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Cross-Cultural Innovation and Entrepreneurship

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Abstract

How can culture help explain persistent cross-country differences in innovation and entrepreneurship? This overview of cross-cultural innovation/entrepreneurship research draws on the most prominent cultural frameworks (by Hofstede, Schwartz, GLOBE, and Gelfand and colleagues). After outlining similarities and differences between these frameworks, I discuss theoretical perspectives of how culture shapes innovation/entrepreneurship (culture fit, culture misfit, cultural social support, and culture as a boundary condition) and give an overview of empirical research on culture and innovation/entrepreneurship. I conclude by outlining opportunities and best practices for future research and practical implications.

INTRODUCTION

Innovation and entrepreneurship contribute to competitiveness, job creation, and economic growth (Praag & Versloot 2007). They can also aid in developing solutions to societal challenges ranging from climate change to social inequality (Seelos & Mair 2017). For individuals, innovation and entrepreneurship can be a source of meaningful work and well-being (Helzer & Kim 2019, Stephan 2018). Considering these benefits, many policy makers are interested in supporting innovation and entrepreneurship and often refer to the need to create an entrepreneurial culture to do so.

Levels of innovation and entrepreneurship vary substantially across countries. These differences tend to be stable over time and can only partly be explained by formal institutions and economic development (e.g., Freytag & Thurik 2010). This points to culture as an important explanation, because culture—the shared values, norms, and practices of a society—is considered slow to change (House et al. 2004).

The search for a link between culture and innovation and entrepreneurship can be traced back to Max Weber's (1930) work on the values, norms, and practices associated with the Protestant work ethic that, he suggested, underpinned the rise of capitalism. When cross-country harmonized data on innovation and entrepreneurship became available, researchers used key cultural frameworks (e.g., Hofstede 2001, House et al. 2004) to relate culture to innovation and entrepreneurship.

Yet, the last review of cross-cultural innovation and entrepreneurship research concluded that findings are inconsistent (Hayton & Cacciotti 2013), calling the value of cultural explanations into question. Fortunately, research in this area is progressing rapidly, driven by data covering an increasing number of countries and a better understanding of culture and different cultural approaches (cultural values versus cultural practices/norms). With this expanded evidence base and understanding, more consistent findings are emerging, as I discuss in this article.

The next section introduces key terms, approaches to culture, cultural frameworks, and methodological issues. The third section discusses theoretical perspectives of how culture shapes innovation and entrepreneurship. The fourth section provides an overview of the main empirical findings in cross-cultural innovation and entrepreneurship research. The fifth section summarizes the findings in relation to the theoretical perspectives and outlines research opportunities and best practices for future research. The final section discusses practical implications.

DEFINITIONS: INNOVATION, ENTREPRENEURSHIP, AND CULTURE

Innovation and Entrepreneurship

The term innovation refers to attempts "to develop and introduce new and improved ways of doing things" (Anderson et al. 2014, p. 1289). Often, creativity as the generation of new and useful ideas is differentiated from innovation, which concerns the implementation of these ideas to enhance procedures, practices, or products (Anderson et al. 2014). Entrepreneurship refers to "new entry," typically through the creation of an organization through which an individual or team seeks to realize a new venture idea (Davidsson 2015). Entrepreneurs are individuals who work for their own account and at their own risk (Gorgievski & Stephan 2016).

Both innovation and entrepreneurship are proactive, self-starting behaviors that initiate change (Frese & Gielnik 2014). They share the need to experiment in the face of uncertainty, for instance, uncertainty about whether a new product, service, process, or business idea will be successful. Such experimentation necessarily implies setbacks and failures through which innovators and entrepreneurs learn and adapt their ideas.

Innovation and entrepreneurship differ in terms of personal responsibility. Individuals and teams engaged in innovation typically work in organizations that are owned and controlled by someone else. By contrast, entrepreneurship combines ownership and control; in other words, entrepreneurs are personally and legally responsible for all aspects of their business. Finally, not all entrepreneurs are innovators, and not all innovations can be commercialized.

Culture: Definition, Approaches, and Frameworks

Culture refers to the shared values, norms, and practices of a society, thus characterizing collectives or groups of individuals (House et al. 2004). Culture evolved to enable these collectives to survive, live together productively, and successfully navigate their environment (Schwartz 2006). Different frameworks and dimensions of culture exist, and navigating them can be challenging. For instance, Hofstede (2001), Schwartz (2006), and the Global Leadership and Organizational Behavior Effectiveness (GLOBE) project (House et al. 2004) all consider individualism as a dimension of culture. These three frameworks alone include four different conceptualizations and eight different indices of individualism (**Table 1**); GLOBE offers parallel indices of individualism values and practices.

A comprehensive discussion of existing cultural theories is beyond the scope of this article. Instead, this review considers the most commonly used cultural theories in cross-cultural innovation/entrepreneurship research, which are those by Hofstede (2001), Schwartz (2006), the GLOBE project (House et al. 2004), and Gelfand et al. (2011). **Table 1** defines all of the cultural dimensions covered in these frameworks and illustrates common themes. Before introducing the four frameworks, I discuss the two main approaches of conceptualizing and assessing culture as cultural values or as cultural practices/norms.

Cultural values. A long tradition in cross-cultural research views shared values as the defining feature of cultures (Hofstede 2001, Schwartz 2006). Cultural values "express shared conceptions of what is good and desirable in the culture, the cultural ideals" (Schwartz 2006, p. 139). The measurement of culture from a values perspective proceeds in several steps. First, individuals are asked to rate their values, such as how important having sufficient time for personal or family life is in their ideal job (example individualism item in Hofstede 2001) or the degree to which being "independent (self-reliant, self-sufficient)" is a guiding principle in their life (example cultural autonomy item in Schwartz 1992, 1994). Second, the country means of each individual value item are computed and factor-analyzed to arrive at a country-level factor solution of cultural dimensions.[1] The GLOBE study shifted the reference from the individual to society and, in line with the notion of values as cultural ideals, asked respondents how their culture (ideally) "should be." An example item is: "In this society, people should be encouraged to be: very concerned about others—not at all concerned about others" (humane orientation values in House et al. 2004; emphasis in original). Benefitting from methodological advances, House et al. (2004) statistically verified cultural sharedness and employed multilevel factor analyses to derive cultural dimensions.

Cultural practices/norms. Research in recent decades has identified cultural practices and norms as a further approach to culture (Gelfand et al. 2011, House et al. 2004). This approach locates culture in respondents' intersubjective shared perceptions about their social environment (Chiu et al. 2010). Culture in this perspective is anchored in the patterns of common behaviors that

[1] Schwartz used multidimensional scaling, a method similar to factor analysis.

Table 1 Overview of cultural frameworks

Focus	Hofstede (2001) framework	Schwartz (2006) cultural values	GLOBE[a] (House et al. 2004)	Gelfand et al. (2006, 2011)
Relationship and boundaries between the individual and the group	Individualism versus collectivism (self- versus work orientation; Brewer & Venaik 2011): degree of an individual's integration into their primary group, with a focus on the work group	Autonomy: individual's uniqueness and pursuit of own ideas (intellectual autonomy) and of own positive affective experiences (affective autonomy) Embeddedness (conservation): individuals embedded in collectives, group solidarity, tradition, social order	In-group collectivism:[b] Individuals express pride, loyalty, and cohesiveness in their organizations or families (family collectivism; Brewer & Venaik 2011). Institutional collectivism: concern for a collective redistribution of resources and collective action (risk sharing in society)	Not applicable
Dealing with unpredictability and ambiguity	Uncertainty avoidance (UA-stress; Venaik & Brewer 2010): "level of stress in a society in the face of an unknown future" (Hofstede 2001, p. 29)	Not applicable	Uncertainty avoidance[b] (UA-rule orientation; Venaik & Brewer 2010): use of social norms, rules, and procedures to enhance predictability of future	Not applicable
Power inequalities among individuals and groups	Power distance: acceptance of inequality, status, hierarchy, and power differences (at work)	Hierarchy: Unequal distribution of power is legitimate; inequality of resources and roles ensures coordination. Egalitarianism: People are equal, with shared interests and concern for one another, and are willing to cooperate for the common welfare.	Power distance:[b] degree to which equal versus unequal distribution of power in society is accepted	Not applicable
Performance and control orientation	Masculinity versus femininity: differentiation of "emotional" gender roles and styles of interaction; male assertiveness, seeking achievement and challenge versus female nurturance, modesty, and cooperation (Hofstede 2001, p. 284)	Mastery: control of environment through action, instigation of change, reward for ambition and success Harmony: "fitting in" and appreciating the world "as is," protecting peace and nature	Performance orientation:[b] encouragement and reward for performance improvement and excellence	Not applicable
Gender inequality		Not applicable	Gender egalitarianism: collective concern about minimizing gender inequality	Not applicable
Nature of interpersonal interactions		Not applicable	Humane orientation:[c] being fair, altruistic, generous, caring, kind to others Assertiveness:[c] being assertive, confrontational, aggressive to others	Not applicable
Time perspective	Long-term orientation: emphasis on the future, thrift, and perseverance (versus the past; Venaik et al. 2013)	Not applicable	Future orientation:[b] focus on future-oriented behaviors (e.g., delaying gratification, planning, investing) versus the present (Venaik et al. 2013)	Not applicable
Restraint through norms versus tolerance of deviance	Indulgence versus restraint: gratification versus control of desires related to enjoying life, regulated by strict social norms	Not applicable	Not applicable	Tightness: strength of social norms and intolerance of deviant behavior

[a]Dimensions of values and practices.

[b]Practices of in-group collectivism (−), power distance (−), uncertainty avoidance (+), future orientation (+), and performance orientation (+) combine into performance-based culture.

[c]Humane orientation (+) and assertiveness (−) combine into socially supportive culture.

structure societal interactions and that provide members of a culture with a "dominant logic of action" (Stephan & Uhlaner 2010). Culture is measured through perceptions of common practices describing culture "as is" (the way people typically act) and sharedness is verified statistically. Typical item referents are "in this society" or "in this country." Example items are: "In this society, people are generally: very concerned about others—not at all concerned about others" (humane orientation practices in House et al. 2004) and "People in this country almost always comply with social norms" (cultural tightness–looseness norms in Gelfand et al. 2011).

Cultural values versus practices/norms. The distinction between cultural values and practices/norms is important (Frese 2015). First, cultural practices/norms are more consistently related to objective, behavioral, and observational outcomes, whereas cultural values relate more consistently to attitudinal measures (Gupta et al. 2004). Second, cultural values and practices/norms are on average negatively correlated in the GLOBE study, which is the only study that assessed both simultaneously (House et al. 2004). This negative correlation has been interpreted as a deprivation effect, such that societies practicing, for example, high levels of uncertainty avoidance desire less of it, and vice versa (Javidan et al. 2006). The exceptions to this pattern are gender egalitarianism, where values and practice correlate positively, and in-group collectivism, where they do not significantly correlate (Javidan et al. 2006).

Four frameworks of culture. The four frameworks differ in how they were developed and in the samples used to generate the cultural indices for countries. Hofstede (2001) conducted a factor analysis of survey data collected from IBM employees at the end of the 1960s/beginning of the 1970s to derive four dimensions of cultural work values: individualism, uncertainty avoidance, power distance, and masculinity (see **Table 1** for definitions). Subsequent studies collected data from different types of samples. Taras et al. (2012) provided a meta-analytic summary and updated time-adjusted country scores for the four indices. From today's perspective, the content validity of the items used by Hofstede can seem questionable, and most dimensions contain a mix of value, attitude, and practice/norm questions (see the next section). A fifth and a sixth dimension (**Table 1**) were added later; I do not cover them in detail, as they have not yet attracted attention in cross-cultural innovation/entrepreneurship research.

Schwartz (1992, 2006) conceptualizes values as guiding principles in peoples' lives. He elaborated separate individual- and culture-level value theories on the basis of samples of students and teachers, surveyed at the end of the 1980s and 1990s. He later developed different questionnaires, and data are now regularly available from population-representative samples through the European Social Survey program. The seven Schwartz cultural value dimensions are defined in **Table 1**. Data on the Schwartz cultural value indices are available for 80 countries (Schwartz 2008).

The GLOBE project built on prior research and conceptualized a total of nine dimensions, each measured as values and practices. Most dimensions carry labels similar to the Hofstede framework [masculinity–femininity in Hofstede's framework conceptually maps onto four dimensions in the GLOBE framework (see also Peterson 2004) (**Table 1**)]. GLOBE surveyed managers from local organizations in three matched industry sectors across 62 societies from 1995 to 1997 (House et al. 2004). GLOBE practice/norm measures ("as is") are frequently used in research. GLOBE value measures ("should be") are less frequently used and have been criticized as ambiguous in terms of whether they capture projections of personally or socially desired values (Smith 2006). The GLOBE 2020 project to update data on cultural practices is underway.

Gelfand et al. (2006) developed a theory of cultural tightness versus looseness that considers the strength of social norms (for an overview, see Gelfand 2019). Tightness–looseness country scores are based on data collected between 2000 and 2003 from matched samples composed of

approximately 50% university students and 50% working adults from 33 countries (Gelfand et al. 2011).

Relationships Among the Four Cultural Frameworks

Table 1 highlights conceptual similarities among the four frameworks. Yet there are also unexpected empirical relationships, which are due to differences in the content of similarly labeled dimensions and the measurement approach (values versus practices/norms). It is important to understand these differences because they can explain diverging findings and help researchers design meaningful robustness checks. **Supplemental Appendix 1** presents the correlations among the four cultural frameworks. I highlight salient relationships next.

Supplemental Material >

The Hofstede and Schwartz frameworks converge in their respective indices of individualism/autonomy–embeddedness and power distance/hierarchy–egalitarianism (see **Table 1** for definitions). The correlations are stronger among measures of individualism, which are value based in both frameworks. By contrast, Hofstede's (2001, pp. 85–86) power distance index is based on one value and two practice items. The latter capture perceptions of typical leader–subordinate relationships. Correlations among other indices from the two frameworks are weak or insignificant (**Supplemental Appendix 1**).

Despite similar labels, the Hofstede and GLOBE cultural indices often correlate only weakly or in unexpected ways (e.g., strong correlations across different indices; **Supplemental Appendix 1**). Because the Hofstede and GLOBE indices are often used as substitutes for one another, I discuss differences in the content of the indices and their relationships in more detail.

On the basis of item analysis, Brewer & Venaik (2011) suggest that Hofstede individualism is a measure of cultural values prioritizing self- versus work orientation (see also Bond 2002) and that GLOBE in-group collectivism is a measure of family collectivism, whereas GLOBE institutional collectivism reflects institutional choices supporting collective action, resource sharing, and risk sharing. Hofstede individualism values correlate positively with GLOBE in-group collectivism practices but not with values (nor with institutional collectivism practices or values). Brewer & Venaik (2011) suggest that national wealth might confound the relationship between Hofstede individualism values and GLOBE in-group collectivism practices, as both indices correlate substantially with national wealth. An alternative explanation is that Hofstede values (assessed mostly in the 1960s and 1970s) may have been effective sources of guidance that led societies to adopt individualistic practices by the mid-1990s, when GLOBE collected its data.

Hofstede uncertainty avoidance, or UA, is best understood as a measure assessing collective levels of stress originating from uncertainty (Hofstede 2001, Sully de Luque & Javidan 2004), leading Venaik & Brewer (2010) to suggest labeling it UA-stress. By contrast, GLOBE's UA captures rule orientation; that is, it emphasizes rules, procedures, and norms as a means to avoid uncertainty (Sully de Luque & Javidan 2004). These differences in content help explain the high negative correlation between Hofstede UA and GLOBE UA practices despite Hofstede UA giving greater weight to practice over value items (Venaik & Brewer 2010). In summary, it seems that countries with high GLOBE UA (rule orientation) practices create predictability that helps alleviate stress (low Hofstede UA-stress).

For power distance, the Hofstede index is moderately positively correlated with GLOBE power distance practices and not correlated with GLOBE power distance values. These relationships are expected, considering that Hofstede power distance captures mainly practices, as discussed above. That the relationship is not stronger is likely because GLOBE assesses power distribution in society in general, including, but not limited to, manager/leader–employee relationships, as in the Hofstede index.

Hofstede masculinity does not significantly correlate with the four GLOBE indices that assess aspects associated with it, namely gender egalitarianism, performance orientation, assertiveness, and humane orientation (Peterson 2004). The Hofstede masculinity index is based on eight work goals that include both "social" (feminine nurturance, cooperation, and friendliness) and "ego" work goals (masculine assertiveness, achievement, and challenge striving) (Hofstede 2001, p. 284). The corresponding GLOBE dimensions are more narrowly conceptualized (focused on gender, performance/achievement, and assertive versus friendly cooperative interaction, respectively) and broader (referring to society in general) than the Hofstede work goals. These differences likely explain the low correlation.

The Hofstede dimension of long-term orientation conceptually maps onto GLOBE's future orientation values, yet the indices are weakly negatively correlated. Both are value indices but have different foci (Venaik et al. 2013). Hofstede long-term orientation is a bipolar dimension contrasting past-tradition values with valuing savings for the future (thrift). GLOBE future orientation is a unipolar measure that emphasizes planning for the future relative to an orientation on the present (rather than the past; Venaik et al. 2013).

Gelfand and colleagues' tightness norms correlate in expected ways with GLOBE cultural practices, positively with in-group and institutional collectivism and negatively with gender egalitarianism practices and assertiveness. Tight cultures often have a history of threat, which requires members of these societies to rely on one another for survival (Gelfand et al. 2011, Roos et al. 2015). This typically goes along with maintaining traditional social hierarchies, including gender inequality. Similar relationships are observed with Hofstede individualism (cultural tightness is positively related to collectivism) and high power distance, as well as with the equivalent dimensions of embeddedness–autonomy and hierarchy–egalitarianism in the Schwartz framework (**Supplemental Appendix 1**; for more detail, see Gelfand et al. 2011).

Supplemental Material >

Further Methodological Issues

Other methodological issues are salient in cross-cultural innovation/entrepreneurship research. First, national wealth/affluence, typically measured as gross domestic product (GDP), shows substantive relationships with culture. Researchers disagree about whether culture should be regarded as a driver of national wealth or whether national wealth leads to the development of individualistic, more egalitarian, rule- and future-oriented cultures (e.g., House et al. 2004, Inglehart 2006, Schwartz 2006). Practically speaking, many studies control for GDP to assess whether culture has explanatory power beyond GDP, which is considered a more parsimonious explanation (Leung & Wang 2015).

Second, range restriction may lead to biased explanations and underestimation of the effect of culture. Researchers should be mindful of the diversity of cultures in their study. For instance, the effects of collectivism may be underestimated because data are more easily available for more affluent countries, which are more individualistic. Range restriction can occur for all cultural dimensions.

Third, cross-cultural research is inherently multilevel and can suffer from unique biases. The disaggregation bias (or ecological fallacy) warns that relationships at the level of countries may not generalize to individuals. Conversely, the aggregation bias (or reverse ecological fallacy) highlights that individual-level relationships may not generalize to the country level (Hofstede 2001, Smith 2002). An example of aggregation bias is the assumption that individualistic cultures are more innovative or entrepreneurial solely on the basis of research that observed such a link for individuals. This assumption was prevalent in early research on culture and entrepreneurship (Mueller & Thomas 2001, Thomas & Mueller 2000). It is true that individuals high in openness to change

produce more innovate work (for a review, see Arieli et al. 2020) and that entrepreneurs across cultures endorse similar values related to self-direction, achievement, and power (McGrath et al. 1992, Noseleit 2010). Yet, cultures are more than "king sized" individuals (Hofstede 2001). For instance, noninnovators/nonentrepreneurs in a culture may not behave individualistically when they support innovators/entrepreneurs to implement their ideas. I next discuss different theoretical perspectives on this issue.

FOUR THEORETICAL PERSPECTIVES ON HOW CULTURE AFFECTS INNOVATION AND ENTREPRENEURSHIP

Culture fit, culture misfit, cultural social support, and culture as a cross-level boundary condition are four different theoretical explanations of how culture affects innovation and entrepreneurship. The culture fit perspective emphasizes the alignment and congruence of cultural characteristics with characteristics of innovation/entrepreneurship (Davidsson 1995, Davidsson & Wiklund 1997, Tung et al. 2007). There are two versions of culture fit. First, congruent cultures may produce more innovators and entrepreneurs, termed the aggregate trait (Davidsson 1995) or supply-side view (Stephan & Uhlaner 2010, Taylor & Wilson 2012). The greater supply of innovating/entrepreneurial individuals in a country will, in the aggregate, lead to more innovation/entrepreneurship in that country. For instance, individualistic cultures are assumed to facilitate innovation/entrepreneurship because they are home to more individuals with individualistic values, some of whom will engage in innovation/entrepreneurship. This aggregate trait argument aligns with the cultural values approach.

Second, congruent cultures may support innovation/entrepreneurship because in these cultures innovative/entrepreneurial actions, work, and careers are regarded as desirable and worthwhile—that is, legitimate. This version of the culture fit perspective is termed societal legitimation (Etzioni 1987) or demand-side view (Stephan & Uhlaner 2010, Taylor & Wilson 2012). For instance, funders, suppliers, and customers may be more likely to provide financing to, contract with, and buy from innovative firms/start-ups in cultures where innovation and entrepreneurship are more legitimate. Legitimacy is a sociological concept (Suchman 1995). Cultural values and practices/norms map onto different forms of legitimacy. Cultural values can be understood as injunctive norms that confer moral legitimacy (i.e., what is good and desirable), while cultural practices represent descriptive norms based on observations of typical behavior (Frese 2015, Stephan & Uhlaner 2010) and which confer cognitive legitimacy (i.e., how things are done is taken for granted; Suchman 1995).

The culture misfit perspective emphasizes misalignment of culture with characteristics of innovation/entrepreneurship and implies compensation. For instance, individuals may innovate or start a business because they are different, or face needs that are different, from the culture that surrounds them. Thus, their actions compensate for what their cultural context cannot provide. This perspective often emphasizes individual dissatisfaction with existing conditions such that individuals innovate because they have needs that mainstream products or services do not cater for (von Hippel 1986), or they start businesses because they find work in mainstream organizations in uncertainty-avoidant cultures too rigid and rule oriented (Wennekers et al. 2007). The focus on misfit with current conditions aligns with cultural practices (how things are typically done).

The cultural social support perspective proposes that innovation and entrepreneurship thrive in a societal climate in which people in general are friendly and cooperative and support one another (Stephan & Uhlaner 2010). It refers to cultural practices/norms of social support and highlights two complementary explanations that are anchored in different literatures. First, it aligns with the concept of culture-level social capital as used in political science and sociology, that is,

as an instantiated informal norm that promotes cooperation (Fukuyama 2001, p. 7; Stephan & Uhlaner 2010). In supportive cultures, it is easier for innovators/entrepreneurs to draw on the informal support of others, including "others" who are strangers.[2] This support includes access to new information and feedback, informal capital, and emotional social support to overcome setbacks. In summary, supportive cultures are rich in so-called weak-tie social capital, which enables entrepreneurs and innovators to access nonredundant information from distant others (Granovetter 1973). The cultural social support perspective is a specific case of culture misfit because it emphasizes cultural norms of kindness and cooperation, whereas innovators and entrepreneurs are viewed as individualistic, competitive individuals.

Second, the cultural social support perspective aligns with the concept of psychological safety in organizational research, that is, shared perceptions of whether it is safe to take interpersonal risk (Edmondson & Lei 2014). Psychologically safe environments help foster innovation by mitigating the social risks associated with experimenting and failing (Baer & Frese 2003). It is easier for individuals to speak up and try out new things in psychologically safe environments, as mistakes are treated as an element of experimentation rather than as personal failures. Conversely, entrepreneurs worry about the social stigma that failing in their efforts may carry (Cardon et al. 2011).

Rather than conceptualizing culture as a direct antecedent to innovation and entrepreneurship, the theoretical perspective of culture as a boundary condition views culture as a moderator of other relationships, typically as a cross-level moderator of individual- or firm-level relationships. Culture can amplify or suppress other relationships, and the nature of the moderation effect might be theorized from the culture fit, the culture misfit, or the cultural support perspective. For instance, research drawing on the culture fit perspective finds that being located in uncertainty-tolerant cultures allows firms to derive greater performance benefits from engaging in variance-inducing strategies such as innovation (Mueller et al. 2013) and entrepreneurial orientation (EO) (Saeed et al. 2014). Uncertainty tolerance is thought to legitimize and enable the flexibility and experimentation on which these strategies rely, resulting in a stronger relationship between these strategies and firm performance.

OVERVIEW OF EMPIRICAL RESEARCH ON HOW CULTURE AFFECTS INNOVATION AND ENTREPRENEURSHIP

Of the four theoretical perspectives discussed in the previous section, empirical research started from a culture fit perspective to understand how culture affects innovation/entrepreneurship and focused on the cultural dimensions of individualism, uncertainty avoidance, power distance, and masculinity (Hayton et al. 2002, Nakata & Sivakumar 1996, Shane 1993). Individualistic and uncertainty-tolerant cultures were argued to benefit innovation and entrepreneurship, because the latter create novelty and uniqueness (congruent with individualism) and entail experimentation and risk (supported in uncertainty-tolerant cultures). Innovation and entrepreneurship may also be aided by equality and flat power structures (versus power distance) that enable the exchange of ideas. Entrepreneurship researchers expected that masculinity, especially its achievement- and performance-oriented facet, would encourage entrepreneurship (e.g., Hayton et al. 2002). By contrast, innovation researchers (e.g., Nakata & Sivakumar 1996) argued that femininity (versus masculinity) would aid the development of ideas by creating a supportive social climate for exchange

[2]The concept of cultural social support differs from collectivism, where "others" are members of one's in-group.

and experimentation (Baer & Frese 2003). The latter argument is consistent with the cultural social support perspective (Stephan & Uhlaner 2010). Research on cultural norms of tightness also alluded to culture fit predictions (Harrington & Gelfand 2014). Generating new ideas or businesses would be more legitimate in loose (versus tight) cultures, which tolerate deviant behaviors and experimentation rather than emphasize conformity with social norms.

Empirical research, however, did not support the culture fit perspective as the single explanation of how culture affects innovation and entrepreneurship. Instead, as the overview of empirical evidence in this section shows, different theoretical perspectives received support contingent on the phase of the innovation/entrepreneurship process that the research focused on. Innovation/entrepreneurship can be understood as a process from generating ideas to implementing them, followed by a phase of sustaining performance (Nakata & Sivakumar 1996, Shepherd et al. 2019). Critically, each phase involves specific demands, tasks, and requirements, which help illuminate the distinct effects of culture in each phase. For instance, while individualism can help stimulate individual creativity, collectivism aids the coordination of resources and employees so as to derive performance benefits from the introduction of new offerings.

Figure 1 shows the phases of the innovation/entrepreneurship process. The first, originating phase involves individual and team creativity to generate new ideas and identify new opportunities. The second, implementing phase involves turning ideas into products/services, processes, or operating businesses, which requires mobilizing resources and influencing others to engage and support the new solution/business and build legitimacy for it. In the third, performing phase, an organization needs to coordinate its employees and influence stakeholders and customers in order to be able to sustainably deliver and sell a new offering for a surplus. The fourth phase, persisting or exiting, involves adapting offerings to sustain performance or disengaging from an innovation/business.

These phases reflect the nature of the dependent variables in empirical cross-cultural research—except for the fourth phase, which has not yet been researched and is shown in **Figure 1** as inspiration for future research. Measures of innovation used in cross-cultural research align with the originating phase, as they reflect new knowledge creation. Measures of entrepreneurship align with the implementing phase, as they focus on implementing an idea through the creation of a new business. The performance phase aligns with studies that considered whether culture moderates the effects of variance-inducing firm strategies (innovation or EO) on firm performance.

Figure 1 summarizes the empirical findings discussed in this review. The pattern of findings was consistent with the culture fit perspective for the originating phase, focused on innovation. The cultural social support perspective offered the most consistent findings for the implementing phase, focused on entrepreneurship. For the performing phase, the distinct pattern of findings aligned with the perspective of culture as a boundary condition.

In the remainder of this section, I first discuss the typical measures of innovation and entrepreneurship used in cross-cultural research, which helps explain how they map onto the originating and implementing phases. I then discuss research relating to the originating, implementing, and performing phases. I close with a reflection on multicultural experience and innovation/entrepreneurship. Throughout, I focus on higher-quality studies (**Supplemental Appendix 2** provides details about the individual studies included in this review).

Supplemental Material >

Measures of Innovation and Entrepreneurship: Originating and Implementing Ideas

Measures of innovation used in cross-cultural research reflected the originating phase. They were typically indicators of inventiveness and new knowledge creation, such as the national per capita

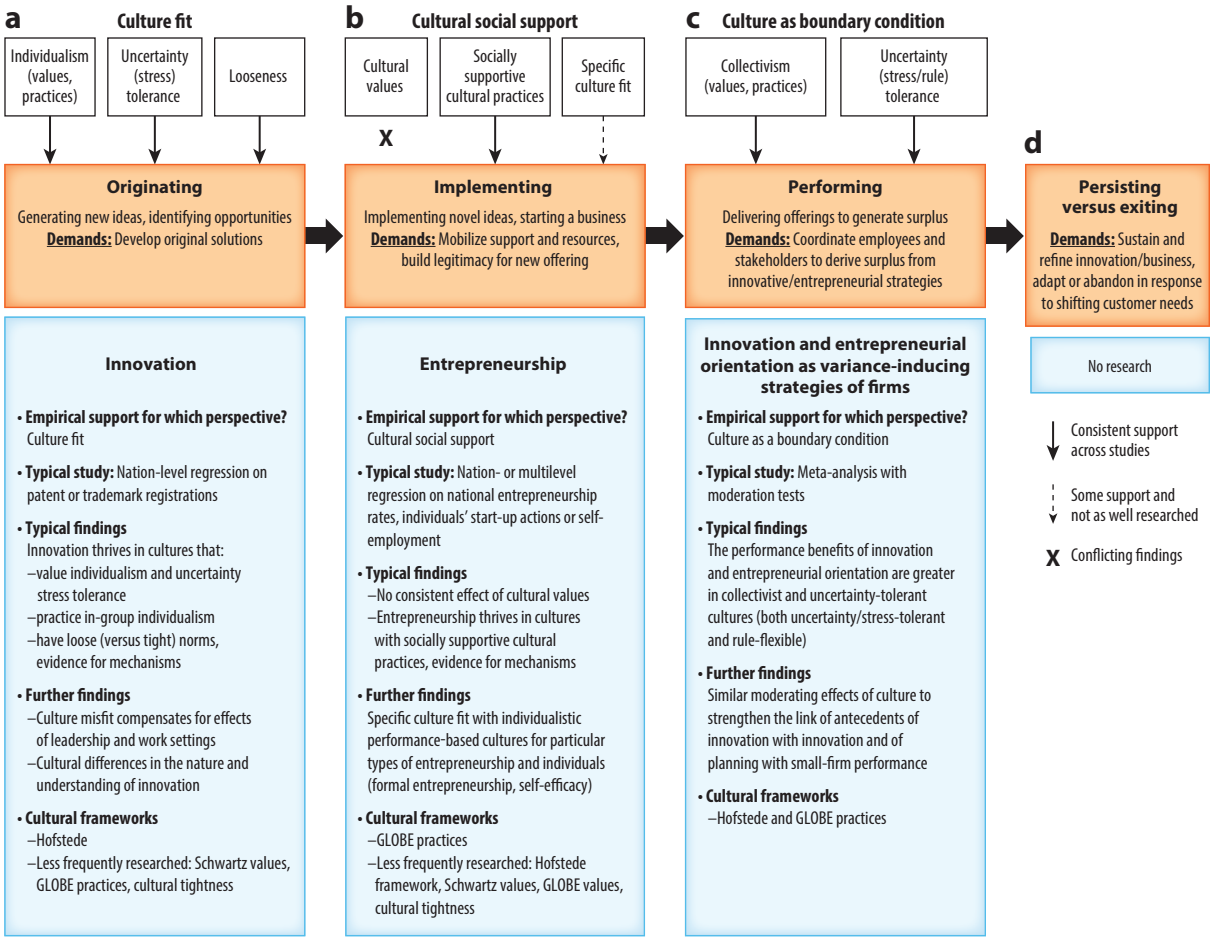

Figure 1

(*Top*, *white boxes*) Overview of main findings and the conceptual perspectives they support in cross-cultural innovation/entrepreneurship research, organized by the four phases (*a–d*) of the innovation/entrepreneurship process (*orange boxes*). (*Bottom*, *blue boxes*) Details of the typical analysis approaches, findings, and cultural frameworks used.

rates of patent or trademark registrations or of scientific publications in peer-reviewed journals. Some recent research used the two output pillars of the Global Innovation Index (Dutta et al. 2018). One of these integrates patent registrations with related measures (e.g., high-tech exports, information and communication technology services as share of trade); the other, the creative output pillar, includes trademarks as well as online and cultural creativity.

Measures used in cross-cultural entrepreneurship research typically reflect the implementing phase, in which ideas are implemented through launching a business. They included the national rate of new business registrations, the national self-employment rate, and most frequently indicators of "new entry" from the Global Entrepreneurship Monitor (GEM) (Reynolds et al. 2005). GEM conducts annual population-representative surveys to identify the share of the adult population that is taking steps to set up a business (nascent entrepreneurship), has recently started a business (up to 3.5 years old; new entrepreneurship), or is running an established business (similar to the rate of self-employment). Numbers of nascent and new entrepreneurs are sometimes

combined into a total early-stage entrepreneurship rate. This rate can be problematic, because it can reflect high numbers of nascent entrepreneurs, new entrepreneurs, or a balance of both, with different implications. High numbers of nascent (relative to new) entrepreneurs imply an inefficient business creation process in which many people are trying but failing to set up a business. In contrast, high numbers of new (relative to nascent) entrepreneurs indicate an efficient business creation process in which most succeed in creating a business (Bergmann & Stephan 2013).

Originating Ideas: Cross-Cultural Innovation Research

Figure 1*a* summarizes the findings discussed in this section. They were broadly consistent with the culture fit perspective, wherein innovation thrives in individualistic (versus collectivistic), uncertainty-tolerant (versus -avoidant), and loose (versus tight) cultures. Additionally, research investigated how to innovate in cultures that hamper innovation (e.g., uncertainty-avoidant and tight cultures). This research in combination with experimental evidence indicated important cultural differences in the understanding and nature of innovation itself. I first discuss research using cultural values followed by research using cultural practices as well as cultural differences in the understanding of innovation.

Innovation and cultural values. Aligned with the culture fit perspective, the most consistent finding across studies considering cultural values was that individualistic cultural values facilitate innovation. There was also evidence that uncertainty/stress-tolerant cultures and, to a lesser extent, egalitarian (versus power-distant) cultures aid innovation. Innovation was measured predominantly as national rates of new knowledge generation (e.g., patent rates), raising concerns about potential confounding effects of formal institutions. Yet findings were mostly replicated in studies using surveys of consumer innovativeness and championing of innovation at work. In terms of theoretical explanations, studies referred to both versions of the culture fit perspective (aggregate trait and societal legitimation): They hypothesized a greater supply of innovators in individualistic, uncertainty-tolerant, and egalitarian cultures and proposed that innovative actions are encouraged because they are regarded as desirable and legitimate in these cultures. However, no studies tested these mechanisms. This research relied mostly on the Hofstede framework, occasionally using Schwartz values for robustness checks.

Early studies investigated the Hofstede dimensions individually in relation to innovation across 33 diverse countries[3] (Shane 1992, 1993). Individualistic, more egalitarian (low–power distance) and uncertainty/stress-tolerant societies had higher rates of patent and trademark registrations. Masculinity had no effect. Efrat (2014) replicated that uncertainty/stress tolerance facilitated higher rates of innovation (including patents, scientific publications, and high-technology exports) across 35 developed countries. Effects for the other three cultural indices were less consistent. Similarly, Rinne et al. (2013) replicated the positive relationship of individualism, but not the other indices, with two creativity measures across 43 diverse and 23 European countries.

Other research considered only individualism and replicated its positive relationship with innovation across 62 (Taylor & Wilson 2012) and 83 (Bennett & Nikolaev 2021) diverse countries, using sophisticated measures of innovation (e.g., citation-weighted patents). The findings were replicated for Schwartz cultural autonomy and embeddedness and the meta-analytically updated Hofstede individualism scores (see **Supplemental Appendix 2** for details).

Supplemental Material >

[3]In this review, I refer to "diverse countries" when a study included a mix of developed and less developed countries.

Patent rates were the most frequently used measure of innovation. They are an objective indicator, but they can be protected and commercialized only when strong formal institutions (intellectual property rights and the rule of law) exist, because patent information is publicly available. Since individualism correlates with economic development and the quality of formal institutions (Hofstede 2001), positive effects for individualism may be confounded by facilitating effects of formal institutions. Cross-cultural studies of individual-level innovation can sidestep these confounding effects. Two studies corroborated the positive effects especially of individualistic and uncertainty/stress-tolerant cultures for individual innovation of consumers and organizational employees. First, Steenkamp et al. (1999) surveyed 3,283 consumers from 11 European Union countries about their innovativeness. Consumer innovativeness is an individual consumer's propensity to deviate from established purchasing patterns to trying new products/services (Steenkamp et al. 1999). Individualistic, uncertainty/stress-tolerant, and masculine cultures facilitated consumer innovativeness. Power distance was not investigated.

Second, culture can shape employees' preferences of idea championing, that is, how new ideas should be introduced to minimize resistance and increase adoption. Shane (1995) surveyed employees in 68 diverse countries and found that, in uncertainty/stress-tolerant cultures, employees preferred innovation champions to facilitate networks, engage in transformational leadership, and bypass organizational norms and control/monitoring mechanisms. An earlier version of this study spanning 30 diverse countries found that specific innovation championing strategies aligned with specific cultural dimensions (Shane 1995). High power distance aligned with preferences for seeking support from authority, uncertainty/stress tolerance aligned with preferences for a flexible autonomous approach (versus conforming to norms), and collectivism was weakly related to preferring championing strategies that appealed for cross-functional support.

In related research on workplace innovation, two meta-analyses considered the cross-cultural effectiveness of leadership styles on employee innovation using Hofstede indices (Lee et al. 2020, Watts et al. 2020). Both investigated culture as a boundary condition, unlike the research discussed above that focused on direct effects. These meta-analyses offer insights into how leadership behavior can mitigate the effects of cultures detrimental to innovation. They found compensatory effects (culture–leadership misfit) such that high uncertainty/stress avoidance (Watts et al. 2020) and, to a lesser extent, high power distance (Lee et al. 2020, supplementary material in Watts et al. 2020) rendered leadership more consequential for employee innovation. Watts et al. (2020) specifically considered transformational leadership in their meta-analysis of 81 effect sizes across 17 diverse countries. Uncertainty/stress avoidance and high power distance strengthened the effect of transformational leadership on employee innovation. In uncertainty-avoidant and power-distant cultures, innovation is particularly stressful and risky and may challenge power structures. Transformational leaders can compensate for this negative effect of culture by providing direction, support, reassurance, and a positive vision of the future, thereby mitigating employees' uncertainty and stress (Watts et al. 2020). Lee et al. (2020) investigated different leadership styles but considered fewer primary studies and countries than did Watts et al. (2020) and found fewer moderating effects of power distance.

Innovation and cultural practices/norms. Research on cultural practices/norms and innovation departed from the assumption of culture fit. Specifically, innovation as a variance-inducing activity that involves experimentation and is driven by individual agency would be more legitimate in cultures practicing individualism and in cultures with loose social norms that tolerate deviance. Overall, the findings were consistent with this perspective: Innovation thrived in cultures practicing in-group individualism (just as it did in cultures that valued individualism) and where cultural norms were loose (rather than tight). Evidence that some innovation was nevertheless possible

in tight cultures points to culturally appropriate types of innovation and cultural differences in the understanding of innovation. I next outline findings on individualism practices followed by research on cultural tightness. I return to cultural differences in the nature of innovation in the following section.

Only one study investigated GLOBE practices. Taylor & Wilson (2012) used GLOBE practices as a robustness check for their findings, reported above, that Hofstede individualism benefitted innovation. They found that in-group individualism (versus collectivism) practices facilitated innovation equally. Unexpectedly, institutional collectivism practices that encourage societal risk sharing also supported innovation. This may be because innovation often entails wider benefits for society in addition to generating returns for the innovator.

Four studies reported evidence that cultural looseness (versus tightness) aided innovation (Chua et al. 2015, 2019; Harrington & Gelfand 2014; Jackson et al. 2019). Harrington & Gelfand (2014) found that tightness correlated negatively with per capita rates of patents and fine artists across 50 US states. Similarly, decreasing cultural tightness in the United States from 1800 to 2000 was related to increasing innovation (Jackson et al. 2019), although whether changes in cultural tightness preceded changes in innovation was unclear (Jackson et al. 2019).

Research by Chua and colleagues replicated these innovation-facilitating effects of cultural looseness in the context of international crowdsourcing contests[4] (Chua et al. 2015) and for radical innovation across Chinese provinces (Chua et al. 2019). These studies additionally offered insights into the underlying mechanisms of culture fit (self-selection, legitimacy, aggregate trait view). First, in the crowdsourcing study, tightness led to self-selection: Innovators residing in tight cultures were less likely to engage and succeed in idea contests. Second, the same study found that new ideas/innovations were less legitimate in tight cultures: Audiences (companies) based in tight cultures were less receptive to foreign ideas. Third, the study of innovation across 31 Chinese provinces reported evidence aligned with the aggregate trait view: Individuals living in tighter provinces scored lower on a measure of trait creativity than those living in looser provinces.

While cultural looseness generally aided innovation, Chua and colleagues showed how cultural tightness could also support innovation. First, crowdsourced ideas were more acceptable when both the innovator and the adopter audience were from tight cultures (Chua et al. 2015). Second, tightness benefitted incremental (as opposed to radical) innovation. Specifically, in culturally tight Chinese provinces, gradual improvements were preferred over radical changes (Chua et al. 2019). These findings point to cultural differences in the understanding and nature of innovation.

Cultural differences in the nature and understanding of innovation. A line of experimental research (see Leung & Wang 2015 for a review) demonstrated that implicit theories of innovation vary across cultures. Asian cultures emphasize the usefulness of ideas (important for implementation and diffusion of innovations), whereas Western cultures value the generation of novel ideas over idea usefulness (Loewenstein & Mueller 2016, McCarthy et al. 2018). This observation accords with meta-analytic findings that idea generation is more strongly related to idea implementation in cultures practicing in-group collectivism (Sarooghi et al. 2015). In collectivist cultures, individuals and teams may generate more useful ideas, which should be easier to implement. Additionally, collectivism facilitates coordination within a team or organization, which should help its members work together more effectively to implement ideas.

[4]In crowdsourcing, companies post idea contests (e.g., to find new ideas for consumer products) that are broadcast internationally. Innovators from anywhere can submit ideas. The company then selects and pays for the winning ideas.

Further research explored how culturally contingent understandings of innovation are primed and reinforced by the situational context to discern how changes to work settings may nullify or reverse cultural differences in innovation (Erez & Nouri 2010). In an experiment, Nouri et al. (2015) manipulated social context as working alone (individualistic), in a team (collectivistic), or in the presence of a supervisor (power distant). American but not Chinese participants produced fewer ideas and elaborated them less when they worked in a group, which does not match the American cultural preference for individualism and triggers concerns about social loafing. Chinese but not American participants produced fewer original ideas in the presence of a supervisor, because the supervisor acts as a prime for power distance, making idea usefulness, rather than novelty, a salient norm. Similarly, Liou & Lan (2018) found that Asian–Western differences in innovation were evident only when cultural norms were made salient by asking individuals both to select/evaluate (versus generate) ideas, thereby priming usefulness (versus novelty) considerations, and to work in a group (versus alone), thereby priming collectivism (versus individualism). Future research could explore how work design itself (the organization of tasks for individuals and groups) may be shaped by culture (Erez 2010) to further unpack cultural differences in innovation.

Implementing Ideas: Cross-Cultural Entrepreneurship Research

Figure 1*b* summarizes the findings discussed in this section. Specifically, there were no consistent findings for research on cultural values and entrepreneurship, for both methodological and substantive reasons, outlined below. By contrast, consistent findings emerged for cultural practices, especially in line with the cultural social support perspective. There was some evidence for a specific form of culture fit. I first discuss research using cultural values and then turn to cultural practices/norms.

Entrepreneurship and cultural values. Researchers applied the Hofstede, GLOBE, and Schwartz theories of cultural values. There were no consistent findings overall for how cultural values related to entrepreneurship. For instance, there was evidence for a negative, no, and a positive relationship with individualism and uncertainty avoidance, even for studies using the same cultural framework. The methodological reasons for this divergence include (*a*) differences in the diversity of country samples (developed/affluent versus diverse countries), (*b*) varied measures of entrepreneurship (self-employment, nascent and new entrepreneurship alone or combined), and (*c*) use of original versus updated Hofstede indices. Methodological issues aside, one study suggested that values as cultural ideals may not relate directly to entrepreneurship but instead may shape intervening causal processes (Stephan & Pathak 2016). I next describe research on cultural values and entrepreneurship in more detail.

Three studies used the Hofstede indices of culture. Harms & Groen (2017) employed meta-analytically derived updated indices (Taras et al. 2012). Across 29 diverse countries, individualism was positively related to a country's rate of new entrepreneurs, in direct contrast to an earlier study (Pinillos & Reyes 2011) that found a positive relationship of collectivism with total early-stage entrepreneurship and with opportunity and necessity entrepreneurship across 52 diverse countries. Harms & Groen (2017) also reported a negative relationship for uncertainty avoidance; in contrast, Wennekers et al. (2007) found a positive relationship of uncertainty avoidance with self-employment across 22 developed countries. Harms & Groen (2017) found no significant relationships of masculinity and power distance with the rate of new entrepreneurs and, furthermore, no relationship of culture with high growth and social entrepreneurship.

The study by Pinillos & Reyes (2011) illustrates the importance of considering a diverse sample of countries, both economically developed and developing, to avoid concerns about range

restriction in culture. While Hofstede collectivism related positively to entrepreneurship across 52 diverse countries, GDP moderated this relationship, such that individualism was positively related to entrepreneurship in more developed countries and collectivism in less developed countries. Thus, considering solely developed countries can lead to different, even opposite conclusions about the role of culture in entrepreneurship.

Two multilevel studies related Schwartz's cultural values to entrepreneurship. They identified opposing effects for cultural values related to power distance. Whereas Morales et al. (2019) found a positive effect of egalitarianism across 28 European countries, De Clercq et al. (2013) identified a positive effect of hierarchy on entrepreneurship across 32 diverse countries. Again, the opposing findings are likely due to the different countries considered (mainly affluent European countries versus a mix of developed and developing countries), although the two studies also used different measures of entrepreneurship (self-employment versus total early-stage entrepreneurship). In addition, Morales et al. (2019) identified positive effects of high mastery, and De Clercq et al. (2013) found a positive effect of high embeddedness.

The study by Morales et al. (2019) was one of the few that directly tested the culture misfit perspective by examining the (mis)alignment of personal and cultural values through cross-level interaction effects. Individuals holding personal values associated with entrepreneurship (high openness to change and self-enhancement) were more likely to be entrepreneurs in countries where cultural values were stacked against entrepreneurship (low mastery and low egalitarianism). Therefore, individual entrepreneurial values appeared to compensate for the lack of entrepreneurial cultural values, suggesting that in more adverse cultural environments only individuals who are strongly motivated by their values select into entrepreneurship. Liñán et al. (2016) observed similar relationships across Spanish regions. However, this culture misfit effect appeared to be specific to individual values. De Clercq et al. (2013) found evidence of culture fit for individuals' entrepreneurial self-efficacy. Entrepreneurial self-efficacy related more strongly to being a start-up entrepreneur in more individualistic and egalitarian cultures (low embeddedness and low hierarchy). There were no similar alignment effects for individuals' social or financial capital.

Two studies employing multilevel research using GLOBE cultural values found either no effect (for in-group and institutional collectivism, rule-oriented uncertainty avoidance, performance orientation, and assertiveness values; Autio et al. 2013) or a positive effect for rule-oriented uncertainty-avoidance values and no effect for in-group collectivism values (Stephan & Pathak 2016). Both studies examined 42 diverse countries and used GEM entrepreneurship indicators. Furthermore, Stephan & Pathak (2016) demonstrated that cultural values are indirectly related to entrepreneurship via the shaping of cultural leadership ideals that legitimize entrepreneurs as leaders. In contrast, the corresponding cultural practices had direct effects on entrepreneurship. These authors suggested that cultural values reflect societal ideals and aspirations that do not necessarily guide specific actions or translate into practices (recall that cultural values and practices are typically negatively related).

Entrepreneurship and cultural practices/norms. Unlike research on cultural values, research on GLOBE cultural practice and entrepreneurship offered more consistent findings across studies and measures of entrepreneurship. With one exception, these studies used GLOBE cultural practices. The exception was a study of cultural tightness–looseness (Harms & Groen 2017), which found no relationship between tightness, either on its own or in interaction with the Hofstede indices, and different types of entrepreneurship. It seems too early to draw conclusions about cultural tightness on the basis of only one study. In light of the consistent findings for tightness and innovation (see the previous section), one explanation is that most entrepreneurship may not deviate strongly from existing norms and thus may benefit from medium levels of tightness.

Studies of GLOBE cultural practices and entrepreneurship typically considered diverse countries. Across studies, the first and clearest pattern of findings was that, in line with the cultural support perspective, socially supportive cultural practices facilitate entrepreneurship in its different forms. There was also some evidence supporting the proposed mechanisms through which socially supportive culture facilitates entrepreneurship (e.g., enhanced experimentation). Second, some evidence was also consistent with the culture fit perspective: Performance-based culture was related to the quality of formal institutions and to formal entrepreneurship. This may explain why performance-based culture showed no relationship with GEM entrepreneurship measures that include both formal and informal entrepreneurship. Third, evidence from cross-level studies helps us better understand this culture fit. Findings indicated that, to succeed in individualistic, performance-based cultures, starting entrepreneurs need a strong sense of personal agency and confidence (entrepreneurial self-efficacy). Fourth, more women were self-employed in cultures practicing gender egalitarianism and medium levels of in-group collectivism.

GLOBE cultural practices were used in two ways, both designed to avoid multicollinearity arising from the correlations among the nine cultural practice dimensions. Researchers either selected a small number of practice/norms dimensions guided by theory or used two higher-order dimensions of cultural practices. The two higher-order dimensions were derived from a second-order factor analysis of GLOBE cultural practices by Stephan & Uhlaner (2010), building on research by Peterson & Castro (2006). The first factor, performance-based culture, relates to cultural norms that reward individual accomplishments (versus relationships or position) and view future-oriented planning as a way to achieve high performance (Stephan & Uhlaner 2010). Performance-based culture combines high future and performance orientation with high rule-oriented uncertainty avoidance, low power distance, and low in-group collectivism practices. The second factor, socially supportive culture, describes "a positive societal climate in which people support each other" (Stephan & Uhlaner 2010, p. 1351) and combines high humane orientation[5] with low assertiveness. Performance-based culture correlates positively with Hofstede individualism and negatively with Hofstede power distance and stress/uncertainty avoidance. Socially supportive culture does not correlate substantially with the Hofstede dimensions (**Supplemental Appendix 1**).

Supplemental Material >

Consistent with the cultural social support perspective, highly socially supportive cultures can help entrepreneurs mobilize informal support and resources. They also help make entrepreneurs feel safe to experiment and thereby empower them to take the risk of setting up a business. Country-level and multilevel studies found that socially supportive cultures facilitate (different types of) entrepreneurship as measured by GEM, including new entrepreneurship, established business ownership, innovation-oriented entrepreneurship, independent-opportunity entrepreneurship, and social entrepreneurship [e.g., across 42 diverse countries (Autio et al. 2013), 40 diverse countries (Stephan & Uhlaner 2010), 26 diverse countries (Stephan et al. 2015), and 52 diverse countries (Thai & Turkina 2014)].

In these studies, performance-based culture was not consistently related to these forms of entrepreneurship, but it was related to formal entrepreneurship (i.e., the per capita rate of newly

[5]Schlösser et al. (2012) suggested that humane orientation can create a positive societal climate at the cost of requiring compliance with social norms. They differentiated in-group and out-group humane orientation, and found that only the latter creates inclusive and supportive societal climates. GLOBE humane orientation did not distinguish between in- and out-groups. In Schlösser et al.'s (2012) study, GLOBE humane orientation country scores correlated more highly with out-group humane orientation measure than with in-group humane orientation. Moreover, GLOBE humane orientation practices and socially supportive culture do not correlate significantly with culture indices that capture compliance with social norms (i.e., Hofstede indulgence and cultural tightness; **Supplemental Appendix 1**).

registered firms as reported by the World Bank; Thai & Turkina 2014), which requires future-oriented planning. It also fits with evidence that performance-based culture shapes the quality of formal institutions supporting entrepreneurship (Stephan & Uhlaner 2010).

One mechanism through which cultural social support is presumed to influence entrepreneurship is by encouraging experimentation (Stephan & Uhlaner 2010). Laskovaia et al. (2017) tested this argument in a study across 24 diverse countries. In mediation analyses, they found that socially supportive cultures positively influenced new venture performance through stimulating entrepreneurs to use effectual decision-making characterized by experimentation and flexibility. By contrast, performance-based cultures were negatively related to venture performance mediated by enhanced causal decision-making, which involves future-oriented planning. Stephan & Uhlaner (2010) tested additional mechanisms and found that socially supportive cultures help increase the legitimacy of entrepreneurship, suggesting that such cultures are more inclusive of nonmainstream career choices.

Turning to studies examining specific cultural practices, Autio et al. (2013) found that performance orientation was positively related, and rule-oriented uncertainty avoidance and institutional collectivism were negatively related, to new entrepreneurship. They controlled for several variables, including in-group collectivism and assertiveness practices. Only institutional collectivism was related positively to new entrepreneurs' expectations to create new jobs (high-growth entrepreneurship), which the authors suggest is due to the greater willingness for collective risk sharing in these cultures, in which stakeholders recognize the societal value of new job creation and therefore are more willing to support high-growth entrepreneurs. However, high-growth entrepreneurship has low stability over time (Stephan 2020), suggesting that formal institutions, rather than stable differences in culture, may drive cross-country variation in high-growth entrepreneurship. Future research could test these competing explanations of formal versus informal institutions, especially as institutional collectivism also includes an assessment of perceived formal institutions.

In an extension of research by Autio et al. (2013), Wennberg et al. (2013) found that institutional individualism (versus collectivism), rule-oriented uncertainty avoidance (versus tolerance), and high performance orientation strengthened the positive relationship of entrepreneurial self-efficacy with being a start-up entrepreneur. The effects were less pronounced or not significant for fear of failure. This reflects notions of culture fit: To succeed in individualistic performance-based cultures, starting entrepreneurs need to have a strong sense of personal agency and confidence. Recall that De Clercq et al. (2013) reported similar effects for individualistic and egalitarian cultures (assessed through Schwartz values), whereas Hopp & Stephan (2012) found similar results for self-efficacy- and performance-based community cultures.

Across countries, gender stereotypes of entrepreneurship are masculine (Gupta et al. 2009). Bullough et al. (2017) found that gender egalitarian cultures facilitated women's self-employment across 44 diverse countries. Additionally, medium levels of in-group collectivism practices enabled women's entrepreneurship by allowing them to draw on support from their families without requiring that they prioritize family ties over their own goals. This relationship was visible in countries with either very high or very low institutional collectivism. At medium levels of institutional collectivism, a country may have institutions that balance potential drawbacks of high and low in-group collectivism.

Performing: Firm-Level Cross-Cultural Innovation/Entrepreneurship Research

Variance-inducing firm strategies such as innovation and EO (a strategy combining innovation with risk-taking and proactivity; Lumpkin & Dess 1996) enhance firms' competitiveness and

performance (Mueller et al. 2013, Rauch et al. 2009). Firms pursuing variance-inducing strategies innovate to develop new offerings, become more efficient by innovating processes, and are more proactive and take more risks in exploring new markets and opportunities. They often capitalize on first-mover advantages, as they are quick to introduce new offerings to markets, yet this comes with a risk of also being quick to fail, which would give rise to increased variance in firm performance. How effective variance-inducing strategies are in boosting firm success can depend on the national culture in which firms operate. This is the focus of cross-cultural research on performing, which investigates national culture as a boundary condition of the firm-level relationship between a firm's use of variance-inducing strategies and its performance. The cross-cultural studies on performing discussed in this section investigated mainly individualism and uncertainty avoidance. Other cultural dimensions (e.g., power distance) were less frequently studied, and evidence was less consistent. Next, I summarize the findings of this research (see also **Figure 1*c*** for a summary) and the dominant methodology before elaborating on key studies.

Across studies, collectivism (versus individualism) strengthened the relationship of variance-inducing strategies with firm performance. This enabling effect of collectivism was found to be independent of how collectivism was assessed (by either Hofstede or GLOBE practices of in-group or institutional collectivism). Collectivist cultures appear to enable firms to generate higher returns from variance-inducing strategies by enhancing collaboration within the firm and with external stakeholders. This enhanced coordination and feeling of mutual obligation among the firm's stakeholders arguably help create efficient processes, mobilize resources, and support stakeholder adoption of the firm's innovative offerings (cf. Nakata & Sivakumar 1996). The enabling effect of collectivism appears to align with a culture misfit explanation and contrasts with the innovation-facilitating effects of individualism in the originating phase. Yet the enabling effect of collectivism is consistent with the different demands and tasks in the performing versus originating phase: turning ideas into reliably delivered offerings for high firm performance versus creating novelty.

Studies also supported culture fit arguments for uncertainty avoidance, suggesting that it was easier for firms to derive performance benefits from variance-inducing strategies in uncertainty-tolerant cultures. Uncertainty-tolerant cultures allow firms more flexibility, and it would be more legitimate for firms to introduce novelty in uncertainty-tolerant (versus -avoidant) cultures. For instance, customers would be more willing to try new products/services and stakeholders would be more supportive of innovative and entrepreneurial firms that frequently introduce new offerings in new markets, experiment, and take risks. Moreover, implementing and commercializing innovations may require generating new ideas to overcome obstacles and setbacks as well as flexibility in adapting one's approach (Bledow et al. 2009), which is easier in uncertainty-tolerant cultures. The findings were consistent whether uncertainty avoidance was assessed as Hofstede stress tolerance (versus avoidance) or GLOBE rule flexibility (versus rule orientation).

In terms of methodology, it is difficult and expensive to conduct primary studies of firms and firm performance across diverse cultures. Thus, evidence in this section stems primarily from meta-analyses that integrated primary studies conducted in different countries and were therefore able to test moderation effects of culture. To do so, each primary study included in a meta-analysis was assigned a culture score on the basis of its country of data collection. Moderation effects of culture were assessed via meta-regressions or median splits (e.g., comparing low- and high-individualism cultures). Studies discussed in this section often considered only one cultural index and a limited number of countries, and typically did not control for alternative explanations (e.g., national wealth).

Turning to the specific findings, Rosenbusch et al. (2011) found that the performance of small firms benefitted more from innovation in Hofstede collectivist (versus individualist) cultures. Their meta-analysis synthesized 36 effect sizes across 15 mostly developed countries. Mueller et al.

(2013) extended these findings to all types of firms, not just small firms, and used GLOBE practices. They found that radical (explorative) and incremental (exploitative) innovations mattered more for firm performance in rule-flexible, uncertainty-tolerant (versus rule-oriented) cultures. Additionally, institutional collectivism and high power distance strengthened the relationship of radical but not incremental innovation with firm performance. Thus, the performance benefits of incremental innovations were less contingent on culture than were those of radical innovations. The latter are riskier projects that likely benefit from enhanced collective risk sharing and cooperation in institutionally collectivist countries as well as from top-down resource allocation to high-risk projects in power-distant cultures. Mueller et al. (2013) analyzed 46 and 42 effect sizes and controlled for alternative explanations but included little information about the countries included.

A primary study of 857 business owners/managers across five countries also used GLOBE practices and found similar effects for collectivism but not for uncertainty avoidance (Rauch et al. 2013). Innovation was more closely related to the growth of small firms in (in-group) collectivist and nonassertive cultures. Higher cultural rule-oriented uncertainty avoidance also strengthened the innovation–firm growth relationship. Power distance had no effect. This study's findings for rule-oriented uncertainty avoidance were the opposite of those obtained in Mueller et al.'s (2013) meta-analysis, likely due to the smaller sample (of cultures and firms) and, therefore, the inability of Rauch et al. (2013) to control for alternative country-level explanations.

Further research considered EO, a firm's strategic orientation to innovate, be proactive, and take risks (Lumpkin & Dess 1996). In small firms, the EO of the firm is often a reflection of the entrepreneur's personal approach (Rauch et al. 2009). The first meta-analysis on EO and firm performance identified heterogeneity of effect sizes across countries and thus suggested (but did not test) moderating effects of culture (Rauch et al. 2009). Saeed et al. (2014) expanded the meta-analysis by Rauch et al. (2009), synthesizing 177 effect sizes across 41 diverse countries and analyzing the moderating effects of GLOBE practices. They found that the EO–firm performance relationship was stronger in cultures that were more in-group collectivist, more rule flexible (uncertainty tolerant), and more egalitarian (low power distance). There was no effect for assertiveness. Across different analyses, the effect of uncertainty tolerance was strongest, mirroring the findings by Mueller et al. (2013) for innovation, discussed above.

So far, I have focused on research that established national culture as strengthening the degree to which variance-inducing firm strategies translate into higher firm performance. In the remainder of this section, I touch on two lines of research that illustrate additional ways in which national culture can shape firm innovation processes and entrepreneurship.

First, culture can shape the effectiveness of drivers of innovation. In an extension of the results on collectivism described above, Saeed et al. (2015) found that Hofstede collectivism enables firms to better mobilize ideas internally and externally for innovation, suggesting that the coordination-enhancing effects of collectivism help firms source and translate ideas into new offerings. Specifically, both firms' internal capabilities and firms' orientation toward external stakeholders and customers were more consequential for firm innovation in collectivist (versus individualistic) cultures. A meta-analysis by Eisend et al. (2016) focused on organizational culture as one important firm internal capability for innovation. It found evidence for specific culture fit: Firms saw higher innovation success when their organizational culture aligned with the national culture (assessed with Hofstede indices). For instance, cohesive organizational cultures (so-called clan cultures) led to greater innovation success in collectivist national cultures and flexible "adhocracy" organizational cultures in uncertainty/stress-tolerant national cultures.

Second, culture can strengthen the impact of efficiency-oriented strategies on the performance of small and entrepreneurial firms but not on resources. In their meta-analysis, Brinckmann et al.

(2010) found that business planning, an efficiency-oriented strategy, had a stronger positive impact on small-firm performance in uncertainty/stress-tolerant (versus -avoidant) cultures (assessed with the Hofstede index). This is similar to the enabling effect of uncertainty-tolerant cultures for variance-inducing strategies. In uncertainty-tolerant cultures, planning is likely more adaptive as opposed to rigid, enhancing its benefits for small-firm performance. In another meta-analysis, Rosenbusch et al. (2013) found no moderating effect for Hofstede uncertainty/stress avoidance on the relationship between venture capital investment and firm performance. Their finding is similar to that by De Clercq et al. (2013), reported above, wherein culture did not moderate the relationship of individual financial resources and engagement in entrepreneurship. This is consistent with the notion that financial resources are a significant constraint for entrepreneurs and entrepreneurial businesses and thus a "strong" situation (Mischel 1977), leaving little scope for culture to shape behavior.

From Cross-Cultural to Multicultural Experience and Cultural Diversity

While my overview has centered on cross-cultural comparative research, the multicultural experience of individuals—their exposure to other cultures—and cultural diversity in teams can also stimulate innovation and entrepreneurship. Much research has elaborated on how, when, and what type of multicultural experience aids innovation (e.g., requiring a certain length and depth of exposure to another culture that is substantially different from one's own and being willing to process and learn from that experience; Gocłowska et al. 2018, Leung et al. 2008). Moreover, a meta-analysis found that team innovation benefitted from deep-level cultural diversity in values, perspectives, and cognition; from culturally diverse teams being co-located; and from working on interdependent, complex, and intellectual tasks (Wang et al. 2019). By contrast, there were fewer or even detrimental effects for teams that were diverse on the surface level (i.e., in country and ethnicity/cultural backgrounds) but that were not co-located, worked independently, and worked on simple or judgmental tasks (Wang et al. 2019). In summary, diversity benefitted innovation when it led to an exchange of divergent perspectives and integrative joint problem-solving.

By contrast, there was little research on how multicultural experience may benefit entrepreneurship. Promising evidence indicated that multicultural experience can aid opportunity recognition in the start-up process (Vandor & Franke 2016) and help ventures internationalize (Reuber & Fischer 1997). Understanding the role of multicultural experience can offer insights into the potential strengths of refugee and immigrant entrepreneurs, with important implications for societal cohesion in light of increasing global migration (United Nations 2021).

SUMMARY AND FUTURE RESEARCH DIRECTIONS

Cross-cultural research on innovation and entrepreneurship has established that culture matters for innovation and entrepreneurship. Yet there is no one simple explanation, such as a single theoretical perspective (e.g., culture fit) or dimension of culture (e.g., individualism). Instead, as **Figure 1** illustrates, the effects of culture vary meaningfully with the distinct demands of the phases of the innovation/entrepreneurship process, with the specific dimensions of culture (e.g., individualism, uncertainty avoidance, socially supportive culture, tightness), and with the approach to culture (values versus practices/norms) investigated.

Considering the distinct demands of each phase reveals patterns of findings and unexpected relationships (**Figure 1**). For instance, considering the distinct demands of the originating and performing phases helps us understand that originating ideas is facilitated by individualism, which supports divergent thinking, while obtaining performance benefits from innovation is aided by

collectivism, which enables coordination within the firm and with its stakeholders. By contrast, the flexibility and experimentation facilitated by uncertainty tolerance are equally relevant to originating ideas (originating phase) and to successfully implementing and commercializing ideas (performing phase). The findings on the importance of cultural social support in the implementing phase were unexpected from the dominant culture fit perspective and the common perception of entrepreneurs as heroic individualists succeeding against all odds. Yet, cultural social support fits with the demands of the implementing phase, because implementing a venture idea through the creation of a business requires mobilizing tangible and intangible support and resources, which is easier in socially supportive cultures.

These patterns suggest that the notion of culture (mis)fit needs to be revised and nuanced. There is a need to elaborate the specific element or characteristic of innovation/entrepreneurship that culture is supposed to fit or align with. For instance, the way culture fit is invoked in research often centers on fit with the characteristics of innovation/entrepreneurship that largely map onto the originating phase; in other words, arguments focus on how the individual innovator/entrepreneur can identify new ideas and opportunities (e.g., Hayton et al. 2002). Viewed in this way, the positive effects of cultural social support and collectivism on innovation/entrepreneurship in the implementing and performing phases could be interpreted as evidence of cultural misfit. However, cultural social support and collectivism support the demands of coordinating and orchestrating resources and stakeholders that innovating organizations and entrepreneurs face in the implementing and performing phases. In this way, the dominant interpretation of culture (mis)fit, focused on originating ideas, may reflect a certain individualistic bias of researchers. By contrast, the implementing and performing phases draw attention to the social nature of innovation and entrepreneurship and highlight the role of others in the workplace, firm, or entrepreneurs' environment. Such a bias could also explain the absence of studies considering cultural social support explanations in the originating phase.

To advance, cross-cultural innovation/entrepreneurship research needs to move on from documenting that culture matters to developing a deeper understanding of the precise mechanisms at play, because if mechanisms are not understood or tested, theories will remain underdeveloped. Typically, studies referred to culture (mis)fit arguments and occasionally to cultural support arguments and then elaborated (but did not test) more specific mechanisms such as the legitimacy of innovations/entrepreneurship, individual traits, social networks, opportunity recognition, skill, or all of these and others. There were some exceptions, such as studies that offered insights into mechanisms. Future research can build on these. For instance, there was evidence that culture shapes the social legitimacy of innovative ideas (e.g., Chua et al. 2015) and entrepreneurship (Stephan & Uhlaner 2010) and that cultural values legitimize certain types of leadership that facilitate entrepreneurship (Stephan & Pathak 2016). There was also some evidence for the aggregate trait mechanism (Chua et al. 2019) and that cultural practices shape entrepreneurs' decision-making styles for planning versus experimentation (Laskovaia et al. 2017). Similarly, there were examples in research investigating culture as a boundary condition that can help unpack and test specific notions of culture fit. Examples were studies that examined how culture interacted with characteristics of the individual innovator/entrepreneur (e.g., personal values or self-efficacy; Morales et al. 2019, Wennberg et al. 2013) as well as with work context and organizational features (e.g., leadership style, organizational culture; Eisend et al. 2016, Watts et al. 2020) to enable innovation.

A primary challenge in cross-cultural innovation/entrepreneurship research is how to measure the underlying mechanisms. Cross-cultural research is costly, and collecting survey data in a comparable manner across countries is resource intensive. This means that tests of mechanisms are only feasible on the basis of cross-sectional data, either original or secondary. Experiments (Liou & Lan 2018, Nouri et al. 2015) and simulation studies (Keyhani & Lévesque 2016) can

complement cross-cultural surveys and test competing explanations and mechanisms against one another. For instance, both uncertainty tolerance and socially supportive culture have been argued to facilitate innovation and entrepreneurship by enabling experimentation. Is one aspect of culture more effective in doing so? How strong is this effect compared with other suggested mechanisms, such as legitimizing innovation/entrepreneurship?

This review has exposed further gaps in cross-cultural innovation/entrepreneurship research that present important opportunities for future contributions. I have already discussed the need to refine our understanding of culture fit and theoretical mechanisms in cross-cultural innovation/entrepreneurship research. Additional opportunities include contextualizing culture, investigating culture change originating from innovation/entrepreneurship, considering different types of innovation/entrepreneurship, moving beyond considering solely linear effects of culture, and investigating outcomes overlooked in existing research.

There is a need for future research to contextualize culture. Culture does not exist in isolation and may interact with prevailing formal institutions (e.g., the rule of law or regulation; Estrin et al. 2013, Williamson 2000) or with other informal institutions (e.g., diversity and cultural schemas; Leung & Morris 2014, Nisbett 2004) to influence innovation/entrepreneurship. Combining theories of culture with insights into formal institutions from economics and insights into informal institutions from cognitive approaches, political science, and sociology thus opens up opportunities for new theoretical contributions and practical implications. Doing so could allow national policy makers to understand whether the effectiveness of regulations may be contingent on the national culture. For instance, research on social entrepreneurship has found that the effectiveness of generous welfare states is enhanced by socially supportive cultures, rather than being crowded out by them (Stephan et al. 2015).

Another gap lies in considering innovation/entrepreneurship as a source of culture and culture change. Entrepreneurial and technological innovations such as social media change the way we interact and may lead to culture change by shifting cultural practices and norms (Kwan 2018). Innovation/entrepreneurship can also instigate bottom-up empowerment-driven transformation processes to make cultures more inclusive and tolerant (Stephan et al. 2016). A balanced perspective would also complement the dominant view of innovation/entrepreneurship as a source of competitiveness and progress by considering potential negative aspects such as unethical culture shifts that result from innovation/entrepreneurship (Scheaf & Wood 2021, Shepherd 2019). We have only begun to understand the processes involved in culture change (e.g., in response to threat; Gelfand et al. 2011), and innovation/entrepreneurship may be one important source of such change, perhaps especially in times of threat such as the COVID-19 pandemic.

Future research could pay more attention to different types of innovation and entrepreneurship and how they are influenced by culture. For instance, contrasting formal indicators and individual-level behavioral indicators could help establish effects of formal institutions vis-à-vis culture more clearly. Such research could contrast patent rates or formally registered businesses with indicators of individual innovation in the workplace or individuals' start-up attempts. Additionally, the differentiation of necessity-driven, independence-driven, and social entrepreneurship may be usefully explored in cross-cultural innovation research to consider necessity-driven, frugal, or social innovation, which may be a better way to characterize innovation in developing countries (Prabhu & Jain 2015).

Effects of culture have been almost exclusively theorized and tested as linear effects. Future research would benefit from moving beyond linear effects of culture to develop a richer understanding of culture. There is value in considering "optimum levels" and U-shaped effects, as illustrated by Bullough et al. (2017) for in-group collectivism and women's entrepreneurship. Moreover, future research could consider notions of culture strength; intracultural diversity, including regional

or community cultures; or whether high social and ethnic diversity may weaken effects of national culture on innovation/entrepreneurship (Beugelsdijk et al. 2017). Furthermore, research exploring when and how to innovate or be entrepreneurial in cultural environments that are stacked against innovation/entrepreneurship seems particularly promising in terms of both theory development and practical relevance. Such research could focus on culturally adverse environments to understand how innovation/entrepreneurship can be successful in these contexts. In addition to quantitative studies, qualitative studies may be especially useful in exploring such contexts and innovation/entrepreneurial trajectories over time.

In terms of overlooked outcomes, no studies have investigated how culture relates to persisting and exiting, an important phase of the innovation/entrepreneurship process. For instance, what cultures allow entrepreneurs to learn and exit quickly from unsuccessful efforts, and overcome the potential stigma of failure (Cardon et al. 2011)? What cultures lead organizations to persist in commercializing technological innovations when abandoning them would be more effective, because more-frugal, low-technology products are taking market share (Christensen et al. 2018)? Moreover, research in the performing phase has centered on economic outcomes, yet firm performance can be multifaceted. In particular, outcomes important to societal functioning such as social impact, social inclusion, and mental well-being should also be considered.

Best Practices for Robust Future Research

This section summarizes best practices to enhance the rigor of cross-cultural innovation and entrepreneurship research. More rigorous research helps prevent misleading conclusions about the role of culture, and thus the impressions of inconsistent findings that the last review noted (Hayton & Cacciotti 2013). This review has illustrated that conclusions about the role of culture can differ if cultural values or practices/norms are investigated and if different cultural dimensions are tested across studies. The challenge is to consider multiple cultural dimensions and potentially their interactions while avoiding multicollinearity. Theory should guide the choice of cultural approach (values versus practices/norms) and cultural dimensions, and the dimensions chosen should offer nonredundant information. For instance, the Hofstede individualism and power distance dimensions overlap significantly (Bond 2002). At the same time, the two higher-order dimensions of GLOBE practices, performance-based and socially supportive culture (Stephan & Uhlaner 2010), are designed to sidestep multicollinearity for research on cultural practices/norms. To enhance the robustness of cross-cultural research, robustness tests could be included to provide evidence that findings replicate across cultural frameworks. For instance, some of the Hofstede dimensions mix values and practices; thus, robustness checks with Schwartz cultural values and GLOBE practices can help us understand whether values or practices/norms are driving the results. Robustness checks with the meta-analytically derived updated Hofstede indicators (Taras et al. 2012) can alleviate concerns about Hofstede measures not reflecting current culture.

Conclusions about the role of culture can also vary depending on how innovation/entrepreneurship is assessed. Researchers need to be mindful which phase of the innovation/entrepreneurship process and what type of innovation/entrepreneurship (e.g., patent rates, rates of patent citation, online creativity, nascent versus new entrepreneurs, social entrepreneurs) a measure assesses. Robustness checks for different measures can allow researchers to assess how distinct and generalizable their findings are.

This review has also illustrated that conclusions about culture differ depending on the sample of cultures under investigation. Authors should reflect on the range and diversity of countries included in their study or meta-analysis. For instance, entrepreneurship studies differ in their

conclusions about the role of individualism if their sample is homogeneous (developed countries) versus diverse (developed and developing countries). As discussed in the section titled Further Methodological Issues, culture effects are likely to be underestimated in homogeneous samples of countries because such samples restrict the range of cultural variation. Thus, researchers should consider how representative the countries in their sample are (for the world or for a continent). A smaller sample covering diverse countries might allow researchers to draw more valid conclusions about culture than a larger sample of homogeneous countries. Of course, researchers might also have theoretical reasons to study culture effects within a homogeneous set of countries. These should be explicitly stated.

Analyses should apply appropriate controls for alternative explanations. As discussed above, the most salient alternative explanation is the level of economic development (GDP), which covaries with several dimensions of culture and implies different levels of resources. Depending on the research question, formal institutions such as the rule of law and regulations may be alternative explanations for the effects of culture, or they may interact with or be shaped by culture (Williamson 2000).

When multilevel data are available (e.g., innovations within countries, individuals within countries), they should be analyzed with multilevel methods to avoid biases and erroneous conclusions (Peterson et al. 2012). Multilevel modeling also offers opportunities for new and interesting research questions, such as multilevel moderation (Wennberg et al. 2013) and mediation tests (Stephan & Pathak 2016) or tests of misfit arguments via frog-pond models (Kozlowski & Klein 2000).

When moderation analyses are conducted, they should be theoretically motivated rather than aiming to test for all possible moderation effects, which can lead to spurious findings. Previous meta-analyses were often constrained by a small number of primary studies and tested moderating effects of culture with bivariate sample split analyses (e.g., comparing effect sizes for high- versus low-individualism countries). Once more primary studies are available, meta-analytical regression analyses (MARAs) with control variables should be performed to rule out alternative explanations (Combs et al. 2019).

Practical Implications

Approaching culture from a values versus practices/norms perspective yields different practical implications. Values are stable. Short-term value changes (e.g., in response to crises or shocks) are temporary; rather, values change over generations, in line with institutional changes and resource levels (Manfredo et al. 2017). Thus, seeking to enhance innovation/entrepreneurship through the instigation of widespread value change seems futile. By contrast, cultural practices/norms can be relatively easier to change, as I discuss further below.

Instead of aiming at value change, researchers must understand a country's existing cultural values to be able to devise strategies for innovation/entrepreneurship that leverage or adapt to this cultural context. An example is the research on different cultural understandings of innovation, which revealed an emphasis on usefulness (versus novelty) in Asian and collective (versus Western and individualistic) cultures. Usefulness is critical for innovations to be implemented and adopted and, thus, to yield business and societal benefits. Similarly, individualism facilitates originating ideas, whereas collectivism aids performing (i.e., commercializing innovations for firm success). Organizations and entrepreneurs could leverage this knowledge through internationalizing (i.e., setting up collaborations or joint ventures across cultures). Teams or firms focused on creating novel solutions would be based in individualistic cultures, and teams or firms based in collectivistic

cultures would focus on developing useful solutions and on implementing and commercializing innovations.

Moreover, I have discussed research showing that altering work and task settings (e.g., team versus individual work, task focus on idea generation versus evaluation) can temporarily prime and override effects of culture, and that transformational leadership can compensate for the detrimental effect of uncertainty avoidance on individual and team innovation. These findings imply that organizations and entrepreneurs could temporally alter their work design or leadership style to compensate for detrimental culture effects in a particular phase of the innovation process (e.g., enhancing collectivism if the focus is on commercializing innovations and the organization/entrepreneur is based in an individualistic culture).

Crowdsourcing offers another mechanism to harness the strengths of different cultures (Chua et al. 2015). Organizations and entrepreneurs could make targeted efforts to solicit ideas from individualistic cultures to obtain novel ideas and from collectivistic cultures to obtain useful ideas. Yet organizations, entrepreneurs, and crowdsourcing platforms should not only consider culture in terms of the supply of ideas but should also be mindful that evaluators of ideas within their organization may apply similarly culturally informed templates in selecting ideas. Training could raise awareness of such templates to maximize the beneficial effects of culture.

Policy makers seeking to instill a "culture of innovation and entrepreneurship" (EESC 2013) may build on insights from research on cultural practices/norms. These practices are rooted in collective patterns of behaving and acting, which are relatively easier to change than values (Manfredo et al. 2017). Change efforts may target educational settings (e.g., schools, universities), for example, to develop generalized norms of kindness and cooperation in line with the cultural social support perspective. Alternatively, they could take the form of training or utilize media campaigns to alter perceptions of what is legitimate and common behavior. For instance, campaigns could use the findings in this review to reframe entrepreneurship, which is often regarded as a solitary, well-planned, "heroic" pursuit, by demonstrating that it typically involves experimentation and relies on the support of others. This may also help attract more talent into entrepreneurship, especially in more individualistic and performance-oriented cultures, rather than reinforcing the self-selection effects documented in these cultures, where mainly people with high self-efficacy dare to start a business. Corporate communication campaigns may communicate the beneficial effects of uncertainty tolerance identified in research on the originating and performing phases to enhance innovation. Campaigns in uncertainty-avoidant cultures could reframe the stresses associated with innovating in these cultures as indicating challenge and as a normal part of the innovation process. This reframing could be supplemented by training to help innovators and entrepreneurs manage stress.

CONCLUSION

Cross-cultural research has established that culture matters for innovation and entrepreneurship. Yet, there is no single conclusion; for instance, it is not all about cultural individualism and culture fit. Instead, there are meaningful patterns of findings (**Figure 1**) that reflect the distinct demands of the phases of the innovation/entrepreneurship process. This means that different dimensions of culture (e.g., individualism, uncertainty avoidance, social supportiveness, tightness) can have varying effects for different phases. Moreover, differences between cultural frameworks and cultural approaches (values versus practices/norms) help explain seemingly conflicting findings in past research. I hope this review provides a platform for future studies to advance cross-cultural innovation/entrepreneurship research through more nuanced theorizing, a greater focus on articulating and measuring theoretical mechanisms, and robust methodology.

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