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Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations

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Abstract
We develop the institutional configuration perspective to understand which national contexts facilitate social entrepreneurship (SE). We confirm joint effects on SE of formal regulatory (government activism), informal cognitive (post-materialist cultural values), and informal normative (socially supportive cultural norms, or weak-tie social capital) institutions in a multilevel study of 106,484 individuals in 26 nations. We test opposing propositions from the *institutional void* and *institutional support* perspectives. Our results underscore the importance of resource support from both formal and informal institutions, and highlight motivational supply side influences on SE. They advocate greater consideration of institutional configurations in institutional theory and comparative entrepreneurship research.
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INTRODUCTION

Public and private initiatives increasingly recognize social entrepreneurship (SE) as a means of addressing a wide range of social needs (*The Economist*, 2010). The US-based Skoll Foundation has invested more than US$ 358 million in social entrepreneurs worldwide (Skoll Foundation, 2013). Public initiatives to encourage private-sector SE include the UK government's "Big Society"[1] and the European Commission's "Social Business Initiative" (European Commission, 2013). An extensive review of SE research (Short, Moss, & Lumpkin, 2009) suggests a dramatic rise in academic interest in the past two decades. However, SE research lags behind practice (Nicholls, 2010). While the prominence of SE varies substantially across countries (Lepoutre, Justo, Terjesen, & Bosma, 2013), we know little about factors that may drive national differences. The purpose of our study is to understand which national contexts may facilitate SE.

We build on institutional theory (North, 2005; Scott, 1995) and enhance it with the institutional configuration perspective to identify nation-level antecedents of individuals' engagement in SE.

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So far, SE research has mainly discussed the role of formal institutions in SE (Dacin, Dacin, & Matear, 2010; Estrin, Mickiewicz, & Stephan, 2013a; Mair & Marti, 2009; Zahra, Gedajlovic, Neubaum, & Shulman, 2009). As used here, the *institutional configuration* perspective recognizes that human behavior is shaped *jointly* by the constraints, incentives, and resources provided by formal and informal institutions, which can be more or less compatible with each other. This proposition has often been discussed in extant research (Bruton, Ahlstrom, & Li, 2010; Scott, 2005; Whitley, 1994) but has rarely been empirically tested. We develop a multilevel model for nation-level institutional influences on individual SE that proposes both main and interactive (synergistic and substitutive) effects of formal and informal institutions. Our findings support the institutional configuration perspective, advancing our understanding of the national drivers of SE and research on institutional theory in International Business (IB) more generally.

This investigation of institutional configurations also allows us to resolve conflicting perspectives on the role of formal, regulatory institutions. According to the *institutional void* perspective (Dacin et al., 2010; Estrin et al., 2013a), SE motivation increases in resource-scarce environments in which social problems are abundant. Less active governments, in particular, may trigger higher social need, and thus greater demand for SE (Dacin et al., 2010; Zahra et al., 2009). A countervailing perspective, which we henceforth refer to as *institutional support*, is that countries with more active governments will support and thus enhance SE (Evans, 1996; Korosec & Berman, 2006; Zahra & Wright, 2011). We resolve these apparent inconsistencies by considering that institutions may influence individual behavior, both as stimulants of *motivation* and as providers of tangible and intangible *resource support* to social entrepreneurs. More broadly, our study follows recent calls for greater consideration of the impact of context on entrepreneurial behavior (Welter, 2011; Zahra & Wright, 2011), and for the advancement of SE research through quantitative methods (Dacin, Dacin, & Tracey, 2011; Short et al., 2009).

SE AS A FIELD OF INQUIRY

A *social entrepreneur* is an individual working for his or her own account while primarily pursuing pro-social goals, that is, goals set to benefit people other than the entrepreneur (Bierhoff, 2002). The first part of this definition – working for one's own account – draws upon the occupational definition of entrepreneurship (Hébert & Link, 1982). This definition is not restrictive with regard to the types of goals that entrepreneurs pursue, that is, to generate social vs economic wealth. Thus we can apply the definition to both commercial and social entrepreneurs. The emphasis on pro-social goals and social wealth creation over economic wealth creation differentiates social from commercial entrepreneurs and is consistent with recent SE definitions (Mair & Marti, 2006; Zahra et al., 2009).

By applying institutional theory to SE, we can develop new insights for both (social) entrepreneurship and institutional theory (Dacin et al., 2010, 2011; Mair & Marti, 2006, 2009; Zahra & Wright, 2011). Comparative entrepreneurship research draws largely on economic institutional theory and the rational, self-interested actor model, including the importance of incentives (e.g., Aidis, Estrin, & Mickiewicz, 2012; Bowen & De Clercq, 2008). However, the social entrepreneur's decision and action logic often relates to pro-social or "other" interests (Santos, 2012; Zahra et al., 2009). Thus the influence of formal and informal institutions may also differ. First, whereas larger government may even deter commercial entrepreneurship (CE) (Aidis et al., 2012), it may benefit social entrepreneurs who often depend directly or indirectly on government support to carry out their missions. Unis-Cité in France and CDI in Brazil, described by Santos (2012), offer two examples of social enterprises that initially relied on private funding but achieved scale through their government's financial support. Second, while certain cultural values (e.g., independence and autonomy) may pertain to both social and commercial entrepreneurs, the importance of other values may differ sharply. For instance, whereas postmaterialist values and CE are negatively associated at the country (Uhlaner & Thurik, 2007), regional (Pinillos, 2011) and individual levels (Morales & Holtschlag, 2013), the opposite may be true for SE. Finally, to develop a valid model of SE, one must consider an institutional framework specific to SE (Dacin et al., 2010) and one that jointly considers formal and informal institutions.

RESEARCH FRAMEWORK: NATIONAL INSTITUTIONS AND SE

Institutions refer to deep aspects of social structure, which act as authoritative guidelines and constraints for behavior (North, 1991, 2005; Scott, 2005). Institutions are taken-for-granted rules that can be explicit and consciously perceived by individuals, or can

act as implicit guidelines for individuals' actions (Powell & DiMaggio, 1991). *Formal* institutions refer to the objective constraints and incentives arising from government regulation of individual and organizational actions (Bruton et al., 2010; Scott, 1995, 2005). *Informal* institutions refer to more implicit, slowly changing, culturally transmitted and socially constructed institutions. Scott's (1995, 2005) three-pillar framework further differentiates two types of informal institutions, cognitive and normative, arguably corresponding to the concepts of cultural values and practices in cross-cultural research (Javidan, House, Dorfman, Hanges, & Sully de Luque, 2006). Specifically, *cognitive* institutions include the culturally shared understandings closely associated with cultural values, whereas *normative* institutions describe social obligations and expectations about appropriate actions modeled on existing dominant practices or norms in a given culture (Bruton et al., 2010; Javidan et al., 2006; Scott, 2005; Stephan & Uhlaner, 2010).

Separate disciplines define two streams of comparative entrepreneurship research, depending on the institution (formal vs informal) chosen to predict entrepreneurship (Bruton et al., 2010; Jones, Coviello, & Tang, 2011). Comparative entrepreneurship research based on institutional economics examines formal institutions (Autio & Acs, 2010; Estrin, Korosteleva, & Mickiewicz, 2013b), whereas that based on cultural sociology and cross-cultural psychology typically examines informal institutions (e.g., Autio, Pathak, & Wennberg, 2013). Although institutional theorists in other research domains have suggested the possibility of joint effects (Carney, Gedajlovic, & Yang, 2009; North, 2005), empirical studies integrating both streams in comparative entrepreneurship research are still rare (Stephan & Uhlaner, 2010).

In our proposed model (Figure 1), government activism is an important formal regulatory institution affecting demand for SE (Dacin et al., 2010; Estrin et al., 2013a). The prevalence of postmaterialist cultural values (henceforth postmaterialism) among a nation's citizens represents the cognitive pillar and enhances the supply of potential social entrepreneurs within a country by motivating SE. Socially supportive cultural norms (henceforth socially supportive culture (SSC)) represent the normative pillar in our framework. SSC provides weak-tie social capital, and thereby serves as an important informal mechanism for lowering transaction costs and providing access to much needed resources (Stephan & Uhlaner, 2010). We propose and test a mixed-determinant, multilevel model (Kozlowski & Klein, 2000) in which the three institutions of government activism, postmaterialism, and SSC, alone and in combination, affect an individual's probability of engaging in SE.

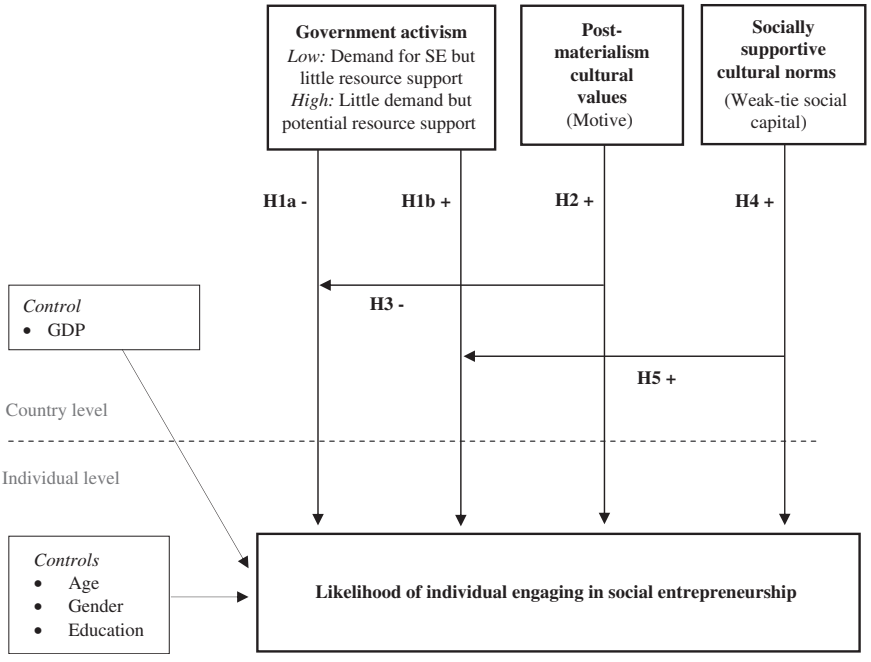

Figure 1 Research model: Institutional drivers of SE.

Regulatory Institutional Context: Government Activism (Hypothesis 1)

Government activism reflects the extent to which a nation's formal institutions redistribute economic wealth through progressive tax structures and spending to provide for the common welfare of its citizens (Aidis et al., 2012; Castles & Dowrick, 1990). It thus reflects a government's ability to address social issues and provide public goods. Hypotheses 1a and 1b propose opposite influences of government activism on SE based on the institutional void and support perspectives.

Government activism in the institutional void perspective (Hypothesis 1a)

Whereas in the IB literature, the term *institutional void* typically refers to the absence of strong rule of law (Carney et al., 2009; Khanna & Rivkin, 2001), in the SE literature the term describes conditions of limited government support especially for social programs. Under such conditions, social needs such as poverty or environmental pollution are more abundant, triggering greater demand for SE (Dacin et al., 2010; Estrin et al., 2013a; Mair & Marti, 2009; Zahra et al., 2009). According to this perspective, government inactivity motivates social enterprises and others in the private sector to fill this gap, or "void." Conversely, the presence of active and engaged governments leads to fewer societal problems and lower demand for SE, and thus fewer individuals are likely to be motivated to engage in SE. Mair, Battilana, and Cárdenas's (2012) content analysis of 200 social enterprise profiles supports this view. Social enterprises frequently appear where governments fail to provide for social needs such as adequate health care, children's social services, or environmental protection. In a cross-national quantitative study, Estrin et al. (2013a) find that more government activism is negatively correlated with SE start-up efforts.

Within research on nonprofits, government failure theory provides parallel arguments (Nissan, Castaño, & Carrasco, 2012; Salamon & Anheier, 1998): When governments fail to provide public goods and social welfare, nonprofits step in to provide such goods and services. Conversely, it is argued that a larger, wealth-redistributing welfare state crowds out private pro-social initiatives (e.g., Warr, 1982). A cross-national study supports government failure theory, that is, less active governments are correlated with a larger nonprofit sector (Matsunaga, Yamauchi, & Okuyama, 2010).

In line with the institutional void perspective, we thus propose:

Hypothesis 1a: Government activism at the national level is negatively associated with the likelihood of individuals engaging in SE.

Government activism in the institutional support perspective (Hypothesis 1b)

In contrast to Hypothesis 1a, one can also argue that government activism, by providing *tangible* and *intangible* resource support for social entrepreneurs, can enhance SE (Evans, 1996; Korosec & Berman, 2006; Zahra & Wright, 2011). Tangible resources include grants, subsidies, and other direct funding. Less tangible resources may include assistance with completion of grant applications, endorsements, and sponsorship of activities that help social enterprises to network with each other or with other stakeholders (Korosec & Berman, 2006; Meyskens, Carsrud, & Cardozo, 2010b; Meyskens, Robb-Post, Stamp, Carsrud, & Reynolds, 2010a).

In this view, which we label as the *institutional support perspective*, a key role of government is to provide public goods and to look after the welfare of citizens, while social entrepreneurs create their enterprises to address social needs. Thus government and social enterprises could be regarded as natural partners to achieve social goals (Sud, van Sandt, & Baugous, 2009; Zahra & Wright, 2011). More active governments may augment the social entrepreneur's personal resources or those gained through the entrepreneurs' informal social networks. In a sample of US counties, Saxton and Benson (2005) find a positive relationship between government activism and the creation of nonprofit organizations. Marcuello (1998) presents similar evidence for 40 Spanish counties. The previously mentioned case examples of CDI and Unis-Cité also illustrate such governmental support for social entrepreneurs (Santos, 2012). These studies highlight the importance of resource support provided by active governments.

Thus consistent with the institutional support perspective, we propose:

Hypothesis 1b: Government activism at the national level is positively associated with the likelihood of individuals engaging in SE.

Cognitive Institutional Context: Postmaterialism (Hypotheses 2 and 3)

Career decision-making research highlights individuals' values as key determinants of their occupational

decisions (Knafo & Sagiv, 2004; Noseleit, 2010). Decisions about whether to engage in SE are arguably the type of deliberate decisions that are well predicted by values (Roccas, Sagiv, Schwartz, & Knafo, 2002). Cultural values reflect the importance of certain values for a country's population, that is, the aggregate of personally important goals that a country's citizens hold (Schwartz, 2006). The aggregate trait hypothesis (Davidsson & Wiklund, 1997; Uhlaner & Thurik, 2007) has been used to explain why cross-cultural differences in values explain differences in individual occupational choices for CE. When applied to SE, the aggregate trait view maintains that the greater the number of people in a country who hold values consistent with SE, the greater the number of individuals in that country who will be motivated to engage in SE, and hence the greater will be the aggregate supply of potential social entrepreneurs.

Social entrepreneurs strive to achieve pro-social goals and generate societal wealth through their ventures. This suggests that individuals with pro-social values will be more attracted to SE. At the same time, as with entrepreneurs in general (Noseleit, 2010), an individual who chooses to become a social entrepreneur must be comfortable with autonomy and enjoy making independent decisions. Indeed, evidence at the individual level suggests that social entrepreneurs strongly value both pro-sociality and autonomy (Egri & Herman, 2000; Stephan, Huysentruyt, & Van Looy, 2010) – a joint preference encapsulated by postmaterialism (Inglehart, 1997; Wilson, 2005). Other research demonstrates that postmaterialism at the individual level is related to pro-environmental attitudes, volunteering, and political activism (Bekkers, 2005; Franzen & Meyer, 2010; Opp, 1990).

In sum, if a country has more individuals who value postmaterialism, according to the aggregate trait hypothesis we would expect individuals in such a country to be more likely to engage in SE. Thus:

> **Hypothesis 2:** National-level postmaterialism is positively associated with the likelihood of individuals engaging in SE.

Entrepreneurial action has often been conceived as a product of the person and a situation that provides an opportunity to act entrepreneurially (Shane & Venkataraman, 2000). Thus widespread postmaterialism in a country may not be sufficient to stimulate a large number of people to become social entrepreneurs unless there are opportunities to act upon those values. In this regard, Bornstein's (2007) series of biographies of social entrepreneurs highlights how entrepreneurs' values, together with their exposure to human suffering, motivated them to act. One such biography is that of Vera Cordeiro, who created Renascer to enhance illness prevention in Brazil through empowering and training poor families.

In keeping with the institutional void perspective and that of institutional configurations, we hypothesize that individuals are more likely to engage in SE in countries where there is greater social need and demand for SE (i.e., less government activism) and a higher proportion of non-materially motivated individuals (i.e., the percentage of the population with postmaterialist values):

> **Hypothesis 3:** The impact of nation-level government activism on the likelihood of individuals engaging in SE is negatively moderated by nation-level postmaterialism, such that individuals are most likely to engage in SE where government activism is low and postmaterialism is high.

Normative Institutional Context: SSC (Hypotheses 4 and 5)

SSC refers to informal cultural norms that encourage cooperation based on repeated experiences of friendliness, supportiveness, cooperation, and helpfulness (Stephan & Uhlaner, 2010: 1351). SSC arguably captures the most generic aspects of (weak-tie) social capital at the national level, that is, norms that facilitate interaction and cooperation even among strangers (Fukuyama, 2001; Westlund & Adam, 2010). Research has shown that national-level SSC positively affects CE (Autio et al., 2013; Stephan & Uhlaner, 2010). Related nation-level research observes similar positive associations of other aspects of social capital (trust and association activity) with both CE (De Clercq, Danis, & Dakhli, 2010) and opportunity recognition (Kwon & Arenius, 2010).

SSC is particularly important in stimulating SE for two reasons. First, SSC serves as a model of cooperative and caring behavior, which should influence more individuals within a society to choose SE as an occupation. Therefore, SSC affects the motivation and supply of potential social entrepreneurs in a country. Second, social entrepreneurs face requirements similar to those of commercial entrepreneurs in terms of gaining access to and assembling resources. In this regard, social capital can lower transaction costs by enabling resource access through collaboration and cooperation (Meyskens et al., 2010a; Meyskens et al., 2010b). Similarly, in order to achieve social impact and introduce social

change, social entrepreneurs need to build collaborative relationships with numerous diverse stakeholders (DiDomenico, Haugh, & Tracey, 2010; Mair & Marti, 2009). This is probably easier in cultures in which weak-tie social capital facilitates contact and cooperation even among strangers. Katre and Salipante's (2012) analysis of 31 social entrepreneurs underscores the importance of weak-tie social capital, revealing that more successful social entrepreneurs go beyond their existing networks and initiate new relationships to secure pro-bono and financial resources for product/service exploration. Thus:

Hypothesis 4: National-level SSC is positively associated with the likelihood of individuals engaging in SE.

As noted in Hypothesis 3, clusters of national institutions may have different effects depending on particular combinations. SSC may serve to enhance and supplement the effect of active government. Similarly, active governments may be seen as more "caring" because, by definition, they provide social welfare to a greater extent and thus reinforce norms of supportiveness in the broader society. This idea of synergy between government involvement and informal, private cooperative efforts is not new among political scientists and development economists (Skocpol, 2008; Woolcock & Narayan, 2000). We argue that the positive effects of formal institutional support (government activism) are reinforced by informal cooperative norms (SSC), and consequently enable SE. Thus:

Hypothesis 5: The impact of nation-level government activism on the likelihood of individuals engaging in SE is positively moderated by nation-level SSC, such that individuals are most likely to engage in SE where government activism and SSC are high.

METHOD

Overview of the Sample and Data Sources

We tested our model (Figure 1) using a multilevel design in which individuals (Level 1) were nested within countries (Level 2). The data came from several independent and publicly available sources. Individual-level data were collected in 2009 through a large population-representative survey, the Global Entrepreneurship Monitor (GEM) (Global Entrepreneurship Research Association, 2013; Lepoutre et al., 2013; Terjesen, Lepoutre, Justo & Bosma, 2012). In GEM surveys, individuals are randomly chosen, although the sampling method varies in order to adjust for country-specific conditions (e.g., random dials from telephone lists in countries such as Spain or Slovenia; multi-stage random walks in South Africa, China, and Guatemala). Individuals were thus either interviewed over the phone or face-to-face. A number of procedures (e.g., the number of callbacks required for telephone and face-to-face interviews) were standardized. More detail about the protocols, including steps taken to assure comparability across countries, is included in the GEM manual (Bosma, Coduras, Litovsky, & Seaman, 2012). Lepoutre et al. (2013: 698) provide specific information on data collection protocols per country for 2009.

Data for country-level variables were collected from 1995 through 2008, and came from the World Values Survey (WVS), the "Global Leadership and Organizational Behavior Effectiveness" GLOBE database, Heritage Foundation, and the World Bank. We lagged all country-level variables by at least 1 year to reduce potential endogeneity between the hypothesized antecedents and the outcome, SE.

The 2009 GEM survey was conducted in 49 countries. Twenty-three countries for which data were missing, either in GEM or in the country-level data sources (WVS, GLOBE), were excluded. (Japan, although it participated in the 2009 GEM survey, skipped the SE-related questions.) Within countries we restricted the sample to adults aged 18–64 years, that is, the typical working-aged adult population. Our final sample consisted of 106,484 individuals from 26 countries for whom full information on socio-demographic variables and SE was available. The number of respondents per country ranged from 1498 to 28,632 with a median of 2000 respondents. Table 1 lists the countries included in our study and provides country-level summary statistics. In terms of development stage, three countries in our sample were "factor-driven", nine "efficiency-driven", and the remainder "innovation-driven" economies (Lepoutre et al., 2013).

Dependent Variable at the Individual Level: SE

The SE survey questions (Appendix A) were developed based on the SE literature and via GEM pilot studies in the United Kingdom (Lepoutre et al., 2013; Levie, Brooksbank, Jones-Evans, Harding, & Hart, 2006) before they were implemented in the 2009 GEM survey. GEM took a broad view of SE and included enterprises with purely social and environmental goals (such as nonprofits) as well as hybrids, for example, commercial enterprises reporting that

Table 1 Country-level descriptive statistics

Country	*N*[a]	% Social entrepreneurship (SE)	% SE revenue-generating	Government activism (0–100)	Postmaterialism (%)	Socially supportive cultural norms	GDP	Age (1 – lowest to 5 – highest)	Gender % male	Education (0 – lowest to 6 – highest)
Argentina	1674	8.06	2.57	24.28	19.80	0.12	14,413	3.05	41.34	3.14
Brazil	2000	0.50	0.05	37.92	11.00	−0.24	10,405	2.75	48.90	2.42
China	3405	1.62	1.06	21.95	4.00	1.32	6202	2.96	48.08	2.71
Colombia	2031	1.48	0.89	28.00	18.60	−0.12	8957	2.87	49.14	3.08
Denmark	1999	12.16	6.20	72.59	16.10	1.30	39,830	3.55	46.07	3.77
Finland	1988	4.38	2.92	53.30	11.15	0.68	38,081	3.20	50.40	3.48
France	1623	2.16	1.05	66.81	17.75	−0.79	34,041	3.12	48.98	3.11
Germany	5865	1.14	0.63	53.78	16.40	−1.57	37,119	3.22	50.88	3.59
Greece	1970	1.88	0.81	38.31	16.70	−1.19	29,604	3.30	48.63	3.49
Guatemala	2148	0.14	0.14	12.12	7.50	0.49	4739	2.65	44.55	1.64
Hungary	1964	1.22	0.76	51.73	2.40	−1.55	20,432	2.99	50.41	2.96
Iran	3130	0.89	0.54	17.16	9.95	0.75	11,289	2.58	54.06	2.71
Israel	1832	2.84	1.31	54.49	12.60	0.27	25,600	2.87	41.87	3.76
Italy	2930	0.92	0.24	58.13	23.85	−0.12	33,372	3.42	49.86	3.01
Malaysia	1975	0.20	0.10	18.49	7.10	1.91	14,561	3.30	61.42	2.61
Morocco	1498	0.67	0.20	30.73	6.50	−0.14	4313	2.57	50.00	1.46
The Netherlands	2126	1.60	0.89	55.11	19.65	−0.29	42,915	3.64	46.05	3.25
Russia	1631	0.25	0.06	25.69	1.80	0.84	20,276	2.99	47.64	4.02
Slovenia	3014	3.05	1.76	52.23	15.60	0.19	29,074	3.13	46.78	3.50
South Africa	2793	1.11	0.61	26.82	7.70	0.17	10,427	2.55	48.73	2.40
South Korea	1940	0.31	0.05	25.81	3.85	−0.48	26,689	2.90	50.62	3.88
Spain	28,632	0.56	0.18	44.65	14.65	−1.09	33,158	3.39	49.39	3.13
Switzerland	1516	0.99	0.53	35.22	24.30	−0.36	47,946	3.41	40.30	3.54
UK	21,906	3.67	1.85	49.39	23.80	−0.22	36,062	3.58	39.07	3.64
USA	3340	2.93	1.32	35.93	21.75	−0.16	46,760	3.71	49.52	3.92
Venezuela	1554	1.29	0.58	22.87	14.40	0.29	12,895	2.78	41.06	2.97
Total/Mean[b]	106,484	2.15	1.05	38.98	13.42	0.00	24,583	3.10	47.84	3.12
SD[b]		2.65	1.29	16.45	6.87	0.85	13,725	0.34	4.69	0.65

[a]Unequal sample sizes per country are due to varying resources available for GEM data collection.
[b]Weighted, giving equal weight to each country.

they worked predominantly on social/environmental issues. This is in line with the generally accepted notion that SE is not constrained to a specific legal form (Mair & Marti, 2006).

We used one primary indicator to measure the dependent variable that reflects individuals' engagement in SE. Individuals were coded = 1 if they met criteria for either a nascent or operating social entrepreneur, or = 0 otherwise. Appendix A provides a detailed flow chart of the actual survey questions. To summarize, individuals were classified as nascent social entrepreneurs when they indicated that they had taken steps in the past 12 months toward creating a social enterprise that they would either partly or fully manage, but that the social enterprise had not provided services or received external funding for more than 3 months. Respondents were classified as operating social entrepreneurs when they were partly or fully managing a social enterprise that was actively trading at the time.

A second SE measure, "revenue-generating SE", was included as a robustness check, as some argue that revenue-generation through market-based transactions constitutes the "entrepreneurial" element in SE (Lepoutre et al., 2013; Stephan, 2010). Revenue-generating social entrepreneurs were a subset of social entrepreneurs as identified above who indicated that at least some of the revenue for their activity had come (or would come) from income generated through sales of products or services (see Appendix A). Individuals were coded = 1 if engaging in revenue-generating SE, and = 0 otherwise.

Country-Level Predictors

Government activism

In line with past research on nonprofit and comparative entrepreneurship (Aidis et al., 2012; Nissan et al., 2012; Salamon & Sokolowski, 2003), we included the variable government activism to estimate the ability of the government to address social issues as a function of progressive taxation and overall spending. We used the version of government activism developed and validated by Aidis et al. (2012), which was based on mean country scores for "fiscal freedom" and "government size", two sub-indicators available from the Heritage Foundation's "Index of Economic Freedom" (Beach & Kane, 2008; Heritage Foundation, 2010) (Cronbach's $\alpha = 0.72$ for our 26-country sample). The "fiscal freedom" sub-indicator, a taxation variable reflecting wealth redistribution, included a country's tax revenue as a percentage of gross domestic product (GDP) as well as the top marginal tax rate on corporate and individual income. The "government size" sub-indicator reflects total government expenditure as a percentage of GDP and covers several aspects of the welfare state (e.g., provision of health services, education, pensions, unemployment insurance, and services such as skills development) (Beach & Kane, 2008).[2] We used information on government activism for 2008, with higher values reflecting more taxation and spending, and thus higher government activism.

Postmaterialism

Postmaterialism was measured using the 4-item version of the postmaterialism index developed by Inglehart (1997), which is available from the World Values Survey (WVS, 2010) – a population-representative survey. The 4-item postmaterialism index has been widely used in research in political science, sociology, and psychology (Bekkers, 2005; Franzen & Meyer, 2010; Moors, 2007), and also in entrepreneurship (Uhlaner & Thurik, 2007).[3] Researchers have found that postmaterialism is highly stable and that it changes primarily through intergenerational replacement and socialization rather than through intra-individual value changes (Inglehart, 2008; Kroh, 2009). We used data from the 1999–2002 and 2005–2008 waves, computing the average rate across the two waves when a country participated in both periods. The stability of postmaterialism between the two waves was confirmed by a strong positive correlation between them ($r = 0.86$, $p < 0.001$, $N = 21$). The score used in the analyses (Table 1) reflects the *percentage* of individuals in each country's sample that were scored as postmaterialists (see Appendix B).

Socially supportive culture

SSC is an index based on GLOBE cultural practices data. From 1995 to 1997, the GLOBE project surveyed matched samples of 17,370 middle managers from 951 local companies in three industrial sectors (food-processing, finance, and telecommunications) to arrive at country-level scores (House, Hanges, Javidan, Dorfman, & Gupta, 2004). House et al. (2004) provide a description of the methodology, and identify nine cultural practice dimensions that emerged from multilevel factor analyses and which show high internal reliability, high inter-rater agreement, and were validated against multiple macro-level indices. SSC, a second-order dimension developed and validated by Stephan and Uhlaner (2010), consists of an average of two of these dimensions – humane orientation and assertiveness (the latter being reverse scored, see Appendix B; Cronbach's $\alpha = 0.75$, reported in Stephan & Uhlaner, 2010, and 0.61 in the present sample).[4] Higher values on SSC indicate more supportive cultures characterized by greater ease of contact, positive interpersonal climate, and norms of cooperation.

Individual-Level Controls

Gender

Research suggests that men are somewhat more likely than women to engage in SE (Estrin et al., 2013a). We controlled at the individual level for gender (female = 0, male = 1).

Age and age-squared

Evidence suggests that younger individuals may be more inclined to engage in SE (Lepoutre et al., 2013), and there may also be covariance between younger generations and postmaterialism (Inglehart & Baker, 2000). Other evidence indicates that age may have an inverted-U effect on SE (Estrin et al., 2013a). Thus we included respondents' age and age-squared as control variables. Respondents reported their age in the following categories: 18–24, 25–34, 35–44, 45–54, and 55–64, which we coded as categories 1–5, respectively.

Education

Research suggests that education is positively related to SE (Estrin et al., 2013a). There is also a

long-standing debate about the possible confounding effects between education and postmaterialism (Abramson & Inglehart, 1994; Warwick, 1998). Thus we controlled for respondents' education level coded as pre-primary = 0, primary/first stage basic education = 1, lower secondary/second stage basic education = 2, upper secondary = 3, post-secondary, non-tertiary education = 4, first stage of tertiary education = 5, and second stage of tertiary education = 6.

Country-Level Controls

National wealth (GDP)

National wealth has been associated with the prevalence of SE (Lepoutre et al., 2013) and with postmaterialism (Abramson & Inglehart, 1994). For the current study, we adopted accepted best practice in IB and entrepreneurship research (Aidis et al., 2012; Levie & Autio, 2011; Uhlaner & Thurik, 2007) to deal with potential endogeneity of national wealth with our predictors by including it as a control variable. To measure national wealth, we used 2008 GDP per capita in purchasing power standards expressed in millions of international dollars, henceforth referred to as GDP (World Bank, 2012).

GDP growth

Since changes in national wealth may also impact SE or postmaterialism, we included GDP growth for 2008 (World Bank, 2013) as a control variable for selected robustness checks.

Rule of law

For another robustness check, we added a rule of law measure as a control variable from the World Bank's Worldwide Governance Indicator database (2012; Kaufmann, Kraay, & Mastruzzi, 2011) to test whether or not our results would be better explained by this constitutional-level formal institution (Estrin et al., 2013a). The indicator reflects perceptions of the quality of the rule of law (in 2008), including the quality of contract enforcement, property rights, police, and courts, as well as the likelihood of crime and violence.

Data Analysis

We tested our hypotheses by fitting a series of logistic multilevel regression models since our aim was to explain how an individual's SE, a binary variable with an assumed Bernoulli distribution, is influenced by country-level institutional contexts. Our models were estimated in R (R Foundation, 2012) using the Laplace approximation. Performing a multilevel analysis has three advantages over a conventional single-level regression analysis. First, it reduces the risk of Type I errors that would occur through not acknowledging the existence of a higher level, and treating all variables as if they were observed at (and therefore had the sample size of) the individual level. Second, it also offers an improvement over the option of aggregating the data to the country level, which substantially reduces the sample size and also carries the risk of aggregation biases that occur when constructs or relationships at the individual level are generalized to the country level, an artifact known as "ecological fallacy" (Peterson, Arregle, & Martin, 2012). Third, multilevel regressions enabled us to account for clustering, that is, non-independence of observations within the same countries. Individuals within a country share common experiences that differ from those of individuals living in other countries. The Type 1 intra-class correlations (ICC(1)) (Hox, 2010) for SE and the alternative dependent variable, "revenue-generating SE", provided evidence of such clustering: the observed values of 0.24 and 0.28, respectively, indicate that 24% and 28% of the total variance resided at the country level for SE and revenue-generating SE. That is, a large proportion of their variance resided at the country level. ICC(1)s exceeding 0.15 are deemed large (Hox, 2010).

In line with Bryk and Raudenbush (2002), we standardized all independent variables. Country-level variables were standardized based on their county-level mean and standard deviation. Individual-level variables were grand-mean standardized, that is, standardized based on their individual-level mean and standard deviation across the sample. (Robustness checks using group-mean centered individual-level controls yielded the same results, which are available from the authors.) The centering implicit within standardization also sidestepped the systematic multicollinearity between main and interaction effects as specified in Hypotheses 3 and 5 (Dawson, 2014). Standardizing as opposed to just centering enabled the simple illustration of interaction effects by plotting the standardized scores of the relevant variables at 0.5 and 1 standard deviation above, below, and at their mean against the individual's likelihood of engaging in SE (Dawson, 2014; Hox, 2010).

We used the variance inflation factor (VIF) and the condition index statistic (CIS) to test for multicollinearity displayed in Table 2. Both statistics suggested that no multicollinearity was present among our

Table 2 Multicollinearity tests

Dependent variable	Main model	Robustness checks		
	Social entrepreneurship (SE)	SE	SE	Revenue-generating SE
	VIF[a]	VIF[a]	VIF[a]	VIF[a]
Government activism	1.960	2.078	2.410	1.960
Postmaterialism	1.640	1.645	1.803	1.640
Socially supportive cultural norms	1.161	1.263	1.162	1.161
GDP	2.530	3.148	6.035	2.530
GDP growth		2.554		
Rule of law			5.735	
Condition index for model	3.027	3.705	5.838	3.027

[a]VIF = Variance inflation factors.

country-level predictor variables as the VIF scores were <10 and the CIS <30 (Hair, Anderson, Tatham, & Black, 1998).

We first tested main effects (Hypotheses 1a, 1b, 2, and 4) with all control variables and all three independent variables included in the model, but without the added interaction terms. To test for the interaction effects (Hypotheses 3 and 5), we initially assessed each interaction term individually. We then carried out a series of robustness checks: (1) for Hypotheses 1, 2, and 4, adding each predictor (government activism, postmaterialism, and SSC) alone as recommended by Parboteeah, Hoegl, and Cullen (2008) for small country samples; and (2) for Hypotheses 3 and 5, including both interaction terms together. Further robustness checks for Hypotheses 3 and 5 included: (1) adding GDP growth; (2) adding Rule of Law as an additional control variable; and (3) substituting revenue-generating SE as a dependent variable.[5]

For each model, in addition to the estimated regression coefficients B, we report the results of the change-in-deviance, or likelihood ratio, test (Hox, 2010) to establish whether the model is a significant improvement over the previous model. To provide an effect size for the predictor(s) added at each stage, we also report the change in the proportion of country-level variance explained by a model relative to its preceding model, calculated as change in "pseudo R^2" (Hox, 2010: 71).

RESULTS

Descriptive Statistics, Correlations, and Multicollinearity

Table 3 displays correlations for the individual-level variables, and Table 4 for the country-level variables.

Hypotheses Tests Using Multilevel Modeling

The models used to test the hypotheses are displayed in Table 5. Model 1 includes individual-level (Level 1) and country-level (Level 2) control variables. Model 2 adds the main effects of our three focal predictors. Model 3 adds the first interaction term (government activism * postmaterialism), and Model 4 replaces this with the second hypothesized interaction term (government activism*SSC). Models 5–14 present the aforementioned supplementary analyses to check the robustness of the results of, and hence the conclusions drawn from Models 1 to 4.

Hypotheses 1, 2, and 4: Government Activism, Postmaterialism, SSC, and SE

Model 2 of Table 5 shows a positive effect of government activism on SE supporting the institutional support perspective (Hypothesis 1b) but not the institutional void perspective (Hypothesis 1a). These results also support the positive relationship between postmaterialism and SE as predicted in Hypothesis 2. The positive effects of government activism and postmaterialism were replicated in robustness checks when entered alone (Models 6 and 7, respectively, Table 5).

We also found a positive but less robust relationship between SSC and SE as predicted in Hypothesis 4. SSC impacted SE in combination with the other two predictor variables (Model 2), but not when entered alone (Model 8). Especially given the low multicollinearity between SSC and the other two predictors (Tables 3 and 4), these findings suggest a reciprocal suppression effect (Maassen & Bakker, 2001: 245). Reciprocal suppression occurs when two variables share information irrelevant to the dependent variable but in opposite directions. When both variables are included in the regression, they

Table 3 Individual-level correlations

	(1)	(2)	(3)	(4)
(1) Social entrepreneurship (SE)	—			
(2) Revenue-generating SE	0.694***			
(3) Age (1 – lowest to 5 – highest)	0.016***	0.010**		
(4) Gender (0 – female, 1 – male)	0.021***	0.021***	–0.004	
(5) Education (0 – lowest to 6 – highest)	0.079***	0.057***	–0.052***	0.007*

†$p<0.10$; *$p<0.05$; **$p<0.01$; ***$p<0.001$ (two-tailed), $N=106{,}484$, weighted giving equal weight to each country in sample.

Table 4 Country-level correlations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Social entrepreneurship (SE)	—						
(2) Revenue-generating SE	0.965***						
(3) Government activism	0.442*	0.511**					
(4) Postmaterialism	0.325	0.269	0.429*				
(5) Socially supportive cultural norms	0.251	0.291	–0.342†	–0.268			
(6) GDP	0.296	0.347†	0.688***	0.612***	–0.322		
(7) GDP growth	–0.191	–0.264	–0.641***	–0.495*	0.444*	–0.732***	
(8) Rule of law	0.320	0.411*	0.751***	0. 411*	–0.318	0.875***	–0.682***

†$p<0.10$; *$p<0.05$; **$p<0.01$; ***$p<0.001$ (two-tailed), $N=26$.

suppress part of each other's irrelevant information. Our results suggest that SSC has an important additive effect on SE but only in combination with the other two institutional variables.

This joint effect is underscored by the fact that the three predictors considered together explained 5% more of the country-level variation in individual SE (Model 2) compared with their additive effects in Models 6, 7, and 8. This supports the notion of institutional configurations. Overall, the three main predictors jointly explained 35% of the country-level variation (corresponding to 8.4% of the total variation) in individuals' engagement in SE (Model 2).

Hypotheses 3 and 5: Interactive Effects of Government Activism, Postmaterialism, and SSC

We found a significant, negative interaction effect of postmaterialism with government activism on SE (Model 3) but its precise form was in line with the institutional support perspective and not the institutional void perspective originally hypothesized. Thus the results provide only partial support for Hypothesis 3. Comparing Models 2 and 3, we see that the interaction term explains an additional 17% of country-level variance. Figure 2 displays this interaction, illustrating that strong postmaterialism may compensate for low government activism, while making little difference at medium to higher levels of government activism. Thus the interaction qualified the institutional support effect of government activism on SE – it held especially under low to medium–high levels but was weaker at very high levels of postmaterialism. These findings hold in further robustness checks (Models 9, 11, and 13, Table 5).

As predicted by Hypothesis 5, and shown in Model 4 (Table 5), we found support for a positive interaction of government activism and SSC. A comparison of Models 2 and 4 shows that this interaction term explains an additional 6% of the country-level variance in SE. As displayed in Figure 3, and in line with Hypothesis 5, SSC further enhanced the positive effect of government activism on SE such that the highest level of SE was found in countries that have both a strong SSC and a more active government. This interaction effect was replicated in two of the three robustness checks, with alternate sets of controls (Models 10 and 12), but was not robust for revenue-generating SE (Model 14) or when both interaction terms were entered together in the same model (Model 5). A similar, mixed picture emerged from additional robustness checks (which are available from the authors upon request). For instance, the interaction effect was significant when GDP was removed but not significant when Denmark (which could be considered to be an outlier) was removed from the sample. These mixed results are likely due

Table 5 Effects of institutions on individual engagement in SE (Regression coefficients (B))

	Main results														
	Controls			Main effects			Main+GA∗PM interaction			Main+GA∗SSC interaction			Main+both interactions		
	Model 1			Model 2			Model 3			Model 4			Model 5		
	B	*p*	s.e.	*B*	*p*	s.e.	*B*	*p*	s.e.	*B*	*p*	s.e.	*B*	*p*	s.e.
Fixed effects															
Intercept	–4.35***		0.19	–4.35***		0.15	–4.09***		0.1	–4.25***		0.15	–4.07***		0.14
Level 1 (controls)															
Age	0.03		0.02	0.03		0.02	0.03		0.02	0.03		0.02	0.03		0.02
Age-squared	–0.07**		0.02	–0.07**		0.03	–0.07**		0.03	–0.07**		0.03	–0.07**		0.03
Gender	0.17***		0.03	0.17***		0.02	0.17***		0.02	0.17***		0.02	0.17***		0.02
Education	0.59***		0.02	0.59***		0.03	0.59***		0.03	0.59***		0.03	0.59***		0.03
Level 2 (controls)															
GDP	0.25		0.19	–0.43†		0.24	–0.39*		0.19	–0.44*		0.22	–0.40*		0.19
Level 2 (predictors)															
Government activism (GA)				0.64**		0.21	0.68***		0.17	0.52**		0.20	0.62***		0.18
Postmaterialism (PM)				0.52**		0.19	0.46**		0.16	0.46*		0.18	0.44**		0.16
Socially supportive cultural norms (SSC)				0.29†		0.16	0.50***		0.14	0.19		0.16	0.43**		0.15
Interaction GA∗PM							–0.62***		0.17				–0.56**		0.18
Interaction GA∗SSC										0.28†		0.15	0.14		0.13
Random effects and model fit															
Residual country-level variance		0.86			0.49			0.31			0.42			0.30	
Deviance (–2 log likelihood)		18,484			18,470			18,459			18,466			18,458	
Degrees of freedom (df)		7			10			11			11			12	
Δ pseudo-R^2 from M0[a]		0.19													
Δ pseudo-R^2 from M1					0.35										
χ^2 (df) from M1					13.81**(3)										
Δ pseudo-R^2 from M2								0.17			0.06			0.18	
χ^2 (df) from M2								10.61**(1)			3.45†(1)			11.71** (2)	

Table 5 *Continued*

	First robustness checks								
	Controls+GA only			Controls+PM only			Controls+SSC only		
	Model 6			Model 7			Model 8		
	B	*p*	s.e.	*B*	*p*	s.e.	*B*	*p*	s.e.
Fixed effects									
Intercept	−4.35***		0.17	−4.35***		0.18	−4.34***		0.19
Level 1 (controls)									
Age	0.03		0.02	0.03		0.02	0.03		0.02
Age-squared	−0.07**		0.03	−0.07**		0.03	−0.07**		0.03
Gender	0.17***		0.02	0.17***		0.02	0.17***		0.02
Education	0.59***		0.03	0.59***		0.03	0.59***		0.03
Level 2 (controls)									
GDP	−0.15		0.24	−0.05		0.23	0.30		0.20
Level 2 (predictors)									
Government activism (GA)	0.58*		0.24						
Postmaterialism (PM)				0.49*		0.23			
Socially supportive cultural norms (SSC)							0.16		0.20
Interaction GA*PM									
Interaction GA*SSC									
Random effects and model fit									
Residual country-level variance		0.70			0.74			0.82	
Deviance (−2 log likelihood)		18,478			18,479			18,483	
Degrees of freedom (df)		8			8			8	
Δ pseudo-R^2 from M0[a]									
Δ pseudo-R^2 from M1		0.15			0.12			0.03	
χ^2 (df) from M1		5.42* (1)			4.25* (1)			0.62 n.s. (1)	
Δ pseudo-R^2 from M2									
χ^2 (df) from M2									

Table 5: *Continued*

Robustness check for	Further robustness checks											
	Adding GDP growth as control						Adding rule of law as a control					
	Model 9			Model 10			Model 11			Model 12		
	Model 3			Model 4			Model 3			Model 4		
	B	*p*	s.e.	*B*	*p*	s.e.	*B*	*p*	s.e.	*B*	*p*	s.e.
Fixed effects												
Intercept	–4.10***		0.14	–4.24***		0.14	–4.10***		0.13	–4.25***		0.14
Level 1 (controls)												
Age	0.03		0.02	0.03		0.02	0.03		0.02	0.03		0.02
Age-squared	–0.07**		0.03	–0.07**		0.03	–0.07**		0.03	–0.07**		0.03
Gender	0.17***		0.02	0.17***		0.02	0.17***		0.02	0.17***		0.02
Education	0.59***		0.03	0.59***		0.03	0.59***		0.03	0.59***		0.03
Level 2 (controls)												
GDP	–0.34		0.22	–0.29		0.24	–0.65*		0.31	–0.82*		0.34
GDP growth	0.10		0.19	0.29		0.21						
Rule of law							0.32		0.30	0.48		0.34
Level 2 (predictors)												
Government activism (GA)	0.71***		0.17	0.57**		0.20	0.59**		0.18	0.38†		0.22
Postmaterialism (PM)	0.47**		0.16	0.47**		0.17	0.53**		0.16	0.55**		0.19
Socially supportive cultural norms (SSC)	0.48**		0.15	0.13		0.16	0.50***		0.13	0.20		0.15
Interaction GA*PM	–0.60***		0.17				–0.60***		0.17			
Interaction GA*SSC				0.31*		0.14				0.29*		0.14
Random effects and model fit												
Residual country-level variance	0.30			0.39			0.29			0.39		
Deviance (–2 log likelihood)	18,459			18,465			18,458			18,464		
Total df	12			12			12			12		
Total pseudo-R^2 beyond controls	0.52			0.43			0.50			0.41		
Δ pseudo-R^2 Controls to Main model	0.36			0.36			0.34			0.34		
χ^2 Controls to Main (df)	14.74**(3)			14.74**(3)			14.05**(3)			14.05**(3)		
Δ pseudo-R^2 Main to Interaction model	0.16			0.07			0.16			0.07		
χ^2 Main to Interaction model (df)	9.86**(1)			4.19*(1)			10.35**(1)			4.01*(1)		

Robustness check for	Further robustness checks					
	Revenue-generating SE					
	Model 13			Model 14		
	Model 3			Model 4		
	B	*p*	s.e.	B	*p*	s.e.
Fixed effects						
Intercept	–4.83***		0.17	–5.05***		0.18
Level 1 (controls)						
Age	0.01		0.04	0.01		0.04
Age-squared	–0.10**		0.04	–0.10**		0.04
Gender	0.23***		0.03	0.23***		0.03
Education	0.59***		0.04	0.60***		0.04
Level 2 (controls)						
GDP	–0.33		0.24	–0.36		0.28
GDP growth						
Rule of law						
Level 2 (predictors)						
Government activism (GA)	0.69***		0.20	0.55*		0.25
Postmaterialism (PM)	0.41*		0.19	0.43†		0.23
Socially supportive cultural norms (SSC)	0.60***		0.17	0.30		0.19
Interaction GA*PM	–0.68**		0.21			
Interaction GA*SSC				0.18		0.18
Random effects and model fit						
Residual country-level variance		0.43			0.62	
Deviance (–2 log likelihood)		10,380			10,388	
Total df		11			11	
Total pseudo-R^2 beyond controls		0.49			0.34	
Δ pseudo-R^2 Controls to Main model		0.31			0.31	
χ^2 Controls to Main (df)		10.16*(3)			10.16*(3)	
Δ pseudo-R^2 Main to Interaction model		0.18			0.03	
χ^2 Main to Interaction model (df)		8.84**(1)			0.94(1)	

$N = 106{,}484$ at individual-level, $n = 26$ countries, †$p<0.10$; *$p<0.05$; **$p<0.01$; ***$p<0.001$ (two-tailed); [a]relative to intercept only model (variance 1.07).

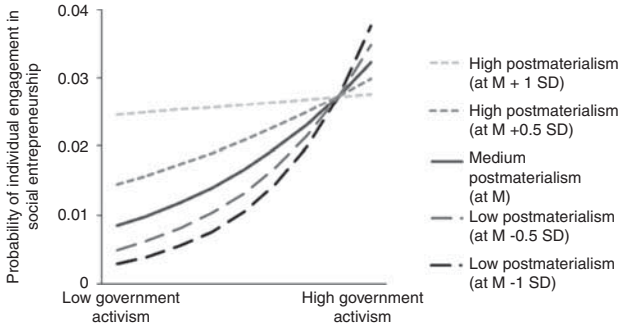

Figure 2 Interaction effect of nation-level government activism and postmaterialism on individual probability of being a social entrepreneur (adjusted for effects of control variables and SSC).

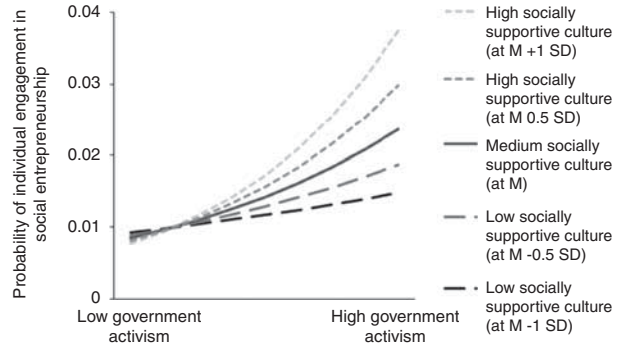

Figure 3 Interaction effect of nation-level government activism and socially supportive cultural norms on individual probability of being a social entrepreneur (adjusted for effects of control variables and PM).

to the relatively small country-level sample size and the statistical power required to detect interaction effects. We conclude that Hypothesis 5 is only weakly supported.

The effects of the three institutional predictors together with their interaction effects (Model 5) explained 53% of the country-level variance beyond the control variables, corresponding to 12.7% of the total variation in SE. The interaction effects alone explained 18% of the country-level (and 4.3% of the total) variation in SE (Model 5) and provide further support for the institutional configuration perspective.

DISCUSSION

This multilevel study contributes to our understanding of national contexts facilitating individuals' engagement in SE. Beyond the specific results which enhance our understanding of SE as a domain of inquiry, our study contributes to institutional theory by advancing an integrative, configurational view of formal and informal institutions; and by clarifying the role of institutional voids vs institutional support. It also contributes to entrepreneurship research by highlighting the importance of contexts that enable resource access.

Contributions to Institutional Theory

Our findings demonstrate that joint institutional *configurations* of formal and informal institutions offer more explanatory power than examinations of their individual effects. The configuration perspective enables greater integration of research on formal and informal institutions and thus transcends the theoretical debate on whether formal or informal institutions are more important for certain outcomes in IB research. Theorizing and testing the effect of configurations is an established practice in such disciplines as strategic management and psychology (Short, Payne, & Ketchen, 2008; Tett & Burnett, 2003), but has received little attention in institutional theory (Scott, 2005), particularly in comparative entrepreneurship research (Bruton et al., 2010; Jones et al., 2011). One exception is past entrepreneurship research that focused on how informal social relationships may substitute for the effects of weak rule of law (Estrin et al., 2013b; Puffer, McCarthy, & Boisot, 2010). Our findings offer a wider perspective, by demonstrating that informal and formal institutions can also have additive and mutually reinforcing effects (e.g., government activism and SSC weak-tie social capital).

Collectively our findings provide strong backing for the *institutional support* perspective as opposed to the *institutional void* perspective. Although very high levels of postmaterialism may to some extent compensate for low government activism, SE activity is generally higher when government activism is high. Thus our findings are at odds with the view that creating greater demand for SE by reducing government activism (through lower government spending or less progressive taxation) stimulates greater engagement in SE, or that government activism would "crowd out" private pro-social initiatives such as SE. By contrast, our findings point to the importance of complementary support from formal and informal social capital institutions. This way our study extends emerging research in behavioral and public economics suggesting that greater government activism can "crowd in" rather than "crowd out" further private financial support (Andreoni, Payne, & Smith, 2014; Heutel, 2014). It also shows that notions of synergy between government

involvement and private cooperative efforts (Skocpol, 2008; Woolcock & Narayan, 2000) extend to SE.

Building on Scott's three-pillar framework, our research emphasizes the benefit of an integrated, multidisciplinary configurational approach to theorizing about institutions, which combines the focus in cross-cultural psychology on informal institutions with the focus in institutional economics on formal institutions. Scott's differentiation of cognitive and normative informal institutions parallels the notions of cultural values and practices in cross-cultural research (Javidan et al., 2006) and thus enables the integration of this rich research tradition into institutional theory and research. Consequently, we suggest cross-cultural psychologists should consider formal institutions when exploring the effects of culture as well as differentiate between cultural values and norms. We encourage researchers in new institutional economics to consider informal institutions when exploring the effects of formal institutions.

Contribution to Social (and Commercial) Entrepreneurship

This study contributes to recent calls for greater consideration of context in examining entrepreneurial behavior (Zahra & Wright, 2011; Welter, 2011). Our findings suggest that national context drives individual engagement in SE mainly through resource-based mechanisms and supply side motivational influences and less through incentives arising from demands (such as institutional voids). Specifically, they highlight the importance of national contexts that enable organizations to access tangible and intangible resources through formal and informal channels. Similar results with regard to the importance of informal cultural support were identified in past research on CE (Autio et al., 2013; Stephan & Uhlaner, 2010). Consequently, we suggest that future research in comparative (social) entrepreneurship may fruitfully build closer links between institutional theory and the resource-based view (Barney, Ketchen, & Wright, 2011), and give resource considerations a more central role in theorizing alongside motivational mechanisms. To date, resources are only discussed as a side-issue in supply–demand models in CE research, variously seen as one capability of individuals on the supply side (Wennekers, Uhlaner, & Thurik, 2002) or implicitly treated as aspects of demand (Thornton, 1999).

Our findings also underscore the need to investigate contextual drivers specific to distinct types of entrepreneurship (Zahra & Wright, 2011) including theoretical models specific to SE. Comparisons of our findings with past research on CE highlight opposite effects of government activism and postmaterialism on CE and SE (Aidis et al., 2012; Uhlaner & Thurik, 2007). It could be that by controlling for other types of entrepreneurship by motive, some of the past contradictory results in research on cultural values can be sorted out: for instance, individualism may be primarily linked to independence-motivated entrepreneurship, whereas collectivism may be linked to the prevalence of family-owned firms.

Limitations and Directions for Future Research

This study followed state-of-the-art practices in testing multilevel hypotheses on a sample of over 106,000 individuals across 26 diverse countries from four continents and at various phases of development. Data for the independent and dependent variables were collected from different sources, thus eliminating concerns about common method bias. In addition, data on all independent variables were collected before the data on the dependent variable (SE), enhancing our confidence in the causal direction of these findings. Nevertheless, some limitations were beyond our control.

First, our analyses should be repeated on a larger sample of countries, as factor-driven economies were under-represented and innovation-driven economies somewhat over-represented in our data set. Notably, significant effects, especially when testing interactions, are harder to establish with smaller sample sizes, which limit statistical power. Similarly, the low incidence rate of SE (Table 1) limited statistical power. However, the high ICC(1) statistic for SE indicated that a large proportion of the total variance in SE resided at the country level, which partially mitigated these statistical power concerns. The fact that we found support for our hypotheses, including a robust interaction effect of postmaterialism and government activism, even within a relatively small sample of countries, supports the validity of our findings. The results from the various supplementary analyses (e.g., entering predictors separately, adding GDP growth and rule of law as control variables, and using revenue-generating SE as an alternative dependent variable) also support the robustness of the findings.

Second, we used one indicator of overall SE activity. Future research may investigate SE as a process across countries (Bergmann & Stephan, 2013), addressing questions about the emergence and sustainability of SE in more detail. For instance,

comparing our findings to Estrin et al. (2013a) suggests differences in institutional drivers of early stage SE start-up efforts. Although we identified revenue-generating SE as one quality indicator, future research could differentiate SE by the scale of its social impact, for example, addressing local needs vs creating large-scale social change (Zahra et al., 2009).

A third limitation is how SE was measured in the GEM study. The initial screening question included examples of social or community objectives while omitting examples of environmental objectives (Appendix A), which may lead to an under-representation of environmental SE.

A fourth limitation is the general way in which government activism was measured. Cross-country data do not allow us to determine the type of spending that might be most effective, that is, direct subsidies for entrepreneurs, financial support for the unemployed, or skills training for potential or existing (social) entrepreneurs.

Fifth, one of our measures of institutions, SSC, is based on the GLOBE study (House et al., 2004). GLOBE data were collected between 1995 and 1997, about 13 years before the data for SE. Also, some criticize the way in which GLOBE measured cultural values (Brewer & Venaik, 2010; Maseland & van Hoorn, 2010). However, since the SSC index builds on practice scores, most such critiques do not apply to our study.

Finally, as with many IB studies, endogeneity is a concern, particularly since past research emphasizes the link between postmaterialism and economic growth. However, recent research suggests that economic development plays a less important role in the development of postmaterialism in contrast to cultural socialization (Kroh, 2009). We also adopted common precautions to deal with endogeneity concerns such as using time lags between the independent and dependent variables and controlling for potential alternative causes at the country and individual levels.

We chose predictors guided by the three-pillar framework presented by Scott (1995) and by theorizing on SE. Future research may nevertheless wish to investigate other cultural values and norms such as those included in CE research (Hayton, George, & Zahra, 2002). Since SE entails dealing with uncertainty, cultural uncertainty–avoidance may be relevant, potentially in configuration with formal institutions (such as rule of law). In-group collectivism may also play a role through enabling resource support within families. Future research could also explore cross-level interaction effects, for example, testing how institutions including culture moderate the impact of individual-level variables on SE.

Practical Implications

Our findings can ultimately inform policymakers wishing to enhance SE. One of the most important implications relates to the institutional void perspective. Our study provides clear counterevidence for policies designed to stimulate SE by cutting services or reducing other types of government support. Our data suggest that radical cuts in the state sector (such as those seen in many countries in response to the global economic crisis that started in 2007) are unlikely to motivate more individuals to engage in SE. Our results clearly suggest that more (not less) active governments (i.e., those that have relatively high levels of progressive taxation and government spending) help foster the creation of operating social enterprises, in line with the institutional support perspective. Thus governments should not be timid in supporting SE for fear that this will reduce privately led initiatives.

Our findings on institutional configurations suggest that policymakers need to take formal and informal institutions into account when pondering policy decisions. This includes both cultural values that are prevalent in their country and the informal norms regarding social support.

CONCLUSION

The institutional configuration perspective recognizes that human behavior is jointly shaped by formal and informal institutions, a proposition often discussed but rarely empirically tested. Collectively our findings support the notion that one important route to advancing IB and comparative entrepreneurship research is to integrate the largely separate research streams on informal institutions/culture and formal institutions by considering configurations of both types of institutions.

Furthermore, our research is one of the first multilevel studies to examine the contextual drivers of SE and to provide an empirical test comparing the institutional void perspective to the institutional support perspective. We find strong support for the institutional support perspective, consistent with the notion that access to tangible and intangible resources from both government and private individuals is a key enabler of entrepreneurial activity. This calls for future research to integrate resource-based approaches more closely into theorizing about how

national context and institutions impact entrepreneurial activity.

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NOTES

[1]The Big Society initiative seeks to empower local communities and voluntary and community organizations. It includes the setting up of a dedicated financing institution and regulatory changes.

[2]To measure government activism, an indicator that directly measures welfare spending may be preferable. However, harmonized cross-country data for welfare spending were either not available for all countries or were not sufficiently recent. Correlations between our government activism indicator and other specific indicators supported its validity as reflecting governments' social vs military engagement. In a 20-country subsample, government activism showed a strong positive correlation with the percentage of GDP spent on total public social protection and health care in 2006 (OECD, 2011) ($r = 0.88$, $p < 0.001$), but only a trivial correlation with military spending (SIPRI, 2013) ($r = 0.07$, n.s., $N = 26$). In separate analyses available from the authors, we substituted government activism with military spending and, as expected, found non-significant effects on SE. This further supports our view that government activism reflects social rather than military spending.

[3]Some researchers use a 12-item version of the post-materialism index, also termed survival/self-expression index. We prefer the 4-item index because, unlike the 12-item index, it does not mix value items with other items tapping into trust, behavioral description, and self-description items of happiness (Bond et al., 2004). The correlation between the 4- and 12-item versions was high (0.86 across the 26 countries in our data set).

[4]Stephan and Uhlaner (2010) report details of the secondary factor analysis used to derive the SSC index, which was successfully replicated by Autio et al. (2013) across 40 countries, and by us for our 26-country sample. We used *z*-standardized scores of humane orientation and assertiveness (reverse scored) before taking their average.

[5]We conducted a range of further robustness checks including removing GDP (exploring endogeneity concerns) and separately removing Denmark as it has the highest SE rate in the sample. Their results support the pattern of findings reported in the results section and are available from the authors upon request.

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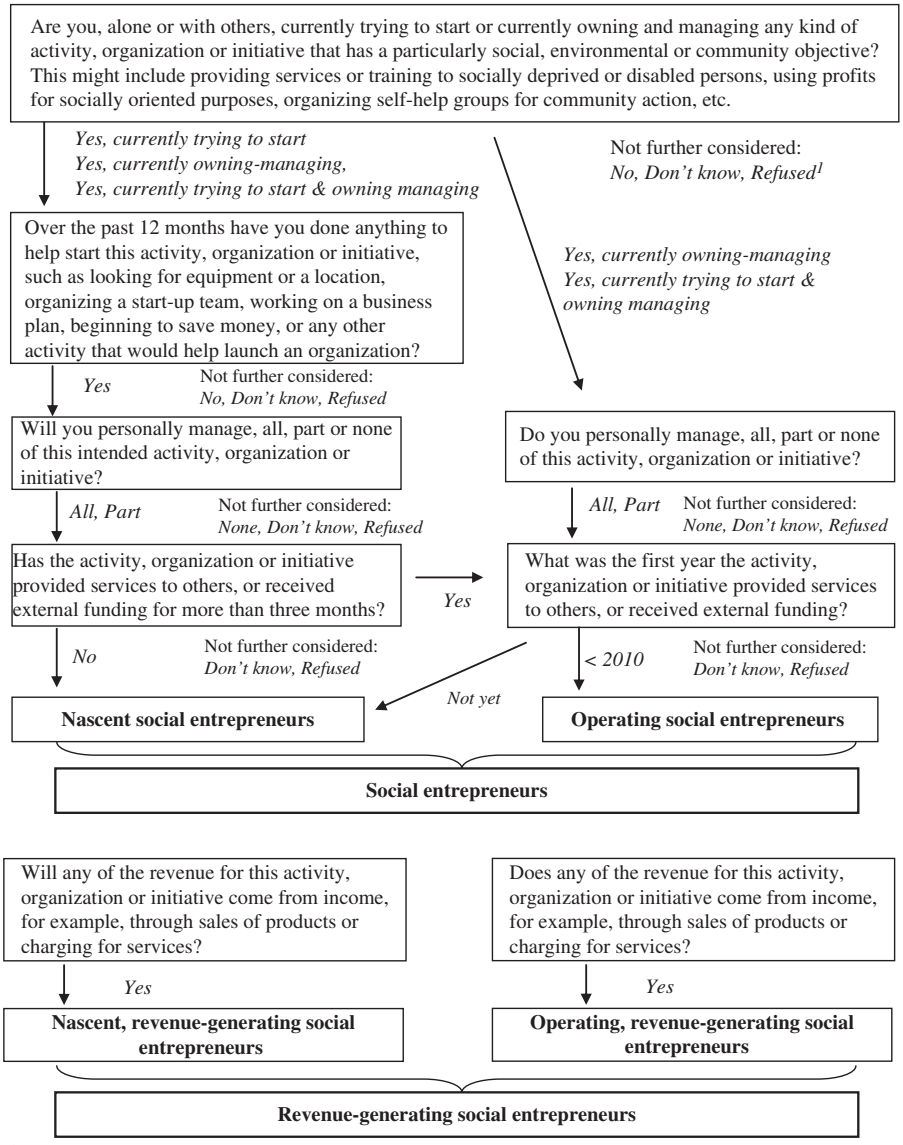
Appendix A

Questions for SE from the GEM (2009)



[1]"Don't know" and "refused" were treated as missing values.

Appendix B

Questions Used to Measure Postmaterialism and SSC

Postmaterialism cultural values

These items were measured as part of the WVS (2010). In this index, respondents are asked to select the most important and second-most important goals a country should have from the following four items: (a) maintaining order in the nation, (b) giving people more to say in important government decisions, (c) fighting rising prices, and (d) protecting freedom of speech. The postmaterialism index is based on the percentage of the population indicating items (b) and (d) as their first and second choices, irrespective of the order. In the WVS data set these individuals are coded "3" – Postmaterialist.

SSC norms

These items are part of the humane orientation and assertiveness cultural-practice scales taken from the GLOBE project (House et al., 2004) and validated as the SSC construct by Stephan and Uhlaner (2010). Items were answered on a 7-point scale. R indicates

items that were recoded in correspondence with coding for the SSC scale (Stephan & Uhlaner, 2010).

Humane orientation cultural practices scales
In this society, people are generally …
1 very concerned about others – 7 not at all concerned about others (R)
1 very sensitive toward others – 7 not at all sensitive toward others (R)
1 very friendly – 7 very unfriendly (R)
1 very tolerant of mistakes – 7 not at all tolerant of mistakes (R)
1 very generous – 7 not generous at all (R)

Assertiveness cultural practice scales
In this society, people are generally …
1 aggressive – 7 non-aggressive
1 assertive – 7 non-assertive
1 dominant – 7 non-dominant
1 tough – 7 tender

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