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To cite this article:

Charles E. Eesley, Robert N. Eberhart, Bradley R. Skousen, Joseph L. C. Cheng (2018) Institutions and Entrepreneurial Activity: The Interactive Influence of Misaligned Formal and Informal Institutions. Strategy Science 3(2):393-407. <https://doi.org/10.1287/stsc.2018.0060>

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Institutions and Entrepreneurial Activity: The Interactive Influence of Misaligned Formal and Informal Institutions

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Received: January 21, 2017

Revised: November 30, 2017; March 4, 2018

Accepted: March 19, 2018

Published Online: June 15, 2018

<https://doi.org/10.1287/stsc.2018.0060>

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Abstract. We contribute to the institutions and entrepreneurship literature by examining the interactive influence of formal and informal institutions on new business creation, survival, and growth. Prior literature demonstrates how formal and informal institutions shape the level of entrepreneurship. This paper extends this to examine the cases when formal and informal institutions conflict with one another to cast an analytic eye on why countries differ in the type of entrepreneurial activity in terms of entry, survival, and growth. We argue that national and regional differences can be better explained by the interactive influence of formal and informal institutions. Moreover, we argue that informal institutions dominate formal institutions due to the former's characteristics of deep embeddedness and resistance to change over time. These ideas are presented and summarized into a typology of institutional effects on entrepreneurship activity depending on the combination of formal and informal institutions. The paper concludes with implications for future theory and research on the joint influence of different institutional effects and particularly on the intersection between institutions and entrepreneurship.

Funding: The authors acknowledge funding from the Stanford Technology Ventures Program (STVP) and the Richard Schulze Family Foundation.

Keywords: entrepreneurship • institutional theory • international management • entry strategies

Introduction

Regulatory institutions shape the competitive environment new firms face (Dobbin and Dowd 1997, Van Stel et al. 2007). Yet, similar regulations have different effects in differing national contexts. The Bayh-Dole law in the United States, for example, is credited for encouraging technology transfer (Shane 2004) and the formation of high-growth technical firms (Aldridge and Audretsch 2011). Subsequently emulated in many countries, the results of stimulating academic entrepreneurship similar to the United States has proven elusive (Grimaldi et al. 2011, Mowery and Sampat 2004). For instance, Japan eagerly adopted a version of the Bayh-Dole regulations as part of an extensive set of regulatory reforms to stimulate entrepreneurship (Vogel 2006). Nevertheless, research still commonly cites Japan's inefficient commercialization of innovations and culture of careerism or risk-aversion to be among the reasons suggested to explain the low entrepreneurial vitality there (Kegel 2016). To better understand entrepreneurial activity, we need to better understand the interaction between the formal regulatory environment and the informal institutional environment. For example, regulatory changes to allow smaller amounts of minimum capital have also been applied in many countries, but to differing effects in each context

(van Gelderen et al. 2006). In the wake of civil conflict, formal institutions may set the rules of the game orthogonal to entrepreneurial vitality even while informal shared understandings may run counter to those regulations (Hiatt and Sine 2014). Further, an informal institutional environment can encourage actors to start firms but the formal environment can make the development and growth of those firms problematic (Aldrich and Yang 2012). These examples suggest that nonregulatory institutions may shape the influence of regulations on entrepreneurial outcomes.

We build on work pointing out instances where formal institutional forces can also be orthogonal to informal institutions resulting in unexpected effects (Eberhart and Eesley 2018, Greenwood et al. 2011). Prior work rarely examines why efforts to promote entrepreneurship have different outcomes in different national contexts. When the formal institutions are similar, it suggests that informal logics, norms, and cognitions interact with formal institutions to generate differing outcomes. Furthermore, prior literature on the intersection of institutions and entrepreneurship primarily examines one institution or one institutional change at a time. There is a scarcity of empirical research that explicitly examines the joint or interactive influence of formal versus informal institutions

on behavior. However, a growing and recent stream of work in institutional theory points to the role of a confluence of institutional forces (polycentrism), and the unique effects of multiple, heterogeneous institutional forces operating at the same time (Batjargal et al. 2009, D’unno et al. 2000, Hess and Ostrom 2007). Only limited research directly examines such interactions and yet this is an important contingency to examine given the variation in informal environments around the world. Thus, to fully understand the impact of institutions on entrepreneurship, we need to better theorize both the independent and joint influence of formal and informal institutional forces. In sum, while prior work has emphasized the important effects of regulations, informal institutions can interact with regulatory change to create complex effects that we are only beginning to understand (Thornton et al. 2012).

We argue that informal institutions shape the effects of formal institutions because informal institutions are more permanent and their enforcement is viewed as more certain than formal institutions. Prior research on the effects of institutions on ventures places emphasis on the social context that shapes individual and firm level actions (DiMaggio and Powell 1983, Haveman 1993). We contribute to this literature in two ways. First, we contribute the understanding that when the formal and informal institutions are misaligned new firms will primarily conform to the informal institutions because of local pressures and the relative permanence of norms and cognitions. Second, prior literature makes it clear that cross-national comparisons often confound comparative studies of entrepreneurship (Baker et al. 2005, Stephan and Uhlaner 2010). Our argumentation contributes to this discussion with the idea that the interaction of informal institutions with formal institutions creates unique local institutional environments. We accomplish this by first exploring the formal institutions that constrain entrepreneurial behavior. Next, we examine the informal, sociocultural understandings that shape entrepreneurial behavior as well as their interaction with the formal institutions. Finally, we explain how this interaction creates a unique environment for entrepreneurship that shapes the founding, growth, and survival of firms founded in a particular context.

Theory

Institutions and Entrepreneurship

There is a well-grounded theoretical and empirical underpinning in the role of institutions in the study of entrepreneurship. This line of research has inspired a growing exploration of the regulatory, normative, and cognitive environmental effects on firm formation and trajectories. This approach employs important constructs, such as legitimacy (Deephhouse et al. 2017), regulatory regimes, constraining norms, institutional

logics, and social movements that together illuminate the dynamics of entrepreneurship (David et al. 2016, Thornton 1999, Tolbert et al. 2011). For instance, scholars explored how organizations gain legitimacy by fitting their behavior and organizational forms into their institutional environment (DiMaggio and Powell 1983, Meyer and Rowan 1977, Stinchcombe and March 1965). In addition, Hiatt et al. (2009) found that social norms that inspire regulations can profoundly affect organizational formation and failure, as well as communicate norms that alter the demand for products. More recent work in this vein shows that regulatory changes can affect the type of firms that are founded and by whom (Eesley 2016).

Scott (2008) distinguishes three pillars of institutions, including formal institutions such as regulations, normative institutions comprising the moral imperatives of behavior, and cognitive institutions that comprise the taken-for-granted understanding that actors have of the world around them. In this view, formal institutions are more visible because they are codified and enacted by governments with formal sanctions for deviations. In contrast, normative and cognitive institutions are learned beliefs about the social structure in which actors select appropriate actions that are sanctioned by social disapproval (Scott 2008). Other contributors to this stream of institutional thought conceptualize these pillars as cognitive institutions and sociopolitical institutions, but retain the conception of the sociopolitical as enacted rules with sanctions to regularize behavior and the cognitive as shared understandings about the world (Aldrich and Fiol 1994). Similarly, researchers focused on economic perspectives separate these concepts into formal (regulatory) and informal (normative and cognitive) institutions (North 1990). In sum, following these conceptualizations, formal institutions comprise enacted rules with formal sanctions, while informal institutions are generally understood as the beliefs, values, and norms that establish what are socially accepted and expected patterns of behavior within a group (Aldrich and Baker 2001).

Formal Institutional Effects on Entrepreneurship

Past research has focused on formal institutions and their effect on the quantity of entrepreneurship. Klapper et al. (2006) found in their cross-national comparison of European countries that streamlining procedures for obtaining licenses and permits for starting new firms increases venture formation. Levie and Autio (2011) observed that a lighter burden of government regulation is associated with higher entry rates but found that the relationship is moderated by the quality of rule of law. Similarly, formal institutions such as educational institutions (Yang et al. 2014), public venture capital (Lerner and Schoar 2005), and certifications (Sine et al. 2007), have all been shown to have

important effects on the type of new ventures that form and their performance. For example, friendlier bankruptcy laws are positively associated with new firm entry because the reformed laws lower the projected sanctions that entrepreneurs expect in the likely event of failure (Lee et al. 2011). In addition, besides the policies themselves, the ways in which policies are implemented have an important influence on how entrepreneurs benefit from those policies. The effects of regulatory action depend on the circumstance of the potential entrepreneurs. That is, given regulatory aid some entrepreneurs may benefit and others differently situated may not (Armanios et al. 2017). In sum, formal regulations affect entrepreneurial activity yet the specific effects depend on more than the regulations themselves.

Informal Institutions Shape Formal Institutions to Effect Entrepreneurship

Individuals respond to the influence of informal institutions to shape their choice to be entrepreneurs, the industries they will enter, and the appropriate strategies they will consider (Bruton et al. 2010, Thornton 1999). Firms, in turn, are influenced by the norms of their various stakeholders over the strategies they employ (Pache and Santos 2010). Research shows that firms gain the support of stakeholders, as well as gain access to resources, by conforming to informal normative standards of behavior. Such conforming behaviors include supporting social movements and gaining certification from central authorities (DiMaggio and Powell 1983, Haveman 1993). Empirical findings in this stream demonstrate how new organizations will imitate the structure and actions of successful firms to obtain legitimacy by showing conformance to informal institutions. For example, new firms that adopted the same organizational titles as established and successful firms gained legitimacy and performed better than those that did not (Khaire 2010).

Recent studies focusing on changes to the regulatory institutions reveal the complex effects of regulations when they interact with informal norms. For example, Eberhart and Eesley (2018) examine the institutional conflict set up by the establishment of new junior IPO (initial public offering) exchanges after regulatory reform. Specifically, they find that this regulatory reform conflicted with prior investment norms that limited investment choices to diminish new firm growth. Formal legal changes to the nature of noncompete agreements influence individual mobility leading to changes in the number of new venture starts (Marx et al. 2009). Similarly, Thébaud (2015) found that regulations enacted to solve work-family conflicts for female entrepreneurs paradoxically contribute instead to increased discrimination. The reason is such regulations alter females' motivation to start a firm because

they are less likely to opt for business ownership as a fallback employment strategy. Thus, where regulations mandate subsidized childcare or paid maternity leave and part-time employment to allow more time at home, women are less likely to start new firms. In sum, there is well-established empirical research establishing the mechanisms of changing formal institutions on entrepreneurship that are shaped into unexpected effects as such changes interact with local norms or cognitions (Thébaud 2015).

Institutional theory also illustrates the importance of informal institutions in contexts where formal institutions are considered absent—i.e., when institutional voids occur (Mair et al. 2012). New firms require markets and other supportive institutions for them to function. The literature on institutional voids addresses the absence of formal institutions and how informal institutions may facilitate the functioning of markets as well as communicating broadly accepted norms of commercial behavior (Greif 2006, Hwang and Powell 2005, Meyer and Peng 2005). For instance, Mair et al. (2012) show how the contestation over appropriate actions generates the formation of informal norms and sanctions that allow the development of functioning markets. In another setting, Dutt et al. (2016) illustrate how institutional intermediaries that include participation by a wide range of actors can communicate information and norms that lead to the formation of functioning markets as well as other support for new firms. In a related perspective, research suggests that institutional voids create opportunities for entrepreneurs (Allen et al. 2005). This happens in part because new ventures strategically adapt to unoccupied competitive niches that are characteristic of emerging markets (Marquis and Raynard 2015, Webb et al. 2010). As a result, Taussig and Delios (2015) find that frequently returns to entrepreneurship are high in countries where formal institutions are generally considered weak for entry. In sum, the importance of the informal institutional environment is elevated when there is an absence of formal institutions.

Organizations face multiple institutional environments simultaneously particularly when they are operating globally (Greenwood et al. 2011). A change in formal policies may generate a change in informal institutions but this is not automatic or straightforward (Eesley et al. 2016). At times an informal institution may hinder or blunt the effects of a formal institutional change. A formal institutional change to spur more entrepreneurship may fail because of the effects of informal institutional forces to seek legitimacy. For instance, take the case of a legislated reform eliminating the required minimum capital to start a venture. If stakeholders and entrepreneurs view the amount of capital invested as an accepted signal about the legitimacy and "seriousness" of the venture, they

may ignore the regulatory change and adhere to the higher capital level that was standard before the formal change (Eberhart 2016). The interaction of formal change with the cultural-cognitive and normative environment is almost contradictory and points to its complexity. Regulations may be rendered moot because the need for legitimacy resulting in ventures forgoing the new institution and instead following what the prior institutions previously required. On a theoretical level, as institutions are flexible but constraining forces on social behavior, that also communicate cultural and evolving normative understandings. However, this occurred within other shared understandings of how venture legitimacy is acquired, blunting the effects of a change. This work on institutional complexity focuses on how individuals and organizations resolve the tensions when faced with contradictory or misaligned institutional logics (Almandoz 2012, 2014; Lounsbury 2007; Marquis and Lounsbury 2007).

While scholars increasingly recognize and are interested in what to expect when more than one institutional force may operate on an organization, we still have relatively little theory development on how formal and informal institutions interact. In addition, further theoretical development is needed to more clearly explain how different forms of interaction between formal and informal institutions influence organizations. We address this need in the following propositions.

Propositions

Interactive Influences of Informal and Formal Institutions. We argued above that informal institutional pressures shape the effects of formal institutions. In this section, we closely examine that interaction to show that the informal can be more influential through its proximity and permanence. The result is to produce different entrepreneurial outcomes even though the regulatory environment may be similar.

Informal institutions are more likely to shape firm behavior when misaligned with the formal. This occurs because the normative and cultural-cognitive elements provide the social framework within which entrepreneurship occurs. Informal institutions are particularly influential because, rather than being imposed on individuals by policymakers, informal institutions are taken-for-granted social and cultural norms that are embedded in continuing social relationships. Informal institutions take time to form initially from dyadic relationships that become accepted as social realities and thus it takes significant time to change them as *shared* beliefs must change, even when formal institutions change. These characteristics make them particularly difficult for individuals to question or act against. To illustrate, during the temperance movement in the United States, breweries were attacked and then outlawed. This unintentionally triggered the formation of

ventures in the nascent soft-drink industry as entrepreneurs, reused brewery assets, and began ventures (Hiatt et al. 2009). In this example, the formal dimension was hostile to brewery ventures. Accordingly, they responded to the formal environment not by closing but by remaining in business with a related product—soft drinks. In other words, soda factories are the product of an interaction between the formal and informal institutional environments. In sum, the alignment of formal institutions with the informal affects entrepreneurial behavior.

The influence of informal institutions is particularly germane when there is a misalignment with formal regulations. We unpack three mechanisms to develop this idea of misalignment of institutional influences. First, because norms and cognitions differ between interest groups, regulations are not always enacted with universal normative support. New firms have diverse stakeholders that may have differing norms and exert external pressure on new firms (Freeman 2010). Without the support of existing norms and cognitions organizations may perceive that compliance with regulations is not worth the effort or may disagree with them normatively and not wish to comply or be monitored. As such, new firms might not adapt their behavior to regulatory demands if the result is to decouple their action from the demands of informal norms (Fiss and Zajac 2004). New firms may simply not know how to comply with regulatory demands. Founders of new firms, particularly if it is their first venture, are often unequipped with the knowledge needed to comply with external demands such as regulations (Aldrich and Yang 2012). New firms then often try to comply, but without knowing how to comply their actions fall back on established templates of action (Bromley and Powell 2012). Empirical examples illustrate these ideas. Firms faced with regulatory demand to increase workplace diversity are unable to comply because there are no methods specified in the regulation to gain an accepted outcome (Bromley and Powell 2012). In sum, one reason that informal forces can dominate regulatory action is intentional symbolic decoupling because their norms differ from the purposes of the regulation, or because new firms simply do not know how to comply. In either event, the new firm falls back on informal norms.

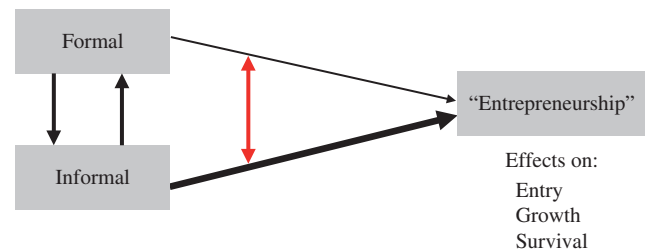
Sanctions for breaches of formal regulations are bureaucratic and often significantly delayed relative to sanctions for breaking societal norms. Thus, a second reason that informal institutions are more likely to influence new firm behavior is the proximity of monitoring and sanctions. Social norms are institutionalized when they are accepted and legitimized by social groups in which a firm is embedded. Recent work on communities and how they influence the organizations within them show how social proximity can regularize

behavior. One example is how communities influence strategies (Jennings et al. 2013). Firms may undertake corporate social responsibility (CSR) activities that do not contribute to profit or growth because they share the norms of the community that they are embedded within (Marquis et al. 2013, 2007). One example is the desegregation efforts in the southern United States during the 1960s. Local officials resisted desegregation regulations and appealed to local norms of segregation (Armor 1995). The probable mechanism is that norms are monitored closely because they are shared beliefs, i.e., everyone knows and can observe the rules where formal regulations generally require costly inspections and bureaucracy. In the same manner, sanctions for deviations are more immediate as well as consistent because of the social sanctions imposed by the local actors. In contrast, sanctions for breaches of regulations are bureaucratic, sometimes requiring lengthy times to resolve a punishment. In sum, it is the bureaucratic, delayed nature of sanctions for breach of regulations and the immediacy of monitoring and sanctions that enforce adherence to norms when formal regulations are not aligned with them.

Finally, a third reason that informal institutions are more influential than the formal is the differing level of regulatory enforcement across regional contexts. For example, where legal protections are weakly enforced, formal regulations are often ineffective (Levie and Autio 2011). Without effective sanctions, firms have no motivation to comply with regulations that require them to take actions that they would not desire to do on their own. Nor can deviations from regulatory requirements be sanctioned without monitoring. Another reason is that the lack of enforcement often dissuades firms from taking actions to avail themselves of regulatory benefits. For example, where patent protections and enforcement are weak, companies are reluctant to file for patents, because social trust concerning the protection of private assets, ownership of IP, or the consequences of theft of intellectual property are lacking. In all these circumstances, individuals might not be motivated to start a venture even when regulations encourage them (Kim and Li 2014). In sum, a lack of effective monitoring and enforcement of regulations leave firms to act on their informal norms that are sanctioned locally.

Overall, social settings provide more immediate monitoring and compliance feedback and different contexts have different levels of formal regulatory enforcement. As such, new firms are likely to be more influenced by informal norms and cognitions than formal regulations. This idea, however, does not imply that regulations are ineffective. Quite to the contrary, regulations significantly affect entrepreneurial behavior as prior literature predicts. However, when misaligned with informal norms, authorities must invest

Figure 1. (Color online) Institutional Interactions



additional effort into costly enforcement or the informal norms will be asserted. Thus, as the U.S. government enforced desegregation at universities in the South several decades ago, it did so at considerable cost for imposing police and military assets, as well as the cost of political capital that reverberates to today.

Overall, our analysis suggests that informal institutions will be more influential when the formal and informal are misaligned, unless authorities are willing to invest significant effort to enforce the formal. This logic is represented in Figure 1. Formal and the informal institutions interact and both can influence entrepreneurial outcomes. But the informal is more influential when the formal and informal are misaligned.

Proposition 1. *When formal and informal institutions are misaligned, the informal has a stronger influence on entrepreneurial behavior because of enforcement by nearby social actors.*

Relative Permanence of Informal Institutional Influence. Because informal institutions are formed over time through a process of social interactions, they are likely to have effects that are difficult to change through formal institutions alone leading to relative permanence (Berger and Luckman 1966, Tolbert and Zucker 1983). Cognitive dimensions of institutions are the “taken-for-granted” objectified social structures that are not explicitly articulated. This includes scripts and schemas that shape our interpretive framework. Norms, on the other hand, are standards pertaining to what is good, desirable, and appropriate. It is an established standard (albeit informal) that designates the boundaries between socially desirable and not desirable means and ends to social actions. Deeply engrained, cultural and cognitive institutions are often taken-for-granted and thus, not consciously considered on a daily basis. These characteristics make it especially likely that informal institutions may have robust influences on entrepreneurial behavior. Moreover, relative permanency characterizes the influence of informal institutions. Because norms are buttressed by social morals while cognitions are taken-for-granted, they resist examination and change. Indeed, prior research has well established that organizational behavior, without a sufficiently momentous external event, tends

toward conformity as the behaviors of conforming organizations are emulated (DiMaggio and Powell 1983, Haveman 1993).

Informal institutions are slow to change because informal institutions are taken-for-granted social and cultural norms that are embedded in continuing social relationships. Rather than being imposed on individuals by policymakers, informal institutions take time to form initially from dyadic relationships that become accepted as social realities. They become widely adopted across society over time because they are cognitively taken-for-granted. It thus takes significant time to change them as *shared* beliefs must change. The steps of habituation, theorization, and sedimentation required for informal institutions to be formed take time and thus, undoing them or shifting society to a new institution takes even greater time since a process of deinstitutionalization must occur (Scott 2008). In other words, change is inhibited because alternative courses of action (or state of the world) are not considered. Moreover, alternative courses of action, if they are even considered, are generally seen as morally wrong (Berger and Luckman 1966). These characteristics make informal institutions particularly difficult for individuals to question or act against. As a result, because of their constraining influence we expect that when informal and formal institutions have orthogonal effects on entrepreneurship, then informal institutions may be more influential than the influence of formal institutions.

The comparative permanence of informal institutions has a large body of empirical support. During prohibition, liquor firms continued to produce because large segments of the population still held normative and cognitive beliefs considering consumption of alcohol legitimate (just as they had before prohibition laws were passed) even though formal institutions then defined such activity as illegal (Webb et al. 2009). Other related work indicates that norms can be transmitted to other social groups contributing to their persistence. Prohibition laws in neighboring states influence the mortality and founding rates of similar manufacturers in the focal state as well, implying a normative influence that was also spreading across state lines (Wade et al. 1998). In summary, because informal institutions are socially constructed and embedded in norms and taken for granted conceptions of the world, we argue that informal institutions have a relatively more permanent influence on entrepreneurial behavior.

Proposition 2. *When formal and informal institutions are misaligned, the informal has a more permanent influence on entrepreneurial behavior.*

Institutional Effects on Entry, Survival, and Growth Institutional Influence Mechanisms. Prior literature suggests that formal institutions, while intended to

shape the formation of ventures, also leads to unanticipated consequences because of interactions with informal institutions (Eberhart et al. 2017, Sine and David 2010). Overall, institutions that affect entry, growth, and survival are intertwined but act separately. Organizational behavior and strategy are shaped by external demands and expectation of appropriate behavior to survive (Oliver 1991). The responsiveness of organizations to the misalignment of formal and informal institutions operates on the organizational and individual level to shape organizational outcomes.

Turning first to the organizational level, new firms face the challenges of establishing their legitimacy to gain support from important stakeholders such as customers, suppliers, and resource providers. One way that new firms acquire this legitimacy is through conformity to expected norms of behavior. One reason this occurs is that conforming to the norms and expected behaviors of the informal institutional environment can catalyze successful venture performance by facilitating accumulation of needed resources (Lounsbury and Glynn 2001, Santos and Eisenhardt 2009). For example, new firms adopt the symbols and organizational form of successful firms to gain access to needed resources (Khair 2010). Related recent research focuses on the informal institutional conditions that can also influence entrepreneurial opportunities for entry and resources for growth (Buhr and Owen-Smith 2010). In sum, new firms must conform to the demands of the institutional environment to gain the cooperation of stakeholders such as resource providers.

When formal and informal institutions are aligned, firms are free to conform both symbolically and structurally. However, when the formal and informal institutional environments are misaligned, new firms can become torn between the formal external pressures of an undesired regulation, and the local norms that motivate decoupling or disobedience. This presents a complex choice of whether to conform to local norms or risk sanctions. Recent academic research notes that firms employ context dependent strategies in the face of this institutional complexity (Greenwood et al. 2011). Pache and Santos (2010) show how institutionally complex environments open strategic options for firms. Prior research tells us that organizational conformity to institutional environments enhances entry because new firms can find the resources and opportunities they need to start. Moreover, firms alter their strategies after founding by adopting practices prescribed by elements of the conflicting environment to affect their growth and survival (Baum et al. 2001). Thus, it follows that by selecting options within a complex institutional environment, organizational entry, growth, and survival is affected.

Turning next to the effects of institutional alignment on individuals within new firms, institutional misalignment can illuminate some mechanisms that may

be counterintuitive or nonobvious. For instance, one of the ways that institutions might influence growth is via the mechanism of their influence on risk taking. In Japan, informal institutions are thought to heavily influence individuals away from risk because of the stigma of failure present as a social norm. Yet, in 2003, Japanese policymakers passed a reform of the country's formal bankruptcy laws to allow for limited liability and a quicker resolution of bankruptcy for entrepreneurs (Eberhart et al. 2017). The effects of this reform were to encourage risk taking, especially by more "elite" individuals. This led to more high risk, yet high growth (in the event of success) startup ventures, increasing the overall growth rate of entrepreneurial firms (as well as the rate of bankruptcies). In this case, a formal institutional change was able to compensate for (to some extent) an informal institution that stigmatized risk and failure.

When the institutional environment supports growth via risk taking, it encourages entrepreneurs to choose opportunities and ways of managing that allow for higher rates of growth in exchange for taking on additional risk. Examples include more R&D intensive ventures or ventures that address new markets or new technology and resource combinations. In contrast, institutional environments that do not support growth via the risk mechanism may hinder venture growth by encouraging entrepreneurs to start safer, low-growth types of firms. While risk and growth are not always correlated (sometimes it reduces risk to grow faster), there are some venture opportunities where achieving faster rates of growth goes hand in hand with additional risk (such as when the firm must make large initial investments for the chance to achieve subsequent growth). Or, returning to the idea of informal relative to formal institutions, it may be that certain individuals or groups are so risk averse, because of cultural traditions, that even if the cost of failures is lowered by changes in the bankruptcy laws, they may always prefer to play it safe. This informal institution may then reduce the expected effects of the formal institutional change.

The French entrepreneurial climate is illustrative. Over the recent decade, the European Union enacted efforts to introducing supportive government policies to spur entrepreneurship (OECD 2017). Yet, while a relatively new central authority imposed supportive regulations, many European countries lack supportive informal institutions. This led to the general pattern that these countries experience lower founding rates compared to the United States. For example, France has very supportive government policies toward entrepreneurship but lacks a supportive culture (Carayannis et al. 2003). France ranks quite low on self-perceptions on perceived opportunities and capabilities and below average on perceptions about entrepreneurship as a good career choice (GEM 2017). In sum, France has

informal institutions that hinder entry rates despite regulatory encouragement from the European Union.

In sum, prior work notes that formal institutional changes frequently fail to produce the expected economic and entrepreneurial outcomes, despite large sums of money being invested in these efforts (Lerner 2009). It may be that part of the reason for this is that the supporting informal institutions are not aligned to allow these formal institutions to have the expected effects on entrepreneurship. Or, as we will discuss further, it may be that the result is entrepreneurship of a different type occurred rather than the one that was intended.

Proposition 3. *The alignment of formal and informal institutions shapes the entry, growth, and survival of new firms.*

Typology of Interactions Between Formal and Informal Institutions

Different combinations of formal and informal institutional environments may result in different entrepreneurial outcomes; particularly entry, growth, and survival. We approach this by examining a simple typology of entrepreneurial environments with aligned and misaligned environments (Table 1). First, we define supportive formal environments as those regulations and regulatory changes that are intended to encourage new firm founding and growth. Examples are laws to simplify licenses and organizational certification (Klapper et al. 2006), educational programs (OECD 2017), laws to ease bankruptcy consequences, laws to ease IPO listing, etc. Similarly, supportive informal institutions are those that encourage entry and growth of new firms. Examples include granting social status or tolerance for failure (Begley and Tan 2001), nations with traditions of social entrepreneurship (Estrin et al. 2013), communities that

Table 1. Typology of Supportive and Unsupportive Formal and Informal Environments

	Formal institutions Supportive	Formal institutions Unsupportive
	Type 1	Type 2
Informal institutions Supportive	Ireland Netherlands Sweden Switzerland USA	Argentina Chile Korea Egypt
	Type 3	Type 4
Informal institutions Unsupportive	Finland Japan France Germany Spain	Brazil Greece Italy Poland Russian Federation

encourage opportunity discovery (Baker et al. 2005), contexts with parental support for entrepreneurship (Geldhof et al. 2014), and so on. Given the two dimensions of formal and informal versus supportive and unsupportive, we construct a table of institutional alignments (Table 1). Cells on the diagonal represent aligned and misaligned environments. For example, in the northwest quadrant of Table 1, both formal and informal institutions are supportive while in the northeast quadrant; an unsupportive formal yet supportive informal environment is defined.

We next analyze each of the four types to understand the implications for entrepreneurial behavior and outcomes in each (see Table 2). On the one hand, where formal and informal institutions are aligned in terms of encouragement for entrepreneurship (type 1, Table 2), it suggests that elevated entrepreneurial activity will occur. Silicon Valley is an oft-cited example of this type of the high growth style of entrepreneurship (Kenney 2000). Because many generations of entrepreneurs succeeded in this environment and culture that is maintained in Silicon Valley, informal institutions support both entry and high growth in this area (Eesley and Miller 2012). In addition, formal policies not only support easy entry, but also facilitate growth, through noncompete agreements for instance that reduce mobility of talented engineers to quickly growing startups (Marx et al. 2009). In addition, the support of formal and informal institutions for undertaking high-risk, high-growth opportunities

enable entrepreneurs to undertake uncertain activities and more risky bets in search of the high rewards that are available from growth. These growth opportunities also attract highly skilled individuals to pursue attractive opportunities and it is these entrepreneurs that have the talent and education level that facilitates innovation in new markets, new products and novel technologies.

On the other hand, if formal and informal institutions are aligned but unsupportive of entrepreneurship (type 4, Table 2), then what do they encourage instead? One alternative is that they support established industry incumbents. Prior literature frequently documents that once established firms grow large and powerful, they seek to use that power to influence formal institutions to erect barriers to entry for potential entrants (Caves and Porter 1977). They are also likely to seek to influence policies to create a more favorable environment for their existing businesses. For example, entrepreneurs in the organic food/agribusiness sector had to play similar political strategies as incumbents to be able to enter and grow in a market captured by large incumbents (Hiatt and Park 2013). Policymakers, in search of campaign contributions, are likely to favor these established industry incumbents over potential entrepreneurs and startups that have less time and money to organize to influence the policymaking process. The exception to this rule may be small businesses, which are numerous and a politically active group. This may result in policies that are favorable for entry of small businesses rather than oriented toward high growth startups, which are relatively rare. Since established firms have captured formal institutions, the few entrepreneurs who emerge are expected to be politically connected or engage more directly in political activities (Lee et al. 2017). For instance, as a result of unsupportive formal institutional environments, new ventures in Latin America had to engage in political activities (Hiatt et al. 2018). Overall, if both formal and informal environments do not support entrepreneurship, little entrepreneurial activity can be expected. If both formal and informal environments support entry and growth, exuberant entrepreneurial activity and growth can be expected.

Misaligned Types of Institutional Environments. While the boundary cases show the influence of congruent institutions to energize or inervate entrepreneurship, the interest of this paper is to examine interactive institutional environments when founding and growth as well as formal and informal institutions may not be aligned. Of interest is the situation where informal institutions encourage entrepreneurship while formal institutions act as barriers to entrepreneurship (type 2, Table 2). For example, an industrial policy favoring large incumbents and state-owned enterprises (such as in China) but where self-employment and

Table 2. Types of Ventures by Institutional Interactions

	Formal institutions: Supportive	Formal institutions: Unsupportive
	Type 1	Type 2
Informal institutions: Supportive	High-growth, high-tech “Silicon Valley” style entrepreneurship	Large incumbent firms, state-owned enterprises Entrepreneurship mainly in small, unique markets
	Type 3	Type 4
Informal institutions: Unsupportive	Few ventures, but robust growth among a small number of successful ventures Mostly family businesses and business groups Traditional industries where norms of entrepreneurship are passed down in a few families	Low entrepreneurship rate Politically connected entrepreneurs, politically active ventures Heavy reliance on political/nonmarket strategy “Entrepreneurs” within the political sphere/system

small businesses are encouraged to reduce unemployment rates leads to restriction on the opportunities and resources that are available for new firms. As such, while entrepreneurship is elevated in such an environment, opportunities are restricted and specialized with resources similarly constrained. As a result, numerous new firms in this environment often occupy unique and relatively small market niches (De Castro et al. 2014, Webb et al. 2009).

We turn next to the case where formal institutions encourage entrepreneurship while informal institutions act as barriers to entrepreneurship (type 3, Table 2). Even if regulations permit the founding of ventures, informal norms imply that few will want to found firms because social sanctions will constrain them. Thus, entrepreneurial activity is expected to remain low but what new firm activity does occur will have an open set of opportunities to pursue with less competition for resources. The picture here is of few firms that grow robustly. Japan is an example, where Rakuten's founder, Hiroshi Mikitani, and DeNa founder, Namoko Tamba, are celebrated, yet most parents want their children to enter stable, high-income jobs rather than become entrepreneurs (Aldrich and Waldinger 1990, Kagami 2014). The result is relatively few new ventures, but those who do enter encounter an environment of growth opportunities and relatively abundant resources such that successful firms emerge (Honjo 2015, Ohe et al. 1991, Schaefer 2008). As before, we expect the effects of informal institutions to dominate those of formal institutions because of the deep embeddedness of such norms in society and the time that is required for cognitive and normative institutions to form or change over generations. The result is those who do enter will tend to undertake some risk in search of higher growth opportunities. Overall, in these misaligned institutional environments, the informal institutions shape the willingness of individuals to start firms, while the interactive effect with the formal determines the opportunities and resources available to firms.

Effects Beyond the Simple Typology. More nuanced institutional mechanisms and misalignment may also be important to explore. We may wish to distinguish institutions that are supportive of entry from those supportive of post-entry firm growth (Eesley 2016). Formal and informal institutions may be supportive of entry but not growth. For example, informal cognition and norms might encourage individuals to start firms in an unaccommodating formal environment that renders the growth of new ventures problematic (Aldrich and Yang 2012). Hong Kong is an example since the formal ease of starting a business is high (World Bank 2012) and there is a strong cultural tradition of business ownership (Mok 2005), yet entrepreneurial growth is

more difficult for a number of reasons and most firms are small businesses.

In this type of environment, we expect a lot of small businesses, but high growth firms will be very rare. However, a large amount of entry will lead to greater levels of competition. This high level of competition may result in entrepreneurship where founders enter an existing market but attempt new product development for differentiation. However, as a result of the difficulty of growing a startup into a larger enterprise, highly skilled individuals will tend to not choose entrepreneurship (Eesley 2016), resulting in entrepreneurs who generally lack the human capital for significant growth and lack an environment that is supportive of taking on risk while pursuing new markets.

Institutional environments may also exist where formal and informal institutions are supportive of growth, but not supportive of entry. For example, Khanna and Palepu (2000) find that in India, although corruption and regulations make entry difficult, particularly in certain regions, for entrepreneurs who have the networks to manage to overcome these barriers to entry, growth can be easier. However, since entry is not encouraged, the level of competition in the markets remains fairly low, so the need to differentiate oneself from competitors is not sufficiently strong. Medium and larger firms benefit most from this type of environment and so some level of corporate entrepreneurship is expected as well. Overall, the alignment of formal and informal institutions shapes the outcomes of new firms. When misaligned, the effect of formal regulations is less relevant and new firm behaviors are more strongly influenced by informal norms. This leads to distinct types of institutional environments salient to entrepreneurship that shapes venture outcomes.

Proposition 4. *The interaction and alignment of formal and informal institutions create context-based types of entrepreneurial environments that shape outcomes: founding, growth, and survival.*

Preliminary, Suggestive Evidence Using GEM Data Data. Our propositions highlight that the interaction of formal and informal institutions leads to unique regional institutional environments that are either aligned or misaligned in their support (or lack of support) for entrepreneurship. As a first step in suggesting the potential of the above propositions, we illustrate variation in the formation rate of new firms, survival rate, and their growth across national contexts using data from the Global Entrepreneurship Monitor's (GEM) Global Report 2016/2017. We classify countries into our four different types of institutional environments: (Type 1) aligned Formal-Supportive-Informal Supportive, (Type 4) misaligned Formal-Supportive-Informal-Unsupportive,

(Type 3) misaligned Formal-Unsupportive-Informal-Supportive, and (Type 2) aligned Formal-Unsupportive-Informal Unsupportive using GEM's measures for supportive cultural and social norms and supportive government regulation. Assigned values to these measures were on a scale from "highly sufficient" to "highly insufficient" based on assessments by experts. We calculated the average score for each measure and considered the country as "supportive" if it measured greater than one standard deviation above the average and "unsupportive" if their score was one standard deviation below average for each measure. Next countries were separated into the four institutional types, as noted in Table 1. For each institutional type, we calculated the average formation rate and survival rate. To examine founding and survival rates across institutional contexts, we use GEM's measure for the total entrepreneurial activity (TEA) which is the percentage of the adult population between the ages of 18 and 64 years who are starting a business; and GEM's measure of survival (discontinuance), the percentage of the entrepreneurs in the TEA who stated they discontinued their business in the past year, as a proxy for firm survival.

Suggestive Results. First, we argued in Proposition 1 that informal institutions will be more influential than formal institutions. The preliminary GEM data provides suggestive support for this proposition. As shown in Table 3, the institutional types with the highest levels of entry and survival are those environments where the informal institutions are supportive, irrespective of the formal support. Types 1 and 2 have the highest founding rates (12.62) and (17.62), respectively, relative to other types. Moreover, given supportive informal institutions (type 1 and 2), the founding rate that is highest is the type where the formal is unsupportive, (type 2). This lends support for our conjecture that when such misalignment does occur, the informal will be more influential and that numerous entrants will still start ventures (likely in niches where they are not under regulatory scrutiny).

We next turn to firm survival. Interestingly, the highest rates of failure are also where informal institutions are supportive irrespective of formal support (10.75) and (9.42) in type 1 and 2 respectively. The implication

is that the robust entry when informal institutions are dominant results in greater competitive challenges and a greater scarcity of resources (Hannan and Freeman 1993). In sum, these results provide suggestive evidence for Proposition 1 that when formal and informal institutions are misaligned, the informal will have a greater influence on entrepreneurial activity on both founding and survival. In the case of growth rates, the results in Table 3 show that growth rates are not different across all four types, from the lowest of 21.05 in the type 1 environment to the highest of 21.54 in the type 4 environments.

Taken together these suggestive patterns appear to be consistent with our propositions as informal institutions tend to have a more profound effect on new entry when formal and informal institutions are misaligned. Even when governments have lower on average support for new entry and above average support from culture and norms we find that countries tend to be above average on entry. These findings suggest that encouraging informal institutions still play a significant role in the type of entrepreneurship in the presence of below average support for government policies related to new entry.

Discussion

The goal of this paper is to examine the interaction of formal and informal institutions on entrepreneurial activity and to propose promising new directions for future advancement. We presented a theoretical framework for analyzing the interaction of formal and informal institutions and their joint influence on levels of entrepreneurial activity. This is important because in numerous national contexts, remarkably similar regulations are implemented in very different national or regional institutional environments to stimulate entrepreneurship yet we have only sparse theories of how these formal and informal environments interact. Our framework helps to integrate the fragmented body of research on institutions across the literature. It also provides a basis for a more nuanced model of institutional influences on entrepreneurship. Next we discuss how

Table 3. Effects of Institutional Interactions on Entrepreneurship Outcomes

	Type 1 Formal—Supportive Informal—Supportive	Type 2 Formal—Unsupportive Informal—Unsupportive	Type 3 Formal—Supportive Informal—Supportive	Type 4 Formal—Unsupportive Informal—Unsupportive
Founding (likelihood of founding)	12.62	17.62	10.61	9.51
Growth (ranking)	21.05	21.11	21.49	21.54
Survival (likelihood of failure)	10.75	9.41	8.22	8.93

our framework expands understanding of both the interaction between formal and informal institutions and their joint influence on entrepreneurship.

Resolving Conflicting Findings

Current work on emerging economies and institutional theory tends to conceptualize institutions as weak or strong, incomplete (i.e., institutional voids) or complete. In the absence of complementary regulations, informal institutions may dominate setting the informal rules of the game resulting in shared misunderstandings. This can play out in unexpected ways. Prior work shows that formal environments may hinder firm formation of some kinds while informal beliefs and understandings can cause the founding of other types of firms (Hiatt et al. 2009). Research has also shown that, formal and informal environments can have differing effects on founding and survival. Related work on the social embeddedness of firms indicates that rich networks of social connections enable ventures to acquire resources at lower costs (Uzzi 1999), suggesting advantages to networked firms over others in sparse environments. Our examination of these aspects of institutional influence on organizations can help to further reconcile these conflicting theoretical perspectives.

As a consequence of this binary conceptualization, there are conflicting findings on whether institutional voids represent a cost and hinder the performance of firms (Lerner and Schoar 2005) or represent an opportunity that certain firms can exploit by substituting for weak or missing institutions and gaining performance advantages. For example, entrepreneurship in an emerging economy such as Bangladesh beset by notable institutional voids is difficult and entrepreneurial activity is hindered (Mair et al. 2012). A recent review by Taussig and Delios (2015) reports that the stream of work arguing that weak institutions hinder businesses finds evidence of fewer initial public offerings (Black and Gilson 1998, Cumming et al. 2006), lower rates of entry (Guler et al. 2002, Jeng and Wells 2000), lower valuations (Lerner and Schoar 2005), and poor performance for private equity investors (Lopez-de-Silanes et al. 2010).

In contrast, work in the strategy literature on emerging economies suggests unsupportive institutional voids can create opportunities that entrepreneurs and incumbents may exploit to their advantage. Indian firms that were able to overcome failed markets for talent, capital and knowledge grew faster (Khanna and Palepu 2000). Firms with access to networks and reputation have been shown to grow faster than their competitors as a result of this unevenness in the competitive landscape that results from weak institutions (Allen et al. 2005, Banerjee and Duflo 2000). Overall, strategy literature implies that in a weak institutional

environment, opportunities for the connected and those in a better social context may be greater.

Dynamic Institutional Interactions

Earlier, we focused on the outcomes of formal and informal institutions that support entry versus growth for different types of entrepreneurial firms. However, a dynamic model of the institutional interaction might yield additional theoretical insights. For instance, if we conceptualize layers of institutional influence being added over time, this might yield different predictions according to the timing or sequence of when formal or informal institutions were added or changed in the environment. If an informal institution exists first and then subsequently a formal institution is put into place, this may have a different effect than the reverse for example. It may be important to take into consideration the history of institutional environments that a firm was exposed to throughout its lifecycle. The environment where the venture emerged may shape subsequent decisions and produces different outcomes depending on the current institutional environment that the firm competes in. Thus, multiple layers of institutional influence in the history of a firm may be important to take into account in our theorizing.

Formal policy changes may be more effective if preceded by informal institutional changes. This is because formal regulations are more likely to be accepted if normative and cognitive beliefs are congruent, particularly if normative and cognitive beliefs result in legislative call for regulations. Thus, the pathways of what institutional changes to make first and which should follow is a practical question that cannot be resolved without further theoretical and empirical work on how formal and informal institutions interact to produce different types of entrepreneurship. For instance, if a national authority wishes to encourage more innovative entrepreneurship, must cognitive and normative changes occur first in order for formal change to become accepted? Or can formal change engender changes in shared cognitions and norms about the new formal environment? It is these research questions that our theoretical arguments hope to stimulate.

Future research will need to measure both formal and informal institutions and consider how they interact. We will need to test formal institutions in multiple country settings, rather than just assuming that results from the U.S./EU, which have a more uniform set of informal institutions that are based on common notions of government and business behavior, will generalize to other settings. Future theory development should more closely specify when this may or may not be the case? Are there instances where informal institutions are particularly unsupportive (those that have recently formed) or where formal institutions are particularly supportive (as in the case of high financial incentives to undertake an activity)? We need more

theory development on when and how individuals react when formal and informal institutions encourage opposing behaviors.

Because institutions occur at the collectivity level (community, society, country, or region), future research may need to take on more of a comparative perspective (cross-community, society, country, region, etc.). Doing research with only one setting would work if you can collect longitudinal data capturing some significant change in either formal or informal institutions, but the change tends to focus on only one particular aspect of the institutional environment (e.g., formal institutions, while informal institutions remain constant). For example, if the effects of informal institutions are indeed stronger, yet such institutions take longer to change, this has important implications for the timing or ordering of institutional change.

Another implication that could be developed further is that when an institution is added or changed, scholars and policymakers ought to consider the institutional fit of that particular institution with the rest of the formal or informal institutions in the environment. Prior work shows that a university reform meant to encourage more innovative entrepreneurial firms had unintended consequences because of the poor fit with the rest of the institutional environment (Eesley et al. 2016). Specifically, in China, the “Project 985” reform provided research funding to certain universities to encourage technological innovation in the hopes of spurring more high growth ventures and easing constraints on entry for high tech firms. Compared with graduates from a matched set of universities that did not receive additional funding, these graduates were more likely to pursue entrepreneurship via innovation. However, since the reform left unchanged other informal and formal institutions limiting entry and growth (such as intellectual property protection and contract enforcement), these innovative entrepreneurs reported lower financial performance than their non-innovative peers.

There are many ways to broaden and extend the theoretical framework articulated earlier. Building on the typology and predictions presented earlier, a promising direction for future research would be to examine other outcomes beyond the type of entrepreneurial firms produced, such as industry evolution, competitive dynamics, or survival rates. Another implication might be that there are different ways that institutions interact when we look beyond those that support entrepreneurship.

Conclusion

Prior work from both sociological and economic perspectives on institutions largely focuses on the independent effects of formal, cognitive and normative institutions, respectively (Levie and Autio 2011, North

2005, Peng et al. 2009, Sine et al. 2005). Research examining the influence of institutions on entrepreneurship finds that certain institutional environments result in greater rates of entrepreneurship and that institutional change creates entrepreneurial opportunities (Dobbin and Dowd 1997, Klapper et al. 2006, Sine and David 2010). However, existing conceptions of institutions as either present or missing and strong or weak limit our understanding of why big differences in levels of entrepreneurial activity exist across countries and persistent despite convergence in formal institutions. We attempt to fill this theoretical gap and build on these streams of literature to propose a framework to understand the interactive influence between formal and informal institutions in fostering entrepreneurship.

Specifically, we build a set of propositions around conceptualizing institutions as supportive of entry, growth or both. Doing so allows us to theorize at a more general level, abstracting from specific institutions to their primary impact on entrepreneurship. We suggest reasons why informal institutions may have more persistent effects than formal institutions. In doing so, we provide a way to reconcile the experience of many countries that adopted formal institutions in hopes of fostering innovative high growth entrepreneurship only to see few tangible results. Formal institutions supportive of entry have little effect if informal institutions are not also supportive of entry.

Our framework provides important opportunities for future research, particularly in reconciling conflicting predictions of existing theory for whether weak institutional environments hinder entrepreneurs or provide them with strategic opportunities and advantages. We also provide an important framework for policymakers, seeking to understand why mimicking the formal institutions of the West, and Silicon Valley in particular, so often fails to create Silicon Valley’s level and unique type of entrepreneurial activity. Generating the “gale of creative destruction” requires changing not only formal institutions, but also requires us to understand how to alter informal institutions since it is the interaction of the two that most powerfully spurs entrepreneurship.

Acknowledgments

The authors acknowledge the help of two anonymous reviewers who offered timely and constructive comments which greatly improved the work. Both authors (Charles E. Eesley and Robert N. Eberhart) contributed equally. The authors thank Hokyu Hwang and Tammy Madsen for helpful comments.

References

- Aldrich HE, Baker T (2001) Learning and legitimacy: Entrepreneurial responses to constraints on the emergence of new populations and organizations. Schoonhoven CB, Romanelli E, eds. *The Entrepreneurship Dynamic: Origins of Entrepreneurship and the Evolution of Industries* (Stanford University Press, Stanford, CA), 207–235.

- Aldrich HE, Fiol CM (1994) Fools rush in? The institutional context of industry creation. *Acad. Management Rev.* 19(4):645–670.
- Aldrich HE, Waldinger R (1990) Ethnicity and entrepreneurship. *Annual Rev. Sociol.* 16(1):111–135.
- Aldrich HE, Yang T (2012) Lost in translation: Cultural codes are not blueprints. *Strategic Management J.* 6(1):1–17.
- Aldridge TT, Audretsch D (2011) The Bayh-Dole act and scientist entrepreneurship. *Res. Policy* 40(8):1058–1067.
- Allen F, Qian J, Qian M (2005) Law, finance, and economic growth in China. *J. Financial Econom.* 77(1):57–116.
- Almandoz J (2012) Arriving at the starting line: The impact of community and financial logics on new banking ventures. *Acad. Management J.* 55(6):1381–1406.
- Almandoz J (2014) Founding teams as carriers of competing logics: When institutional forces predict banks' risk exposure. *Admin. Sci. Quart.* 59(3):442–473.
- Armanios DE, Eesley CE, Li J, Eisenhardt KM (2017) How entrepreneurs leverage institutional intermediaries in emerging economies to acquire public resources. *Strategic Management J.* 38(7):1373–1390.
- Armor DJ (1995) *Forced Justice: School Desegregation and the Law* (Oxford University Press, New York).
- Baker T, Gedajlovic E, Lubatkin M (2005) A framework for comparing entrepreneurship processes across nations. *J. Internat. Bus. Stud.* 36(5):492–504.
- Banerjee AV, Duflo E (2000) Reputation effects and the limits of contracting: A study of the Indian software industry. *Quart. J. Econom.* 115(3):989–1017.
- Batjargal B, Hitt MT, Webb J, Arregle J, Miller T (2009) Women and men entrepreneurs' social networks and new venture performance across cultures. Solomon G, ed. *Proc. Annual Meeting Acad. Management, Chicago*, 1–6.
- Baum JR, Locke EA, Smith KG (2001) A multidimensional model of venture growth. *Acad. Management J.* 44(2):292–303.
- Begley TM, Tan W-L (2001) The socio-cultural environment for entrepreneurship: A comparison between East Asian and Anglo-Saxon countries. *J. Internat. Bus. Stud.* 32(3):537–553.
- Berger P, Luckman T (1966) *The Social Construction of Reality* (Random House, New York).
- Black BS, Gilson RJ (1998) Venture capital and the structure of capital markets: Banks versus stock markets. *J. Financial Econom.* 47(3):243–277.
- Bromley P, Powell WW (2012) From smoke and mirrors to walking the talk: Decoupling in the contemporary world. *Acad. Management Ann.* 6(1):483–530.
- Bruton GD, Ahlstrom D, Li H-L (2010) Institutional theory and entrepreneurship: Where are we now and where do we need to move in the future? *Entrepreneurship Theory Practice* 34(3):421–440.
- Buhr H, Owen-Smith J (2010) Networks as institutional support: Law firm and venture capitalist relations and regional diversity in high-technology IPOs. Sine WD, David RJ, eds. *Institutions and Entrepreneurship. Research in the Sociology of Work*, Vol. 21 (Emerald Group Publishing Limited, Bingley, UK), 95–126.
- Carayannis EG, Evans D, Hanson M (2003) A cross-cultural learning strategy for entrepreneurship education: Outline of key concepts and lessons learned from a comparative study of entrepreneurship students in France and the US. *Technovation* 23(9):757–771.
- Caves RE, Porter ME (1977) From entry barriers to mobility barriers: Conjectural decisions and contrived deterrence to new competition. *Quart. J. Econom.* 91(2):241–261.
- Cumming GS, Cumming DH, Redman CL (2006) Scale mismatches in social-ecological systems: Causes, consequences, and solutions. *Ecology Soc.* 11(1):Article no. 14.
- D'auunno T, Succi M, Alexander JA (2000) The role of institutional and market forces in divergent organizational change. *Admin. Sci. Quart.* 45(4):679–703.
- David R, Sine WD, Serra CK (2016) Institutional theory and entrepreneurship: Taking stock and moving forward. Greenwood R, Oliver C, Suddaby R, Sahlin-Andersson K, eds. *SAGE Handbook of Organizational Institutionalism*, 2nd ed. (Sage, London), 671–688.
- De Castro JO, Khavul S, Bruton GD (2014) Shades of grey: How do informal firms navigate between macro and meso institutional environments? *Strategic Entrepreneurship J.* 8(1):75–94.
- Deephouse DL, Bundy J, Tost LP, Suchman MC (2017) Organizational legitimacy: Six key questions. Greenwood R, Oliver C, Lawrence T, Meyer R, eds. *The SAGE Handbook of Organizational Institutionalism*, 2nd ed., Chap. 1 (Sage Publications, Thousand Oaks, CA), 27–54.
- DiMaggio P, Powell W (1983) The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *Amer. Sociol. Rev.* 48(2):147–160.
- Dobbin F, Dowd T (1997) How policy shapes competition: Early railroad foundings in Massachusetts. *Admin. Sci. Quart.* 42(3):501–529.
- Dutt N, Hawn O, Vidal E, Chatterji A, McGahan A, Mitchell W (2016) How open system intermediaries address institutional failures: The case of business incubators in emerging-market countries. *Acad. Management J.* 59(3):818–840.
- Eberhart RN (2016) Compensating conformity: Regulatory reform and legitimacy. Atinc G, ed. *Acad. Management Proc.*, Vol. 2016 (Academy of Management, New York).
- Eberhart R, Eesley CE (2018) Institutional intermediaries and entrepreneurship. *Strategic Management J.* Forthcoming.
- Eberhart R, Eesley CE, Eisenhardt KM (2017) Failure is an option: Institutional change, entrepreneurial risk, and new firm growth. *Organ. Sci.* 28(1):93–112.
- Eesley CE (2016) Institutional barriers to growth: Entrepreneurship, human capital and institutional change. *Organ. Sci.* 27(5):1290–1306.
- Eesley CE, Miller WF (2012) *Stanford University's Economic Impact via Innovation and Entrepreneurship* (Stanford University, Stanford, CA).
- Eesley CE, Li JB, Yang D (2016) Does institutional change in universities influence high-tech entrepreneurship?: Evidence from China's project 985. *Organ. Sci.* 27(2):446–461.
- Estrin S, Mickiewicz T, Stephan U (2013) Entrepreneurship, social capital, and institutions: Social and commercial entrepreneurship across nations. *Entrepreneurship Theory Practice* 37(3):479–504.
- Fiss PC, Zajac EJ (2004) The diffusion of ideas over contested terrain: The (non) adoption of a shareholder value orientation among German firms. *Admin. Sci. Quart.* 49(4):501–534.
- Freeman RE (2010) *Strategic Management: A Stakeholder Approach* (Cambridge University Press, Cambridge, UK).
- Geldhof GJ, Porter T, Weiner MB, Malin H, Bronk KC, Agans JP, Mueller M, Damon W, Lerner RM (2014) Fostering youth entrepreneurship: Preliminary findings from the young entrepreneurs study. *J. Res. Adolescence* 24(3):431–446.
- GEM (2017) *Global entrepreneurship monitor: 2016/2017 global report*. Accessed September 1, 2017, <https://www.gemconsortium.org/report/49812>.
- Greenwood R, Raynard M, Kodeih F, Micelotta ER, Lounsbury M (2011) Institutional complexity and organizational responses. *Acad. Management Ann.* 5(1):317–371.
- Greif A (2006) *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade* (Cambridge University Press, New York).
- Grimaldi R, Kenney M, Siegel DS, Wright M (2011) 30 years after Bayh-Dole: Reassessing academic entrepreneurship. *Res. Policy* 40(8):1045–1057.
- Guler I, Guillen MF, Macpherson JM (2002) Global competition, institutions, and the diffusion of organizational practices: The international spread of ISO 9000 quality certificates. *Admin. Sci. Quart.* 47(2):207–232.
- Hannan MT, Freeman J (1993) *Organizational Ecology* (Harvard University Press, Boston).

- Haveman HA (1993) Follow the leader: Mimetic isomorphism and entry into new markets. *Admin. Sci. Quart.* 38(4):593–627.
- Hess C, Ostrom E (2007) A framework for analyzing the knowledge commons. Hess C, Ostrom E, eds. *Understanding Knowledge as a Commons: From Theory to Practice* (MIT Press, Cambridge, MA), 41–81.
- Hiatt S, Sine WD, Tolbert PS (2009) From Pabst to Pepsi: The deinstitutionalization of social practices and the creation of entrepreneurial opportunities. *Admin. Sci. Quart.* 54(4):635–667.
- Hiatt SR, Park S (2013) Lords of the harvest: Third-party influence and regulatory approval of genetically modified organisms. *Acad. Management J.* 56(4):923–944.
- Hiatt SR, Sine WD (2014) Clear and present danger: Planning and new venture survival amid political and civil violence. *Strategic Management J.* 35(5):773–785.
- Hiatt SR, Carlos WC, Sine WD (2018) Manu Militari: The institutional contingencies of stakeholder relationships on entrepreneurial performance. *Organ. Sci.* Forthcoming.
- Honjo Y (2015) Why are entrepreneurship levels so low in Japan? *Japan World Econom.* 36:88–101.
- Hwang H, Powell WW (2005) Institutions and entrepreneurship. Alvarez SA, Agarwal R, Sorenson O, eds. *Handbook of Entrepreneurship Research* (Springer, New York), 201–232.
- Jeng LA, Wells PC (2000) The determinants of venture capital funding: Evidence across countries. *J. Corporate Finance* 6(3):241–289.
- Jennings PD, Greenwood R, Lounsbury MD, Suddaby R (2013) Institutions, entrepreneurs, and communities: A special issue on entrepreneurship. *J. Bus. Venturing* 28(1):1–9.
- Kagami S (2014) Japan: The university as a driver for innovation in response to two decades of economic depression. Engel JS, ed. *Global Clusters of Innovation: Entrepreneurial Engines of Economic Growth Around the World* (Edward Elgar, Northampton, MA), 205–221.
- Kegel P (2016) A comparison of startup entrepreneurial activity between the United States and Japan. *J. Management Policy Practice* 17(1):18–26.
- Kenney M (2000) *Understanding Silicon Valley: The Anatomy of an Entrepreneurial Region* (Stanford University Press, Stanford, CA).
- Khaire M (2010) Young and no money? Never mind: The material impact of social resources on new venture growth. *Organ. Sci.* 21(1):168–185.
- Khanna T, Palepu K (2000) The future of business groups in emerging markets: Long-run evidence from Chile. *Acad. Management J.* 43(3):268–285.
- Kim PH, Li M (2014) Seeking assurances when taking action: Legal systems, social trust, and starting businesses in emerging economies. *Organ. Stud.* 35(3):359–391.
- Klapper L, Laeven L, Rajan R (2006) Entry regulation as a barrier to entrepreneurship. *J. Financial Econom.* 82(3):591–629.
- Lee BH, Hiatt SR, Lounsbury M (2017) Market mediators and the tradeoffs of legitimacy-seeking behaviors in a nascent category. *Organ. Sci.* 28(3):447–470.
- Lee S-H, Yamakawa Y, Peng MW, Barney JB (2011) How do bankruptcy laws affect entrepreneurship development around the world? *J. Bus. Venturing* 26(5):505–520.
- Lerner J (2009) *Boulevard of Broken Dreams: Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed—And What to Do About It* (Princeton University Press, Princeton, NJ).
- Lerner J, Schoar A (2005) Does legal enforcement affect financial transactions? The contractual channel in private equity. *Quart. J. Econom.* 120(1):223–246.
- Levie J, Autio E (2011) Regulatory burden, rule of law, and entry of strategic entrepreneurs: An international panel study. *J. Management Stud.* 48(6):1392–1419.
- Lopez-de-Silanes F, Phalippou L, Gottschalg O (2010) *Giants at the Gate: On the Cross-Section of Private Equity Investment Returns* (University Library of Munich, Germany), MPRA Paper 28487.
- Lounsbury M (2007) A tale of two cities: Competing logics and practice variation in the professionalizing of mutual funds. *Acad. Management J.* 50(2):289–307.
- Lounsbury M, Glynn MA (2001) Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management J.* 22(6–7):545–564.
- Mair J, Marti I, Ventresca M (2012) Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Acad. Management J.* 55(4):819–850.
- Marquis C, Lounsbury M (2007) Vive la résistance: Competing logics and the consolidation of U.S. community banking. *Acad. Management J.* 50(4):799–820.
- Marquis C, Raynard M (2015) Institutional strategies in emerging markets. *Acad. Management Ann.* 9(1):1–66.
- Marquis C, Davis GF, Glynn MA (2013) Golfing alone? Corporations, elites, and nonprofit growth in 100 American communities. *Organ. Sci.* 24(1):39–57.
- Marquis C, Glynn MA, Davis GF (2007) Community isomorphism and corporate social action. *Acad. Management Rev.* 32(3):925–945.
- Marx M, Strumsky D, Fleming L (2009) Mobility, skills, and the Michigan non-compete experiment. *Management Sci.* 55(6):875–889.
- Meyer JW, Rowan B (1977) Institutionalized organizations: Formal structure as myth and ceremony. *Amer. J. Sociol.* 83(2):340–363.
- Meyer KE, Peng MW (2005) Probing theoretically into Central and Eastern Europe: Transactions, resources, and institutions. *J. Internat. Bus. Stud.* 36(6):600–621.
- Mok KH (2005) Fostering entrepreneurship: Changing role of government and higher education governance in Hong Kong. *Res. Policy* 34(4):537–554.
- Mowery DC, Sampat BN (2004) The Bayh-Dole act of 1980 and university—Industry technology transfer: A model for other OECD governments? *J. Tech. Transfer* 30(1–2):115–127.
- North DC (1990) *Institutions, Institutional Change and Economic Performance* (Cambridge University Press, Cambridge, UK).
- North DC (2005) *Understanding the Process of Economic Change* (Princeton University Press, Princeton, NJ).
- OECD (2017) *Entrepreneurship at a Glance 2017* (OECD Publishing, Paris).
- Ohe T, Honjo S, Oliva M, MacMillan IC (1991) Entrepreneurs in Japan and Silicon Valley: A study of perceived differences. *J. Bus. Venturing* 6(2):135–144.
- Oliver C (1991) Strategic responses to institutional processes. *Acad. Management Rev.* 16(1):145–179.
- Pache A-C, Santos F (2010) When worlds collide: The internal dynamics of organizational responses to conflicting institutional demands. *Acad. Management Rev.* 35(3):455–476.
- Peng M, Yamakawa Y, Lee S (2009) *Entrepreneurship and the Barrier to Exit: How Does an Entrepreneur-Friendly Bankruptcy Law Affect Entrepreneurship Development at a Societal Level* (Babson College, Chapel Hill, NC).
- Santos F, Eisenhardt K (2009) Constructing markets and shaping boundaries: Entrepreneurial power in nascent fields. *Acad. Management J.* 52(4):643–671.
- Schaefer U (2008) *Choose and Focus: Japanese Business Strategies for the 21st Century* (Cornell University Press, Ithaca, NY).
- Scott WR (2008) *Institutions and Organizations*, 3rd ed. (Sage, Thousand Oaks, CA).
- Shane S (2004) Encouraging university entrepreneurship? The effect of the Bayh-Dole Act on university patenting in the United States. *J. Bus. Venturing* 19(1):127–151.
- Sine WD, David R, eds. (2010) *Institutions and entrepreneurship. Research in the Sociology of Work*, Vol. 21 (Emerald Group Publishing, Bingley, UK), 1–26.
- Sine WD, David R, Mitsuhashi H (2007) From plan to plant: Effects of certification on operational start-up in the emergent independent power sector. *Organ. Sci.* 18(4):578–594.
- Sine WD, Haveman HA, Tolbert PS (2005) Risky business? Entrepreneurship in the new independent-power sector. *Admin. Sci. Quart.* 50(2):200–232.
- Stephan U, Uhlaner LM (2010) Performance-based vs. socially supportive culture: A cross-national study of descriptive norms and entrepreneurship. *J. Internat. Bus. Stud.* 41(8):1347–1364.

- Stinchcombe AL, March J (1965) Social structure and organizations. *Adv. Strategic Management* 17:229–259.
- Taussig M, Delios A (2015) Unbundling the effects of institutions on firm resources: The contingent value of being local in emerging economy private equity. *Strategic Management J.* 36(12): 1845–1865.
- Thébaud S (2015) Business as plan B: Institutional foundations of gender inequality in entrepreneurship across 24 industrialized countries. *Admin. Sci. Quart.* 60(4):671–711.
- Thornton P (1999) The sociology of entrepreneurship. *Annual Rev. Sociol.* 25:19–46.
- Thornton P, Ocasio W, Lounsbury M (2012) *The Institutional Logics Perspective: A New Approach to Culture, Structure and Process* (Oxford University Press, Oxford, UK).
- Tolbert PS, Zucker LG (1983) Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880–1935. *Admin. Sci. Quart.* 28(1):22–39.
- Tolbert PS, David RJ, Sine WD (2011) Studying choice and change: The intersection of institutional theory and entrepreneurship research. *Organ. Sci.* 22(5):1332–1344.
- Uzzi B (1999) Embeddedness in the making of financial capital: How social relations and networks benefit firms seeking financing. *Amer. Sociol. Rev.* 64(4):481–505.
- van Gelderen M, Thurik R, Bosma N (2006) Success and risk factors in the pre-startup phase. *Small Bus. Econom.* 26(4):319–335.
- Van Stel A, Storey DJ, Thurik AR (2007) The effect of business regulations on nascent and young business entrepreneurship. *Small Bus. Econom.* 28(2–3):171–186.
- Vogel SK (2006) *Japan Remodeled: How Government and Industry Are Reforming Japanese Capitalism* (Cornell University Press, Ithaca, NY).
- Wade JB, Swaminathan A, Saxon MS (1998) Normative and resource flow consequences of local regulations in the American brewing industry, 1845–1918. *Admin. Sci. Quart.* 43(4):905–935.
- Webb JW, Kistruck GM, Ireland RD, Ketchen DJ (2010) The entrepreneurship process in base of the pyramid markets: The case of multinational enterprise/nongovernment organization alliances. *Entrepreneurship Theory Practice* 34(3):555–581.
- Webb JW, Tihanyi L, Ireland RD, Sirmon DG (2009) You say illegal, I say legitimate: Entrepreneurship in the informal economy. *Acad. Management Rev.* 34(3):492–510.
- World Bank (2012) *Doing Business: Doing Business in a More Transparent World* (World Bank, Washington, DC).
- Yang D, Eesley CE, Tian X, Roberts E (2014) *Institutional Flexibility and Entrepreneurship*. SSRN: <http://ssrn.com/abstract=1884493> or <http://dx.doi.org/10.2139/ssrn.1884493>.

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