Developing nations and sustainable entrepreneurial policy: Growing into novelty, growing out of poverty

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ABSTRACT

Throughout contemporary economics and institutional literature, many scholars argue for governmental policies that encourage citizens to engage in entrepreneurial activity as a safeguard to sustainable progress, especially during financial crises. The institutional context is relevant since it determines the broad constraints, normative expectations, and incentives that bind and mediate the behaviors of individual actors and organizations. However, while this dominant rational choice and economic institutional theory provides some help with the challenge of empowering citizens, it may not fully or robustly consider the antecedent and micro processes that enable actors, especially those who may be viewed as vulnerable, to gain agency. Accordingly, the underlying aim of this paper is to gain insight into the embedded micro and macro processes that enable sustainable opportunity for those in society who often are most at employment risk. The paper reviews cognitive and developmental psychology as well as the societal influences and national systems literature, with emphasis on research relevant for developing countries. Using a discursive institutional approach, the paper delineates and discusses institutional change in support of a proposed national entrepreneurial capacity development framework. Lastly, the paper concludes with additional areas for future research.

KEYWORDS:
Change; institutional theory; creativity; innovation; personality; divergent thinking; discourse; discursive; policy; entrepreneurship; social skill; social economic status (SES); parenting; communal networks; economic systems; political systems.

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"Implementing innovation policies in developing countries has proved to be a challenging task. Academics, development practitioners and policy-makers are still struggling with understanding how to conceptualize innovation in developing countries, identifying who are the beneficiaries of innovation processes and more generally conceptualizing innovation system policies in the South. Furthermore, in designing innovation policies, policy makers often lack tools for identifying problems in the system and for selecting policies supporting innovation and competence building to tackle them." (Chaminade, Lundvall, Vang-Lauridsen, & Joseph, 2009, p. 2)

Throughout contemporary economics and institutional literature, many scholars argue for governmental policies that encourage citizens to engage in entrepreneurial activity as a safeguard to sustainable progress, especially during financial crises (Choe, 2006; Salkowitz, 2010). The institutional context is relevant since it emerges from social discourses and ideas that frame the broad constraints, normative expectations, and incentives which, in turn, guide and mediate the behaviors of individual actors and organizations. Traditionally, scholars have viewed nations as geopolitical entities and legal cultures that firmly establish institutions with the aim of providing social assurances for citizens and reducing social costs. However, while this dominant rational choice and economic institutional theory provides some help with the challenge of empowering citizens, it may not fully or robustly consider the antecedent micro processes that enable actors (Chaminade et al., 2009; Green, Li, & Nohria, 2009; Maguire & Hardy, 2009; Mahoney & Thelen, 2010; Peters, 2012), especially those who may be viewed as vulnerable, to gain agency or become "socially skilled" (Fligstein & McAdam, 2012). Recent research (Chaminade et al., 2009; Lundberg & Weurmli, 2012) confirms the need for scholars, policy makers, and practitioners to more deeply understand agency and human development processes. Consistent with emerging discursive and sociological views on institutionalism (Peters, 2012), the underlying aim of this paper is to gain insight into the embedded micro and macro processes that enable sustainable opportunity for those in society who often are most at employment risk. While I am most concerned about adolescents and young adults during the "transition to work" stage, the research as necessary encompasses developmental needs throughout various stages (Lloyd, Behrman, Stromquist, & Cohen, 2006). My research is guided by the questions, *"What are the antecedent and contextual variables that influence and predict high levels of creative behavior among the young in developing countries?"* and *"Which institutional strategies might governments deploy to encourage creative and entrepreneurial behavior in adolescents and young adults?"* To answer these questions, I begin this exploration by first defining creativity then deepening my understanding of the cognitive underpinnings of creative behavior. Next, I review the developmental psychology and social influences literature on creativity, especially that research which is most relevant for emerging economies. I discuss the implications for national macro systems and delineate an entrepreneurial capacity development framework that offers insights about discursive strategies for institutional change (Barbato & Kratochwil, 2009; Gofas & Hay, 2010; Peters, 2012; Schmidt, 2010). Lastly, I conclude by discussing additional areas for future research.

Creativity, Innovation, Sustainability and Entrepreneurship Defined

Sternberg and Lubart (1999, p. 3), building upon the work of many other creativity authors, define creative behavior as "the ability to produce work that is both novel (i.e., original, unexpected) and appropriate (i.e., useful, adaptive concerning task constraints) . . ." as judged by independent critics. Amabile (1998) argues that creativity consists of three components: expertise, creative thinking skills, and motivation. She prescribes a widely accepted method for judging creative products or outcomes along the discrete variables of *creativity*, *technical goodness*, and *aesthetics*, known as the "consensual technique for creativity assessment" (Amabile, 1996). From a developmental perspective, creativity at the individual level is viewed not as a priori or an inherent ability, but rather as an actor's domain-specific expertise, recognized by an audience, that temporally evolves through deliberate practice (Gruber & Wallace, 1999; Sternberg & O'Hara, 1999). Consistent with this point, deliberate creative development is not a mystical phenomenon restricted to only a few "gifted" actors, but rather a systemic possibility for many actors who make investments in developing their divergent thinking abilities (M. Roberts, 2006). However, individual creativity becomes socially impactful often when collectively organized through entrepreneurial firms that seek to innovate.

Historically, many authors have defined innovation as a firm-level sequential two-part process of idea generation (i.e., exploration) and commercialization (i.e., exploitation) of the most promising ideas into useful products or services (Benner & Tushman, 2003; March, 1991; E. Roberts, 1988). However, a new view of innovation suggests that it is an information-driven distributed agency process of changing social institutions and industry structures to permit the acceptance of novel market-tradable value or utility (Edgell & Vogl, 2011, 2013; Fischer, 2000; Garud & Karnøe, 2003; Hargadon & Douglas, 2001). In this view, utility takes various beneficial forms including products or services, production processes, organizational structures, and institutional structures (Teece, 1988). Furthermore, I have adopted the widely accepted definition of sustainability put forth by the United Nations (Brundtland, 1987): sustainable entrepreneurial activity meets the needs of present inhabitants of the earth without compromising the ability of future generations to meet their own needs. This suggests that national development and innovation activities should purposefully minimize any harm resulting from their processes while creating benefits (value) for current and future citizens (Edgell & Vogl, 2013).

Building upon the definitions above, entrepreneurs are those who through the actions of entrepreneurship, a combination of creativity and business expertise, are able to lead the sustainable introduction of innovations or novel market value (Reynolds, 2010). Entrepreneurs are often driven by their intuitive sense that the current and accepted equilibrium in a given stable system is unsatisfactory, a view that the system could be more beneficial to multiple stakeholders if certain novel or creative changes were introduced. Although entrepreneurs have traditionally been conceived as transformative economic agents in marketplaces, current scholarship extends the scope to include those who through social skill (Fligstein, 2001; Fligstein & McAdam, 2012) introduce novel change within social and political arrangements. Furthermore there are emergent conceptions of "social entrepreneurship" that feature entrepreneurs who, working through hybrid "social venture" organizational forms, transcend boundaries to achieve social change and impact (purpose) through sustainable economic means (Martin & Osberg, 2007).

Cognitive Perspective: Creativity, Personality, and Thinking Style

The study of personality (i.e., behavior sets expressed as character traits) is interesting since it offers support for and insight into human agency, the desire and ability of actors to proactively shape or change their environments. Personality factors or multitrait measures, considered by social scientists to be more comprehensive than individual traits, make analysis of a range of actor behavior possible (Sandy, Boardman, & Deutsch, 2000). In particular, much research links divergent thinking cognitive style to creative ability, especially an actor's capacity to make remote associations and, thus, generate novelty (Wechsler, 2006, 2009).

Divergent Thinking.

Divergent thinking is a cognitive process used to generate novel ideas by exploring many possible problem frames and solutions and is characterized by acts of acknowledging existing assumptions and mental constructs about a given situation then deliberately seeking to break or destruct those concepts (Mauzy & Harriman, 2003). This is done while, often simultaneously, searching to make new or remote (unusual or novel) connections between existing ideas that could be further transformed into new mental constructs, ideas or frames about a given situation. Edgell (2007) empirically tested a diverse population of immigrants, minorities, and others involved with independent media in the United States to understand how various forms of actor heterogeneity (i.e., cognitive, creative, and social) and dissonance positively influence organizational creativity outcomes. This work exposed dissimilarities in social identity constructions between networked divergent and convergent thinking actors. In particular, there were considerable personality differences between adult individuals who were divergent thinking and those who were convergent thinking. They had diametrically opposed scores for personality factors (in priority order) identified as "Unexploring", "Eager", and "Socialized". *Unexploring* indicates an actor's degree of unwillingness to explore new ideas and experiences whereas *Eager* indicates an actor's degree of eagerness to engage in social situations and abide by prevailing social norms. *Socialized* indicates an actor's degree of socialization or willingness to engage in social relations. Divergent thinkers scored very low while convergent thinkers scored very high for these three factors. As such, these factors may be referred to as the "fault line" between the two cognitive styles.

Unexploring showed the highest degree of distinction between divergent and convergent thinkers. This is supported by Runco's (1994, 2001, 2007; 1999) considerable work that places cognitive ability at the center of creative activity. He proposes a model of creativity that delineates four cognitive dimensions along which creative actors differ from others: information processing and perception; memory, information, and expertise; metacognition; and associative theory and divergent thinking. Simply put, highly creative individuals tend to use divergent thinking, pulling from their memory of various random thoughts to assemble unusual or unique combinations. This may require a constant flexibility in thinking and willingness to continuously iterate until reaching a degree of satisfaction. Furthermore, he makes a case for problem framing as essential for creativity by noting that "It may be the case that creative solutions are only possible when there is an original problem" (Runco, 2001, p. 2894). Also, Puccio, Firestien, Coyle, and Masucci (2006) give empirical evidence that actively increasing divergent thinking, as is the case with brainstorming, can lead to enhanced creativity outcomes. Basadur, Runco, and Vega (2000) empirically demonstrated the benefits, greater ideation, and enhanced idea evaluation, derived by carefully **avoiding premature convergence**. Prematurely drawing conclusions (e.g., stopping the ideation process due to the belief that the most novel idea has been generated) is perhaps a form of inflexible cognitive style that is correlated with high levels of the personality disposition *unexploring*.

Eager was, after *unexploring*, the factor that differed most between divergent and convergent thinkers, with divergent thinkers scoring low and convergent thinkers scoring high. This result is consistent with Feist's trait predictions that achievement would be aligned with more convergent thinkers while lack of conscientiousness and norm doubting would be aligned with more divergent thinkers. This difference might be best explained by returning to Runco (2001, p. 2893) who argues that not only does problem framing and divergent thinking require a flexible perspective, but also a "questioning attitude." Norm doubting would be consistent with an actor who questions assumptions and prefers divergent over routine thinking. Furthermore, lack of conscientiousness would allow divergent thinking actors to flexibly switch perspective and assumptions, internally released from a sense of obligation to consider how these shifts might impact others. Given that the subsumed trait, *achievement*, may derive its meaning from extrinsic sources, such as evaluation by others, its opposite,

non-achievement, logically fits with divergent thinkers' profiles, as they seem to need a **high degree of freedom from social conscientiousness and expectation** to cogitate divergently and ideate (Runco, 2001).

The least distinct, yet still significant, difference between divergent and convergent thinkers was *socialized*. With this factor, again convergent thinkers scored high, while divergent thinkers had low scores. The need for low arousal and protection from high sensory stimulation may, in part, explain why divergent thinkers tend to withdraw from social settings or engagement with others. Martindale (1999) writes of research that describes how divergent thinkers lack cognitive and behavior inhibition and, therefore, social settings may be more stressful for them than others. Martindale agrees with Runco (2001) but clarifies that the most likely explanation for a divergent thinker's withdrawing is probably heightened sensitivity due to "augmentation," the divergent thinker's amplification of stimuli intensity as a strategy for widening associative possibilities. Runco also explains that this aids divergent thinkers in noticing subtle associations that might be overlooked by others. Martindale (1999), consistent with Vartanian, Martindale, and Kwiatkowski (2007), points to an impressive array of research (Coren & Schulman, 1971; Dentler & Mackler, 1964; Horton, Marlowe, & Crowne, 1963; Krop, Alegre, & Williams, 1969) supporting his argument that **increased cortical arousal causes a discernible decrease in creative output from individuals.** Even the mere presence of others (Zajonc, 1965) or extrinsic rewards (i.e., cash incentives) are problematic, as these situations increase arousal which in turn decreases creativity (Amabile, 1998; Martindale, 1999). Chen (2006) explains that increased arousal leads to greater cognitive loading that, in turn, impedes information processing, ultimately resulting in reduced cognitive flexibility and creative thinking. Forms of stress that increase arousal are also detrimental to creativity (Van Dyne & Jehn, 1998). De Dreu and Weingart (2003) present research that demonstrates how even the anticipation of stressful situations (i.e., hostile relationships) can decrease an actor's ability to think and perform creatively. Vartanian et al. (2007) empirically demonstrate a link between the speed of information processing and creativity. In their negative priming tests, individuals with high creative potential reacted much more slowly than those with less creative potential. Martindale (1999) reports on his empirical research (Martindale & Hines, 1975) that demonstrates creativity requires a form of "defocused attention" that results from very low levels of cortical activity that are not typical for the average actor when engaged in mental activity. Runco (2001, p. 2892) refers to this phenomenon of defocused attention as "**wide attention deployment strategies**."

Developmental Perspective: Creativity, Family, and Community

The developmental literature addresses the ways in which localized contextual variables influence the advancement of creative behavior in children and young adults. Raina's (Raina, 2003; Runco, 2007) works uncovered that many creative adults trace their abilities to special experiences, events in early childhood that triggered their life-long curiosities. While triggering events seem important, other scholarship centers on education as a strategy for fostering creativity. Yet another emergent body of literature delves into the contributions of those individuals outside traditional educational systems such as community and family mentors (Cox, Daniel, & Boston, 1985; Piirto, 1992). For example, empirical data links parenting practices during preschool years to the flourishing of creative potential later in high school (Goertzel, Goertzel, & Goertzel, 1978; Nickerson, 1999; Singer & Singer, 2006). Given this evidence, the family and local community play an important role that may complement that of the broader educational system. If this is the case, then which particular family and community variables might influence creative development the most? From the growing body of evidence, many of these important variables fall into three broad categories: social economic status, parenting, and communal networks. Each category is explored in detail below.

Social Economic Status (SES).

SES is interesting in that the benefits normally associated with wealth may not significantly influence the development of creativity in the young. In contrast, the work of Gardner (1983, 1993a, 1993b) suggests that SES may not be a primary predictor of creative development. Rather his research reveals that the **family's resource allocation strategy** may matter most. Both rich and poor families of highly creative adults were supportive. Early on, these families identified the child with high creative potential and supported that child with a disproportional share of resources.

Other research indicates that **lower SES** may confer benefits (Bruininks & Feldman, 1970; Dudek, Strobel, & Runco, 1993). Dudek et al. (1993) show that many creative individuals come from larger lower income families. Runco (2007, p. 52) explains that this may occur since children from such families may have fewer restrictions, distractions, and toys—all factors that may encourage them to divergently invent ways to play perhaps by using found or discarded objects or other freely available materials.

However, the literature does distinguish between the influences of lower income status and of abject poverty. Poverty, especially extreme forms, probably does not yield any positive influence on creative development for most children (Freire, 2000; Gissi B, 1990; Martín-Baró, Aron, & Corne, 1994; Nunes, Schliemann, & Carraher, 1993; Preiss & Strasser, 2006). As Preiss and Strasser (2006, p. 61) point out, "*On the one hand, strategies such as those applied by street kids to survive are indeed creative strategies; on the other hand, what psychologists consider typical attributes of a culture of poverty are indeed factors that very much limit people's potential for creativity, such as fatalism, hopelessness, and feelings of inferiority, among others.*" This supports Csikszentmihalyi's assertion that the incidence of creativity at the individual level is positively influenced by **"slack" mental and physical energy** or an excess of energy above and beyond that needed for daily existence (Csikszentmihalyi, 1999, p. 322).

Parenting.

Much of this literature indicates that the direct influence of parents' own creativity, attitudes, and behaviors are multi-faceted and powerful. First and foremost, a **parent's own creativity** is an important predictor of child creativity (Noble, Runco, & Ozkaragoz, 1993). This may be true due to behavioral modeling and social values transmission (Runco, 2007, p. 61). Interestingly, Noble et al. (1993) found that in the United States the correlation between a **father's creativity** and that of the child was more significant than that of the mother and child. Even more interesting, Bloom and Sosniak (1985) revealed that families which had a particular interest and understanding of a **particular domain** transmitted that appreciation to the creative child. Yet, Wechsler (2000) through ethnographic research on twenty Brazilian writers and poets revealed that the **dyadic relationship between mother and child** may be of most interest. Mothers, more than teachers as is often cited in works originating in North America, were the driving influencers of creativity. All participants claimed that their mothers were their key creativity mentors and possibly even their key means of emotional support. It could be that in less tolerant circumstances, the mother provides creative and emotional support for those who are viewed by others as different.

Both Albert (1991) and Milgram (1991) found that parents often act as cultural filters, determining the optimum levels of both **diverse experiences and**

permissive environments that support divergent thinking in their children. However, they caution that too much diverse experience leads to confusion and excessive permissiveness leads to insecurity. Healthy **attachment** is important since secure bonding ensures more exploration by children since they are confident that their parents will still be there when the exploration is done (Runco, 2007, p. 53). Taylor (1999) suggests that parents should allow children at an early age to exercise autonomy and independence, thus allowing for high originality that might express itself as non-normative or unconventional ideas and unrealistic perceptions such as imaginary friends and other worlds. Furthermore, Csikszentmihalyi and others (Csikszentmihalyi & Csikszentmihalyi, 1993; Csikszentmihalyi, Rathunde, & Whalen, 1993) found that young people from backgrounds that were both stimulating and supportive enjoyed learning which led to higher levels of creativity. Lastly, Runco (2007, p. 59) clarifies that **the implicit theories (i.e., beliefs about creative expression) held by role models including parents, teachers, and mentors**, may establish bias, affect, and resource allocation. Parental theories that value creativity and divergent thinking may positively influence the young.

Consistent with the notion of permissive environments, other research (Raina, 2003; Runco, 2007; Walters & Gardner, 1984) focuses on "**crystalizing experiences**", particular moments that occur in childhood. This phenomenon occurs when a child's self-nurtured interest in a domain becomes explicit and deliberate, often stimulated by direct exposure to particular materials such as a simple yet fascinating toy, a stimulating book, a series of discarded objects, etc. These important exposures can give children a lasting sense of creative interest, direction, and identity.

Communal Networks.

To a certain degree, creative individuals may arise from communal networks that provide both support and access to domain knowledge. Many researchers agree that creative agency is a feature of systems rich in formal education institutions and actors such as teachers, mentors, friends, and other community members (Csikszentmihalyi, 1999; Feldman, 1999; Feldman & Goldsmith, 1991; Gardner, 1993a; Goldsmith, 1990; Gruber & Wallace, 1999; Wallace & Gruber, 1989). For example, recent research (Hoxby & Avery, 2012) on low SES populations in the United States revealed that many high-achieving students who were low-income tended to not apply to selective universities. The authors noted that this may be the result of insufficient networks that do not bring these students in contact with teachers or others who have attended a selective educational institution. For creative or divergent thinking adults, it is important to have a network of peers who supply both domain-specific critical input and feedback as well as career possibilities (Amabile, 1983, 1985, 1990; Kasof, 1995a, 1995b). Interesting, while creative adults often have difficulty making close and lasting friends, they often need and experience strong and supportive relationships before creative breakthroughs. However, after the creative discovery, the relationship may lapse or even dissolve (Gardner, 1983). This is consistent with other research that shows highly divergent thinking actors tend to be less *socialized* (Edgell, 2007). For children, **teachers, mentors, and guides may take on the role that expert peers** play in the networks of creative adults. Furthermore, creative children may generally have different social experiences. In a Hong Kong based study, popular children who made friends easily were judged, by teachers and peers, to be the most creative (Lau & Li, 1996). However, that same study showed that "**controversial children**", a group that was both loved and hated by different peer groups, scored higher than average for creativity.

National Systems, Institutional Change and Policy Implications Framework

Although the locus of this research has been to review the micro processes that support the development of divergent thinking individuals, it is important to summarize the most relevant national systems research. Such scholarship provides insights about the macro systems needed to either complement or support effective micro processes. Csikszentmihalyi (1999, p. 322) delineated a framework for evaluating broad social or macro factors that impact the incidence of creativity. His systems view suggests that countries with **tolerant or permissive normative social influences** that embrace diverse behaviors tend to generate more novelty. This is supported by a considerable body of research (Florida, 2002; Florida & Gates, 2003; Hannerz, 1996; Stolarick & Florida, 2006). Also, countries with **complex social systems that are rich with differentiation and integration** provide more fertile environs for divergent thinking individuals to flourish. At the national level, differentiation refers to the degree of specialization and competition for resources spread across the population. Integration is defined as the degree to which the population shares cultural symbols, engages in collective rituals, holds shared norms, accepts as legitimated the political structures, and tolerates inequalities when correlated with talent distribution (Turner, 1981). In terms of effective economic systems, it seems that **mercantile** forms, as opposed to rentier arrangements that tend to resist change, may encourage divergent thinking (Csikszentmihalyi, 1999, p. 322). Accordingly, mercantile economic forms coupled with **inclusive political institutions**, as opposed to extractive institutions, (Acemoglu & Robinson, 2012) might favor high degrees of **mobility and productive conflict** that yield greater opportunity for creative experiences. Research indicates that *task* (e.g., content-based) conflict, as differentiated from *relationship* and *process* forms of conflict, is essential for the development of creative outcomes (Bezrukova, Jehn, & Zanutto, 2001; Edgell, 2007; Jehn, 1995; Jehn, Northcraft, & Neale, 1999; Van Dyne & Jehn, 1998).

Given the scholarship about highly divergent thinking actors, the developmental needs of creative children, and effective national systems, what can governments do to foster the flourishing of creative and entrepreneurial individuals? Evidence from developing nations suggests that some of the behaviors consistent with the personality factors described above may be viewed as non-normative and socially less acceptable (Choe, 2006; Csikszentmihalyi, 1999). Since highly divergent thinkers score low for *socialized* and are predisposed to expressing authentic points of view or "psychological androgyny" (Cook, 1985), it would be no surprise to learn that they face intolerance and repression in collectivist societies that value conformity (House, 2004; Javidan, Dorfman, De Luque, & House, 2006). However, Soriano de Alencar, Fleith, and Martinez (2003) studied Latin American college students and teachers and revealed that respondents ranked "social repression" as the least problematic of four principle barriers. In contrast, respondents cited perceived lack of time or opportunity as the most difficult barrier followed by shyness and inhibition next then lack of motivation (Preiss & Strasser, 2006; Soriano de Alencar et al., 2003). If time and shyness coupled with inhibition are the most difficult challenges to creativity faced by young adults, then perhaps policies and programs aimed at these challenges would provide fertile conditions for creativity that feeds entrepreneurial activity. However, what sort of programs policies or institutional initiatives might accomplish these aims?

In the United States, a variety of government funded **mentoring programs** target at-risk youth in high poverty areas with conditions that, to a degree, resemble those seen in developing countries. Target children often demonstrate a range of risky behaviors, from aggression to depression. The most successful of these programs are intensive with at least four hours of contact weekly year-round (not just during the academic year) and persist throughout the students' entire formal education years (Bornstein, 2011; DuBois & Karcher, 2005). Other social initiatives such as the burgeoning green schools movement aim to improve the environments that children experience (Chapman, 2012). This initiative aligns with other research in the United States which indicates that the physical settings, such as classrooms, may have a greater impact on creative development than previously believed by experts (Dudek et al., 1993). Of particular interest are non-profit programs such as Artists For Humanity (AFH) whose mission is to educate underserved city youth while providing them with paid employment in the arts as a means to self-sufficiency (Anonymous, 2007). It is AFH's core belief that the creative process as realized through the arts can be both a life transforming and an economic rewarding experience for the young. Other historical **educational programs**, such as the Future Farmers of America, have focused on providing youth with both practical skills and leadership capabilities (Weiler & Woodin, 1975). Similar programs might be effective for youth in highly agrarian regions of developing countries.

Assuming that the cognitive and developmental needs discussed above have been satisfied, traditional economic mechanisms might be a useful complement to encourage entrepreneurship and could become, despite being aimed typically at adults, a source of inspiration and motivation for young would-be entrepreneurs and innovators. For example, **microfinance programs** (Karmakar, 2008) and various **technology transfer infrastructure** initiatives (Lall, 2001; Ockwell et al., 2010; Ray, 2012; Sharif & Baark, 2008; Yülek & Taylor, 2012) have, in varying degrees, proven effective. Korea provides a robust developing country case study of how national **incentive strategies** can encourage the development of a particular field of creative endeavor. Choe (2006) describes how the Korean government used a four-pronged policy approach to develop the highly creative IT sector: industry subsidization; repatriation incentives targeted at Korean talent that had moved outside the country; loss guarantees that encouraged risk-taking; and establishment of multi-rival competitive markets.

At the national level, change and transformation is difficult perhaps since institutions often arise in response to the social need for stability, integration, and transmission. However, there is growing consensus among scholars that institutional change is not only possible, but also predicted and expected through gradual processes (Battilana, Leca, & Boxenbaum, 2009; Boxenbaum & Rouleau, 2011; Duymedjian & Rüling, 2010; Mahoney & Thelen, 2010; Pettigrew, Woodman, & Cameron, 2001). The patterning and re-patterning of human behavior is a slow process fraught with continuous struggle among diverse constituencies. The discursive and, to some degree, the sociological views of institutionalism provide gradual institutional change approaches. Discursive theory suggests that institutions incrementally change in response to slowly emerging and shifting social ideas and values (Peters, 2012, p. 120). Of importance to discursive change is the individual agent or "bricoleur" (Carstensen, 2011; Garud & Karnøe, 2003; Lévi-Strauss, 1967; Peters, 2012) who works through a "processual" (Pettigrew et al., 2001) approach to change. The bricoleur works to build "advocacy coalitions" that broker policy ideas among various epistemic communities such as professional associations (Peters, 2012, p. 117). These advocates stimulate institutional "coordinative" and "communicative" discourses around new ideas and value. Change occurs gradually as actors' schemas and scripts are slowly transformed (Hargadon & Douglas, 2001). *Coordinative* discourses refer to internal discussions and debates about guiding ideas and values among official members of an institution. Within intuitions, bricoleurs work to introduce new ideas and conceptions that subtly vary from existing understandings and meanings with the aim of reprioritizing ideas and values. *Communicative* discourses occur outside the institution's formal boundaries and take place among the various social constituents and other relevant institutions. Outside institutions, bricoleurs deploy social skill to form broader coalitions that frame and reframe issues that fuel social movements (Fligstein, 2001; Fligstein & Dauter, 2007; Fligstein & McAdam, 2012). It is important to note that not only are actors' understandings transformed during this process, but also so are the ideas, values, and visions discussed.

Other approaches that might yield interesting localized initiatives beyond those discussed above include forms of *appreciative inquiry* (Cooperrider, Whitney, & Stavros, 2008; Holman, Devane, & Cady, 2007) such as *positive deviance* (PD) (Pascale, Sternin, & Sternin, 2010). PD assumes that the solutions to complex social challenges for a given culture may be positively embedded in a small sample of the population. Accordingly, those who use PD go about discovering, through meetings and careful analysis of local data, the few outlier exemplars (those who have far exceed the given expectation for a particular problem) and then comparatively determine the unique practices or **what has worked well** for that exceptional sample. These findings or "bright spots" (Heath & Heath, 2010) are diffused, often through discursive practices, so that they become the new behavioral norm for the entire population. Bricoleurs could use this method to seek out and learn from exemplar young entrepreneurs and innovators as a basis for social change.

To guide policy makers and would-be bricoleurs, I have developed a framework (see Table 1) that lists the critical antecedents, derived from the research discussed throughout the paper, and identifies corresponding discursive change strategies (e.g., coordinative, communicative, and advocacy) and focal discussants (i.e., constituencies that should be central to the discussions). Whereas coordinative discourses will follow the forms and genres that are permitted or possible within the institution, broader communicative discourses may take several forms ranging from awareness-raising through media (e.g., documentaries, advertising, social media, etc.) to community outreach through *in situ* forums to educational programming as discussed above. Although advocacy primarily takes place in the environments external to the institution's boundaries, it should be kept in mind that such actions may build into social movements that exert pressure on the institution, its members, and their coordinative discourses.

TABLE 1. National Entrepreneurial Capacity Development: A Framework for Institutional Change

Perspective	Antecedent Consideration	Discursive Change Strategy	Focal Discussant
Cognitive	**Individual personality and divergent thinking style** • Avoiding premature convergence • Experiencing freedom from social normative expectations (psychological androgyny) • Keeping arousal levels low • Deploying wide attention deployment strategies	Coordinative and advocacy	Governing and educational bodies
Developmental	**SES** • Developing family resource allocation strategy that favors creative child • Realizing potential of lower SES, but not impoverishment • Providing slack mental and physical energy	Communicative	Families
	Parenting • Expressing high parental creativity, especially paternal • Demonstrating parental domain interest and focus • Developing strong maternal dyad • Enabling diverse experiences and permissive environments • Forming healthy attachment • Encouraging parent's implicit theories of creativity to favor divergent thinking • Enabling crystalizing experiences	Communicative	Families
	Local communal networks • Having teachers and mentors' implicit theories of creativity favor divergent thinking • Having teachers, mentors, and guides act as expert peers • Enabling tolerance of "controversial" children	Communicative and advocacy	Communities and educational bodies
National Systems	**Social** • Enabling tolerant or permissive normative social influences • Providing differentiated and integrated social system • Encouraging mobility and task conflict • Creating mentoring and educational programs • Discovering and diffusing "what works well" (AI/PD)	Coordinative, communicative, and advocacy	All (varies per situation)
	Economic • Being mercantile • Offering microfinance options • Having technology transfer infrastructure • Providing incentive programs	Coordinative, communicative, and advocacy	Governing bodies and business entities
	Political • Being inclusive and discursive	Coordinative, communicative, and advocacy	All (varies per situation)

Conclusion

The dominant rational choice and economic institutional theory has contributed to a greater understanding of how institutions function within society. However, this extant literature has lacked insight about the behavioral particulars that enable sustainable opportunity for those in society who often are most at employment risk. Drawing from interdisciplinary literature that includes cognitive and developmental psychology, societal influences, and discursive and sociological institutional theories, I argue that embedded macro and micro processes are essential antecedents for nations who wish to enable sustainable opportunity for many of its young constituents. My paper outlines a discursive approach to institutional change and proposes an integrated framework for entrepreneurship that systemically highlights the collective importance of personality and divergent thinking style, social economic status, parenting, local communal networks, social systems, economic systems, and political systems.

However, my framework has limitations. Interdisciplinary research, by its very nature is broad and challenging given the limitations that arise from discipline differences in vocabulary and research methods. Despite these limits, I have endeavored to derive, from diverse literature, those developmental factors that logically predict positive creativity and innovation outcomes. Yet my assertions and assumptions may warrant further investigation, input, theoretical development, and empirical analysis. For example, while I have attempted to use research that is grounded in the specifics of developing nations, not all interesting and relevant topics have been thoroughly researched in the settings of developing countries (Henrich, Heine, & Norenzayan, 2010; Pfeffer, 2007). Additional localized empirical research would be an invaluable complement to this work.

In conclusion, my framework widens institutional discourse to include a deeper understanding of developmental behavior processes that support creativity, innovation, and entrepreneurship. Policy makers and association members may find my research useful as a broad systemic basis for stimulating discourses about social and institutional change and understanding the discursive means by which the institutional policies, social life, and national systems may be changed to better support creativity and innovation outcomes at the country level. For practitioners working in firms, I believe this research and framework is useful since it provides a language for discussions and advocacy about creativity, innovation, entrepreneurship, policy, and social consequences. In particular, this information sheds light on a previously underexplored area and suggests that developmental and behavioral processes do matter, especially when considering consequences to a broad array of stakeholders. I hope my paper sensitizes both researchers and others so that they become more aware of the relationships among developmental and behavioral antecedents, institutional change strategies, and social outcomes.

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