepreneurial activity for this study encompasses both nascent businesses and established entrepreneurs.

The measure of culture as an informal institutional environment relies on the cultural dimensions of individualism, power distance, and uncertainty avoidance (Hofstede, 2001). *Individualism* is measured by Hofstede's individualism index, calculated on country-level mean scores for 14 questions pertaining to respondents' attitudes toward their work lives. *Power distance* reflects Hofstede's power distance index, derived from questions about employees' perceptions of their superiors' decision-making style and types of decision-making, as well as their concerns about expressing disagreement with their superiors. The *uncertainty avoidance* measure uses Hofstede's uncertainty avoidance index, based on three questions referring to rule orientation, employment stability, and stress (Hofstede, 2001). These national cultural indices generally range from 0 to 100, though values above 100 are technically possible (Hofstede, 2001).

Three measures indicate the formal institutional environment. *Entrepreneurship policy* pertains to the extent to which entrepreneurship is prioritized by government policy and

regulations support entrepreneurial activity (Amorós et al., 2013). It reflects the average score (five-point scale, 1 = "completely false," 5 = "completely true") on seven descriptions of relevant policies, such as "In my region, the support for new and growing firms is a high priority for policy at the local government level," "In my region, taxes and other government regulations are applied to new and growing firms in a predictable and consistent way," and "In my region, coping with government bureaucracy, regulations, and licensing requirements it is not unduly difficult for new and growing firm." The Cronbach's alpha value was .912. These items appeared in GEM's NES country database 2013.

Commercial profit tax measures the amount of taxes and mandatory contributions required of businesses, after accounting for allowable deductions and exemptions as a share of commercial profits. These data come from the World Bank 2013.

Worker rights reflects the Worker Rights Index from the CIRI Human Rights database for 2011 (Cingranelli and Richards, 2010), which indicates the extent to which workers can exercise and enjoy globally recognized rights, including "The right of association," "A prohibition on the use of any form of forced or compulsory labor," and "Acceptable conditions of work with respect to minimum wages, hours of work, and occupational safety and health." The ordinal measure ranges from 0 to 2, such that 0 indicates that worker rights are severely restricted and systematically violated, whereas 2 implies the government consistently protects the exercise of these rights (Cingranelli and Richards, 2010).

In line with prior research (e.g., Binder and Coad, 2016; Hessels et al., 2017), this study includes individual- and country-level control variables too. At the individual level, the controls pertain to the respondent's *gender* (female = 1, male = 0), *age* (quadratic), *household size* (six groups: 1 = single household to 6 = more than five members), *education* (five groups: none to graduate experience), *household income* relative to the income distribution of their country of residence (three groups: lower 33%, middle 33%, upper 33%), *self-efficacy*

(yes = 1, no = 0), and *fear of failure* (yes = 1, no = 0), all based on GEM's Adult Population Survey. The country-level controls include *GDP per capita*, measured in constant 2010 U.S. dollars; *GDP per capita growth*, measured as the annual percentage growth rate of GDP per capita based on constant 2010 U.S. dollars; *unemployment*, or the percentage of the population that is unemployed; and *tertiary education*, equal to the ratio of total enrolment by the population of the relevant age group.

To check the robustness of the results, this study also derives alternative measures for entrepreneurial activity and cultural values. First, business ownership offers a binary measure of entrepreneurial activity, equal to 1 if the respondent is a business owner and 0 if the respondent is a full or half-time employee. It thus excludes nascent entrepreneurs who have not yet founded their business. Second, as alternative measures of the cultural characteristics, the GLOBE study provides scores of in-group collectivism (substitute for individualism-collectivism), power distance, and uncertainty avoidance (House et al., 2004). Third, three alternative measures reflect the formal institutions. Data on government support for growth entrepreneurship (substitute for entrepreneurship policy) come from GEM's NES country database, according to five statements, including "There are many support initiatives that are specially tailored for high-growth entrepreneurial activity," "People working in entrepreneurship support initiatives have sufficient skills and competence to support high-growth firms," and "Supporting rapid firm growth is a high priority in entrepreneurship policy." The Cronbach's alpha was .946. Then the income tax rate substitutes for commercial profit tax. These data are available in the Heritage database. Finally, labour rights in law data from the year 2012 come from the Center for Global Workers' Rights (substitute for worker rights). This labour rights indicator is inversely coded (i.e., higher values reflect weaker labour rights).[1]

[1] For further information, see Kucera and Sari (2018) and the webpage: labour-rights-indicators.la.psu.edu.

3.3. Data analysis

The linear multilevel regression with random intercepts relies on the "mixed" command in Stata 15. Multilevel regression modelling is appropriate if individual-level data are nested in the country level; the individual-level dependent variable for this study is a function of both individual-level and country-level characteristics. In the presence of such nested data, basic ordinary least squares assumptions about independent observations get violated, because members of a higher social unit (e.g., a country) likely share more similar characteristics, according to their group membership. Consequently, individual observations are not independent of other observations within the same group, and traditional multiple regression techniques would provide inefficient estimates and small standard errors (De Clercq et al., 2013; Mikucka, 2014; Robson and Pevalin, 2015). In contrast, multilevel modelling recognizes the hierarchical data structure and simultaneously estimates variability in the dependent variable within and between countries (Snijders and Bosker, 2012).

Using multilevel modelling also is appropriate when significant variance exists in the dependent variables across countries (Hox et al., 2010). The check for variance in the dependent variable first computes the intraclass correlation coefficient of a null (or intercept-only) model for life satisfaction. The result shows that 12.6% of life satisfaction variation occurs between countries. In international business research, intraclass correlation coefficients of .05, .10, and .15 are small, medium, and large, respectively (Hox et al., 2010). Thus, multilevel modelling is suitable. Because the models include multiple interaction terms, all moderating variables were z-standardized (Pathak and Muralidharan, 2016).

3. Results

4.1. Main results

Tables 1 and 2 provide descriptive statistics and correlations. The correlation matrix shows that entrepreneurial activity is significantly and positively associated with life

satisfaction. Furthermore, the results indicate significant, positive, bivariate relationships of life satisfaction with gender, education, household income, and self-efficacy, as well as its significant, negative, bivariate relationship with fear of failure.

Insert Tables 1 and 2 about here

Table 3 contains the empirical results of the multilevel regression models. Model 1 includes the control variables, Model 2 adds entrepreneurial activity as independent variable, and Models 3–5 add the separate interaction terms of entrepreneurial activity with the informal institutions (individualism, power distance, and uncertainty avoidance). Next, Models 6–8 add the interaction terms of entrepreneurial activity with the formal institutions (entrepreneurship policy, commercial profit tax, and worker rights). Model 9 includes all interaction terms. The variance inflation factors are below the cut-off value of 10, suggesting no notable concerns about multicollinearity in our analysis (Hair et al., 2013; Neter et al., 1996).

Insert Table 3 about here

The results of Model 2 show strong support for Hypothesis 1, revealing a positive association between entrepreneurial activity and life satisfaction ($\beta = .067$, $p < .001$). Compared with employees, entrepreneurs report higher levels of life satisfaction.

The results also affirm the predicted moderating effects of informal institutions (i.e., power distance positively moderates, and individualism and uncertainty avoidance negatively moderate, the relationship between entrepreneurial activity and life satisfaction). In Model 3, there is a negative, significant interaction between entrepreneurial activity and individualism ($\beta = -.026$; $p < .001$). Contrary to expectation, the relationship of entrepreneurial activity with life satisfaction is stronger, not weaker, at higher levels of power distance ($\beta = .036$, $p < .001$, Model 4). Finally, the relationship between entrepreneurial activity and life satisfaction is

weaker at higher levels of uncertainty avoidance (β = -.020, $p < .01$, Model 5), as expected. Thus, the results support Hypotheses 2a and 2c, but not Hypothesis 2b.

The findings confirm Hypotheses 3a–3c. Entrepreneurship policy positively moderates the relationship between entrepreneurial activity and life satisfaction, leading to a greater gap in life satisfaction between entrepreneurs and employees (β = .044, $p < .001$, Model 6). In Models 7 and 8, respectively, commercial profit taxes (β = -.038, $p < .001$) and worker rights (β = -.020, $p < .01$) attenuate the positive relationship between entrepreneurial activity and life satisfaction.

Finally, Model 9 contains all the interaction effects. The results confirm the previous findings for power distance, entrepreneurship policy, and commercial profit tax. Some interaction effects in Model 9 lose significance in the presence of the other interactions, consistent with the recognition that including a multitude of interaction terms in a single model can mask true moderating effects, due to the complex constellation generated by the combined interactions (Aiken and West, 1991; De Clercq et al., 2010; Neter et al., 1996). To gain a better understanding of the nature of the individual interactions, an analysis of the slope patterns in the graphs based on Models 3–8 (Figure 2) reveals that entrepreneurs tend to be even more satisfied with their lives, compared with employees, in environments marked by low individualism, high power distance, low uncertainty avoidance, supportive entrepreneurship policy, low commercial profit tax, and low worker rights.

Insert Figure 2 about here

4.2. Post hoc results

Several post hoc analyses affirm the findings. First, the institutional environment might influence the relationship between entrepreneurial activity and life satisfaction differently, depending on whether entrepreneurial activity is driven by opportunity or necessity (Binder and Coad, 2013, 2016; Larsson and Thulin, 2018). Tables 4 and 5 contain the empirical

results of multilevel regression models for opportunity-driven and necessity-driven entrepreneurial activity, separately. The relationship between opportunity-driven entrepreneurial activity and life satisfaction is strongly significant (β = .127, $p < .001$), whereas no significant relationship arises for necessity-driven entrepreneurial activity (β = -.002; *n.s.*). In terms of effect sizes, the results show that, compared to the base scenario in which both types of entrepreneurs all pooled together, opportunity-driven entrepreneurs report much greater levels of life satisfaction. That is, the magnitude of the effect of entrepreneurial activity is almost doubled for opportunity-driven entrepreneurs (β = .127, Table 4) compared to this base scenario (β = .067, Table 3). This finding might reflect the higher intrinsic work motivation that opportunity-driven entrepreneurs tend to experience, which spills over into their life domain. Moreover, informal and formal institutions moderate the relationship of *necessity*-driven entrepreneurial activity with life satisfaction (similar to Table 3), making the effects even stronger, according to the size of the regression coefficients. For example, individualism (β = -.064, $p < .001$), power distance (β = .075, $p < .001$), uncertainty avoidance (β = -.035, $p < .001$), entrepreneurship policy (β = .048, $p < .001$), commercial profit tax (β = -.039, $p < .001$), and worker rights (β = -.047, $p <.001$) all strongly moderate the positive relationship between entrepreneurial activity and life satisfaction (Table 5). These moderating effects are much weaker (and even insignificant, in the case of individualism [β = -.007; *n.s.*]) for opportunity-driven entrepreneurial activity (Table 4). These results demand great caution, in light of their post hoc nature, but they seem to suggest that for necessity-driven entrepreneurs, who might be particularly vulnerable to the hardships associated with running their own businesses, life satisfaction greatly depends on whether the institutional environment supports their entrepreneurial endeavours.

Insert Tables 4 and 5 about here

Second, Hofstede's cultural framework has come in for some criticism (Alexander and Smith, 1993; Baskerville, 2003; Beugelsdijk et al., 2015; Harrison and McKinnon, 1999; Taras et al., 2010), in that it lacks a sound, theory-driven foundation, offers a limited view of the relationships among different cultural dimensions, reflects relatively old data that may not capture more recent changes in countries' values and cultures, and represents a very specific sample (middle managers of IBM), which might compromise the external validity of the data. The framework continues to be used frequently, including in recent cross-country studies (e.g., Brieger and De Clercq, 2019; Feng et al., 2017; Lorenz et al., 2018), but it may be insightful to test the analyses with alternative cultural measures and moderators. Therefore, as mentioned, an alternative assessment relied on GLOBE's in-group collectivism, power distance, and uncertainty avoidance dimensions, which offer strong conceptual overlap with Hofstede's individualism, power distance, and uncertainty avoidance dimensions (House et al., 2001; 2014). The results in Table 6 indicate strongly significant, positive moderating effects of in-group collectivism ($\beta = .067$, $p < .001$) and power distance ($\beta = .037$, $p < .001$) and a (weak) significant, negative moderating effect of uncertainty avoidance ($\beta = -.018$, $p < .10$), in line with the main results. For the formal institutions, the post hoc analysis substituted growth entrepreneurship (Section 3.2) instead of entrepreneurship policy, income tax rate instead of commercial profit tax, and labour rights instead of worker rights. The results in Table 6 again are consistent with those in Table 3. Government support for growth entrepreneurship positively moderates the relationship between entrepreneurial activity and life satisfaction ($\beta = .018$, $p < .05$), and income tax ($\beta = -.031$, $p < .001$) and labour rights (inversely coded) attenuate the relationship ($\beta = .074$, $p < .001$).

Insert Table 6 about here

Third, using business owners as the independent variable, which excludes nascent entrepreneurs, leads to results and significance levels that are consistent with the focal

analyses, except that the interaction effect of entrepreneurial activity with uncertainty avoidance became significant at $p < .001$ instead of $p < .01$. The results of the full model also suggest that uncertainty avoidance becomes significant ($p < .01$).[2]

Fourth, in line with previous studies of life satisfaction (Binder and Coad, 2013; Di Tella et al., 2003), multilevel ordered logit models largely replicate the results, indicating the robustness of the analyses reported in Table 3. Only two differences arise, such that the moderating effects of individualism and worker rights become significant at $p < .05$, instead of $p < .001$ and $p < .01$, respectively.[3]

Fifth, a matching procedure supports a comparison of whether entrepreneurs and employees express varying life satisfaction when they share similar individual characteristics. In Stata's *teffects psmatch* command, which estimates the average treatment effect by matching each subject to a single subject with the opposite treatment whose propensity score is closest, the average life satisfaction level of entrepreneurs emerges as significantly higher than that of employees ($\beta = .061$, $p < .000$).[4]

4. Discussion and conclusion

5.1. Discussion of the findings

Entrepreneurs create employment and introduce new goods and services to society. When entrepreneurs are more satisfied with their lives, it likely enhances their motivation and performance (Lyubomirsky et al., 2005; Oswald et al., 2015) and also might initiate broader positive spill-overs (Demerouti et al., 2005), such as motivating employees to perform well or encouraging others to consider entrepreneurship. Understanding the causes of entrepreneurs' life satisfaction thus represents a high priority. Literature on self-employment or entrepreneurship and life satisfaction is relatively scarce though, with mixed results (Binder and Coad, 2013; Hessels et al., 2017). This study responds to recent calls for more research

[2] The results of this analysis are available on request.
[3] The results of this analysis are available on request.
[4] The results of this analysis are available on request.

that takes a contextualized perspective on entrepreneurs' mental well-being (Larsson and Thulin, 2018; Stephan, 2018) by investigating the importance of country-level factors for determining the life satisfaction of entrepreneurs, with a particular focus on how their life satisfaction compares with that of employees. The empirical findings show that the positive effect of being an entrepreneur, versus an employee, on life satisfaction is stronger in cultures with higher (and *not* lower) power distance and lower individualism and uncertainty avoidance, as well as in countries with more supportive government policies for entrepreneurs, lower commercial taxes, and fewer worker rights. Even if the magnitudes of the interaction effects are relatively small, this study provides first insights into unexplored factors (institutions) that contribute to divergent life satisfaction levels among entrepreneurs versus employees. Entrepreneurship research recognizes the importance of institutions for explaining differences in the rates and quality of entrepreneurial activities (Acs et al., 2008; Bowen and De Clercq, 2008) but provides little insight into their role in relation to entrepreneurs' general well-being. The empirical results of the current study indicate that entrepreneurs, on average, exhibit higher levels of life satisfaction than employees, which is even more pronounced in institutional environments that support entrepreneurial activities. In particular, cultures characterized by low individualism, high power distance, and low uncertainty avoidance match well with entrepreneurship and result in slightly higher levels of life satisfaction for them, compared with employees.

Interestingly, and counter to expectations, power distance *strengthens,* instead of weakens, the positive relationship between entrepreneurial activity and life satisfaction, thus increasing the life satisfaction gap between entrepreneurs and employees. A possible explanation is that these countries may fail to address employees' human needs for personal autonomy and growth, whereas entrepreneurs might benefit from the social status that is accorded to people who operate at the top of the hierarchy of their organizations. Future

studies could disentangle and compare these different mechanisms by investigating the role of people's *individual* power distance orientation in this process (Lin et al., 2013). Overall, the study's results with respect to culture complement research on the relevance of cultural characteristics for entrepreneurial activity. In particular, they extend prior findings by pinpointing how these three cultural factors determine the strength of the relationship between entrepreneurial activities and life satisfaction.

Furthermore, three formal institutions affect entrepreneurs' life satisfaction. Many governments attempt to stimulate entrepreneurship (Gilbert et al., 2004), due to its positive link with economic outcomes (Audretsch and Keilbach, 2004; Van Stel et al., 2005); the current study suggests that such policies have important implications for entrepreneurs' individual well-being too. Thus, a significant "side effect" of such government policies is to create an environment in which entrepreneurs operate more enjoyably, with a better fit between their personal preferences and the environment, which culminates in higher levels of life satisfaction. In contrast, higher taxes weaken the positive relationship between entrepreneurial activity and life satisfaction, reflecting some non-monetary consequences of taxes. Taxes are critical for the provision of public goods and services, but governments also need to avoid onerous taxation to limit adverse economic outcomes (Lee and Gordon, 2005), as well as to avoid unintended, negative effects on entrepreneurs' well-being. Finally, the moderating role of workers' rights suggests that favourable employee conditions (such as health and safety protections, salaries, and participation rights) enhance employees' life satisfaction levels, but they may also create burdens (e.g., higher salaries, more bureaucracy) for entrepreneurs, so they reduce the strength of the relationship between entrepreneurial activity and life satisfaction.

The post hoc analyses also reveal interesting differences between opportunity-driven and necessity-driven entrepreneurs. The former tend to be happier, whereas the latter may

struggle more with vulnerabilities and hardships in their daily lives (Van der Zwan et al., 2016). Yet favourable institutional conditions have relatively stronger effects on the relationship between necessity-driven entrepreneurial activity and life satisfaction, while unfavourable conditions have stronger negative effects, relative to the overall sample. Conversely, the interaction effects for opportunity-driven entrepreneurial activity were generally weaker. Opportunity-driven entrepreneurs may tend to experience greater levels of work satisfaction than necessity-driven entrepreneurs (Binder and Coad, 2016; Stephan, 2018), which might be the case because the former have more work-related capabilities and resources at their disposal (Baptista et al., 2014). Then they might be better able to deal with and overcome unfavourable environmental conditions, with positive spill-over effects on how satisfied they are with their daily lives.

5.2. Implications

Policymakers attempting to increase entrepreneurship rates should account for entrepreneurs' life satisfaction levels, and not just work, which depend on the broader institutional environment. To boost their happiness, the country should create appropriate environmental conditions, such as entrepreneurship-friendly formal institutions. Policymakers might institute changes to formal institutions to grant more benefits for entrepreneurial opportunity seeking and action, such as reducing taxes on new and growing firms or ensuring that government regulations are predictable and consistent. Policymakers also might attempt to limit bureaucratic and financial obstacles for start-ups.

Cultural conditions also can dampen entrepreneurs' life satisfaction, especially if they start their business out of necessity. A country's culture tends to be relatively stable though, so policymakers cannot exert direct impacts on this facet of the institutional environment. Further, while it is generally true that pro-entrepreneurship cultural settings positively affect the life satisfaction of entrepreneurs, this study provides the additional insight that in cultures

that do *not* favour entrepreneurship—by exhibiting low collectivism or high uncertainty avoidance, for example—the *relative* benefit of entrepreneurship support programs in increasing the life satisfaction of entrepreneurship should be greater. That is, these programs can help overcome the adverse cultural conditions, especially if the programs target people who seek entrepreneurship because they have few other alternatives to make a living (Johansson Sevä et al., 2016).

5.3. Limitations and future research directions

The rich data set for this study includes individual data from more than 70,000 entrepreneurs and employees from 43 countries, but the number of countries is still limited. Continued research should include more countries to obtain a more comprehensive picture, such as by gathering data from the World Values Surveys, which cover more than 100 countries on all continents and include information about occupations, satisfaction, and other individual characteristics (Inglehart and Welzel, 2005; Welzel, 2013). The cross-sectional nature of the data set also raises the potential for reverse causality. A longitudinal research approach might provide more definitive answers about the relationship of entrepreneurial activity with life satisfaction. Moreover, the GEM data set does not allow researchers to control for all relevant individual-level characteristics that might explain life satisfaction; alternative data sets might provide additional information about entrepreneurs and employees.

Further research could also pursue several other directions. First, the person–environment fit perspective could help researchers identify other environmental indicators that determine this form of fit for entrepreneurs, including other cultural dimensions (e.g., performance orientation, gender egalitarianism) or country-level indicators of political and business frameworks. Another line of research could build on the finding that entrepreneurship policy enhances entrepreneurs' life satisfaction, by specifying the role of specific types of government support (e.g., for setting up a business, for job growth, for

innovation). Government support for entrepreneurship also might interact with individual-level characteristics, such as gender, income, or education, with further effects for life satisfaction.

Second, in a related vein, because institutional environments provide resources for entrepreneurs, continued studies might address how *specific* resources, both tangible and intangible, affect entrepreneurs' life satisfaction. Such studies would represent a logical extension of entrepreneurship studies that rely on the resource-based view and link a firm's unique resources to its strategies and performance (Nath et al., 2010; Simon and Hitt, 2003). Evidence indicates the importance of entrepreneurial networks for resource access for example (Loane and Bell, 2006); it may be worthwhile to consider whether these networks also include institutional actors, such as policymakers and government officials.

Third, the theoretical model and analyses focused on country-level moderators, which may overlook relevant factors at intermediate levels, such as the region (Bergmann et al., 2016; Bird and Wennberg 2014; Dahl and Sorenson 2009; Weiss et al., 2019) or city (Audretsch and Belitski, 2017; Audretsch et al., 2018). Studies that examine the individual *and* combined moderating effects of pertinent factors that operate at various levels (country, region, and city) then might determine whether the factors reinforce or substitute for each other, in their impact on the extent to which entrepreneurial activity contributes to enhanced life satisfaction.

Fourth, the current study does not include the potential moderating role of economic indicators. But both informal and formal institutions influence economic development and growth, as well as other macroeconomic factors such as inflation, interest rates, and unemployment (Acemoglu and Robinson, 2012; Granato et al., 1996; Tabellini, 2010), so future research should examine their moderating effects, among other economic variables.

Fifth, this study theorized that supportive environmental factors that match well with entrepreneurship might diminish the life-related sacrifices that entrepreneurs need to make to dedicate themselves to their businesses—such as having to cut down on their leisure time or experiencing a work–family imbalance—and thereby lead to positive consequences for their life satisfaction. In contrast, in unfavourable institutional environments that provide a poor person–environment fit, the hardships of entrepreneurship, such as long working hours, leave less time for non-work activities and may particularly limit life satisfaction (Ajayi-Obe and Parker, 2005; Hyytinen and Ruuskanen, 2007). Continued research could explicitly assess the extent to which entrepreneurs sense that long working hours compromise their satisfaction with their lives, as well as how pertinent institutional factors might influence this process. From a more general perspective, such research could formally assess the specific mediating mechanisms affected by each theorized institutional factor that link entrepreneurial activity to life satisfaction, in the form of moderated mediation models.

Finally, our research does not differentiate between self-employed people who are the owners of their own business and their self-employed counterparts who do not have their own business. In view of the rise of self-employed work in the "Gig Economy," it would be interesting to examine how the presence of higher work flexibility with lower social security protection may have an influence on the life satisfaction of self-employed workers. Recently, Berger and colleagues (2018) show, for example, that although Uber drivers report higher levels of life satisfaction than other workers, they also report higher anxiety levels. Future research therefore could consider the specific case of self-employed workers, and compare the impact of institutional factors on their life satisfaction with that of self-employed owners and workers who are not self-employed.

5.4. Conclusion

This study reveals how the match between entrepreneurial activity and the institutional environment informs the magnitude of the gap in life satisfaction between entrepreneurs and employees. This difference is more pronounced in countries marked by high collectivism (low individualism), high power distance, low uncertainty avoidance, supportive entrepreneurship policies, low commercial profit taxes, and low worker rights. Accordingly, this research might serve as a stepping stone for further investigations of how various macro-level factors contribute to the professional and personal well-being of entrepreneurs, including further explications of the detailed processes that underpin these contributions.

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Figure 1: Conceptual framework

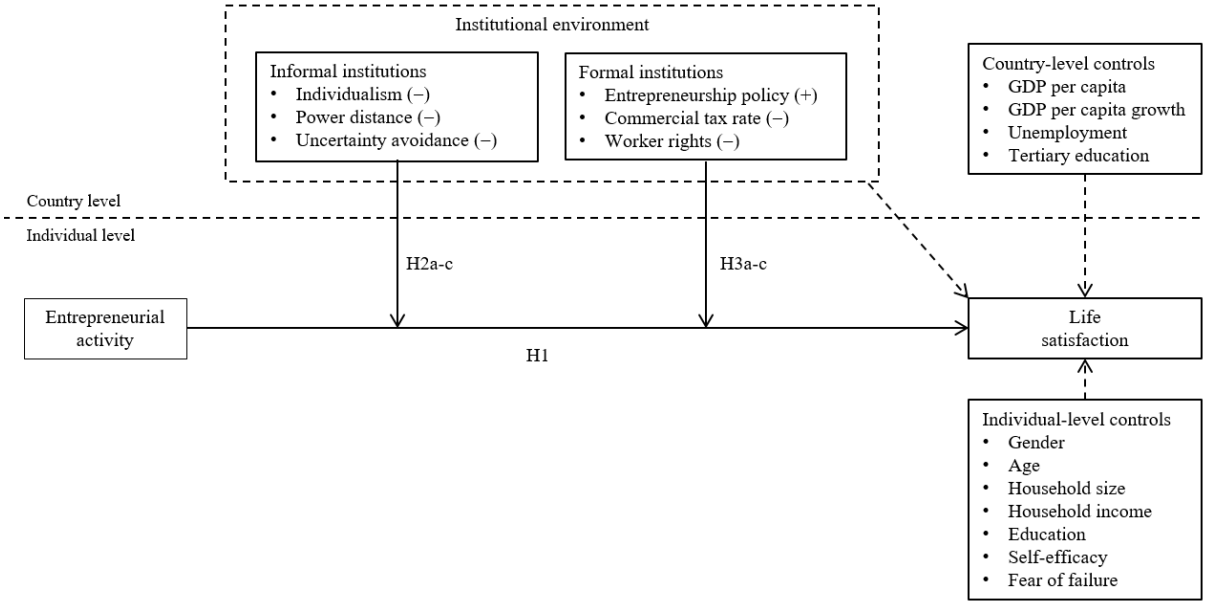

Figure 2: Interaction graphs

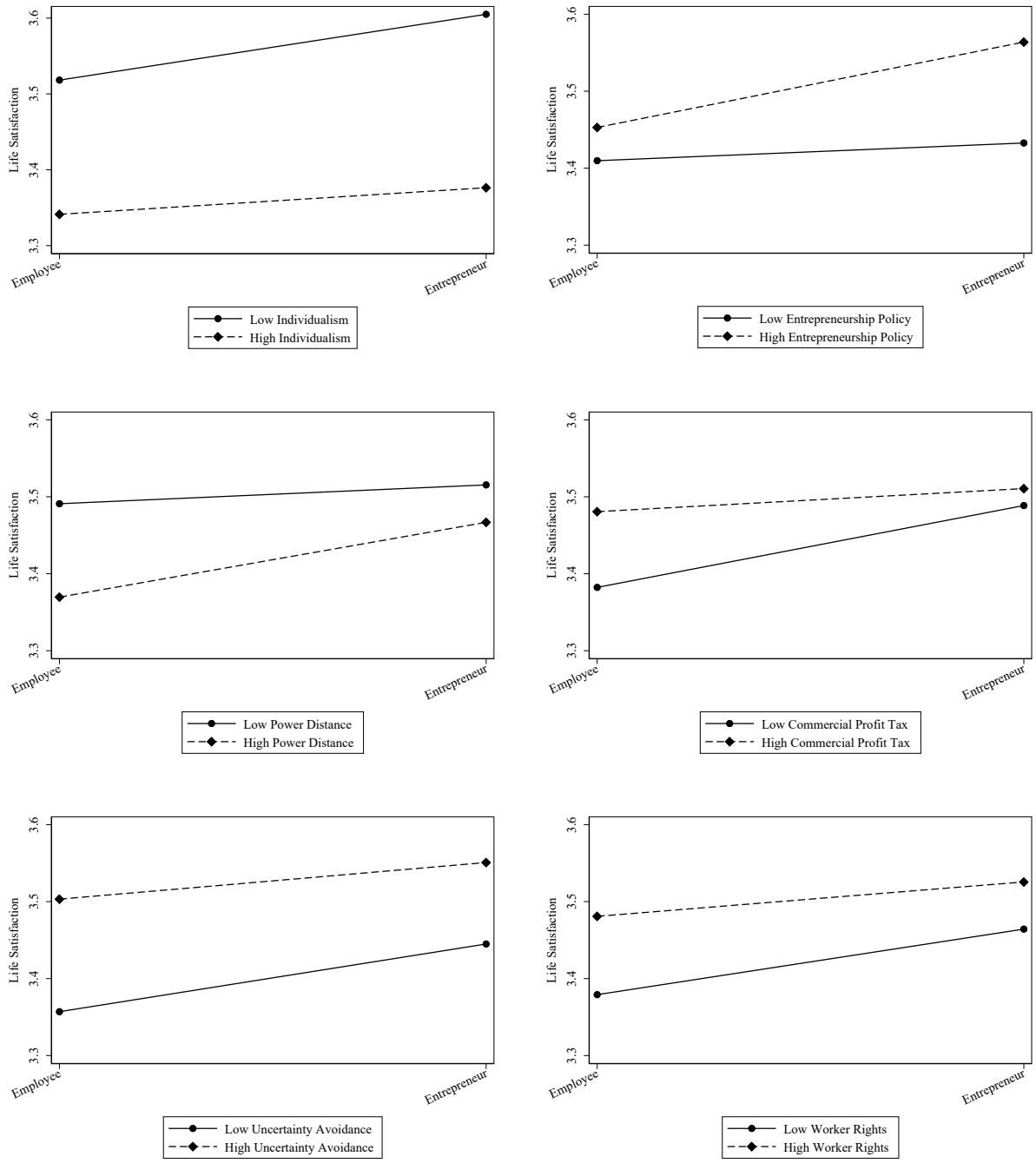

Table 1. Descriptive statistics

Variable	N	Mean	SD	Min	Max
1. Life satisfaction	74,517	3.503	0.886	1	5
2. Entrepreneurial activity	74,517	0.294	0.456	0	1
3. Gender	74,517	0.408	0.491	0	1
4. Age	74,517	39.629	11.341	18	64
5. Household size	74,517	3.529	1.387	1	6
6. Education	74,517	2.113	1.036	0	4
7. Household income	74,517	1.070	0.820	0	2
8. Self-efficacy	74,517	0.557	0.497	0	1
9. Fear of failure	74,517	0.418	0.493	0	1
10. GDP p.C.	43	22027.600	20240.820	1522.486	88394.270
11. GDP p.C. growth	43	1.397	2.323	-3.177	7.227
12. Unemployment	43	8.735	5.976	0.7	27.2
13. Tertiary education	43	58.868	22.679	18.326	110.163
14. Individualism	43	45.070	23.539	6	91
15. Power distance	43	61.721	22.279	13	104
16. Uncertainty avoidance	43	67.326	24.139	13	112
17. Entrepreneurship policy	43	2.436	0.448	1.718	3.497
18. Commercial profit tax	43	46.512	16.877	25.8	119.4
19. Worker rights	43	0.884	0.498	0	2

Table 2. Correlation matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Life satisfaction	1																		
2. Entrepreneurial activity	**0.02**	1																	
3. Gender	**0.02**	**-0.05**	1																
4. Age	0.00	**0.08**	**0.01**	1															
5. Household size	0.00	**0.11**	**-0.04**	**-0.09**	1														
6. Education	**0.08**	**-0.17**	**0.06**	**-0.08**	**-0.12**	1													
7. Household income	**0.18**	**-0.02**	**-0.05**	**0.02**	**0.08**	**0.35**	1												
8. Self-efficacy	**0.07**	**0.27**	**-0.11**	0.00	**0.06**	**0.02**	**0.08**	1											
9. Fear of failure	**-0.11**	**-0.11**	**0.08**	**0.02**	**-0.03**	0.01	**-0.04**	**-0.18**	1										
10. GDP p.C.	**0.13**	**-0.25**	**0.07**	**0.14**	**-0.25**	**0.21**	**0.06**	**-0.13**	**0.05**	1									
11. GDP p.C. growth	**-0.04**	**0.20**	**-0.02**	**-0.11**	**0.19**	**-0.12**	**-0.05**	**0.06**	**-0.06**	**-0.56**	1								
12. Unemployment	**-0.04**	**-0.08**	0.00	**0.06**	**-0.07**	**0.06**	0.00	**0.02**	**0.04**	**0.12**	**-0.55**	1							
13. Tertiary education	**0.02**	**-0.12**	**-0.03**	**0.11**	**-0.11**	**0.23**	**0.04**	**-0.03**	**0.02**	**0.44**	**-0.53**	**0.42**	1						
14. Individualism	**0.04**	**-0.23**	**0.05**	**0.13**	**-0.23**	**0.19**	**0.08**	**-0.10**	**0.06**	**0.73**	**-0.57**	**0.25**	**0.36**	1					
15. Power distance	**-0.08**	**0.16**	**-0.05**	**-0.11**	**0.19**	**-0.19**	**-0.04**	**0.09**	**-0.05**	**-0.70**	**0.52**	**-0.16**	**-0.42**	**-0.69**	1				
16. Uncertainty avoidance	**0.02**	**-0.03**	**-0.05**	**0.02**	**0.02**	**0.01**	**-0.03**	**0.04**	0.01	**-0.10**	**-0.31**	**0.30**	**0.52**	**-0.14**	**0.09**	1			
17. Entrepreneurship policy	**0.07**	**0.02**	**-0.03**	0.01	**0.03**	**0.06**	-0.01	0.00	**-0.08**	**0.15**	**0.30**	**-0.35**	**0.13**	**-0.11**	**-0.09**	**-0.13**	1		
18. Commercial profit tax	0.00	0.00	**0.03**	0.00	**-0.06**	**-0.09**	0.00	**-0.01**	**0.02**	**-0.05**	**-0.06**	**0.17**	**-0.08**	**0.09**	**0.07**	**0.08**	**-0.46**	1	
19. Worker rights	**0.08**	**-0.13**	**0.02**	**0.10**	**-0.11**	**0.11**	**0.03**	**-0.02**	**0.02**	**0.39**	**-0.38**	**0.22**	**0.48**	**0.45**	**-0.34**	**0.43**	**0.06**	**0.11**	1

Notes: Correlations $p < .01$ appear in bold type. $N = 74{,}517$.

Table 3. Main results

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Individual-level controls									
Gender	0.048***	0.047***	0.046***	0.046***	0.047***	0.047***	0.047***	0.047***	0.046***
Age	-0.010***	-0.010***	-0.010***	-0.010***	-0.010***	-0.010***	-0.010***	-0.010***	-0.010***
Age × age/100	0.012***	0.012***	0.012***	0.012***	0.012***	0.012***	0.012***	0.012***	0.012***
Household size	0.008***	0.008**	0.008**	0.008**	0.008**	0.008**	0.008**	0.008**	0.007**
Education (ref is none)									
Some Secondary	0.009	0.014	0.015	0.015	0.014	0.014	0.014	0.014	0.014
Secondary degree	0.029*	0.037**	0.039**	0.039**	0.037**	0.036**	0.036**	0.038**	0.037**
Post-Secondary	0.075***	0.087***	0.089***	0.089***	0.088***	0.087***	0.087***	0.088***	0.089***
Graduate experience	0.162***	0.175***	0.177***	0.176***	0.174***	0.176***	0.176***	0.176***	0.177***
Household income (ref is low)									
Middle	0.193***	0.193***	0.193***	0.193***	0.193***	0.193***	0.193***	0.193***	0.193***
High	0.368***	0.367***	0.366***	0.366***	0.367***	0.365***	0.366***	0.367***	0.365***
Self-efficacy	0.056***	0.043***	0.043***	0.043***	0.042***	0.043***	0.043***	0.043***	0.043***
Fear of failure	-0.147***	-0.144***	-0.144***	-0.145***	-0.144***	-0.144***	-0.144***	-0.144***	-0.144***
Country-level controls									
GDP p.C./100	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**
GDP p.C. growth	-0.001	-0.002	-0.002	-0.003	-0.002	-0.003	-0.001	-0.002	-0.003
Unemployment	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009
Tertiary education	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**
Individualism	-0.098†	-0.094	-0.088	-0.094	-0.094	-0.095	-0.096†	-0.093	-0.099†
Power distance	-0.055	-0.054	-0.053	-0.061	-0.054	-0.054	-0.056	-0.054	-0.065
Uncertainty avoidance	0.064	0.067	0.067	0.067	0.073	0.067	0.067	0.068	0.071
Entrepreneurship policy	0.031	0.031	0.030	0.031	0.032	0.022	0.030	0.031	0.024
Commercial profit tax	0.037	0.036	0.036	0.037	0.036	0.038	0.049	0.036	0.047
Worker rights	0.045	0.046	0.046	0.046	0.045	0.045	0.046	0.051	0.046
Independent variable									
Entrepreneurial activity		0.067***	0.061***	0.061***	0.068***	0.067***	0.068***	0.065***	0.063***
Interaction effects									
Entrepreneurial activity × Individualism			-0.026***						0.016

× Power distance				0.036***					0.045***
× Uncertainty avoidance					-0.020**				-0.013
× Entrepreneurship policy						0.044***			0.034***
× Commercial profit tax							-0.038***		-0.023**
× Worker rights								-0.020**	-0.005
Intercept	3.690***	3.684***	3.684***	3.687***	3.682***	3.693***	3.682***	3.682***	3.691***
ICC	0.0802	0.0801	0.0801	0.0796	0.0808	0.0807	0.0805	0.0801	0.0807
Individual-level variance	0.676***	0.675***	0.675***	0.675***	0.675***	0.675***	0.675***	0.675***	0.674***
Country-level variance	0.059***	0.059***	0.059***	0.058***	0.059***	0.059***	0.059***	0.059***	0.059***
Individual-level R squared	0.097	0.098	0.099	0.099	0.098	0.098	0.098	0.099	0.099
Country-level R squared	0.426	0.427	0.427	0.431	0.421	0.422	0.424	0.427	0.423
VIF	6.45	6.23	6.06	6.05	6.05	6.05	6.06	6.06	5.65
Log likelihood	-91230.5	-91188.3	-91182.8	-91178.4	-91184.1	-91168.9	-91171.0	-91184.2	-91149.8

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Notes: Dependent variable: Life satisfaction. Number of individual-level observations: 74,517; number of countries: 43.

Table 4. Post-hoc results: Opportunity-driven entrepreneurial activity vs. employee work

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Individual-level controls									
Gender	0.047***	0.046***	0.045***	0.045***	0.045***	0.045***	0.045***	0.045***	0.045***
Age	-0.008***	-0.008***	-0.008***	-0.008***	-0.008***	-0.008***	-0.008***	-0.008***	-0.008***
Age × age/100	0.010***	0.009***	0.009***	0.009***	0.009***	0.009***	0.009***	0.009***	0.009***
Household size	0.010***	0.010***	0.010***	0.010***	0.010***	0.010***	0.010***	0.010***	0.009***
Education (ref is none)									
Some Secondary	-0.004	0.004	0.004	0.004	0.003	0.003	0.004	0.004	0.004
Secondary degree	0.025†	0.037**	0.038**	0.038**	0.037**	0.037**	0.036**	0.038**	0.037**
Post-Secondary	0.076***	0.094***	0.094***	0.095***	0.094***	0.094***	0.093***	0.095***	0.094***
Graduate experience	0.163***	0.181***	0.181***	0.182***	0.181***	0.182***	0.182***	0.182***	0.182***
Household income (ref is low)									
Middle	0.193***	0.193***	0.193***	0.193***	0.193***	0.193***	0.192***	0.193***	0.193***
High	0.371***	0.366***	0.366***	0.366***	0.367***	0.366***	0.366***	0.366***	0.366***
Self-efficacy	0.061***	0.042***	0.042***	0.042***	0.041***	0.042***	0.042***	0.042***	0.042***
Fear of failure	-0.159***	-0.153***	-0.153***	-0.154***	-0.153***	-0.153***	-0.153***	-0.154***	-0.154***
Country-level controls									
GDP p.C./100	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**
GDP p.C. growth	-0.004	-0.005	-0.005	-0.005	-0.005	-0.005	-0.004	-0.005	-0.005
Unemployment	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008
Tertiary education	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**
Individualism	-0.099†	-0.093	-0.092	-0.093	-0.093	-0.094	-0.095	-0.093	-0.100†
Power distance	-0.055	-0.053	-0.053	-0.056	-0.053	-0.054	-0.055	-0.053	-0.062
Uncertainty avoidance	0.065	0.069	0.069	0.069	0.074	0.069	0.069	0.069	0.071
Entrepreneurship policy	0.035	0.034	0.034	0.034	0.035	0.028	0.033	0.034	0.030
Commercial profit tax	0.037	0.035	0.035	0.036	0.036	0.037	0.045	0.035	0.044
Worker rights	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.047	0.046
Independent variable									
Opportunity-driven entrepreneurial activity		0.127***	0.124***	0.121***	0.127***	0.124***	0.127***	0.124***	0.125***

Interaction effects									
Opportunity-driven entrepreneurial activity									
× Individualism			-0.007						0.040**
× Power distance				0.024*					0.044**
× Uncertainty avoidance					-0.021*				-0.006
× Entrepreneurship policy						0.039***			0.033**
× Commercial profit tax							-0.040***		-0.026**
× Worker rights								-0.021*	-0.018
Intercept	3.654***	3.641***	3.640***	3.642***	3.639***	3.645***	3.640***	3.640***	3.646***
ICC	0.0830	0.0830	0.0830	0.0827	0.0836	0.0832	0.0834	0.0830	0.0833
Individual-level variance	0.665***	0.663***	0.663***	0.663***	0.663***	0.662***	0.662***	0.663***	0.662***
Country-level variance	0.060***	0.060***	0.060***	0.060***	0.060***	0.060***	0.060***	0.060***	0.060***
Individual-level R squared	0.101	0.104	0.104	0.105	0.104	0.104	0.104	0.104	0.105
Country-level R squared	0.423	0.425	0.425	0.426	0.420	0.423	0.422	0.425	0.423
VIF	6.47	6.25	6.07	6.06	6.06	6.05	6.06	6.06	5.55
Log likelihood	-77817.0	-77712.1	-77711.8	-77709.2	-77709.0	-77701.7	-77698.6	-77709.1	-77687.5

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Notes: Dependent variable: Life satisfaction. Number of individual-level observations: 63,975; number of countries: 43.

Table 5. Post-hoc results: Necessity-driven entrepreneurial activity vs. employee work

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Individual-level controls									
Gender	0.049***	0.049***	0.047***	0.047***	0.048***	0.048***	0.049***	0.048***	0.047***
Age	-0.011***	-0.011***	-0.011***	-0.011***	-0.011***	-0.011***	-0.011***	-0.011***	-0.011***
Age × age/100	0.012***	0.012***	0.012***	0.012***	0.012***	0.012***	0.012***	0.012***	0.012***
Household size	0.009***	0.009***	0.009***	0.009***	0.009***	0.009***	0.009***	0.009***	0.009***
Education (ref is none)									
Some Secondary	0.014	0.015	0.016	0.016	0.014	0.014	0.015	0.015	0.015
Secondary degree	0.043**	0.043**	0.046***	0.046***	0.043**	0.042**	0.042**	0.045***	0.045***
Post-Secondary	0.102***	0.103***	0.106***	0.105***	0.104***	0.102***	0.102***	0.105***	0.106***
Graduate experience	0.191***	0.191***	0.194***	0.193***	0.191***	0.192***	0.192***	0.193***	0.194***
Household income (ref is low)									
Middle	0.190***	0.190***	0.189***	0.190***	0.190***	0.190***	0.190***	0.190***	0.189***
High	0.363***	0.363***	0.362***	0.362***	0.363***	0.361***	0.362***	0.362***	0.361***
Self-efficacy	0.030***	0.029***	0.031***	0.030***	0.029***	0.030***	0.029***	0.030***	0.030***
Fear of failure	-0.150***	-0.150***	-0.150***	-0.150***	-0.150***	-0.150***	-0.150***	-0.150***	-0.150***
Country-level controls									
GDP p.C./100	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**
GDP p.C. growth	-0.001	-0.001	-0.001	-0.003	-0.001	-0.002	-0.000	-0.000	-0.002
Unemployment	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008
Tertiary education	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**	-0.007**
Individualism	-0.103†	-0.102†	-0.094	-0.103†	-0.101†	-0.103†	-0.104†	-0.101†	-0.102†
Power distance	-0.055	-0.055	-0.054	-0.064	-0.055	-0.055	-0.057	-0.055	-0.064
Uncertainty avoidance	0.069	0.069	0.068	0.069	0.076	0.068	0.069	0.069	0.073
Entrepreneurship policy	0.028	0.028	0.026	0.028	0.029	0.022	0.027	0.028	0.023
Commercial profit tax	0.041	0.041	0.040	0.042	0.041	0.042	0.049	0.041	0.048
Worker rights	0.047	0.047	0.048	0.047	0.045	0.046	0.047	0.054	0.049
Independent variable									
Necessity-driven entrepreneurial activity		0.002	-0.023*	-0.020†	0.003	-0.001	0.002	-0.007	-0.023*
Interaction effects									

Necessity-driven entrepreneurial activity									
× Individualism			-0.064***						-0.005
× Power distance				0.075***					0.058***
× Uncertainty avoidance					-0.035***				-0.021†
× Entrepreneurship policy						0.048***			0.037**
× Commercial profit tax							-0.039***		-0.021*
× Worker rights								-0.047***	-0.019
Intercept	3.696***	3.696***	3.697***	3.702***	3.693***	3.703***	3.694***	3.693***	3.702***
ICC	0.085	0.085	0.085	0.084	0.086	0.086	0.085	0.085	0.086
Individual-level variance	0.675***	0.675***	0.675***	0.675***	0.675***	0.675***	0.675***	0.675***	0.674***
Country-level variance	0.063***	0.063***	0.062***	0.062***	0.063***	0.063***	0.063***	0.063***	0.063***
Individual-level R squared	0.099	0.099	0.099	0.100	0.098	0.098	0.099	0.099	0.099
Country-level R squared	0.420	0.420	0.421	0.426	0.412	0.415	0.417	0.420	0.415
VIF	6.44	6.22	6.04	6.04	6.03	6.02	6.03	6.03	5.51
Log likelihood	-75413.7	-75413.7	-75397.2	-75393.7	-75406.2	-75400.7	-75402.8	-75400.4	-75371.3

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Notes: Dependent variable: Life satisfaction. Number of individual-level observations: 61,608; number of countries: 43.

Table 6. Post-hoc results: Alternative moderators

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Individual-level controls	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country-level controls	YES	YES	YES	YES	YES	YES	YES	YES	YES
Independent variable									
Entrepreneurial activity		0.064***	0.046***	0.058***	0.060***	0.065***	0.060***	0.047***	0.042***
Interaction effects									
Entrepreneurial activity									
× In-group collectivism[‡]			0.067***						-0.014
× Power distance[‡]				0.037***					0.029[†]
× Uncertainty avoidance[‡]					-0.018[†]				-0.030
× Government programs						0.018*			0.031**
× Income tax							-0.031***		0.000
× Labour rights								0.074***	0.079***
Intercept	3.800***	3.793***	3.792***	3.791***	3.791***	3.795***	3.789***	3.793***	3.792***
ICC	0.054	0.053	0.053	0.052	0.053	0.054	0.053	0.054	0.054
Individual-level variance	0.687***	0.686***	0.686***	0.686***	0.686***	0.686***	0.686***	0.685***	0.685***
Country-level variance	0.039***	0.039***	0.039***	0.038***	0.038***	0.039***	0.038***	0.039***	0.039***
Individual-level R squared	0.105	0.106	0.107	0.108	0.107	0.106	0.107	0.107	0.108
Country-level R squared	0.546	0.554	0.555	0.562	0.558	0.549	0.558	0.549	0.553
VIF	6.54	6.32	6.15	6.14	6.14	6.14	6.15	6.15	5.74
Log likelihood	-77910.8	-77879.1	-77853.2	-77870.6	-77877.2	-77876.4	-77872.6	-77832.4	-77820.3

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Notes: Dependent variable: Life satisfaction. Number of individual-level observations: 63,212; number of countries: 34. Labour rights is reverse coded, ranging from best to worst. [‡] Moderating variables come from the GLOBE project.