

**Hidden in Plain Sight:
Untapped Riches of Meso-Level Entrepreneurship Mechanisms**

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Abstract

Entrepreneurial action is embedded within a variety of complex social structures, not all of which can be as easily defined or measured as macro-institutional or micro-individual characteristics, but collectively hold rich insights into the actual causal mechanisms influencing action. To address this problem, we call upon researchers to broaden their levels of analysis and direct their focus to meso-level structures. Although meso-level social structures are widely studied independently, these intermediate levels are seldom integrated into existing multi-level models. We argue that meso-level structures offer untapped riches for enhancing multi-level entrepreneurial mechanisms and discuss how social groups, associations, and other collectives operating at a meso-level can play a more distinct integrative role in between the two ends of the institutional spectrum. To provide practical guidance for pursuing such investigations, we adapt Coleman's Bathtub model to form a robust framework that integrates micro, meso, and macro levels of analysis. Our framework helps alleviate the shortcomings produced by an overdependence on either solely macro- or micro-level entrepreneurial mechanisms and brings the hidden intermediate level into plain sight.

"Diamonds! What do you want with diamonds?"
"Why, I wish to be immensely rich."
"Well, then, go along and find them. That is all you have to do; go and find them,
and then you have them."

Russell Conwell, Acres of Diamonds (1890)

Introduction

In one of the canonical essays for entrepreneurship research, Stinchcombe (1965) wrote about the “organizing capacity” of societies – that country-level conditions influence the extent to which societies foster or hinder the formation of new organizations. Advancements in multi-level entrepreneurship research have brought Stinchcombe’s principle to life. Using North’s (1990) classic definition of formal institutions – “rules of the game” – many scholars have examined how laws, regulations, tax policies, and other country-level characteristics influence *entrepreneurial actions* – activities and behaviors associated required to launch, sustain, and grow new businesses (Autio et al., 2013; Carter et al., 1996; McMullen & Shepherd, 2006). Most of these studies explicitly link country-level (macro) characteristics with individual-level (micro) outcomes to account for variance at both country and individual-levels (e.g., Djankov et al., 2010; Lee et al., 2011). With public availability of large-sample datasets such as the Global Entrepreneurship Monitor (GEM) and the World Bank’s Doing Business, researchers can employ multi-level modeling techniques to analyze contextual effects on individual outcomes and compare these findings across countries (e.g., Autio et al., 2013). Typically, these multi-level studies are conducted with a simple, two-level “top-down” mechanism in mind: that higher-level country characteristics influence individual-level entrepreneurial outcomes.

Despite the widespread appeal of multi-level research designs, there are limitations to this two-level analytical approach. The explanatory distance between the macro- and micro-levels is often large enough to dilute a two-level model’s explanatory power. We highlight two empirical puzzles to illustrate these limitations and to set the stage for why integrating a third meso-level is beneficial. First, why do some countries with weak national institutions still have robust individual start-up rates, while other countries with strong national institutions have some of the lowest rates of start-up activity in the world? Research using the GEM data confirms significant cross-country variation in start-up rates. However, measures of macro-level institutional quality are only modestly correlated

with these start-up rates and cannot fully account for this variation (e.g., Levie et al., 2014). Second, why are some entrepreneurs but not others able to collectively navigate adverse regulatory conditions to bring their products and services to market? For instance, during the last several decades in China, entrepreneurs who launched private enterprises have managed to navigate through unfavorable legal systems and hostile operating environments and collectively establish legitimate industrial sectors recognized by the national government (Nee & Oppen, 2012). This runs contrary to predictions based on classical theories that weak macro-institutional conditions would stymie entrepreneurs' efforts to establish their businesses. Change can also occur through intermediate levels, so integrating the meso-level, currently hidden in most multi-level research, may offer important clues for solving these empirical puzzles. For example, incorporating how individuals establishing and leverage social ties as to establish collective in voluntary associations and other collectives would provide a meso-level mechanism addressing some of the unexplained country and individual-level differences in these examples.

An overreliance on simple two-level macro-micro research designs also exposes these arguments to two analytical traps: the ecological fallacy and the disaggregation bias. The *ecological fallacy* occurs when institutional influences on entrepreneurial action are attributed to the individual-level based only on macro-to-macro associations (Peterson et al., 2012). While macro-to-macro analyses, such as country-level studies, are beneficial if inferences remain at the macro level, they are misleading if inferences about entrepreneurial outcomes are attributed to lower levels of analysis. For example, macro-to-macro analyses can mask how variance in institutional conditions influences individuals (or other lower levels of analysis), and how the aggregated results of individual responses to institutions affect macro-level outcomes (King, 2013). In both situations, these analyses underemphasize the heterogeneity among actors at lower levels and do not fully address how variance affects inferences at higher levels. Thus, even if two countries exhibit similar start-up rates, it could be misleading to conclude that individuals in both countries also approach entrepreneurship in similar ways.

Alternatively, *disaggregation bias* occurs when causal mechanisms are reduced to micro- or individual-level explanations (Jepperson & Meyer, 2011; McAdam et al., 2001). Micro-level entrepreneurship

research is particularly prone to the disaggregation bias, since many published studies focus on individual-level outcomes.

To build stronger theory from multi-level research designs, we argue that empirical models ought to integrate meso-level constructs to improve their effectiveness in unraveling these empirical puzzles and avoiding the analytical traps. The meso-level represents a third, intermediate level of analysis between the more common macro (higher) and micro (lower) levels (Börner et al., 2010, p.49; Liljenström & Svedin, 2005, p.5). This third meso-level serves as a bridge between higher and lower levels of analysis. By definition, the meso level is embedded within this macro-micro hierarchy. Within current entrepreneurial research, meso-level influences have remained “hidden in plain sight” – present in all research contexts, but rarely sought out and integrated into multi-level analysis, thus limiting the richness and depth of insight we can gain from these studies.

In this article, we advocate for the closer integration of social groups as a meso-level structure into multi-level models of entrepreneurial action. *Social groups* represent “a collection of individuals who have relations to one another that make them interdependent to some significant degree” (Cartwright & Zander, 1968: 46). People are social beings, embedded in formal and informal social structures (Granovetter, 1985). Entrepreneurs are no different. The businesses they attempt to form do not operate in a vacuum, but inhabit open environments and are susceptible to influences from structures at higher levels of analysis (Stinchcombe, 1991). For example, entrepreneurs often join networking groups, seek advice from mentors, or work collaboratively with others to build their organizations. All of these social groups are embedded in a broader social system and connects helps bridge macro-level influences and micro-level action. While existing multi-level research attempts to answer questions about entrepreneurial outcomes (the “dependent variables”), very few studies have brought social groups more explicitly (e.g. as “independent variables”) into their multi-level models of entrepreneurial action, despite the extensive effort scholars have made to understand social groups in the entrepreneurial context (Ruef, 2010). According to Shane and Venkataraman (2000: 218), “It is improbable that entrepreneurship can be explained solely by reference to a characteristic of certain people independent of the situations in which they find themselves.” In this vein,

conducting multi-level studies involving countries and individuals is an initial step toward contextualizing entrepreneurship, but more can be done to capture the full range of the links between these levels.

Our main objective is to demonstrate the benefits of integrating social group, meso-level structures more explicitly into institutional analyses of entrepreneurship. We argue that these insights are untapped riches capable of providing a more comprehensive understanding of contextual influences in entrepreneurial mechanisms. *Mechanisms* are explanations that convey theoretical causation between two concepts. They are the arrows that link concepts together within and across levels of analysis. In multi-level scenarios, these mechanisms are often affected by the macro-micro problem, where “observations are not on the system as a whole, but on some part of it” (Coleman, 1987: 153), as illustrated by the lack of integration between the social-group and institutional streams in entrepreneurship. By introducing the meso-level to both macro- and micro- level analyses, our goal is to increase exposure to the multi-level combinations and tradeoffs that can help us better understand social systems and their constituent parts. A social systems perspective assumes that actors do not behave autonomously but are embedded in a “relational system of interaction between individuals and collectivities” (Kroeber & Parsons, 1958: 583). By underscoring a systemic view, we posit that entrepreneurial action needs to be studied within a broader context and avoid an exclusive focus on just macro-level entities or micro-level individuals (McMullen & Shepherd, 2006). We also illustrate the variety of bi-directional mechanisms (both “top-down” and “bottom-up” linkages) that can be investigated with the integration of the meso-level. At stake is developing a clearer, more comprehensive understanding of the appropriate influences driving entrepreneurship.

We contribute the following insights to the multi-level entrepreneurship research literature. We aim to harmonize arguments that emphasize the influence of social structures (whether formal or informal) while also seriously considering the role of individual-level characteristics. With this purpose in mind, we offer a framework for better contextualizing entrepreneurial activity in society¹,

¹ We use ‘entrepreneurial activity’ in reference to macro-level studies of entrepreneurship rates across regions (Sorenson & Audia, 2000) or countries (Zahra & Wright, 2011).

not by fully reviewing and contrasting these two research streams, but by offering an integrative, multi-level framework that enhances each of their complementarities. We apply the “Bathtub” model, originally introduced by Coleman (1990) and refined by Hedström & Swedberg (1998), as an organizing framework to expose shortcomings among the bi-directional multi-level pathways typically addressed in current research. We also promote the promise of pursuing social-group meso-level entrepreneurship research as a potential mediator or moderator between macro and micro-level aspects of entrepreneurship. Besides the commonly studied “top-down” mechanisms (e.g., country influences on individual outcomes), we also advance arguments about a “bottom-up” mechanism where micro-level actions or characteristics are mediated or moderated by meso-level social groups, which eventually go on to influence macro-level institutions. Last, our work adds precision to the entrepreneurial mechanisms employed in existing research by articulating how and why entrepreneurship matters within the broader social context. We build on the insights offered by other scholars who have also argued for more explicit linkages between individual entrepreneurial action and the broader social contexts in which it occurs (Aldrich, 2012; Baker et al., 2005; Ruef & Lounsbury, 2007; Sine & David, 2010; Tolbert et al., 2011; Welter, 2011).

Preliminaries

To accomplish our objectives, we first present rationale for why it is important to study entrepreneurial mechanisms within a multi-level context. We then introduce our case for why a relational meso-level approach is needed and how it can be integrated into the Bathtub model. We propose two applications explicitly integrating the meso-level into macro- and micro-level analyses: one based on top-down mechanisms and another based on bottom-up arguments. Finally, we take stock of the existing literature related to these two applications and offer practical advice for how scholars can apply integrated-meso-level mechanisms in future research to yield richer insights about the totality of the entrepreneurial phenomenon.

Before fleshing out the main components of our theory, we define our framework’s key concepts. Our ultimate aim is to improve our understanding of how and why certain institutional characteristics influence entrepreneurial action, and how such action may eventually go on to affect

the institutions themselves (Li et al., 2006; Tolbert et al., 2011). While we refer to our “dependent variable” in its generic form (“entrepreneurial action”), we posit that our proposed arguments can be adapted to address specific outcomes associated with this generic form. One of the major “independent variables” addressed in our article is the role of formal institutions. Economic research views institutions from a largely functionalist standpoint, as noted in the terminology of “institutional setup” (Andersson & Henrekson, 2014) or “institutional design” (Goodin, 1998; Williamson, 1973). Formal institutions are intentionally devised “rules of the game” (North, 1990; Williamson, 1998) – socially constructed regulations that govern market transactions in societies.

We also devote considerable attention to social groups at the meso-level as a bridge between macro- and micro-level arguments prevalent in existing multi-level research in entrepreneurship. Recall that *social groups* represent collectives of individuals in interdependent relationships (Cartwright & Zander, 1968: 46). Clearly, social groups – whether as founding teams, kinship networks, mentoring groups, or other types of associations – matter for entrepreneurial action (Eesley & Wang, 2014; Portes & Sensenbrenner, 1993; Rotger et al., 2012). The emphasis on social groups is not surprising. About 85 percent of founders in the United States involve other individuals – either as co-owners or supporters – in their start-up efforts (Ruef, 2010). Some of these individuals may be family members, while others may be friends or colleagues (Kim et al., 2013). Practitioners stress the relational aspects of founding efforts, as experienced entrepreneurs often advise their novice counterparts to start ventures in thoughtfully constructed teams (Mullins, 2006). Several important publications have appeared in recent years testifying to the importance of such collectives in entrepreneurship. Studies on entrepreneurial groups (Ruef et al., 2003; Ruef, 2010); analyses of top management teams in high-growth start-ups (e.g., Beckman & Burton, 2008; Klotz et al., 2014); and investigations into the dilemmas of ownership dynamics (Wasserman, 2012) all demonstrate the breadth of insights derived from founding team-related issues. Inquiries on tie formation among Indian entrepreneurs (Vissa, 2010, 2011); research on exposure to “good ideas” (Burt, 2004); and work on strong and weak ties (Jack, 2005) further reveal key facets of relationship structures and their bearing on entrepreneurial outcomes. More generally, these insights represent important meso-

level components of entrepreneurial mechanisms and their potential influence on micro-level outcomes. In the following section, we demonstrate how mechanism-based research that integrates meso-level actors such as social groups reduces the likelihood of getting ensnared in analytical traps associated with macro-micro multi-level designs.

Why Study Entrepreneurship Mechanisms?

Without an integrative multi-level framework, entrepreneurship research involving macro and micro dimensions is prone to suffer from the two analytical traps we introduced already: the ecological fallacy and the disaggregation bias. Due to the pervasiveness of these two analytical traps, finding universal causal laws governing the association between institutions and entrepreneurship can be elusive and susceptible to both measurement errors and overgeneralization of statistical causal claims. We argue that conclusions drawn from studies that do not incorporate intermediate levels of analysis may be misleading because the erroneous interpretations are inferred from macro-to-macro associations assuming heterogeneity in individuals' responses to prevailing institutions (a consequence of the ecological fallacy) or conflate agency with actors' motivation (a consequence of disaggregation bias) (Campbell, 2004). Instead, we see opportunities for an integrative framework that enables the full use of mechanisms for explaining *how* and *why* agency can operate at multiple levels (e.g., Durand & Vaara, 2009; Weber, 2006).

As Stinchcombe (1991) articulated, causal mechanisms often work at distinctly different levels of analysis than the predictions they explain. In research examining institutional effects on entrepreneurship, it is common to find the emphasis mainly on the direct impact of institutions on entrepreneurial action, but the investigations on potential moderators or mediators between these two constructs are rare. This is not surprising, given both the lack of theoretical clarity in the mechanisms operating between higher-level institutions and lower-level entrepreneurial outcomes, as well as the empirical convenience of using large-sample datasets. While we benefit from the insights gained from pursuing such investigations, we still lack comprehensive multi-level frameworks best suited for theorization on entrepreneurial mechanisms.

Studying entrepreneurial mechanisms allows for a more precise articulation of the contexts that drive entrepreneurial action, as well as which actions can transform the contexts in which entrepreneurship occurs. Recall that *mechanisms* are explanations that convey theoretical causation between two concepts – the arrows that link together concepts within and across levels of analysis. If theories are based on predictions of the relationship between two constructs (Whetten, 2002), causal mechanisms constitute the “cogs and wheels” and “nuts and bolts” of theories (Elster, 1989).² An important motivation for the mechanism approach is that an acceptable explanation of Y can rarely be attained by simply referring to the causal relationship between X and Y; this is known as the “black box problem”.³ Contextualized research requires careful application of basic principles of multi-level research designs to account for aggregation issues and differences across different levels of analyses (e.g., Chan, 1998; Gersick, 1991).

The Bathtub Model as an Organizing Framework for Entrepreneurship Mechanisms

The shortcomings identified call for integrating more comprehensive mechanisms into entrepreneurship research. To further diagnose the limitations and propose a way forward that integrates social groups at the meso-level, we use the “Bathtub Model” as an organizing framework. The Bathtub model was originally proposed by Coleman (1990) and explicated by Hedström and Swedberg (1998: 23) to discuss theoretical mechanisms spanning macro and micro levels of analysis. Hedström and Swedberg’s application of Coleman’s Bathtub urges scholars to focus on three types of mechanisms: (1) *situational mechanisms* (represented by AB in Figure 1) by which the macro

² In management research, increased interest in causal mechanisms has also generated debates regarding their use for building theories and regarding their analytical underpinnings (Mahoney, 2000; Ylikoski, 2013), epistemological and ontological sources (Durand & Vaara, 2009), implications for temporal causality (Marquis et al., 2007), consequences for methodological and empirical designs (Miller & Tsang, 2011), and other practical concerns for management research (Anderson et al., 2006; Weber, 2006). While these debates are important, our purpose is not to engage in them. Instead, we outline how mechanism-based framework can be fruitfully used in institutional analyses of entrepreneurship.

³ The mechanism movement in the social sciences is primarily concerned with *the nature of explanations*, not about causality or methods for establishing it. Not only do mechanisms help pinpoint causal relationships more accurately by emphasizing the context-dependent nature of relationships between *explanans* (explanations for a certain phenomenon) and an *explanandum* (the phenomenon to be explained), but they also provide a way for scholars to generalize their findings beyond their specific research contexts (Davis & Marquis, 2005; Davis, 2006; Devinney, 2013; Hedström & Ylikoski, 2010).

environments in which actors are embedded – such as countries, regions, organizations, markets, fields, or networks – shape actors’ opportunities, goals and beliefs; (2) *action-formation mechanisms* (represented by BC) that explain how these opportunities, goals, and beliefs influence the actor’s behavior; and finally (3) *transformational mechanisms* (represented by CD) that account for how the behavior of many actors jointly brings about both intended and unintended macro-level outcomes.

To illustrate the three original Bathtub mechanisms depicted in Figure 1, we apply it to Shane and Venkataraman’s (2000) individual-opportunity nexus framework. This example illustrates a potential chain of reasoning common in multi-level research. With entrepreneurial action as our outcome, the three individual-level mechanisms could be: 1) changes in country-level fiscal regulations or social security policies provide people with additional economics assurances to pursue entrepreneurial opportunities (situational-AB); 2) a propensity for risk-taking behaviors that encourages some people to take action on perceived opportunities (Caliendo, Fossen, & Kritikos, 2009) (action-formation-BC); and 3) and successful outcomes by these individuals over time leads policy makers to enact new programs or tax schemes to encourage more entrepreneurial activity (transformational-CD).

While these examples place individuals within a broader social context and attempts to offer explanations regarding entrepreneurial behavior, recall that Coleman’s (1987) “macro-micro” problem occurs when scholars make inferences about a social system without fully integrating all of its component parts. We argue that most entrepreneurial research only analyzes a portion of the system, such as the individual-level influences we saw above, resulting in implicitly ignoring higher- or lower-level contextual influences. As a result, we lack comprehensive models accounting for *how* macro-level conditions influence individuals (via the situational mechanism) and *how* individuals can in turn affect macro-level conditions (via the transformational mechanism). These limitations also restrict the possibility of meso-level influences, and curtail our understanding of how individual actions might scale up and transform societies when individuals come together in meso-level structures (Aldrich & Fiol, 1994; Ruef & Lounsbury, 2007).

[INSERT Figure 1 & 2 ABOUT HERE]

The basic application of the Bathtub model as exemplified above allows us to establish a baseline for how this framework can clarify our thinking about the role of situational and transformational mechanisms. We now introduce the meso-level of analysis to this original typology to expand the range of possible multi-level mechanisms in Figure 2. Points A, B', and B refer to the three levels of analysis (macro, meso, and micro) in which causal constructs can operate. Points C, C', and D refer to outcomes at the three levels. We argue that the meso-level (B' & C') is an important unit of analysis in its own right, since entrepreneurial action can originate with networks and social groups (Ruef, 2010). Figure 2 shows examples of different causal pathways for situational, action-formation, and transformation mechanisms (e.g., AB', B'C', C'D) and links all possible pathways between the three causal units. We display a range of research possibilities to distinguish mechanisms across different levels of analysis and to reveal potential shortcomings in how entrepreneurship researchers develop explanations. By tracing these causal pathways, we open up opportunities for theoretical advancements in underdeveloped areas of the framework. To assist with our explanations, we refer to the specific pathways using the reference points described in Figure 2.⁴

Using the Bathtub typology to classify mechanisms, we articulate entrepreneurial mechanisms in more systematic ways and show how the shortcomings of the two analytical traps – the ecological fallacy and disaggregation bias – could be addressed. One way for researchers to avoid these traps is to interact more explicitly with factors at different levels of analysis – macro, meso, and micro – as we outlined in our proposed causal mechanisms typology in order to develop richer explanations for how theoretical constructs are related to each other. By addressing the entire chain of situational,

⁴ For ease of exposition, we assign the micro-level to only the individual level (we revisit this assumption later as future research opportunities). Besides simplifying our model applications to illustrate our arguments, attributing the micro-level to individuals also enables us to leverage insights from existing findings of entrepreneurship research, most of which are at the individual level (Shepherd, 2011; Zahra & Wright, 2011).

action-formation, and transformational mechanisms, scholars have a wider portfolio of explanations to account more accurately for the multi-level nature of entrepreneurial phenomenon.

Expanded-Bathtub Model Applications to Entrepreneurial Mechanisms

In entrepreneurship research, the fundamental question about why certain individual-level characteristics cause people to exploit promising business opportunities (e.g., Shane & Venkataraman, 2000) can be recast from its common individual-level action-formation mechanism (BC) to more comprehensive mechanisms involving either institutional (ABC) or relational (AB'BC) influences. Having outlined our conceptual framework, we now apply our more robust, macro-meso-micro Bathtub model to two scenarios. The first scenario is a “top-down” mechanism involving countries-social groups-individuals (Figure 2: AB'BC). The second scenario is a “bottom-up” mechanism involving individuals-social groups-countries (BCC'D). (To conserve space, we focus the following exposition on the “top-down” scenario.) These scenarios reveal the value of integrating meso-level constructs into top-down and bottom-up mechanisms and begin to address the shortcomings of multi-level entrepreneurship research to date. Although many of the meso-level constructs are studied independently, these scenarios offer new opportunities to integrate these constructs into existing macro-micro relationships to produce even deeper insights into how these multi-level relationships operate in the entrepreneurship domain. Moreover, these insights help avoid the two analytical traps – ecological fallacies and disaggregation biases – we described earlier.

Scenario 1: Top-down mechanisms (country-social group-individual): While existing research examining country-level institutional influences on individual entrepreneurial outcomes (Figure 2: ABC) has revealed important insights, we argue that the top-down entrepreneurial mechanisms along this left portion of the Bathtub can be even more comprehensive if social-group meso-level structures are also integrated (AB'BC).

Macro- to micro-level (ABC) mechanisms: Nearly all of the existing research on top-down entrepreneurial mechanisms (“ABC” research) is about formal institutions – such as legal systems, tax policies, regulations, and property rights – influencing individual aspirations and entry in entrepreneurship (Henrekson & Sanandaji, 2011). In these types of analyses, formal institutions have

been most thoroughly studied, since these are arguably the most uniformly explicated in the literature (North, 1990; Williamson, 2000) and also easier to identify and measure across contexts and over time (Andersson & Henrekson, 2014). Generally speaking, institutions are depicted as having relatively stable macro-level attributes which determine the legal, normative, and cognitive scopes of action for actors in society (e.g., Acemoglu et al., 2012; Lim et al., 2015; Scott, 2013). Institutional arrangements are also portrayed as important structures for facilitating economic exchange in society. From this principle, entrepreneurship researchers have pursued top-down investigations concerning macro-level structures influencing the micro-level actions of individuals or firms (Ruef & Lounsbury, 2007). This research spans four major types of formal institutions: legal systems (Armour & Cumming, 2008; Parker, 2007); tax policies (Carroll et al., 2000; Gentry & Hubbard, 2000; Kim et al., 2012); regulations (Braunerhjelm & Eklund, 2014; Djankov et al., 2002), and property rights (Autio & Acs, 2010; Gans & Persson, 2013).

Meso-level integration into ABC research: If social group meso-level features were integrated into ABC research designs, what types of mechanisms would be relevant for entrepreneurship? One way to conceptualize the influence of social groups is to examine the role of *social norms*, or, widespread and established ideas about the proper way to behave (Granovetter, 1985). As social beings, people are naturally embedded in relational networks and are influenced by and contribute to social norms. The impact of these norms depends on the extent to which individuals are embedded in relationships with others, even if individual characteristics within those groups differ (Weiss & Fershtman, 1998). But from social science research, we know group-based social norms have a bearing on individual economic behavior. For example, residential peer effects from neighbors can have a strong and lasting influence on individuals throughout their life spans (Ioannides & Loury, 2004; Mayer & Jencks, 1989) and individuals often compare their job status and earnings with peers (Shue, 2013). In the labor market, group-based norms account for workplace absenteeism (Ichino & Riphahn, 2004) and unemployment (Kolm, Hedstrom, & Aberg, 2003). Studies have also shown links between social norms and entrepreneurship (Kacperczyk, 2013; Nanda & Sørensen, 2010; Yang, Aldrich, & Delmar, 2015). These social norms can differ regionally; for example, cultural

groups throughout the African continent exhibit different forms of “ubuntu” – a strong form of collective behavior that instills loyalty and in-group support (Zoogah, Peng, & Habte, 2015).

Macro-meso-micro level (AB'BC) mechanisms: We argue that norms produced by social groups can serve as mediating or moderating conditions between macro-level formal institutions and micro-level individual entrepreneurial outcomes (Figure 2: AB'BC). This occurs primarily when social groups generate informal institutions, which have a strong influence on individual outcomes, especially when formal institutions are weak. If a social group or collective operates as a component of a *mediating* mechanism, the influence of formal institutions (such as laws and regulatory standards) operates through informal social groups so that these regulations are not directly enforced by authorities but become “taken for granted” and upheld through social practice. In contrast, if a social group or collective operates as a component of a *moderating* mechanism, the influence of formal institutions will exhibit a stronger or weaker influence on entrepreneurial action depending on the role of the social group or collective. Unlike the vast body of ABC research involving formal institutions, we lack studies on informal institutions, especially examining AB'BC situational mechanisms. This is a significant gap, since research on institutions in economics, sociology, and political science widely recognizes informal institutions as major regulators of individual economic behavior (Granovetter, 2005; Greif, 2006; Williamson, 2000).

One helpful framework for differentiating formal and informal institutions is to treat the formal ones as public (via the state and enforced centrally) and the informal ones as private (via social groups and enforced informally) (Ingram & Clay, 2000). We can apply this concept of private institutions with the broader literature on social trust to derive additional insights about how meso-level social groups can influence entrepreneurial outcomes (Fukuyama, 1995; Knack & Keefer, 1997; Putnam, 2000; Woolcock, 1998). We base our arguments on two prominent social trust perspectives. First, according to Cook and her colleagues (2005: 2), an individual’s trustworthiness becomes more evident through ongoing interactions; trust reflects “encapsulated interests” that are shared by both parties. This experience-based trust is “particular” in that it relies on the assumption that individuals

within embedded relationships produce local norms as well as the sanctions to ensure the norms are upheld (Coleman, 1987; Granovetter, 1985).

Voluntary membership organizations, such as professional associations and civic groups, provide people with opportunities to build relationships with other like-minded individuals. The level of involvement provides an indication of the extent to which people are linked together in organized groups in which trust-building conditions, such as reciprocity and positive emotions, can occur (Paxton, 1999). The particularized trust formed as a result of these relationships may be considered a private institution that operates with a centralized enforcement capacity; not only does the collective membership establish rules for their organization, they also sanction violators (Portes & Sensenbrenner, 1993). For example, professional association members who fail to abide by their organization's code of conduct face ethical and practical consequences from their governing boards. Consequently, participation in voluntary organizations represents opportunities for people to develop and maintain trustworthy relationships with others, which has been referred to as the "communitarian" perspective in the social trust literature (Woolcock & Narayan, 2000: 229).

When membership in one organization overlaps with membership in another, both sets of participants can benefit from greater inter-organizational contact, information access, and awareness of other like-minded people (Cornwell & Harrison, 2004; Lee, 2007; Paxton, 1999). Moreover, depending on the extent to which overlap occurs, violators are likely to attract greater scrutiny or face sanctions from multiple constituencies (Coleman, 1957). In regions with higher levels of overlapping voluntary membership, we would expect particularized trust levels to be more evident than in regions with similar involvement but more isolated associations. We would expect that in regions with weak formal institutions, entrepreneurial action at the individual level will be influenced by the private institutions supported by these social groups (Welter & Smallbone, 2003). For example, research on entrepreneurship in Russia after the fall of Communism provides helpful details about meso-level mechanisms (Korzhev, 1999). During this era, individuals who were members of the Soviet Youth Communist Brigade (Komsomol) were more likely to exhibit entrepreneurial action. These members benefited from the shared intentions and overlapping

networks among group members, especially by facilitating weak tie introductions to external resource providers. Social norms in meso-level groups can also be equally harmful to entrepreneurship, such as exhibited in the lasting effects of the cultural brigades during Mao's Cultural Revolution during the 1960s and Mugabe's youth brigades in Zimbabwe during the early 2000s (Tendi, 2011; Zhou & Hou, 1999).

If the informal meso-level was directly integrated into existing formal macro-level mechanisms, what would the outcomes look like? One situation is when formal macro institutions are weak and informal meso institutions serve as their substitute. One exemplary illustration of this substitutionary role (Figure 2: AB'BC) was reported by Estrin, Korosteleva, and Mickiewicz (2013), who showed that the negative influence of weak formal institutions, such as property-rights enforcement, corruption, and government size, was attenuated by entrepreneurs' own social networks. Similarly, Batjargal and colleagues (2013) reported that entrepreneurs may benefit from structural holes produced by weak formal institutions in ways that can lead to higher venture growth. Santos and colleagues (2014) demonstrated how ethnic identity plays a crucial role at the meso-level in how African social ventures pursue their goals.

Another study by Kim and Li (2014) examined 30 emerging economies and the relationship between legal systems, social trust, and starting businesses. They argued that people were less likely to start businesses in economies with stronger legal systems, because legal protections favored established businesses over fledgling start-ups. Without protection, aspiring entrepreneurs lacked the necessary assurances – protections typically offered by the government through formal laws and functioning courts (Stinchcombe, 1965) – to invest time and resources into a potentially risky endeavor. However, with high levels of social trust, the negative relationship weakened such that social trust compensated for the lack of formal protections available to entrepreneurs. These studies are examples of how the integration of a meso-level construct can explicate the mechanisms influencing entrepreneurship more comprehensively.

Discussion

In this section, we outline possibilities to apply, extend, or integrate our meso-level arguments to enhance our understanding of how entrepreneurial mechanisms operate in societies.

Using multi-level models more extensively: Despite repeated calls for multi-level analyses integrating contextual and individual-centered explanations, such analyses remain rare in the entrepreneurship literature (Davidsson & Wiklund, 2001; Ruef & Lounsbury, 2007; Shepherd, 2011; Zahra & Wright, 2011). Any future research, however, requires high-quality, multi-level data to facilitate such analysis. Whereas a wealth of data exists on the effect of individual-level attitudes and socio-economic resources, comprehensive testing of contextual explanations has been constrained by well-known challenges arising from the difficulty of social identification (Manski, 1990) and a lack of data necessary to fully specify multi-level models (Klein & Kozlowski, 2000). Using multi-level methodologies offers a potential remedy to bridge these discrepancies between contextual and individual-centric explanations of entrepreneurship. When using our proposed framework to develop and test such models, researchers should situate the mechanisms with the proper levels of analysis (i.e., ABC, BCD, etc.). Further, care should be taken when using aggregated individual-level data to explain macro-level outcomes. The use of individual-level perceptual data on social influences – such as studies on support from friends and family common in psychological explorations of entrepreneurship – can lead to inherently weak multi-level analysis since the association between an individual’s perception of social influences and his or her actual behavior is individual-specific and may not “average out” when aggregated (Manski, 1990). Macro outcomes depend both on micro-level actions and interactions, and research focusing solely on macro-to-macro associations does not reveal what theoretical mechanisms determine the macro outcome. Research using perceptual data on individual entrepreneurs – such as in the GEM study – should use statistical techniques that account for the variance in individual perceptions when inferring group- or macro-level outcomes.

Collecting meso-level data: While macro-level formal institutions are recognized at national, state, and other administrative or regional jurisdictions, meso-level informal institutions are subtler to identify and may appear inconsistently within macro-level jurisdictions. From a research design

perspective, institutional analyses of entrepreneurship can improve by identifying pertinent meso-level settings, such as workplaces (Nanda & Sørensen, 2010), universities (Kacperczyk, 2013), or regional considerations (Andersson & Larsson, 2014; Dahl & Sorenson, 2009). Once these data are assembled, scholars can employ network models and/or multi-level analytical tools to model the effects at each level of analysis to accurately analyze uneven distributions (Börner et al., 2010). Such analyses are worthwhile for disentangling $A \rightarrow D$ correlates at the macro level and for detecting how individual entrepreneurial actions are affected by differences in macro conditions (ABC mechanisms) (Autio et al., 2013).

When designing data-collection instruments, additional effort should be employed to capture multi-level information. For example, if individual-level data are collected on entrepreneurs, consider asking additional information about the social groups in which they are involved (such as professional associations or civic groups) in ways that could be analyzed using appropriate multi-level statistical methods. Another approach is to use case studies to develop thick descriptions of how situational or transformational mechanisms operate in a particular entrepreneurial context.

Investigating “bottom-up” mechanisms: As we alluded earlier, the Bathtub model offers a second set of mechanisms to integrate meso-level constructs. In this second scenario on the right side of the Bathtub model (Figure 2: BCC'D), we sketch out how these bottom-up mechanisms operate with an integrated meso-level component and discuss relevant research findings supporting our arguments. While the preponderance of entrepreneurship research is about situational and action-formation mechanisms, transformational mechanisms have not been fully specified (Figure 2: BCD). Although entrepreneurship has been associated with technological change (Schumpeter, 1934), economic growth (Wennekers & Thurik, 1999), and employment growth (Coad et al., 2014), the transformational mechanisms behind these outcomes are unclear – even as policymakers encourage entrepreneurship as a way to transform society (Spinosa et al., 1999). Although some research has investigated portions of this pathway (BCD), this work has often occurred outside of the entrepreneurship domain. New applications of bottom-up mechanisms modeled after this work from outside domains can further extend theories of entrepreneurial action in new directions.

Similar to our overview of top-down mechanisms in Scenario 1, new investigations can occur for both micro- to macro-level (BCD) and micro-meso-macro (BCC'D) mechanisms. For example, entrepreneurs who have started businesses in the “sharing economy” (for instance, Uber and AirBnB) have caused governments worldwide to rapidly adapt their regulations in consideration of these new practices and business models. This direct micro-to-macro relationship (Figure 2: BCD) typically occurs in situations that prompt state regulatory interventions, such as when entrepreneurs operate at the boundary of the formal and informal economy, engage in contentious activities, find ways to develop activities that escape taxation, or directly challenge state-sponsored monopolies (Hiatt & Sine, 2014; Monin & Croidieu, 2012).

If the informal meso-level was directly integrated into bottom-up mechanisms about entrepreneurial action, what would the outcomes look like? For example, professional and trade associations play a key mediating role for individual entrepreneurs who wish to advocate national-level regulatory changes (Aldrich & Fiol, 1994; Barley, 2010; Croidieu & Kim, forthcoming; Scott, 2010). Sometimes, the meso-level structures are not formally organized, such as informal reform collectives that lobbied government agencies for more favorable business regulations (Li et al., 2006; Nee & Opper, 2012). These collectives helped challenge the status quo in the Chinese government through bottom-up efforts resulting in benefits for the entrepreneurs themselves.

Invoking temporality and process concepts: The next possibility deals with the issue of temporality (e.g., Anderson et al., 2006; Gersick, 1991; McAdam et al., 2001). The tension between mere description and generalizable theories is particularly acute once time is taken into consideration, as time is unidirectional, and it is unlikely the exact same situation will repeat itself.

This issue of temporality has been mainly addressed by scholars advocating for process theories who have developed a successful alternative approach to regression-based, variance research targeted at opening the black box and uncovering time-dependent conceptual relationships (Van de Ven & Engleman, 2004). Much of the longitudinal or process research on entrepreneurship is located at a single level of analysis [e.g., individual, group, or national – Zahra and Wright (2011)]. More nuanced insights into the situational macro-meso-micro pathway or transformational micro-

meso-macro may result from invoking time and process explicitly into these linkages. Thus, with this approach, questions such as, “How and why do the evolution of country-level formal institutions and social groups influence individual entrepreneurial action over time?” can be more thoroughly addressed. For example, Peng (2003) described a framework to understand how large-scale macro-institutional change has consequences on entrepreneurial action. What is beneficial about his framework is that it explicitly addresses the long timeframes during which institutional change occurs (such as transition economies adopting market reforms) and that these changes influence entrepreneurial action differently depending on the stage of development. Moreover, as we described earlier, in the absence of stable formal institutions during this transition, institutional voids may appear requiring entrepreneurs or their ventures to mobilize in ways that can lead to additional macro-level reforms (Du, Kim, & Aldrich, in press; Ma, 2015; Nee & Opper, 2012). Another example is the role of history and how social groups are imprinted by cohort or regional characteristics, which can influence entrepreneurial action over time (Lippmann & Aldrich, 2015). A focus on temporality and process often further illuminates the situational and transformational mechanisms at hand.

Examining policy changes as quasi-experiments: Entrepreneurship policy encompasses formal institutions such as legal systems, regulatory regimes, intellectual-property protection, or bankruptcy laws. While changes in these policies are used as gauges to assess the level or quality of entrepreneurship in society, policy attempts to affect informal institutions and other meso-level structures are more difficult to manipulate (Henrekson, 2005). Their slow-changing dynamics further complicate any practical policy interventions (Williamson, 2000). However, targeted policy changes in specific social groups and associations do occur more regularly (e.g. schools) (Elert, Andersson, & Wennberg, 2015). Moreover, policies may also be specifically designed for civic associations, charities, or resource-constrained communities (Peredo & Chrisman, 2006). In such cases, carefully designed studies could yield new insights into social-group influence on individual-level entrepreneurial outcomes and their subsequent impact back to higher-levels of analyses.

Applying the macro-meso-micro Bathtub at different levels: Although we anchored our Bathtub model to outline mechanisms at three specific levels of analysis (countries, social groups, and individuals), this was simply a matter of choice to provide clear applications of our multi-level arguments. By tracing the history of entrepreneurial thought, we know that the conceptualization of entrepreneurship has consistently varied over time across levels of analysis, implying a variety of multi-level perspectives on entrepreneurship (Hébert & Link, 2007). By using the principle of aggregation (when a larger unit is created from a population of subunits), future research can adjust the macro or micro starting and ending points either upward or downward in levels of analysis [see Ruef and Lounsbury (2007) and Scott (2013) for a list of levels of analysis]. Additionally, the meso-level could be assigned to a different analytical structure besides social groups, as long as it does not violate the principle of aggregation between the chosen macro and micro starting points. Tables 1 & 2 offer other illustrative combinations and their corresponding studies.

[PLEASE INSERT TABLES 1 & 2 ABOUT HERE]

As Tables 1 & 2 show, these illustrative multi-level studies represent the interplay between institutions and entrepreneurship as studied with a broader sociological, historical and economic lens (Hwang & Powell, 2005; North, 1990; Ruef & Lounsbury, 2007; Thornton, 1999). Although classified in terms of top-down (Table 1) or bottom-up (Table 2) arguments to match our organizing framework, these studies actually contain elements of both (Barley & Tolbert, 1997; Jing, Quinghua, & Karlsson, in press; Sine & David, 2010; Tolbert et al., 2011) or an exchange-based understanding of economic action emphasizing mutual interplay (North, 1990). Moreover, studies using a neo-institutional perspective have shown both field isomorphic pressures (influencing entrepreneurial action from the top-down) as well as institutional pressures (changing higher-level institutions from the bottom-up). Future research can adapt our multi-level framework in ways that demonstrate the interplay of macro-meso-micro structures on entrepreneurial action.

Alternative theoretical foundations for multi-level research: While we focused on the bathtub model as our organizing framework, it is possible to use other theories to pursue multi-level research. One option is structuration theory – a major advancement in social theory that proposes a

resolution to the longstanding agency-structure debate (Giddens, 1984). Structuration theory can be combined with institutional theory (e.g., Barley & Tolbert, 1997) and other organizational and managerial theories (e.g., Orlikowski, 2000). However, there are tradeoffs that need to be acknowledged. Structuration theory – being a theory founded on social interactions and rooted in assumptions about the composition of social structures – makes assumptions that constrain more comprehensive models of institutions and entrepreneurship. It does not allow for an easy separation of multiple levels beyond the macro and micro and requires that mechanisms start and end at the macro-level. In contrast, the bathtub model provides more benefits for our objectives since it allows a more seamless integration between the individual, meso, and macro levels in ways that are fully compatible with the dominant framework of institutional analysis of entrepreneurship.

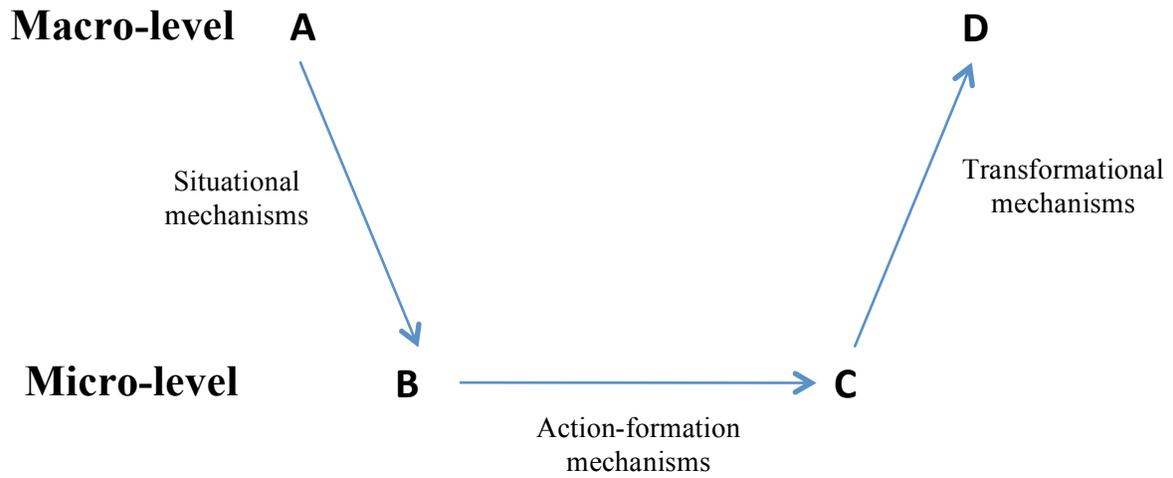
Despite its simplicity, the Bathtub model has also generated debate among social theorists regarding its applicability and internal features to understanding social systems and behavior more generally (Abell, Felin, & Foss, 2014; Jepperson & Meyer, 2011). We consider this debate to be outside the scope of our objectives. Instead, we simply reiterate that our use of the multi-level Bathtub framework (represented in Figure 2) is a practical one since it aligns with the historical emphasis of entrepreneurship research at the micro (individual) and macro (societal) levels while easily allowing for the integration of meso-level insights, which have so far been under-theorized in entrepreneurship research (Aldrich & Kim, 2007; Klotz et al., 2014; Ruef, 2010).

Conclusion

In summary, our article offers insights relevant to both academic researcher and policymakers. We emphasized the need for a better conceptual framework based on situational and transformational mechanisms to account for entrepreneurial phenomena. By highlighting the value of meso-level structures to enrich theories about entrepreneurial action, we encourage scholars to develop more robust and comprehensive theories. At the same time, we caution scholars on an over-emphasis on mechanistic storytelling that loses the nuances of the empirical context. The prevalence of entrepreneurial action in groups as well as the attitudes and behavioral norms towards entrepreneurship in those groups constitute the social fabric in the societies we study. In Durkheim's

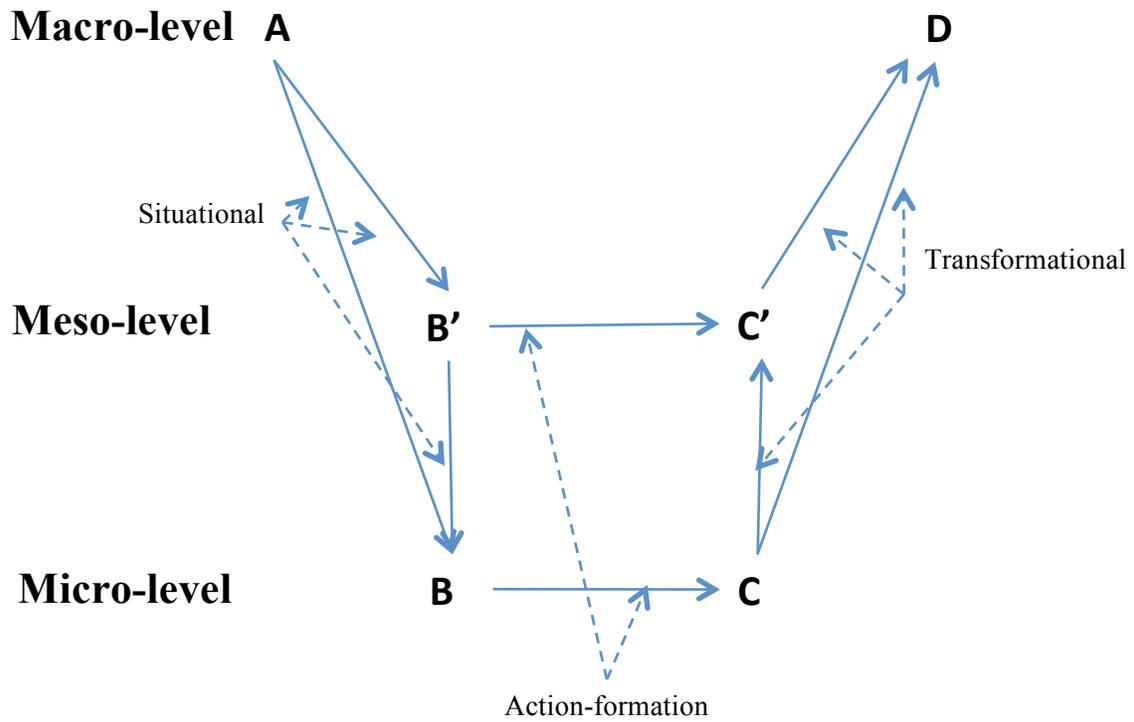
(1964: 288) words: “Because individuals form a society, new phenomenon occur whose cause is association, and which, reacting upon the consciousness of individuals, for the most part shapes them. This is why, although society is nothing without individuals, each one of them is more a product of society than he is the author.” By this, we do not portray entrepreneurs as “institutional dopes” mindlessly following whatever social norms they encounter (Powell & Colyvas, 2008). Instead, we embrace a Durkhemian view where individuality and freedom are fundamental to economic actions and in the long term, to economic development. This is the aspiration goal of policymakers for entrepreneurs to succeed and transform societies. A comprehensive understanding of entrepreneurial outcomes requires a multi-level approach that taps into the richness of meso-level studies – diamonds that should no longer be hidden in plain sight.

FIGURE 1
Original “Bathtub” Mechanisms Typology



Source: Coleman (1987), Hedstrom and Swedberg (1998:22).

FIGURE 2
Multi-Level Causal Mechanisms Framework



Notes:

Situational mechanisms include AB, AB', and AB'B.

Action-formation mechanisms include BC and B'C.

Transformational mechanisms include CC', C'D, and CD.

TABLE 1
Alternate Top-Down Multi-Level Combinations in Entrepreneurship Research

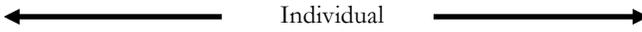
“Top-down” Level of analysis	Macro	Global	Societal	Country	Field	Regional	Incubator
	Meso	Innovation center	Community	Firm	Professional association	Cooperative exchange	Mentoring groups
	Micro						
	Theoretical perspective	World society	Institutional logics	New institutionalism		Regional studies	E-ship
	Exemplary studies	Drori and Yue (2009)	Marquis and Lounsbury (2007)	De Castro, Khavul, and Bruton (2014)	Scott (2013)	Saxenian (1994)	Rotger et al. (2012)

TABLE 2
Alternate Bottom-Up Multi-Level Combinations in Entrepreneurship Research

“Bottom-up” Level of analysis	Macro ↑	Global	Field		Regional	Market	
	Meso	Transnational communities	Fairs and conferences	Steering committees and associations	Cooperative exchange	Social movement	Trading systems
	Micro	← Individual →					
	Theoretical perspective	World society	Field-configuring events	Institutional entrepreneurship	Regional studies	Social movement	Economic history
	Exemplary studies	Djelic and Quack (2011)	Garud (2008) (2008)	Maguire, Hardy, and Lawrence (2004)	Feldman, Francis, and Bercovitz (2005)	Weber, Heinze, and DeSoucey (2008)	Greif (2006); Milgrom and North (1990)

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