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Keywords

collectivism, entrepreneurial orientation, individualism, organisational culture

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**Organizational Culture and Entrepreneurial Orientation:
An Orthogonal Perspective of Individualism and Collectivism**

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Abstract

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Keywords

Entrepreneurial Orientation, Organizational Culture, Individualism, Collectivism

Introduction

Scholars have argued that entrepreneurial firms tend to achieve higher levels of performance than more conservative firms (Anderson et al., 2015; Rauch et al., 2009). Moreover, research has shown that higher levels of entrepreneurial orientation (EO), ‘a firm’s strategic posture towards entrepreneurship’ (Anderson et al., 2015: 1579), are positively associated with organizational learning (Anderson et al., 2009; Kreiser, 2011), new market entry (Covin and Miller, 2014; Wales et al., 2015), and financial performance (Covin and Slevin, 1989; Gupta and Batra, 2016; Lumpkin and Dess, 1996). Given the importance of EO in producing valuable organizational outcomes, scholars have called for additional research aimed at identifying EO’s antecedents (Anderson et al., 2015; Wales et al., 2013).

The purpose of this study is to examine the relationship between organizational culture and firm-level EO. Drawing on the precepts of institutional theory (Scott, 1995), we propose that institutionalized organizational cultures provide deeply embedded decision making frames

(Thornton et al., 2012) that influence firm attitudes and behaviors regarding EO. While it has long been known that organizational institutions direct the activities of firms (DiMaggio and Powell, 1983), more research is needed to understand how organizational-level institutions affect entrepreneurship behaviors and attitudes (Su et al., 2017). Moreover, culture, as one of the major institutional pillars, is especially likely to influence entrepreneurial outcomes (Baumol et al., 2009). More specifically, the values embedded in an organization's culture are likely to play a particularly important role (e.g., Morris et al., 1994), making organizational-level cultural institutions an important yet understudied antecedent to EO. Consistent with broader calls to better understand the manner in which organizational culture shapes firm behaviors and attitudes (Gelfand et al., 2004), we apply institutional theory (Scott, 1995) to shed light on the mechanisms through which organizational culture is most likely to influence the manifestation of EO.

In so doing, we seek to highlight the importance of taking a contextualized approach to understanding the nuanced manner in which organizational culture uniquely promotes (and prohibits) EO within the confines of societal-level phenomena. Such an approach is consistent with Miller (2011), who emphasized the importance of country-specific contextualization on EO studies 'to enhance application and generate more fine-grained and more empirically valid knowledge' (p. 881). Such notions have highlighted the need to enhance our understanding of EO in countries that have different sociocultural contexts compared to the United States (e.g., Nadkarni and Herrmann, 2010), where most EO research to date has been conducted (Tang et al., 2008; Wales et al., 2013). In particular, we employ institutional theory to explain how organizational-level cultural dimensions relate to meaningful differences in realized EO in the important but understudied national context of Korea (Wales et al., 2013). Even though Korea is one of the most innovative economies in the world (Bloomberg, 2018) and a major

technological hub (Lee and Ungson, 2008), our knowledge of the drivers of EO in this national setting is surprisingly limited.

In particular, the Korean zeitgeist represents a combination of Asian and Western influences (Ungson et al., 1997). Further, given the historical differences associated with these two cultural perspectives, this duality is likely to result in the manifestation of aspects of both individualism, the propensity toward valuing the contributions of one's self, and collectivism, the tendency to assign and derive meaning from the groups which one belongs (Triandis, 1995). This fundamental valuation schema represents one of the most prominent dimensions of national culture (Triandis, 1988) and has a profound impact on permissible configurations and management of organizations (Hofstede and Hofstede, 2005), making it particularly relevant for explaining firm-level entrepreneurship (Laskovaia et al., 2017). Yet, even though scholars have long examined the relationship between the cultural dimensions of individualism and collectivism and firm-level entrepreneurship (e.g., Marino et al., 2002; McGrath et al., 1992; Morris et al., 1994; Shirokova et al., 2018), the empirical results to date have been decidedly mixed, hindering our ability to fully understand this relationship (De Clercq et al., 2010; Kreiser et al., 2010; Pinillos and Reyes, 2011).

Employing institutional theory, we seek to identify and mitigate two fallible assumptions underlying previous work in this area that may be contributing to this lack of shared understanding. First, despite the aforementioned importance of organizational-level institutions (Scott, 1995), the cultural dimensions of individualism and collectivism have primarily been assessed solely at the national or individual level. While these levels are likely to be related to one another (Kanungo and Jaeger, 1990), assumptions that these dimensions would uniformly permeate and dominate culture at the organization-level are likely unfounded, as considerable variation exists within societies and across organizations (Bruton et al., 2010). As a result of this dearth of organizational-level individualism-collectivism research (Gelfand

et al., 2004), scholars have called for additional research aimed at advancing our understanding of organizational-level cultural institutions (Hatch and Zilber, 2012; Zilber, 2012). Importantly, Wales et al. (2011) suggested that careful consideration of previously unexplored levels of analysis could ‘provide novel insights into the effective organizational exhibition of EO’ (p. 896).

Second, scholars have generally assumed a unidimensional conceptualization of individualism and collectivism with each dimension occupying an end-point of a single continuum (Hofstede, 1980; House et al., 2004; Hui, 1988; Triandis, 1988). This bipolar view has assumed that the ‘values, goals, and self-construal associated with the two constructs were incompatible’ (Coon and Kimmelmeier, 2001: 349). However, the values of individualism and collectivism are able to simultaneously co-exist with one another (Tiessen, 1997), leading Robert and Wasti (2002) to note that individualism and collectivism ‘comprise independent, discrete dimensions’ (p. 546). As suggested by these rationales, we put forth theoretic logic that the individualism and collectivism dimensions of organizational culture may be best characterized as two orthogonal dimensions, both of which are pertinent in understanding how cultural institutions relate to organizational phenomenon (DiMaggio and Powell, 1983; Wooten and Hoffman, 2008). In fact, the dual values of individualism and collectivism are frequently seen to coexist in the Korean business culture (Cho and Park, 1998), making it hard to accurately characterize a prevailing organizational culture on the basis of a singular national-level attribute. As such, Korea represents an appropriate ‘institutional context’ (Bruton et al., 2010: 433) for examining the joint role of organizational individualism and collectivism.

Embracing this approach enables us to make several important contributions to a understanding of the antecedents of EO. First, we contextualize our study in Korea and examine organizational cultural institutions within an important and understudied country (Wales et al., 2013) to improve application and establish in-depth knowledge on EO (Miller, 2011). Second,

we contribute to research on institutional theory by incorporating organizational-level institutions into entrepreneurship research. In particular, we shift the level of analysis by suggesting that organizational culture has an important influence on firm-level EO. Organizational cultures are often reinforced and sustained over long periods of time (Robert and Wasti, 2002). As such, organizational culture can have a sizeable and unique impact on organizational activities by unconsciously informing and shaping members' collective values and beliefs pertaining to entrepreneurship (Pinillos and Reyes, 2011). Yet, our study represents one of the first research efforts attempting to shed light on this important relationship. Third, we suggest a new perspective for studying culture-entrepreneurship by applying a congruence perspective. Rather than simply considering the independent impact of each dimension, we note the importance of considering both the level and balance of organizational individualism and collectivism in relation to firm-level EO, arguing that an appropriate balance between the two cultural values maximizes EO. Lastly, we untangle prior mixed empirical results between culture and entrepreneurship by developing theoretical arguments based on the orthogonality of organizational individualism and collectivism. By conceptualizing these dimensions as orthogonal constructs, more precise and richer investigations are possible than when employing a unidimensional conceptualization.

Theoretical Framework and Hypotheses Development

The Importance of Studying Organizational Culture in the Korean Context

Korea is traditionally classified as a conservative and collectivistic society that values hierarchy (Hofstede, 1991). As a result, authoritarian and bureaucratic managerial systems, as well as paternalistic leadership, have been considered symbolic of prototypical Korean organizational culture (e.g., Bae and Lawler, 2000; Yoo and Lee, 1987). However, to survive in the face of global competition and the Asian Financial Crisis of the 1990s, Korean firms

were forced to make economic reforms (Bae and Rowley, 2003). These changes led firms to embrace many individualistic values, and as Westernization proceeded, both individualism and collectivism became idealized values for Korean firms (Bae and Lawler, 2000). Contemporary Korean culture is a composite of Asian and Western values (e.g., Chadwick et al., 2015), and scholars have argued that Korean companies espouse both individualism and collectivism (Bae and Rowley, 2003; Ungson et al., 1997). As a result, Korean corporate culture incorporates a mixture of diverse values spanning collectivistic (e.g., group harmony, company loyalty, and commitment) as well as individualistic (e.g., individual achievement and competition) ideals (Cho and Park, 1998).

Further, Korea exhibits high levels of entrepreneurial activity. For five consecutive years, Korea has been ranked as one of the most innovative economies in the world (Bloomberg, 2018). In 2016, Korea spent over 4% of GDP on R&D expenditures, making it one of the world's biggest investors in innovation, even in terms of absolute monetary value. As a result, Korea has become a globally recognized technological hub, consistently developing and deploying state-of-the-art technologies in the semiconductor and smart phones industries (Lee and Ungson, 2008). Therefore, uncovering a more in-depth understanding of the cultural antecedents of EO in this national setting allow us to gain insight into the mechanisms underlying the high level of innovativeness exhibited in one of the world's most significant drivers of technological progress.

Yet, little is known about how these nuanced cultural ideals combine to drive this level of innovative performance as Korea remains an understudied national context in the EO literature (Tang et al., 2008; Wales et al., 2013). In fact, a comprehensive review conducted by Wales and colleagues (2013) resulted in the identification of very few EO studies conducted within the Korean context, leading to calls for an increased emphasis moving forward. In order to put the present study into perspective, we conducted a similar literature review to ascertain

the extent to which the recent literature has heeded their call. As shown in Table 1, the last few years have seen a modest increase in studies investigating EO in Korea, although we further Wales et al.'s (2013) that more research should be conducted in this important context.

Based on our review, it appears that while we have made recent progress in understanding EO in Korea, significant questions remain largely unanswered. For example, the concept of EO seemingly can be generalized to the Korean context and assessed using translated analogs of the survey items introduced by Covin and Slevin (1989). However, we also found that most of this recent work has focused on the outcomes of EO (e.g., firm performance: Jin and Cho, 2018) with only two studies considering relevant antecedents of EO. Specifically, Yoon (2018) investigated the characteristics of the entrepreneurial team (e.g., human capital and functional diversity) while Eshima and Anderson (2017) considered firm characteristics (i.e., prior growth and adaptive capability). In both cases, Korea was chosen primarily to enhance generalizability rather than contextualization. By more fully integrating the unique duality of the Korean context into our theoretical frame, we are able to further enhance our understanding of international EO. In particular, we expressly consider the possibility that organizations may simultaneously possess cultural institutions embodying both individualistic and collectivistic tenants and consider how the relative incidence of each is likely to affect EO.

Insert Table 1 Here

Institutional Theory, Organizational Culture, and Entrepreneurial Orientation

The institutional perspective provides a robust theoretical framework that has been broadly applied to understand organizational attitudes and behaviors, and it holds particular promise for advancing our knowledge of EO (Covin and Miller, 2014; Miller, 2011; Wales,

2016). Institutions are embedded shared systems and guidelines for organizational action (Phillips et al., 2004). By referencing the patterns of values, beliefs, assumptions, and practices that are considered acceptable and legitimate by a particular organization (Friedland and Alford, 1991), institutions define accepted conventions that firms use to make decisions based on bounded rationality (Bruton et al., 2010). Institutions are defined in terms of agreements (Shepsle and Bonchek, 1997), formal rules (North, 1990), informal interaction patterns (Jepperson, 1991), and taken-for-granted assumptions (Meyer and Rowan, 1991) that are derived from cultural practices (DiMaggio and Powell, 1983). As such, a firm's behavior cannot 'be properly understood apart from its... cultural context' (Scott, 1995: 151). Therefore, we incorporate institutional theory to explain the influence of specific cultural institutions, as evidenced through the core values of a firm, on the manifestation of EO.

Specifically, firms' attitudes and behaviors regarding entrepreneurship are bounded by and can be understood through the context of the cultural frameworks in which they are embedded (Scott, 2008). Organizational culture (i.e., Hofstede et al., 1990; Pettigrew, 1979) refers to particular sets of internalized 'values, norms, beliefs, and assumptions' of an organization's members (Robert and Wasti, 2002: 544). Moreover, internalized corporate culture is critical in developing a firm's competitive advantage (Kotter and Heskett, 1992). Therefore, this creates a strong desire to perpetuate and sustain successful cultural attributes (Robert and Wasti, 2002), leading specific cultural dimensions to become characteristics of the organization (Hofstede, 1998). In turn, these shared cultural values represent the 'socially bounded beliefs' of a firm (Bruton et al., 2010: 430). From an institutional perspective, culture explains the behaviors and attitudes of firms (Ahlstrom and Bruton, 2002; Jepperson, 1991) since formalized cultural institutions prioritize the achievement of specific goals (Ahlstrom and Bruton, 2001; Lawrence, 1999). As such, the institutional perspective explains how the specific cultural 'rules, norms, and beliefs' of organizations are likely to affect entrepreneurial

outcomes (Bruton et al., 2010: 423). Therefore, institutionalized factors (i.e., organizational culture) can enable specific behaviors and attitudes of firms (i.e., EO).

Based upon institutional theory, specific cultural dimensions symbolize the unified values of a firm and provide particular frames for decision making that are deeply embedded within organizations (Thornton et al., 2012). Given their prevalence and salience (e.g., Franke et al., 1991; Triandis, 1988; Vandello and Cohen, 1999), individualism and collectivism are likely to play a particularly substantial role in defining organization-level cultural institutions. Individualistic organizational cultures emphasize individual accomplishments, personal objectives, and rewards (Pinillos and Reyes, 2011). In collectivistic organizational cultures, there is a desire to promote in-group harmony, and to stress the priorities of the group (Triandis, 1995). Importantly, members in collectivistic organizational cultures feel strong pride in their firm's successes and thus commit to their organization's goals.

Studies looking at national-level culture have found that cultural institutions emphasizing dimensions of both individualism and collectivism wield a substantial effect on the prevalence and means of entrepreneurial activity (Laskovaia et al., 2017). For example, national cultures emphasizing values of competition and individual accomplishments are associated with higher incidents of entrepreneurial venturing enacted via formal channels while national cultures emphasizing collectivistic, supportive ideals tend to foster higher aspirant entrepreneurial growth rates and more informal ventures (Autio et al., 2013; Thai and Turkina, 2014). Thus, variance in the extent to which organizations incorporate these dimensions is likely to be particularly valuable for understanding inter-organizational differences in entrepreneurial activity.

To further our understanding of the antecedents of EO, we move beyond inter-nation investigations and consider cultural drivers of intra-nation EO variability. In so doing, we differentiate between organizational and national culture, noting that the former is influenced

by but also unique from the latter. Germane to the current discussion, in contexts like Korea that incorporate cultural aspects embodying both individualistic and collectivistic ideals, it is likely that organizational cultures will reflect various amalgamations of these principles, resulting in substantial intra-nation, inter-organizational variation.

Moreover, individualism and collectivism are meaningful constructs at the organizational-level and are unique from national- and individual-level cultural dimensions (Robert and Wasti, 2002). Further, organizational institutions may simultaneously reflect both individualism and collectivism (Robert and Wasti, 2002), highlighting the importance of adopting an orthogonal view of these two dimensions. These suppositions have been borne out in recent research adopting this perspective (e.g., Marcus and Le, 2013; Nguyen et al., 2010). In addition, Cho and Faerman (2010) demonstrated that an orthogonal view of organizational individualism and collectivism generalizes to Korean public-sector organizations. We further this perspective by advancing theory describing how these cultural dimensions are related to EO.

Organization Individualism and Entrepreneurial Orientation

While previous research findings on the topic have been mixed, organizational researchers have generally theorized a positive relationship between individualistic values and entrepreneurship (Hayton et al., 2002; McGrath et al., 1992; Mueller and Thomas, 2001). Notably, individualistic cultures embrace values such as independence, autonomy¹, and self-sufficiency, fostering strong achievement motivation (Hofstede, 2001). As a result, scholars have noted that firms embracing individualism are often structured to reinforce the accomplishment of individual goals (Hofstede, 2001). In particular, employees are more likely to behave in an egocentric nature and pursue objectives that allow them to distinguish themselves from their peers and co-workers (Cullen et al., 2014). Thus, they are likely to seek-

out and pursue innovative opportunities that provide a measure of personal accomplishment. In fact, Kreiser et al. (2010) noted that managers in more individualistic societies are ‘more willing to violate group norms and will be more likely to involve themselves in situations that other managers perceive as being extremely risky’ (p. 962). As a result, providing personal rewards for individual goal accomplishment is likely to increase firm-level innovation when operating in an individualist culture (Shane et al., 1994).

Similarly, employees working in firms with cultural institutions that incorporate individualistic values have both the initiative and freedom to behave entrepreneurially to achieve their goals. In contrast to broad societal-level cultural norms that may be suboptimal in the presence of co-occurring institutions (Cullen et al., 2014; Kreiser et al., 2010), organizational-level cultural institutions can be more finely tailored to the firm’s context and are likely to have a more direct impact on employees. For example, reward structures institutionalized by an adherence to individualistic ideals create greater synergies for egoistic efforts (Morris et al., 1994). Reward structures that adhere to tournament theory (Lazear and Rosen, 1981), selecting individuals for increasingly lucrative compensation packages based on relative performance, illustrate one manner of institutionalizing this notion. Moreover, tournament theory may be used to implement individual reward structures that effectively target increased innovation (Connelly et al., 2014). More broadly, incorporating incentive compensation emphasizing financial performance into employee reward systems increases multiple-dimensions of firm innovativeness in individualistic contexts (Makri et al., 2006). In sum, organizations that institutionalize individualistic cultural values are contributing to attitudes and behaviors consistent with elevated levels of EO. In light of these arguments, we propose that:

Hypothesis 1: The strength of an organization’s individualistic culture is positively associated with its entrepreneurial orientation.

Organizational Collectivism and Entrepreneurial Orientation

While organization-level collectivism represents an alternate set of core values than organization-level individualism, it is also likely to engender higher levels of firm-level EO. In particular, collectivistic ideals are associated with the display of strong pride, loyalty, and cohesiveness toward affiliates (Dorfman et al., 2012; House et al., 2004). In turn, these affiliates (e.g., organizations) are expected to provide members with broad emotional and resource-based support (Chrisman et al., 2002; Sanders and Nee, 1996). Research suggests that this obligation is generally fulfilled in the form of financial support, network contacts, and emotional encouragement (Cullen et al., 2014; Wang and Altinay, 2012). In fulfilling these social obligations, organizations are able to institutionalize collective ideals and encourage further affective commitments on the part of employees. Due to this commitment, employees are willing to sacrifice personal ambitions and devote themselves to the accomplishment of organizational goals (Gelfand et al., 2004). Organizational goals with relevance to EO (e.g., expanding lines of business and achieving market leadership; Anderson et al., 2015) are likely to take on personal significance for committed employees. In addition, the availability of social support inherent in collectivistic ideals increases the willingness to engage in risky activities (Weber et al., 1998) that support EO. More broadly, collectivistic organizations establish an atmosphere conducive to entrepreneurial endeavors by creating structures that supply resources like grants and subsidies that support entrepreneurial endeavors (Autio et al., 2013).

Moreover, collectivist ideals make it easier to leverage employee knowledge resources, providing heightened access to diverse information that can ignite innovation (Tiessen, 1997). Because collectivistic cultures tend to build ‘an atmosphere of trust and counsel’ (Hisrich, 1990: 217), innovation frequently comes from the ‘pooled capacities of individuals’ (Reich, 1987: 81). Interpersonal relationships can be a particularly valuable source of novel information (Adler and Kwon, 2002; Burt, 1987), especially when organizational institutions emphasize

superordinate goals (Fey and Furu, 2008). Since members of organizations emphasizing collectivistic values are likely to internalize common enterprise-level objectives, they will utilize information and resources embedded in their social networks to achieve these objectives (Pathak and Muralidharan, 2016). Further, organizational institutions emphasizing extensive information sharing and group-oriented decision making are able to reduce interpersonal conflict and unite employees behind the objective of becoming a more innovative organization (Bachmann et al., 2016). In sum, collectivistic organizational institutions provide structures and incentives to surface different perspectives, recognize opportunities, and act on their implementation, which increases proactive entrepreneurial attitudes and behaviors. As such, we propose the following:

Hypothesis 2: The strength of an organization's collectivistic culture is positively associated with its entrepreneurial orientation.

Organizational Individualism, Collectivism, and Entrepreneurial Orientation

In light of the previous arguments related to organizational culture and EO, we theorize that institutions reinforcing both individualistic and collectivistic values may jointly facilitate EO. As noted previously, in the context of Korea, the orthogonal view of individualism and collectivism is likely to be particularly relevant in characterizing organizational cultures. Such an approach is consistent with Bae and Lawler's (2000) perspective that 'Korean corporate culture is multidimensional' in terms of individualistic and collectivistic values (p. 504). Moreover, Korean organizational culture has been described in terms of 'dynamic collectivism' wherein diverse organizational cultural values like cooperation, commitment, individual achievement, and competition could successfully coexist (Cho and Park, 1998).

In line with previous work suggesting a more nuanced relationship between individualism/collectivism and entrepreneurship (e.g., Morris et al., 1993; Morris et al., 1994; Pinillos and Reyes, 2011; Tiessen, 1997), we proffer that both dimensions are likely to be

jointly important since an appropriate ‘cultural alignment’ is critical when understanding the behaviors of a firm (Scott, 1995: 45). Consistent with institutional theory, we argue that interactions among these cultural institutions matter when examining entrepreneurial behaviors. In other words, cultural institutions jointly influence the efficacy of each other; therefore, organizational culture should be investigated as an integrative whole (Wooten and Hoffman, 2008). Rather than being considered polar opposites, we suggest that organizational individualism and collectivism can coexist with one another and that both dimensions should be considered when investigating EO.

Such a position is consistent with previous work demonstrating that both cultural dimensions may have synergistic effects when predicting entrepreneurship. For example, entrepreneurial success is likely to be fostered by the joint presence of individual creativity as well as organizational commitment and self-sacrifice, which have been associated with individualism and collectivism, respectively (Gelfand et al., 2004). Moreover, Tiessen (1997) asserted that an individualistic culture tends to foster short-term goals while collectivism facilitates a long-term orientation. Both perspectives may work together to encourage EO. For example, a short-term orientation may encourage risk taking while a long-term perspective promotes proactivity and innovativeness (Lumpkin et al., 2010). Relatedly, while a short-term focus may lend urgency to the enactment of entrepreneurial activities, a long-term orientation may be beneficial to the implementation and maintenance of such efforts as the financial rewards associated with entrepreneurial activities can take years to be realized (Zahra and Covin, 1995). As such, we propose that higher levels of organizational EO are realized when the values encompassed by both individualism and collectivism are embraced to an equivalent extent.

For example, individualism may promote the development of novel ideas, breakthrough concepts, and innovations (Morris et al., 1994) by enhancing competition among individuals

(Hofstede, 2001). Yet, if the organizational culture focuses solely on individualistic values without regard to collectivism and does not head off symbolic competition (Williams, 2001) amongst various coalitions, negative consequences may arise. First, zero-sum competition may arise as individuals begin to consume firm resources to satisfy personal gains (Morris et al., 1994). The subsequent unavailability of these resources reduces the feasibility of future entrepreneurial attitudes and behaviors (McGrath et al., 1992). Second, relationship conflict is likely to occur (Lau and Cobb, 2010). Such conflict is generally detrimental to creativity and group decision making (De Wit et al., 2012), which is likely to diminish EO. However, embracing both individualism and collectivism allows for competition-driven innovation (via individualistic ideals; Hofstede, 2001) while simultaneously maintaining common core values (via collectivistic ideals; Gelfand et al., 2004) necessary to head off symbolic competition and its associated detrimental effects.

Conversely, firms imbued with excessive collectivistic institutions that do not instill individualistic values such as achievement motivation and accomplishment orientation are subject to resource losses associated with free riding (Hofstede, 2001; Morris et al., 1994). In fact, a lack of individual accountability and merit-based opportunities for advancement has long been associated with suboptimal effort allocations (Albanese and Van Fleet, 1985). As such, the organization does not have its full complement of potential human resources available to invest in entrepreneurial activities. A lack of achievement motivation and accomplishment orientation (both of which are associated with individualism) may hinder the full realization of the potential for EO inherent in the uncertainty reducing structures associated with collectivist institutions. In sum, we argue that the values and norms inherent in each perspective enhances the effects of the other dimension, making consideration of both necessary to understand how organizational culture influences EO. As discussed, such considerations are likely to be particularly germane to the Korean context. Contemplating our arguments, we propose that:

Hypothesis 3: The more balance (that is, the higher the congruence) between an organization's individualistic and collectivistic cultural dimensions, the higher the organization's entrepreneurial orientation.

In addition to the importance of balancing individualism and collectivism, we also propose that absolute levels of each dimension are likely to matter in terms of their overall influence on EO. Consistent with our previous theorizing, we posit that simultaneously high values of individualism and collectivism are likely to maximize EO. This supposition largely parallels Tiessen's (1997) work arguing that entrepreneurship is particularly likely to manifest in countries (like Korea) that exhibit high levels of both individualism and collectivism. Such a context is likely to give rise to organizational institutions that simultaneously promote teamwork, encourage the development of resources from pragmatic alliances, and foster shared values and goals based on both trust and a strong commitment to achieve innovation.

Consistent with these arguments, we suggest that high absolute levels of both cultural dimensions enable higher levels of EO through the joint functioning of the embedded values that we have discussed. In contrast, organizational institutions engendering low levels of individualism and collectivism are unlikely to foster commitment to either individual or group outcomes. Employees without a strong incentive to advance either their personal outcomes or the group's standing are unlikely to embrace risk taking attitudes or engage in innovative and proactive behaviors that characterize EO (Hayton, 2005). Thus, in addition to balancing effects, we propose an effect for the absolute levels of individualism and collectivism. Firms low on both dimensions are unlikely to achieve high levels of EO while EO is maximized when both dimensions are simultaneously high.

Finally, we acknowledge that this assertion contrasts the work of Morris et al. (1993), who advocated for balancing individualistic and collectivistic values at moderate levels in order to maximize EO. However, it is important to note that individualism and collectivism could only be truly aligned at moderate values in their framework, given the unidimensional

conceptualization of individualism and collectivism employed. That is, their approach does not allow balance and level to be investigated individually because balance can only be attained at one level: when individualism and collectivism are both moderate (i.e., organizational culture is judged to fall at the midpoint of a continuum anchored at each end by individualism and collectivism). By employing an orthogonal view of these dimensions, we are able to decouple balance and level and consider the effect of each independently, meaningfully extending their findings. Put differently, the ability to propose a simultaneously balanced relationship at various (high or low) levels of the two cultural dimensions is the result of the more expansive, multi-dimensional view of organizational culture adopted in the present investigation. In accordance with this capability and the arguments above, we propose the following:

Hypothesis 4: Entrepreneurial orientation is higher when organizational culture is in balance at high levels of individualism and collectivism than when there is balance at low levels of individualism and collectivism.

Method

Sample and Data Collection

We collected survey data from small- and medium-sized enterprises (SMEs) based in Korea. We focused on SMEs since these firms strive to implement appropriate organizational cultures in order to effectively use their limited resources, information, and knowledge (Marino et al., 2008; Nagy and Lohrke, 2010) and to overcome the liabilities of newness and smallness (Stinchcombe, 1965). We surveyed randomly selected firms from a list of Korean SMEs, which was established based on information from the Ministry of SMEs and Startups of Korea. We used accepted standards for SMEs by constraining the sample to firms consisting of less than 500 employees. Because our target sample involved executives in Korea, our measures were administered in the Korean language. To prevent any alternative meanings in the survey indicators, we implemented a double back-translation process (Brislin, 1980). The resulting translated scales for our focal measures are provided in the Appendix.

Consistent with previous studies on EO, the survey was sent to the senior-most executive of each SME. In accordance with the key decision maker logic used in the preponderance of prior research, surveys were addressed to and completed by executives such as the CEO, vice-president, or senior manager (Lumpkin and Dess, 1996; Miller, 1983). While the database contained thousands of entries, contact information for many organizations was either missing or out of date. As such, we were only able to verify valid email addresses for 1,415 key informants. After sending the initial survey and several follow-up reminders, we received 649 partial or complete responses (i.e., 46% response rate). However, several responses were effectively empty due to the prevalence of missing data, and complete responses were obtained from 406 firms. Therefore, the final response rate was 29%.

Measures

Independent Variables. Organizational cultural values related to individualism and collectivism were measured using scales developed by Robert and Wasti (2002). We utilized these measures due to the fact they were developed to measure organizational individualism/collectivism as orthogonal constructs, which is consistent with the conceptualization being adopted here. Individualism was assessed using a six-item measure. Cronbach's alpha for the individualism scale was 0.87. Collectivism was assessed using a seven-item scale. Cronbach's alpha for the collectivism scale was 0.93.

Dependent Variable. We measured entrepreneurial orientation using the nine-item scale developed by Covin and Slevin (1989), based on the earlier work of Miller (1983). This measure is the most widely used measure of EO in the organizational literature (Covin and Wales, 2012; Rauch et al., 2009), and assesses the multifaceted nature of EO. Specifically, this scale taps into the innovativeness, proactiveness, and risk taking components of EO. In order to assess EO at the appropriate level, we contextualized the scale (Lievens et al., 2008) by

asking respondents to report the level of EO present in their strategic business unit. Cronbach's alpha for the EO scale was 0.88.

Control Variables. We controlled for ten variables that might impact the organizational culture-EO relationship. At the industry level, we controlled for the *type of industry* based on Korean Standard Industrial Classification. We categorized the industries into three categorical variables: manufacturing, service, and other (e.g., Anderson and Eshima, 2013; Wales et al., 2015). We also used four items to control for *environmental dynamism* (Miller and Friesen, 1982) and five items to control for *environmental hostility* (Covin and Slevin, 1989).

At the firm-level, we controlled for *firm age* and *firm size* based on the year the firm was founded and the number of full time employees, respectively. We also controlled for *internationalization* using a categorical variable signifying whether the firm indicated having international sales or not. In addition, we controlled for *slack resources* using the four items proposed by Luca and Atuahene-Gima (2007). Further, we controlled for additional company characteristics by including *ownership type* and *company type*. Ownership type is a categorical variable indicating whether the firm was privately held or not. Company type indicates whether the respondent was part of a strategic business unit or an independent single-business company.

Lastly, we controlled for *firm performance*. Firm performance was measured by asking the importance and satisfaction on 11 performance-related criteria developed by Gupta and Govindarajan (1984). This subjective measure has been widely applied in entrepreneurship research (e.g., Anderson et al., 2015; Covin et al., 1990; Eshima and Anderson, 2017; Mueller et al., 2017). The criteria include total sales, market share, sales growth, growth in market share, operating profits, cash flow, return on equity (ROE), return on investment (ROI), return on total assets (ROA), ability to fund growth from profits, and customer satisfaction. We calculated firm performance by multiplying the importance and satisfaction scores for each criterion and averaging those into one variable.

Analytical Approach

Hypotheses 1 and 2, which explored the relationship between the individualism and collectivism dimensions of organizational culture and EO, were evaluated using hierarchical regression. Hypotheses 3 and 4, which explored the effects of balance between the individualism and collectivism dimensions of organizational culture and EO, were evaluated using polynomial regression and response surface methodology. This technique provides a superior alternative to using a difference score approach to evaluate hypotheses pertaining to balance arguments. In particular, an analysis employing difference scores imposes underlying assumptions on the structure of the data that are often untenable. Further, these issues persist even when common difference score transformations are employed (e.g., absolute value of the difference, squared difference, etc.; Edwards, 2002, provides a detailed explanation of these issues for interested readers).

Polynomial regression overcomes these shortcomings by incorporating multiple regression terms rather than one collapsed difference score. In particular, first and second order terms for each variable (i.e., individualism and collectivism) are included along with an interaction term (see Equation 1 below). Such a structure allows the researcher to more fully explore the nature of the relationship between the two variables in terms of both linear and quadratic effects pertaining to both level and balance over the range of observed scores. In addition, by providing an avenue to plot the numerical results of the analysis, the associated response surface methodology allows scholars to visualize the relationship between the dependent variable and independent variables, further enhancing understanding of the focal phenomena².

As is standard for this approach, the following regression equation was estimated using scale-centered measures:

$$EO = b_0 + b_1I + b_2C + b_3I^2 + b_4IC + b_5C^2 + e \quad (1)$$

where I and C represent organizational individualism and collectivism, respectively.

Further, finding support for the positive effect of the balance between the individualism and collectivism dimensions of organizational culture and EO as proposed by hypothesis 3 hinges on the evaluation of two characteristics of the response surface: the curvature of the imbalance line and the location of the first principal axis relative to the balance line (Edwards and Cable, 2009; Matta et al., 2015). The imbalance (i.e., incongruence) line describes the situation when organizational individualism and collectivism are at opposite levels (e.g., individualism = 2 and collectivism = -2 using our scale-centered metric). Similarly, the balance (i.e., congruence) line describes the situation where organizational individualism equals collectivism (e.g., individualism = 2 and collectivism = 2). Both lines are critical to characterizing the relationship between the predictors and outcome variable when utilizing polynomial regression (Edwards, 2002).

Specifically, a negative curvature along the imbalance line signifies an inverted u-shaped relationship indicative of a congruence effect as any deviation from congruence results in lower EO. In addition, the location of the first principal axis, which represents the overall ridge of a concave surface indicative of a balance effect, should be investigated. Specifically, in order to demonstrate that organizational EO is maximized for any value of individualism (collectivism) when the corresponding level of collectivism (individualism) is in balance, the first principal axis should coincide with the balance line (Edwards and Cable, 2009; Matta et al., 2015).

Hypothesis 4 further refines the general congruence effect by proposing that the congruence effect is maximized when balance occurs at high (rather than low) levels of individualism and collectivism. This hypothesis is evaluated by considering the slope and curvature of the response surface along the balance line. Specifically, the hypothesis requires a positive slope along the balance line, such that the congruence effect is maximized at high

levels of individualism and collectivism (Matta et al., 2015), which can be demonstrated with a significant slope and a null curvature (Tepper et al., 2018). All analyses were performed using R (R Core Team, 2016).

Results

The descriptive statistics for our study variables are presented in Table 2. As can be seen, the firms in our sample were relatively small, averaging 40 employees, and quite well established, with a mean age since founding of about 20 years. Also, the key informants in our sample reported working for their firms for an average of 15.9 years. In terms of our focal variables, each demonstrated a reasonable degree of variation and the reliability coefficients (i.e., Cronbach's alpha) were all above accepted thresholds. In addition, the correlations between these variables and our controls were largely small to moderate in magnitude.

Insert Table 2 Here

Before addressing our hypotheses, we utilized confirmatory factor analysis to evaluate the two-dimensional structure of organizational culture proposed by Robert and Wasti (2002), as it differs from previous work conceptualizing individualism and collectivism as endpoints of a continuum rather than distinct dimensions (e.g., Hofstede, 1980). The fit indices for the hypothesized two factor model ($\chi^2(64) = 168$; CFI = .968; NNFI = .962; RMSEA = .065; SRMR = .038) demonstrated acceptable fit to the data (Hu and Bentler, 1999; Little, 2013). In contrast, the one factor solution did not fit the data well ($\chi^2(65) = 425$; CFI = .891; NNFI = .869; RMSEA = .120; SRMR = .061). This lends support to the existence of a two-factor structure of organizational culture. In addition, a chi-squared difference test indicated that the dimensional reduction imposed by the one factor solution introduces significant misfit ($\chi^2(1) = 257, p < .001$). In addition, the inter-dimensional correlation for these two factors was .73,

which is consistent with the initial results reported by Robert and Wasti (2002). Given these results, we retained the proposed two-dimensional structure for our analyses.

Hypotheses 1 and 2 proposed that the strength of an organization's individualistic and collectivistic culture is positively related to its EO, respectively. As we are also hypothesizing congruence effects, we tested these individual main effects controlling for the other aspects of the polynomial regression. As shown in Table 3, the results of a hierarchical regression analysis provide support for both of these hypotheses. Specifically, the coefficient relating the linear individualism dimension to EO was 0.33 ($p < .05$), and the coefficient relating the linear collectivism dimension to EO was 0.29 ($p < .05$). In addition, the curvilinear (i.e., quadratic) terms for individualism ($b = -.21, p > .05$) and collectivism ($b = -.18, p > .05$) were both insignificant. Thus, we find support for both hypothesis 1 and hypothesis 2, though we note that these main effects are hypothesized to be contingent on the level of the other organizational culture dimension, a question we now turn our attention to exploring.

Insert Table 3 Here

As outlined above, hypotheses 3 and 4 each introduced additional specificity to assessing the relationship between organizational culture and EO. In particular, hypothesis 3 proposes that increased balance between the individualism and collectivism dimensions of organizational culture is associated with increased levels of EO. We began evaluating the support for this hypothesis by considering the curvature of the response surface along the line of maximal imbalance. Because the curvature is a linear composite of multiple coefficients, a standard error must be calculated to evaluate the significance of this feature. As is typical (Edwards, 2002), this was done using ordinary rules for the variance of linear combinations of random variables (Nunnally and Bernstein, 1994). As expected, the curvature along this line is negative (curvature = $-.78, p < .05$) and significant, providing initial support for hypothesis 3.

In order to more fully assess and characterize the nature of this relationship, we next evaluated whether the first principal axis coincides with the balance line. We began this process by locating the first principal axis by determining its slope and intercept using the equations provided by Edwards (2002). In so doing, the slope of the first principal axis was found to be 1.08 and the intercept was found to be -0.09 . Support for hypothesis 3 requires that these values do not differ significantly from the balance line, which is characterized by a slope of one and an intercept of zero.

In order to test whether the location of the first principal axis coincides with the balance line, standard errors for the slope and intercept parameters were calculated. Because the equations determining these parameters are non-linear in the coefficients, the approach applied above cannot be used to calculate an appropriate standard error for the slope or intercept (Edwards, 2002). Rather, bootstrapping was used to provide an appropriate confidence interval. Specifically, following recent work (Edwards and Cable, 2009; Matta et al., 2015), we utilized nominal 95% bias-corrected confidence intervals based on 10,000 bootstrap samples (random seed = 1988; Koopman et al., 2014). In particular, we found that the confidence interval for the slope ($-4.18, 9.05$) of the first principal axis includes one (the slope of the balance line) and the confidence interval ($-21.64, 18.31$) for the intercept includes the intercept for the balance line (i.e., zero). Thus, the first principal axis did not differ significantly from the balance line (Edwards, 2002). Collectively, the combination of a negative curvature along the imbalance line and these results support hypothesis 3 (Edwards and Cable, 2009; Matta et al., 2015).

We further investigated the nature of the combined effect of individualism and collectivism as described in hypothesis 4, which states that EO is maximized when balance is achieved at high levels, rather than low levels, of individualism and collectivism. We evaluated this hypothesis in a manner similar to that outlined above in that we calculated the slope and curvature along the balance line along with their corresponding standard errors (using ordinary

rules for the variance of linear combinations of random variables) in order to evaluate the significance of the identified effects. Specifically, we found a positive and significant linear slope (slope = 0.62, $p < .001$) and a null curvature (curvature = 0.01, n.s.). This pattern of findings indicates that when balance in the individualism and collectivism dimensions of organizational culture is attained, the positive effect on EO is maximized when the balance occurs at high levels of each dimension, supporting hypothesis 4 (cf., Matta et al., 2015; Tepper et al., 2018). In other words, such an effect, wherein the amount of EO varies linearly along the balance line, adds a nuance to our findings relating to hypothesis 3 connoting ‘a value congruence effect with the caveat that the maximum value of the outcome depends on whether individual and organizational values are low or high’ (Edwards and Cable, 2009: 661), with the latter condition being applicable in this situation.

In order to further aid the interpretation of our results (Edwards and Parry, 1993), we used the *rsm* package (Lenth, 2009) in R to plot the three-dimensional response surface relating individualism and collectivism to EO. As shown in Figure 1, several key aspects of the response surface previously described numerically can also be revealed visually. Specifically, the overall concave nature of the response surface can be clearly seen. As demonstrated previously, the negative curvature of the response surface along the imbalance line (which cuts diagonally from the back-left to the forward-right of the x-y plane) coincides with this shape. In addition, the maxima line (i.e., first primary axis) runs from the left-front to the right-back of the figure, coinciding with the balance line. Finally, the overall surface exhibits a positive slope along the balance line, with the global maximum being realized when both individualism and collectivism are at high levels.

Insert Figure 1 Here

Discussion

Scholars have emphasized that organizational-level effects have been neglected in prior institutional theory-based entrepreneurship research (Su et al., 2017). By incorporating the precepts of institutional theory, adopting an orthogonal view of the organizational culture dimensions of individualism/collectivism, and aligning the level of analysis between constructs, this study has helped to develop a new perspective on the relationship between cultural dimensions and EO. Using a sample of SMEs based in Korea, we suggested and found that both individualistic and collectivistic organizational cultural dimensions are positively associated with a firm's level of EO. Moreover, our arguments and findings suggest that high levels of congruence between individualism and collectivism enable SMEs to achieve higher levels of EO.

Collectively, our study offers several contributions to the literature on culture and entrepreneurship. First, by adopting Korea as the main context of the study, we extend our understanding of EO. Specifically, we examined the role that organizational-level cultural dimensions play as antecedents of EO in a national context that is likely to be supportive of the development of differently focused organizational institutions. By drawing on institutional theory, we were able to identify the sociocultural context of Korea as a theoretically compelling environment in which to examine the extent to which the organizational-level values of individualism and collectivism can coexist. Conducting EO studies outside the context of the United States is imperative to expand 'EO's geographical reach' (Wales et al., 2013: 365). While multiple studies have utilized empirical data from Korea to study EO (see Table 1), very few prior studies have focused on Korea as the main context for conceptual reasons. Rather, most studies focused on generalizing the EO-performance relationship to a new country. Our study further extends our understanding of EO by providing a richer consideration of how variation in organizational cultural dimensions may exist within a single national context.

More broadly, our research is one of the first studies to examine the influence of organizational culture on firm-level EO. While previous work has tended to focus on the national-level and assume those influences would also characterize the organizational-level of analysis, we focus on the organizational-level directly. Specifically, we employed a sample of SMEs from a single country, effectively holding the effect of national culture constant. We found that even within a single national culture, there was considerable variation in the individualism and collectivism dimensions of organizational culture with responses spanning the entire scale range. This within-nation, between-organization variance may help account for the plurality of findings reported by previous research focused exclusively on the national-level of culture.

Our findings add needed nuance to the existing EO literature. For example, Wales et al. (2013) suggested using the GLOBE clustering scheme to differentiate socio-cultural contexts in EO literature. Under this approach, Korea is associated with the Confucian Asia cluster, which tends to embrace collectivistic values like loyalty, social harmony, and trust (Dorfman et al., 1997). However, countries like Korea, Japan, and Singapore that have a high degree of Western cultural influence may have more dispersion in organizational-level culture than previously thought. In particular, our study illustrates that at least in the Korean context, organizations balancing individualism and collectivism at high levels exhibited the highest levels of EO, surpassing those that solely embraced collectivistic ideals consistent with traditional conceptualizations of their national culture. More broadly, cultural clusters based on similarity in background (e.g., language, religion, and geography) may exhibit higher than expected levels of heterogeneity because of unique work-related values and high economic development (Ronen and Shenkar, 2013). We encourage future researchers to move beyond simple geographic groupings (Ronen and Shenkar, 1985) to focus on broader sociocultural

factors (e.g., level of economic development) that may further enhance our understanding of EO.

Second, we advance institutional theory by incorporating organizational-level institutions into entrepreneurship research. Scholars have advocated that institutional theory should be more prominently applied in the entrepreneurship field, focusing on the organizational-level of analysis (Bruton et al., 2010; Su et al., 2017). Moreover, scholars have emphasized the importance of utilizing institutional theory in EO research (Covin and Miller, 2014; Miller, 2011; Wales, 2016). Others have called for studies connecting institutional theory and organizational culture to provide an in-depth understanding of cultural institutions (Hatch and Zilber, 2012; Zilber, 2012). We attempt to answer these various calls by identifying specific organizational-level institutions that explain the manifestation of EO and by applying the institutional perspective to explicate the importance of the simultaneous consideration of cultural institutions when examining the formation of high levels of EO.

Third, we develop and advance theoretic logic supporting the orthogonality of the individualism and collectivism dimensions of organizational culture. We contend that these cultural institutions can coexist in the same organization and that the presence of both dimensions helps SMEs to achieve higher levels of EO. In so doing, we disambiguate previous research that has achieved mixed empirical results when studying the relationship between continuum-based conceptualizations of individualism/collectivism and EO by suggesting that individualism and collectivism are both positively associated to EO. By effectively only considering one dimension of culture, previous research adopting a unidimensional view has overlooked a potential source of systematic variation that could help explain the mixed findings that characterize the current literature. That is, omitted joint effects of the type identified in this study might contribute to the variety of previous relationships reported.

In addition to adopting a more nuanced theoretical perspective on the dimensionality of individualism and collectivism, we also develop a congruence-based perspective in order to more fully explicate the joint impact of both of these cultural dimensions. Specifically, we note that both the level of and balance between individualism and collectivism are both important antecedents of EO. Such congruence perspectives have not been utilized widely in the entrepreneurship literature, which may be attributable in part to the limitations of traditional methods available for evaluating such hypotheses. By illustrating the utility of polynomial regression and response surface methodology for evaluating such nuanced relationships, we hope to encourage future research to move beyond considering singular influences or simple differences and instead explore more complex joint effects in order to advance our theoretical knowledge. Such an approach is likely to pay dividends in the domain of culture as well as in the EO and entrepreneurship literatures more broadly.

Building on the present theoretical perspective, we suggest one potentially fruitful area to apply this approach is with regard to advancing the concept of cultural ambidexterity³. Organizational ambidexterity refers to a firm's simultaneous implementation of 'two disparate things' (Gibson and Birkinshaw, 2004; 210). The concept of organizational ambidexterity has been utilized to study the balance between exploration and exploitation (e.g., Tushman and O'Reilly, 1996), efficiency and flexibility (e.g., Carlsson, 1989), alignment and adaptability (e.g., Gibson and Birkinshaw, 2004), and global integration and local differentiation (e.g., Bartlett and Ghoshal, 1989). In this regard, we argue that adopting an orthogonal view on cultural dimensions allows for the emergence of an analogous area of research on the effects of cultural ambidexterity. Specifically, we suggest and find support for the importance of both balance and level when predicting EO, illustrating the potential importance of organization-level cultural ambidexterity. We encourage future work furthering theoretical and empirical

investigations of cultural ambidexterity to deepen our understanding of this potentially important organizational capability.

Lastly, we also seek to advance EO research through conducting more nuanced and fine-grained research on the antecedents of EO. Wales et al. (2016) suggested that entrepreneurship researchers should focus more scholarly attention on the antecedents of EO. Accordingly, we extend the existing literature by proffering organizational culture as one of the most appropriate factors in achieving higher levels of EO within firms. In addition, we were able to gain some additional insight into the nature of the role that international activities may play in influencing a firm's EO. Specifically, we found it interesting that internationalization was initially a significant predictor of EO (see Table 3, model 1). However, when we included organizational culture terms corresponding to our congruence hypotheses (i.e., model 2), internationalization was no longer significantly related to EO, speaking to the importance of considering organizational culture above and beyond international activities when investigating EO.

One potential limitation to our study is the use of single source data. However, given the nature of our research question and sample, scholars have argued that key informants are in the best position to evaluate the firm-level EO of their organization (e.g., Covin and Wales, 2018). Moreover, recent work by Lance et al. (2010) has stated that previous estimates of common method variance may have been overstated. In addition, they assert that the magnitude of inflation present is generally on-par with attenuation related to measurement error. As such, because these two effects tend to operate in opposite directions with equal magnitudes, the design we employ, wherein we simultaneously disregard both, is a plausible approach to take (Lance et al., 2010). However, as suggested by Covin and Wales (2018), EO research that includes mid-sized firms may benefit from targeting multiple respondents within the same organization to attain interrater reliability. We call for future scholarship to investigate the

robustness of the extent to which perceptions of organizational EO are uniform across the organization by obtaining corroborating data from multiple respondents.

Based on our findings, we offer several additional interesting avenues for future research. We suggest more in-depth EO studies with theoretic logic rooted in the Korean context. Specifically, North Korea and South Korea share a history and culture that includes Confucian ideology, but one country has much less Western influence (i.e., North Korea) and one country has extensively absorbed Western cultural values (i.e., South Korea). Moreover, focusing on North Korean firms would offer a rich-context to research the influence of socialism on firms' EO where most firms are state-controlled with little exposure to foreign influence. Beyond solely the Korean context, comparing the influence of unique corporate cultures among Confucian Asian cultures would be another fertile area of inquiry. For instance, China, Korea, and Japan belong to a cluster of Confucian culture, but these three countries also have different cultural values in categories like harmony, hierarchy, and conservatism (e.g., Hitt et al., 1997; Zhang et al., 2005). Examining the variance of EO among firms in Confucian Asia would enlarge our knowledge of cultural influences on entrepreneurship. Moreover, within Confucian Asia, Hong Kong would also be another interesting context to conduct similar culture–entrepreneurship studies considering its unique historical impact from both the United Kingdom and China. Finally, our study focused on two specific dimensions of organizational culture – individualism and collectivism. Future research should assess the influence of other potential cultural dimensions on EO. For instance, the influence of power distance, long- vs. short-term orientation, and masculinity vs. femininity could provide the basis for future studies (Hofstede and Hofstede, 2005). We hope that our study has provided an important first step in unpacking the complexities of the influence of organizational culture on firm-level EO.

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Note

1. As pointed out by the review team, it is important to distinguish between the constructs of autonomy and individualism. To accomplish this, we note that autonomy refers to volition of action (Chirkov et al., 2003) while individualism is a cultural aspect that ascribes the most important meaning to the self (Triandis, 1995). As such, various work designs incorporating different levels of autonomy can be constructed in a manner consistent with a self-focused, individualistic perspective. For example, individual-level performance metrics (indicative of individualism) could be established for jobs with both high and low levels of autonomy. More broadly, while cultural institutions are likely to affect employee autonomy, the correspondence between autonomy and both individualism and collectivism is likely to be relatively weak as institutions supporting both perspectives can drive both high and low levels of autonomy. In other words, both individualistic and collectivistic ideals could gender high or low autonomy work contexts (Chirkov, 2008). As such, we suggest that autonomy and cultural values, while potentially exhibiting some level of overlap, are independent constructs.

2. Readers interested in learning more about this technique are encouraged to review Edwards (2002) for a primer on how to employ polynomial regression. In addition, contemporary examples with substantial methodological descriptions are provided by: Edwards and Cable (2009), Matta et al. (2015), and Tsai et al. (2017).

3. We thank the guest editors for this helpful suggestion.

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Table 1 Entrepreneurial Orientation Research within Korea

Year	Authors	Journal	Title	Data
2018	Jin and Cho	<i>Journal of Business and Industrial Marketing</i>	Examining the role of international entrepreneurial orientation, domestic market competition, and technological and marketing capabilities on SME's export performance	407 SMEs
2018	Jin, Jung, and Jeong	<i>International Entrepreneurship Management Journal</i>	Dimensional effects of Korean SME's entrepreneurial orientation on internationalization and performance: The mediating role of marketing capability	401 SMEs
2018	Kim	<i>Journal of Entrepreneurship</i>	Reconciling entrepreneurial orientation and dynamic capabilities: A strategic entrepreneurship perspective	252 SMEs
2018	Yoon	<i>SAGE Open</i>	Exploring the role of entrepreneurial team characteristics on entrepreneurial orientation	1,228 ventures
2018	Yoon, Kim, and Dedahanov	<i>Sustainability</i>	The role of international entrepreneurial orientation in successful internationalization from the network capability perspective	334 SMEs
2017	Eshima and Anderson	<i>Strategic Management Journal</i>	Firm growth, adaptive capability, and entrepreneurial orientation	535 SMEs
2017	Song, Min, Lee, and Seo	<i>Technological Forecasting and Social Change</i>	The effects of network reliance on opportunity recognition: A moderated mediation model of knowledge acquisition and entrepreneurial orientation	278 startups
2017	Yoon and Solomon	<i>International Entrepreneurship Management Journal</i>	A curvilinear relationship between entrepreneurial orientation and firm performance: The moderating role of employees' psychological safety	157 SMEs and 1,633 employees
2016	Choi and Williams	<i>Industry and Innovation</i>	Entrepreneurial orientation and performance: Mediating effects of technology and marketing action across industry types	489 SMEs
2015	Anderson, Kreiser, Kuratko, Hornsby, and Eshima	<i>Strategic Management Journal</i>	Reconceptualizing entrepreneurial orientation	610 SMEs
2015	Kim, Yang, and Chang	<i>International Journal of Entrepreneurship and Innovation Management</i>	Determinant of external sourcing for SMEs in Korea: Analysing the effect of sub-constructs of entrepreneurial orientation on outside technological partnership from the multi-dimensional perspective	1,358 SMEs
2010	Kreiser, Marino, Davis, Tang, and Lee	<i>Journal of Developmental Entrepreneurship</i>	Firm-level entrepreneurship: The role of proactiveness, innovativeness, and strategic renewal in the creation and exploration of opportunities	250 SMEs
2010	Rhee, Park, and Lee	<i>Technovation</i>	Drivers of innovativeness and performance for innovative SMEs in South Korea: Mediation of learning orientation	333 SMEs
2001	Lee, Lee, and Pennings	<i>Strategic Management Journal</i>	Internal capabilities, external networks, and performance: A study on technology-based ventures	137 startups
2001	Yoo	<i>Frontiers of Entrepreneurship Research</i>	Entrepreneurial orientation, environmental scanning intensity, and firm performance in technology-based SMEs	277 SMEs

Note. SME = Small- and Medium-sized Enterprise.

Table 2 Descriptive Statistics for Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Performance	10.95	4.45	–														
2. Internationalization	0.59	0.49	.02	–													
3. Slack	2.84	0.80	.41	.03	(.88)												
4. Firm age	20.16	10.12	-.01	.14	-.01	–											
5. Firm size	40.14	64.62	.11	.10	.03	.23	–										
6. Ownership	0.48	0.50	-.04	-.06	-.03	.10	-.09	–									
7. Company Type	0.59	0.49	-.06	-.07	-.11	.00	-.17	.12	–								
8. Dynamism	3.47	0.99	-.26	-.10	-.28	-.02	-.04	.03	.02	(.76)							
9. Hostility	4.58	0.94	.02	.06	.03	-.04	-.05	-.02	.03	-.06	(.69)						
10. Manufacturing	0.48	0.50	.04	.28	.01	.02	.05	-.08	.06	.02	-.12	–					
11. Service	0.41	0.49	-.05	-.20	.02	-.07	-.06	.13	-.02	-.06	.04	-.80	–				
12. Other	0.11	0.31	.03	-.14	-.05	.08	.02	-.08	-.07	.06	.14	-.34	-.29	–			
13. Collectivism	3.80	0.75	.35	.06	.35	-.15	-.08	-.03	-.02	-.20	.06	-.02	.05	-.05	(.93)		
14. Individualism	3.73	0.71	.32	.03	.34	-.17	-.11	-.04	-.07	-.22	.06	-.07	.07	-.01	.73	(.87)	
15. EO	4.23	1.21	.36	.16	.29	-.12	.01	-.11	-.10	-.21	.02	.17	-.15	-.03	.43	.42	(.88)

Note. n = 385 to 406 using pairwise-comparisons. Correlations with magnitude greater than .10 are significant at $p < .05$; correlations with magnitude greater than .13 are significant at $p < .01$. Cronbach's alpha appears on the diagonal where appropriate. Internationalization indicates whether the company has international sales (1) or not (0). Ownership denotes whether the company is privately held (1) or not (0). Company type indicates whether (1) the respondent is part of a strategic business unit or (0) the respondent is part of an independent single-business company. Manufacturing, service, and other represent industry control variables. EO = Entrepreneurial Orientation.

Table 3 Results of Hierarchical Regression

Variables	Dependent Variable = Entrepreneurial Orientation			
	Model 1		Model 2	
Intercept	3.54***	(0.55)	3.48***	(0.52)
Performance	0.06***	(0.01)	0.04**	(0.01)
Internationalization	0.28*	(0.13)	0.19	(0.12)
Slack	0.23**	(0.08)	0.10	(0.08)
Firm age	-0.01*	(0.01)	-0.01	(0.01)
Firm size	-0.00	(0.00)	0.00	(0.00)
Ownership	-0.17	(0.12)	-0.17	(0.11)
Company Type	-0.18	(0.12)	-0.17	(0.11)
Dynamism	-0.10	(0.06)	-0.05	(0.06)
Hostility	0.01	(0.06)	0.00	(0.06)
Manufacturing	0.11	(0.21)	0.19	(0.20)
Service	-0.23	(0.21)	-0.22	(0.20)
b ₁ Individualism (I)			0.33*	(0.17)
b ₂ Collectivism (C)			0.29*	(0.14)
b ₃ I ²			-0.21	(0.12)
b ₄ I X C			0.40*	(0.20)
b ₅ C ²			-0.18	(0.13)
<i>Balance line (I = C)</i>				
Slope (b ₁ + b ₂)			0.62***	(0.10)
Curvature (b ₃ + b ₄ + b ₅)			0.01	(0.07)
<i>Imbalance line (I = -C)</i>				
Slope (b ₁ - b ₂)			0.04	(0.29)
Curvature (b ₃ - b ₄ + b ₅)			-0.78*	(0.39)
Variance Explained				
R ²		.21		.32
ΔR ²		-		.11***

Note. n = 362. * = $p < .05$; ** = $p < .01$; *** = $p < .001$. Standard errors in parentheses. Manufacturing and service represent industry dummy codes. Coefficients for polynomial regression terms correspond to equation one.

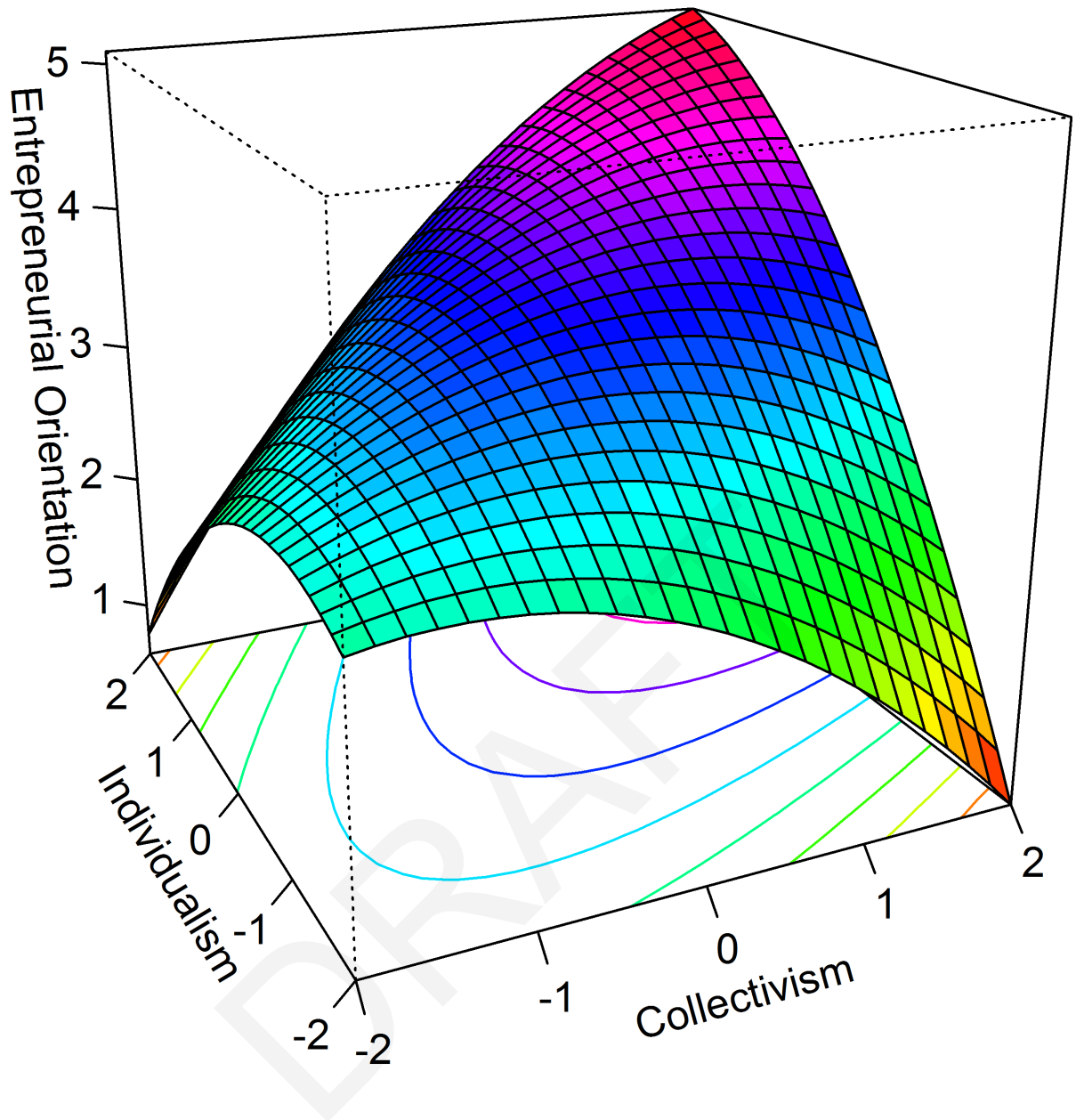


Figure 1 Response-surface Relating Organizational Individualism and Collectivism to Entrepreneurial Orientation

Appendix Korean Translation of Key Scales

Entrepreneurial Orientation (Covin and Slevin, 1989)

혁신성 (Innovativeness)		
<i>보통, 우리 회사의 간부들은...</i>		
1. 시장에서 검증된 상품과 서비스에 대한 마케팅을 강조한다	1 2 3 4 5 6 7	연구 개발, 기술, 혁신에 대해 강하게 강조한다
<i>지난 3년간, 귀사는 몇 가지의 신제품 및 서비스를 시장화 했나요?</i>		
2. 매우 적다	1 2 3 4 5 6 7	매우 많다
3. 제품 및 서비스 군의 변화는 대부분 아주 미비했다	1 2 3 4 5 6 7	제품 및 서비스 군의 변화는 아주 컸다
진취성 (Proactiveness)		
<i>경쟁업체들을 상대할 때, 우리 회사는...</i>		
4. 보통 경쟁업체들이 시작한 행동에 대응한다	1 2 3 4 5 6 7	주로 먼저 행동을 취하고, 경쟁업체들이 반응한다
5. 새로운 제품/서비스, 기술 등을 제일 먼저 선보이는 것은 매우 드물다	1 2 3 4 5 6 7	주로 새로운 제품/서비스, 기술들을 제일 먼저 선보인다
6. 경쟁적 충돌을 피하며, “공존공영 (함께 살아가는)” 자세를 추구한다	1 2 3 4 5 6 7	굉장히 경쟁적인 “경쟁사 과멸” 자세를 도입한다
위험 감수성 (Risk taking)		
<i>보통, 우리 회사의 간부들은...</i>		
7. 위험 부담이 낮은 일을 강하게 추구하는 경향이 있다 (보통 정도의 수익을 위해서)	1 2 3 4 5 6 7	위험부담이 높은 일을 강하게 추구하는 경향이 있다 (아주 높은 수익의 기회를 위해서)
8. 조심스럽고 서서히 시장을 알아가는 것이 최고라고 생각하고, 점진적 변화를 추구한다	1 2 3 4 5 6 7	대범한 행동이 회사의 목적 달성을 위해 필수적이라고 생각한다
<i>불확실한 상황에서 선택을 해야한다면, 우리 회사는...</i>		
9. 보통 조심스러운 “기다렸다 보자” 자세를 취해 비싼 선택을 해야하는 확률을 낮춘다	1 2 3 4 5 6 7	보통 대답하고, 공격적인 자세로 잠재적인 기회들을 성공시킬 확률을 높인다

Organizational Individualism and Collectivism (Robert and Wasti, 2002)

다음 문장에 얼마나 동의하십니까? (1 = 매우 반대; 5 = 매우 동의)

개인주의 조직문화 (Organizational Individualism)	
1. 모든 직원들에게 스스로의 잠재력을 알도록 권유한다.	
2. 직원들은 아이디어 소유권을 확실하게 할 수 있다.	
3. 직원들이 자기 스스로에 대해 생각하는 것을 가치 있게 여긴다.	
4. 성과가 좋은 부서에서 눈에 띄는 직원들은 인정 받는다.	
5. 직원들은 일을 할 때, 독립성을 중요시 여긴다.	
6. 직원들 간 경쟁은 허용된다.	
집단주의 조직문화 (Organizational Collectivism)	
1. 간부들과 관리자들은 충실한 직원들에게 보호적이고, 자비롭다.	
2. 일하는 방식에 변화가 있다면, 간부들과 직원들은 함께 상의한다.	
3. 직원들은 가족처럼 소중히 여겨진다.	
4. 조직의 실패와 성공에 대한 책임은 모두가 함께 나눈다.	
5. 직급에 상관 없이, 직원들은 서로의 의견을 존중한다.	
6. 조직은 새로운 직원의 전반적인 복지를 신경 쓴다.	
7. 회사의 성공에 영향을 미치는 큰 결정은 모든 직원들에게 통지된다.	

Note. The item numbers correspond to the item numbers present in the published scales.