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Lost in Translation: Cultural Codes are not Blueprints

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Abstract

Every day, in nations all over the world, thousands of people begin the process of starting their own businesses. The volume of startup attempts varies by country, but we can infer that the appeal of business ownership seems nearly universal in capitalist societies. In some societies, people starting their own businesses achieve nearly heroic status, whereas in others the celebrations are more muted. Offsetting these thousands of startup attempts, however, are a similar number of nascent businesses that fail before they become fully operational. Thousands of others very make it through their early months and then succumb in subsequent years. We are fascinated by the universal appeal of business ownership but puzzled by the low likelihood of successfully starting and running a profitable business.

Lost in Translation: Cultural Codes Are Not Blueprints

By

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Comments welcomed but do not quote.

Every day, in nations all over the world, thousands of people begin the process of starting their own businesses. The volume of startup attempts varies by country, but we can infer that the appeal of business ownership seems nearly universal in capitalist societies. In some societies, people starting their own businesses achieve nearly heroic status, whereas in others the celebrations are more muted. Offsetting these thousands of startup attempts, however, are a similar number of nascent businesses that fail before they become fully operational. Thousands of others very make it through their early months and then succumb in subsequent years. We are fascinated by the universal appeal of business ownership but puzzled by the low likelihood of successfully starting and running a profitable business.

The scenario we have depicted suggests two questions. First, what accounts for the positive valuation placed on business ownership? Second, given apparently supportive institutional environments, what accounts for the relatively low likelihood of success? In this paper, we draw on new institutional theory (NIT) to explain the popularity of entrepreneurship, pointing to many sources of institutional support. We argue that many people want to be "entrepreneurial actors." For these people, however, achieving "actor-hood" is not sufficient to deliver the "entrepreneurial knowledge" they need, nor does it seem to guide what entrepreneurs actually do. Using a taxonomy of organizational forms, we focus specifically on two: forms defined by *cultural codes* and forms defined by *blueprints*. We consider what it takes to construct new organizations and ask how nascent entrepreneurs might learn what works and what doesn't.

In thinking about what works, we draw on ideas from the literature on social mechanisms, routines, habits, and heuristics. We explore the ways in which nascent entrepreneurs apply heuristics, acquire habits, learn routines, and become embedded in social mechanisms relevant to business startups. We consider not only the instrumental but also the emotional dimension to business construction. Our goal is *not* to explain who tries to become an entrepreneur but rather, *how* do they go about it? Our review of the literature on entrepreneurship shows that we know less than we should

about how entrepreneurs actually do their necessary work. Accordingly, we offer suggestions for further investigation.

Our review is guided by several considerations. First, we attempt to maintain an evolutionary perspective, using selection logic and taking account of organizations and their environmental contexts in constructing explanations. We seek a comprehensive and inclusive set of explanations that do not focus only on exceptional cases. Any analyses must fit the empirical facts as we know them from current research. Longer-term, we hope that our arguments are sensitive to cross national contexts and differences, rather than being limited to a single country. Finally, our explanations should be compatible with modern theories of humans, including psychology, social psychology, cognitive neuroscience, and the new analytical sociology framework.

THE CELEBRATION OF ENTREPRENEURIAL IDENTITY AND ITS CONSEQUENCES

What is the evidence for the cultural appeal and widespread popularity of entrepreneurship? In considering this question, we use a very comprehensive definition of "entrepreneurship," including people attempting to start their own businesses and people who run their own businesses, regardless of scale. We focus mainly on the United States, but wherever possible, we offer evidence from other nations.

Public Opinion

Beginning in the late 1940s, social scientists interested in social mobility and inequality began to pay more attention to the appeal of small business ownership. Some researchers focused on the alleged political conservatism of business owners, but others saw them as a link between working- and lower-middle class social locations and mobility into the emerging American middle class (Lipset and Bendix 1959). The growth of large corporate bureaucracies gave rise to the stereotype of "the organization man," perhaps thus enhancing the appeal of working on one's own. One vocal critic, C. Wright Mills (1951), described the soul-deadening situation facing white-collar workers trapped in large

bureaucracies and noted the sizable decline in the proportion of the population that was self-employed. Nonetheless, he showed an implicit admiration for their local influence in small American towns and cities. Other sociologists at the time noted the appeal of self-employment as a feature of the American dream (Chinoy 1955).

Today, surveys can tell us about the extent to which people positively value "ownership," "entrepreneurship," "self-employment," and other synonyms for making a living on one's own account, without being an employee of someone else. Of course, these are surveys can't tell us why people hold positive opinions about ownership, but they can give us a sense of the extent to which such activity is positively valued in a society. Fairlie and Holleran (2011) noted that representative national surveys have consistently shown that people in most nations express a strong desire to be self-employed. One of the most thorough cross national studies of public support for the simplest form of entrepreneurial activity, self-employment, comes from the "Module on Work Orientations/General Social Survey" conducted in 1997/1998 by the ISSP and reanalyzed by Blanchflower, Oswald and Stutzer (2001). The survey is valuable because the wording was deliberately chosen to be consistent across countries. Approximately 25,000 people in 23 nations were asked "suppose you were working and could choose between different kinds of jobs. Which would you prefer: being an employee, or being self-employed?"

Three findings stand out. First, there are large differences across nations and within regions. Second, however, the percentage of people who say would prefer to be self-employed is 50% or more in 13 of the nations and higher than 33% in all but two of the 23. Third, when only people who were currently employees were analyzed, a very strong negative association was found between age and positive responses to the question. Very large proportions of young people in almost all nations expressed strong interest in being self-employed.

Similar appreciation of entrepreneurship as a career choice and as a sought-after status was confirmed in a more recent global survey. In 2010, the Global Entrepreneurship Monitor Project (GEM)

surveyed about 175,000 respondents in 59 countries, asking people their feelings about entrepreneurs and entrepreneurship (Kelley et al. 2011). Across all 59 countries, a majority of the respondents saw entrepreneurship as “a good career choice,” with the percent favorable only below 50% in three nations. In 27 nations, more than 70% percent were favorable. People were even more positive with regard to the status of entrepreneurs in their countries. Across all nations, most respondents said that successful entrepreneurs were accorded “high status” in their cultures. In two-thirds of the countries, more than 70% felt successful entrepreneurs were perceived as possessing high status.

Surveys in the United States have consistently found that support for starting one's own business is very strong among young people. Using data collected by the Gallup organization from more than 1000 young people in late 1995, Kourilsky and Walstad (1998) found that nearly two-thirds of the youth responded positively to a question about their interest in "starting your own business." About 62% of young women and 72% of the young men responded positively. To anticipate a theme we will subsequently develop in more detail, they also asked the youth to do a self-assessment of their knowledge and understanding of starting and running a business. Only 16% of the young women and 21% of the young men rated their knowledge as "excellent to good," and about 80% of both groups said they had only "fair to very poor" knowledge. Those self-assessments turned out to be accurate, as on an eight question multiple-choice test on entrepreneurial knowledge, the average proportion correct was only 42%. (The questions asked about activities such as raising money, making profits, and paying taxes.) Thus, they were very positive about the idea of being a business owner but not at all clear on what was actually involved.

Ethnographic studies of minority ethnic groups in many nations have also uncovered strong positive values regarding business ownership (Waldinger et al. 1990). Contingent upon historical circumstances and characteristics of host societies, very high proportions of some ethnic groups have entered into self-employment, often as a stage on the way to economic integration into the host society

(Aldrich and Waldinger 1990). Valadez (2011:47-48), in her ethnographic observations from 2005 through 2009 of Latino/a, white, and black entrepreneurs who lived and worked in Houston Texas, noted that "many Mexican men and women restaurateurs from disadvantaged-class backgrounds were previously employed in [low-wage low-skill jobs, such as bricklayer, roofer, domestics, janitor, and car washer]. They shared the belief that becoming a business owner would improve their working conditions and lead to a better life." Studies show that groups that became noted for their entrepreneurial prowess in their host societies often displayed no particular aptitude for entrepreneurship in their originating societies. Clearly, something about the cultural and structural conditions in the advanced capitalist societies to which they emigrated played a role in fostering their entrepreneurial dreams.

Institutional Support

In this paper, we will be using new institutional theory (NIT) to explain the various sources of institutional support underpinning the positive sentiments regarding entrepreneurship, as well as to analyze the cultural codes nascent entrepreneurs draw upon in creating startups. Tolbert, David, and Sine (2011) have noted that NIT and entrepreneurship theory have mostly gone their separate ways over the past several decades, even though many of the explanations offered by entrepreneurship researchers depend very much on assumptions about institutional structures and processes. After observing that institutional theory is a way of thinking about social life rather than a "theory" as such, Czarniawska (2008:770-771) offered a simple definition of institutions -- -- "normatively justified patterns of action" -- -- and a more complex one, from the Scandinavian school as influenced by Jim March: "institutions could thus be defined as collections of stable rules and roles and corresponding sets of meanings and interpretations." Most definitions contain some notion of patterned behavior infused with meaning by normative systems and perpetuated by social exchanges facilitated by shared cognitive understandings (Greenwood et al. 2008) and we will follow that definition in our analysis.

We focus on three sets of institutional forces that seem particularly important in promoting the positive views we have described: educational institutions, governments, and popular media. Neff (2011), in her analysis of the emergence of Silicon Alley in New York City in the 1990s, noted that the social processes facilitating the growing positive cultural valuation of entrepreneurship preceded the dot com boom of the 1990s. She pointed to the processes that "make the risks that people take seem safe, natural, and even necessary for survival within the economy. Rather than ask why they did it, we should ask what made taking such chances seem like a good idea at the time, a process that I argue is a social one" (Neff 2011:4). She credited a changing cultural and political landscape with creating a new environment that naturalized the risks involved in entrepreneurship, making it seem less risky. No single event or institutional sector catalyzed the process. Instead, many forces were responsible.

Educational Institutions

Beginning in the mid-1960s, the American university system began an unprecedented expansion, with business schools growing along with the rest of the system. In particular, the number of MBA's awarded increased at an astonishing rate: 1974-75, 36,000 degrees; 1984-85, 67,000 degrees; 1994-95, 94,000 degrees; and in 1999-2000, 112,000 degrees. Undergraduate interest in entrepreneurship courses also increased and the number of faculty hired into entrepreneurship programs or special tracks within business school curricula grew during this time. In the 1980s, specialized magazines targeting entrepreneurs arose, such as Inc. and Fast Company, with such magazines celebrating entrepreneurs and their value to society. By the time that Microsoft went public in the 1980s, "entrepreneurship" had captured the public's attention, politicians were making favorable comments about entrepreneurs and job creation, and entrepreneurship had emerged as a legitimate field of study within universities (Aldrich Forthcoming).

Universities and four-year colleges were not the only institutional sources of preparation and training for potential careers in entrepreneurship. Many community colleges offered a broad spectrum

of courses in the skills and knowledge needed for starting and running businesses, often with the support of local economic development councils and agencies. In the United States, such educational activities rarely reach below the high school level, but in some Western European nations, particularly the Nordic ones, education in economic literacy and the capitalist system starts at much younger ages. For example, at an EU conference on entrepreneurship education in 2006, participants discussed fostering entrepreneurial mindsets at all levels of education, including down through grade school. (For example, see the Nordplus program in creative and entrepreneurship education.)

Governments

After a series of reports from Birch (1979; Birch 1987), the US and European governments began to reformulate their industrial policies, moving away from protecting established industries and toward fostering higher rates of business startups. Governments began funding efforts to collect information on rates of business creation, particularly on the number of jobs generated by the starts. In the United States, state and county governments adopted new policies to encourage the creation of industrial clusters and science parks that would generate new jobs. The highly visible success of Silicon Valley in California served as a template for policy makers in other states. For example, in North Carolina and Texas, major initiatives were undertaken to foster the growth of microelectronics and biotechnology firms. Governmental and political effects on the public's valuation of an entrepreneurial orientation have gone beyond policies regarding business startups, however.

Governmental efforts to inject more market-like mechanisms into the provision of public services over the past three decades has often involved infusing political discourse with references to "enterprise" and "entrepreneurship," as du Gay (2004:40) pointed out: "Embedded in these contemporary programs and strategies for the reformulation of social governance is a particular ethic of personhood – a view of what persons are and what they should be allowed to be. Thus a certain ethic of personhood which stresses autonomy, responsibility and the freedom/obligation of individuals

to actively make choices for themselves can be seen" to infuse contemporary political discourse. Just as governments are interested in fostering entrepreneurial business startups to generate more jobs and thus more tax revenues, they are also interested in citizens becoming more entrepreneurial in managing their own problems, rather than turning to government services. Thus, to some extent, du Gay's argument meshes with Neff's as both see the growth in modern capitalist societies of a positive valuation placed on an ethic of autonomy and personal responsibility.

Media Coverage

Support for the principles of entrepreneurship, autonomy, and personal responsibility has been diffused by coverage in the popular media: newspapers, magazines, websites, books, films, and other sources (Swedberg 2000). As Radu and Redien-Collot (2008) noted, "Through framing, exposure, and interpretation, the media may render entrepreneurship more or less desirable, due to their impact on the acceptability and legitimacy of beliefs about entrepreneurs and their day-to-day actions. At the same time, media may render entrepreneurship as more or less feasible, due to their impact on efficacy and control beliefs about the available institutional support and the personal skills required in order to become a successful entrepreneur." In their study of the social representation of entrepreneurs in the French press, they noted a substantial increase in the number of references to "entrepreneurs" and "entrepreneurship" in the French national media from 2001 through 2005. They argued that the French press increased the social legitimacy of entrepreneurship, fostered positive social norms regarding entrepreneurship's typicality and representativeness, made entrepreneurship more desirable, and even made it seem feasible. Of course, there is a limit to how much "know-how" the press can impart.

In the United States, coverage of business ownership issues began increasing well before the .com boom of the 1990s. From 1982 through 1995, the number of articles on business ownership increased by more than fivefold in major national newspapers (Baker et al. 1997). The number of magazines and books on entrepreneurship has exploded since the mid-1990s, and there were over

26,000 listings for "entrepreneurship" on the Amazon.com site as of May, 2011. Major newspapers now run columns on entrepreneurship, rather than just small business, and although wealthy entrepreneurs are still occasionally portrayed in a negative light, film and television coverage is mostly positive. The GEM project found that 56% of respondents across all nations felt that entrepreneurs were receiving positive attention in the media (Kelley et al. 2011).

Consequences of the Institutional Celebration of Entrepreneurship

We believe that the celebration of entrepreneurship and the veneration of entrepreneurs in modern capitalist societies have contributed to the occupational oversupply of entrepreneurs as well as the high failure rate of business startups. The institutional forces we have identified contribute in many indirect and subtle ways to both high startup rates and high failure rates.

Business Startups

The GEM project asked people about their entrepreneurial intentions and found that across the 59 nations, a little more than 8% of the people interviewed expressed positive interest in starting a business (Kelley et al. 2011). Variation across the countries studied was enormous, with rates down in the single digits in 23 nations but above 20% in 30 nations. Clearly, most of the people expressing entrepreneurial intentions could not carry through on them, and so the actual nascent entrepreneur and new business ownership rates were lower. The GEM researchers broke the sample into three groups of nations and found that the nascent entrepreneurship rates differed substantially across the three groups: about 12% for the 13 factor-driven economies (for example, Bolivia and Uganda), about 7% for the 24 efficiency-driven economies (for example, Chile and South Africa) and about 3% for the 22 innovation-driven economies (for example, Australia and Norway). The cumulative impact of these activities was substantial, as the GEM investigators estimated that "across the sample of 59 economies, we estimate that some 110 million people between 18-64 years old were actively engaged in starting a

business. Another 140 million were running new businesses they started less than 3 1/2 years earlier" (Kelley et al. 2011:22).

More detailed national level data from individual countries tell the same story of large numbers of startup attempts each year. For example, in United States the Bureau of Labor Statistics began collecting detailed information about business starts toward the end of the past decade. The Business Employment Dynamics (BED) program, an outgrowth of the Quarterly Census of Employment and Wages program, collects data on the births and deaths of establishments and businesses that have at least one employee (Sadeghi 2008), and does not track business entities without employees. Many establishment births represent an expansion of existing firms -- perhaps as many as 50% -- but even taking that into account, the BED series shows that about 100,000 firms were born every quarter in the United States over the past decade. By some estimates, the number of firm births that do not include employees is about three times that number (Acs et al. 2009). Thus, as many as 100,000 nascent entrepreneurs were attempting to start a new business every month.

Business Failures

Offsetting these large numbers of business startups is an equally large number of business closings and failures. Since Stinchcombe's classic paper introduced the concept of the liability of newness, organization and entrepreneurship theorists have been aware that many attempts to create new businesses do not succeed (Stinchcombe 1965). We will return to those reasons later in the paper, but for the present, we simply want to note that the fragility of new firms is well-established. In addition, established businesses also are subject to closure, whether through retirement, lack of profitability, bankruptcy, or other causes. In this paper, we are mainly concerned with failed organizing efforts in startups' early years, rather than longer-term closing rates. However, business statistics are mostly collected by governments and agencies for closings and failures without regard to business age.

The GEM project asked respondents whether they had discontinued a business in the past 12 months and to what they attributed the closing. Financial difficulties were the most common reasons given. Unfortunately, the GEM project reported closing rates as a percent of the population aged 18 to 64, rather than as a percent of the existing business population, and so the figures cannot be directly compared to results reported in the entrepreneurship literature. Given that the rates were reported as a percentage of the adult population, rather than as a percentage of the business population, the amount of variation discovered was surprising. In the factor-driven economies, about 12% reported closing a business in the past year, compared to about 4% in the efficiency-driven economies and about 2% in the innovation-driven economies. For the latter two groups of nations, these events seem less likely than becoming unemployed, but without data on the baseline size of the business population, it is difficult to say more.

For the United States, the BED series reports establishment death rates, rather than firm death rates, but it is still possible to get a sense of the volatility of the business population from their reports. "During the fourth quarter of 2006 – – the latest quarter for which establishment death data are available – – 195,428 establishments went permanently out of business, losing 824,254 jobs" (Sadeghi 2008:10). Throughout most of the first decade of the 21st century, establishment births were slightly larger than establishment deaths, but that pattern changed in the last few years. For our purposes, it is sufficient to point out that hundreds of thousands of establishments were being created each year and hundreds of thousands were permanently closing. Many of those closures were of new firms, but it is impossible from the BED series to tell exactly how many.

Our review to this point documents the strong positive valuation citizens in nearly all advanced capitalist societies place on self-employment, business ownership, and entrepreneurship. We have used these terms interchangeably because most people, unlike academic researchers, treat the terms as interchangeable. The positive assessment is particularly strong among young people, who have yet to

actually experience life as employees. Our review also points to a number of forces providing strong institutional support for the positive assessment of entrepreneurship. We do not argue that these forces directly "cause" people to become nascent entrepreneurs, but neither do we think that they are inconsequential. We see them as part of a complex of forces that may contribute to the phenomena we have identified. Millions of people in advanced capitalist societies not only express positive opinions about entrepreneurship and entrepreneurs but also try it themselves, at least once. The evidence seems to indicate that for most of them, once would be enough. We turn now to the question of what people actually do when they began their entrepreneurial journeys. Our goal is to understand why, with so much interest in "being an entrepreneur," so few actually succeed.

WHAT DO ENTREPRENEURS CREATE? THEORETICAL APPROACHES TO DEFINING ORGANIZATIONAL FORMS & ORGANIZATIONS

To understand the challenge facing nascent entrepreneurs seeking to create their own businesses, we need a theoretically based scheme for thinking about organizational forms. We will use the four part taxonomy from Aldrich and Ruef (2006) to expand upon the conundrum driving our analysis: the gap between the positive cultural valuation of entrepreneurship and the actual execution of startup activities by nascent entrepreneurs. We then use a definition of organizations, modified from Aldrich and Ruef, as a way of identifying the various activities involved in actually constructing organizations.

Thinking about Organizational Forms

Organizational forms provide taken-for-granted templates for structuring activities in modern society. Although common labels for organizational forms -- such as "universities" or "hospitals" -- imply a well-established, intuitive understanding of these constructs, considerable debate exists regarding the theoretical basis for defining organizational forms. Two dimensions are useful in distinguishing among perspectives on organizational forms, as shown in Table 1. The vertical dimension considers the extent

to which the definition of an organizational form is seen as objective or subjective in character, while the horizontal dimension considers whether the definition relies on internal organizational attributes or processes external to the boundaries of organizations.

Table 1 *Theoretical approaches to defining organizational forms*

Focus with respect to role of perception	Focus with respect to organizational boundaries	
	Internal	External
Objective	'Blueprints'	'Resource Niches'
Subjective	'Organizational Identities'	'Cultural Codes'

Consider the upper left quadrant of the table: forms as blueprints. Traditional approaches to defining organizational forms have generally emphasized processes that occur within the boundaries of organizations. Insofar as organizational knowledge and routines are seen as having an “objective” existence -- that is, somewhat independent of the perception of observers -- this suggests that organizational forms can be defined in terms of basic *blueprints* for transforming inputs into organizational products or responses (Hannan and Freeman 1977). Following this line of thought, McKelvey (1982) called attention to a subset of “dominant competencies” that are especially important to particular organizational forms, whereas Pentland and Feldman (2005) were more interested in a comprehensive inventory of the routines employed in organizational settings. Taken literally, the blueprint conception of forms implies that the fundamental features of organizations are specified *a priori*, rather than emerging as organizations interact with their environments. From this perspective, the task facing nascent entrepreneurs is how to discover such blueprints and then put them into action

by executing the instructions they find. If, however, they cannot locate such blueprints, they face the task of developing the required instructions on their own.

Other organizational theorists treat the relative level of consensus on organizational form as an empirical question when viewed from the internal perspective of members, as shown in the lower left quadrant of the table. This leads to a subjective definition of organizational forms in terms of *identities*, revolving around the members' sense of who "we" are (Whetten 2006). This approach argues that multiple strands of meaning run through most organizations as they evolve into bounded forms (Martin 2002). Although an emphasis on identities may seem to underscore the uniqueness of organizations, students of organizational culture point out that such claims are typically paradoxical, since notions of identity often draw on standardized cultural templates found in the surrounding society. The concept of an organizational "form" can capture this internal redeployment of standardized cultural templates. From this perspective, nascent entrepreneurs must find ways to align stakeholders' interests around shared goals and focus on boundary maintaining activities shielding organizations from unwanted external influences.

Consider now those definitions of organizational forms that focus on processes outside the boundaries of individual organizations, as shown in the second column of the table. One alternative perspective moves the locus of perception from organizational members to external audiences, defining forms in terms of *cultural codes* that allow the audience to classify organizations and sanction deviance from their categorical schemata (Zuckerman 1999; Pólos et al. 2002). From this perspective, nascent entrepreneurs must find ways of differentiating their organizations from others, while ensuring that outsiders recognize them as a legitimate organization of its type. Organizational goals must align with the "common knowledge" that outsiders have of the legitimate characteristics of such organizations.

The other external perspective emphasizes the material, rather than cultural, context of organizations. Accordingly, organizational forms are defined in terms of their *resource niche*, consisting

of the “social, economic, and political conditions that can sustain the functioning of organizations that embody a particular form” (Hannan and Carroll 1995:34). For example, charter school founders must meet the strict requirements specified in the laws of their states. From this perspective, nascent entrepreneurs must mobilize enough resources to be competitive and find ways of competing effectively with other claimants on the resources they seek.

In this paper, we are particularly interested in the contrast between thinking about organizational forms in terms of the external cultural codes that tap into widely held perceptions *versus* thinking in terms of internal definitions of organizational forms based on the knowledge required to sustain formal blueprints for organizational activity. For purposes of our analysis, we are less concerned with addressing the often contested internal organizational cultures and identities that evolve in the process of organizational formation. We emphasize the role of forms in structuring individual organizations to suggest how the two abstract notions of “cultural codes” and “blueprints” underlie the puzzle of high founding rates and high failure rates.

Thinking about Organizations

In addition to thinking about organizations as representatives of abstract organizational forms, we can also think about organizations as distinct social entities and units of analysis. Taking account of issues raised in our discussion of table 1, we build a framework for the analysis of organizational creation by defining emerging organizations as goal directed, resource based, boundary maintaining, and socially constructed systems of human activity (Katz and Gartner 1988; Aldrich and Ruef 2006). This definition focuses attention on the social processes involved in the genesis and persistence of organizations. The first dimension, goal direction, builds on the concept of forms as organizational identities: goal-directed behaviors and the deliberate design of activity systems are features marking organizations off from other collectivities, such as families and small groups. Organizations are purposive systems in which members behave as if their organizations have goals, although individual

participants might personally feel indifferent toward those goals or even alienated from them. The second dimension, resources, builds on the dimension of organizational forms as occupying resource niches: founders must compete for the building blocks of organizations, consisting of human capital, financial capital, and other basic components, such as equipment and materials (Wernerfelt 1984; Katz and Gartner 1988).

The third dimension, routines, builds on the dimension of organizational forms as being based on blueprints: it refers to the ways in which organizations accomplish work, which include processing raw materials, collecting information, and eliciting cooperation among employees (Nelson and Winter 1982). The fourth dimension, boundaries, builds on the dimension of organizations as reflecting cultural codes: it indexes the extent to which emerging organizations differentiate themselves from other organizations in their environments and also make connections with them (Santos and Eisenhardt 2005). Using this four-part definition, our framework encompasses multiple aspects of organizational emergence which confront nascent entrepreneurs seeking to construct new organizations. In our extended analysis, however, we will focus mainly on the third and fourth dimensions: routines and boundaries.

CULTURAL CODES AND NEW INSTITUTIONAL THEORY

We have argued that multiple institutional forces in modern capitalist societies create, sustain, and diffuse positive conceptions of "entrepreneur" and "entrepreneurship." Many opportunities thus exist for people to encounter such views and to have such views reinforced through repeated exposures. In the previous section, we implied that there was a natural affinity between the overall positive conceptions of entrepreneurship and the cultural codes perspective on organizational forms. Although the positive norms and values regarding entrepreneurship don't necessarily imply any particular kind of organization for their realization, we believe that the linkage is easily drawn by most people. In this section, we use new institutional theory to further explore this possibility.

Anyone writing about “institutional theory” or “neo-institutional theory” must be cognizant of the rather large tent within which institutional theorists dwell. The classical institutional theory perspective, as exemplified in the work of Meyer and Rowan (1977) and Dick Scott (2001), follows a form of “hard” institutionalism that downplays strategic action undertaken by self-interested actors and plays up the role of culture and constrained cognition. Indeed, one could almost read these accounts as positing humans as puppets programmed with culturally determined scripts. In the multidisciplinary field labeled “organizational institutionalism,” most explanations emphasize the one-way influence of institutions on organizational actions, as in studies of diffusion across organizations and adaptation to institutional constraints (Schneiberg and Clemens 2006:201). Over the past few decades, Meyer and Scott have diverged somewhat in their approach to NIT, and it is instructive to examine their views on institutions and agency. To anticipate our argument, we find it useful to think of Meyer’s “hard institutionalism” in considering the creation of entrepreneurs in modern societies as “actors,” but then to draw upon Scott’s “soft institutionalism” when thinking about entrepreneurial action. Whether this constitutes theoretical schizophrenia or a brilliant strategic move on our part is yet to be determined!

Hard versus Soft Institutionalism

In a spirited essay that concluded an historic edited volume on organizational institutionalism, Meyer (2008) assessed the several dozen contributed papers and offered a ringing defense of the new institutionalism against what he saw as “creeping realism” in many of the contributions. He argued that the purposeful, forward-looking, intelligent actors portrayed in some institutional explanations represented an unrecognized intrusion of modernist ideas about human autonomy and control into institutional theory. Modernism in the social sciences, after the mid-20th century, championed a “rational choice” perspective on what humans could do, once they were freed by the expansion of free markets, the rule of democracy, and modern technology. Meyer argued that the term “actor” implies the notion of people making choices, although it is clear that neo-institutional theory implies “actors”

who mostly follow prewritten scripts. Meyer advocated a hard-line phenomenological approach to institutional analyses in which "actors" don't really need to make "choices" because they are embedded in environments that essentially leave them no choices to make.

In contrast to Meyer's hard-line approach, Scott (2008) has argued that early on, theorists overstated the extent to which institutional environments exhibited coherence and unity, treating institutional environments as imposing uniform requirements on passive organizations. As NIT matured, theorists observed that institutional effects differed by sectors and "organizational fields," with some more constraining than others. Theorists moved further to acknowledge heterogeneity within fields, calling them complex, fragmented, and shot through with ambiguity, leading observers to ponder what would happen next, given competing alternatives. Another development was the recognition that laws and regulations could be resisted and reinterpreted by those to whom they were applied. In consequence, theorists began to write about opportunities for choice and the use of agency among "actors" (individuals and organizations). Scott also noted that as NIT matured, it recognized change as well as stability and order. He argued that contemporary NIT is not only about constraint, but also empowerment, through the creation of particular roles and practices, because virtually all contemporary actors operate in multiple institutional environments offering them resources for creativity and innovation. His perspective thus entertains the possibility that at least some entrepreneurs act mindfully (Langer 2009).

Creating Entrepreneurs as Actors

From the perspective of hard institutionalism, entrepreneurship is not a question of motives but rather one of identity. As Meyer would argue, individual variation does not *ipso facto* mean the individuals are autonomous actors. Meyer noted that globalizing forces entice humans into constructing themselves as *actors*: "in an expanding and globalizing world society, people and groups everywhere seem to be eager to be actors -- this often takes precedence over other goals, and can produce

assertions of actor identity far from any actual actor capability. People, in short, may put more effort into being actors than into acting" (Meyer 2008:803). From the perspective of "hard" institutionalism, asking people why they want to become entrepreneurs is ultimately futile: they don't really "decide" to become entrepreneurs. Instead, in capitalist economies they are caught up in institutional scripts that have them playing the *role* of entrepreneurs.

In their classic essay that served as the catalyst for the growth of NIT, Meyer and Rowan (1977:145) essentially argued that nascent entrepreneurs could find all they needed for their new ventures by simply looking around: "the growth of rationalized institutional structures in society makes formal organizations...both easier to create and more necessary. After all, the building blocks for organizations come to be littered around the societal landscape; it takes only a little entrepreneurial energy to assemble them into a structure. And because these building blocks are considered proper, adequate, rational and necessary, organizations must incorporate them to avoid illegitimacy." Their portrayal of the organizational construction process makes it sound very much like the description on a box containing a child's toy: "some assembly required"! But is it really that simple?

Meyer and Rowan appear to have in mind the building blocks underpinning larger organizations, such as educational institutions, hospitals, and large publicly-held businesses. Although it may be true that knowledgeable individuals could name the abstract concepts and principles for such building blocks, it is not at all clear that they would be competent to seek out the resources, develop the routines, and actually assemble such organizations. Most adults are only modestly economically literate, and as we will note later, entrepreneurship education doesn't seem to improve their skills very much. NIT clearly overstates the simplicity of the building process, but nonetheless we find NIT helpful in thinking about the entrepreneurial discourses and vocabularies of motives in which nascent entrepreneurs are embedded. Becoming an aspiring entrepreneur may require no more than a guileless declaration and a

commitment to using the entrepreneurial vocabulary provided by the institutional forces we've described earlier.

At the heart of the concept of organizational forms as cultural codes lies the notion that everyone can recognize an organizational form when they see it. They don't need to be a specialist in that particular population or industry to make a judgment about whether a particular organization is using an appropriate form. Were that the case, then the concept of cultural codes would lose its analytic leverage. We recognize that certain kinds of consequential judgments regarding organizational forms lie in the hands of specialists, such as security analysts (Zuckerman 1999), but NIT has wider ambitions. Its arguments about legitimacy, identity, and the importance of symbols apply across the broad spectrum of literate adults, not just specialists (Aldrich and Fiol 1994).

Perhaps a simple example will suffice to illustrate our point regarding the incomplete nature of cultural codes, roles, and general knowledge as guides to actually carrying out often effective performance. Consider two kinds of group activities that involve cooperation to facilitate teamwork. First, imagine a pickup soccer game between young adults in a park and second, picture a jazz improvisational group formed to enable its members, struggling music teachers, to earn a better living. The adults playing soccer will succeed in creating a viable team if the members have a general understanding of the rules and have observed the game previously so that they know some of the simple routines. However, if they have not practiced before or seriously played the game, they will not have developed the habits they need to skillfully play their roles (Dorrance and Averbuch 2005). Many of the skills needed are embodied, not simply a matter of knowing what to do but also in having practiced such that they can use their bodies skillfully. Moreover, without a coach or a skilled captain, there'll be little organization to their play. So, while they may perform well enough for some idle recreation, they will go no further.

The adults forming the jazz group have a much higher threshold to cross. Skilled jazz musicians who know the Great American songbook -- musicians who either grew up in the 1940s and 1950s or

who have carefully studied and practiced that era's music -- will be able to form a group quite easily. If they are highly skilled on their instruments, with the requisite habits, they will know enough so that if someone simply calls the tune, announces the key and chord structure, and counts out the beat, they can begin to play (Faulkner and Becker 2009). Skilled musicians who don't know the song's melody can simply listen to it the first time through and then join in. As is the case with the soccer players, embodied cognition is an important part of the performance, as musicians' hands, feet, and breathing patterns affect their playing. Musicians who know how to play their instruments but don't know the Great American songbook and have not played in an improvisational setting before will simply be lost.

We have given these extended examples, comparing organized groups in two different settings, to make a simple point. In the case of the pickup soccer game, reasonably-fit adults will be able to give a good account of themselves, but the team's performance will be abysmal. If the adults can spare the time for repeated meetings, their performance might improve. In the case of the jazz improvisational group, if the members don't bring a very high level of skill to the group at the beginning, they won't even be able to start their performance. A very high level of expertise and knowledge is required to achieve a competent group performance. Nevertheless, in both cases, adults in most societies could probably easily describe the general requirements of each activity and even express their admiration for the players involved. But knowing the form and knowing how to perform it are two very different things.

BLUEPRINTS: WHAT DOES IT TAKE TO BUILD AN ORGANIZATION?

Although it has outgrown its roots in the applied literature from small business management, the field of entrepreneurship still has a strong interest in generating, documenting, and applying useful knowledge. As business policy and strategy researchers have moved into the field, concepts and principles from the knowledge based view of the firm have turned up more frequently in the entrepreneurship literature. Similarly, labor market economists and sociologists studying work and occupations have brought the concepts of human and social capital to bear on questions of

entrepreneurial performance. Implicit in this literature is an assumption that entrepreneurial success depends, in part, on what entrepreneurs know and how they use it. In this section, we make problematic the question of what it is that entrepreneurs actually know, how they learn it, and how consequential it is for the success of business startups.

The Right Tools for the Job

Building on conceptions of knowledge and capabilities from the business strategy literature (Barney 1991), entrepreneurship scholars have developed an extensive literature about entrepreneurial knowledge (West and Noel 2009; Sullivan and Marvel 2011). For example, Wiklund and Shepherd (2003) argued that procedural knowledge, which entrepreneurs acquired from experience with similar situations in the past, strongly influenced entrepreneurial performance. Alvarez and Busenitz (2001:762) asserted that entrepreneurial knowledge is "abstract knowledge of where and how to obtain resources" and it is especially important at the founding stage, an argument echoed by Kor, Mahoney, and Michael (2007). Page and Noel (2009:5) wrote that such knowledge "must reside largely in the mind of the founder" and Shane (2000) argued that prior knowledge was particularly important in opportunity identification. Dencker, Gruber, and Shah (2009:517) noted that "a number of studies show that diversifying and de novo firms with pre-entry experience in fields relevant to their new venture survive longer than firms without relevant experience." In these works and others, entrepreneurship and strategy theorists use an abstract conception of "knowledge" that in some respects seems very atomized and individualized. We agree that nascent entrepreneurs, if they are to build a new organization, must "know" something. However, taking account of the "blueprint" perspective on organizational forms, we want to expand the scope of what is considered "entrepreneurial knowledge."

We find it helpful to think of the founding process as comprising nascent entrepreneurs engaging in *actions* that produce outcomes. What do entrepreneurs need to do to create goal directed, resource acquiring, boundary maintaining, and organized sets of activities? Rather than thinking of

nascent entrepreneurs as possessing discrete bits of knowledge and skills which they carry and apply as individuals, we prefer to think of them as engaging in entwined practices that are often carried out in collaboration with others. Analytically, we think of the actions required to build organizations as consisting of nested sets of increasingly specific logics of action, oriented to the solution of specific organizing problems. We have identified a loose hierarchy of four levels: social mechanisms, routines, habits, and heuristics. As these terms have often been used by various authors to refer to slightly different ideas, we will note when our usage differs from that of others. Although sometimes the labels may be different, we think we have captured the spirit of others' contributions.

Social Mechanisms

The concept of social mechanisms can be situated in the larger context of the new field of analytical sociology, which seeks to develop dynamic theories of the middle range, following Merton's pioneering work (Hedstrom and Udehn 2009). Gross (2009:359) defined social practices as "ways of doing and thinking that are often tacit, acquire meaning from widely shared presuppositions and underlying semiotic codes, and are tied to particular locations in the social structure and to the collective history of groups." This is the level of analysis that Meyer and Rowan seem to have in mind in their description of the building blocks of organizations. Entrepreneurs interpret opportunities while embedded in a system of cultural understandings, drawing upon and conditioned by their (learned) habitual responses to the situations they encounter. Entrepreneurs use many "social mechanisms" as they create new ventures, encountering problem situations and drawing upon social practices and available resources to solve the problems. Thus, to explain historical and comparative variations in entrepreneurship, we need to understand the social practices extant at particular times and places. Institutional frameworks structure the context within which social practices emerge.

As summarized by Pajunen (2008:1451), mechanisms consist of interrelated characteristics in which component parts and activities/interactions produce something within a hierarchical

arrangement. The component parts may be people, groups, managers, and so forth, and results may depend on synergistic interaction with others. Activities within a mechanism create emergent outcomes in which activities at lower levels combined to generate the overall outcome. The critical feature of such outcomes is that "practices are generally understood as forms of doing or ways of acting and interacting that appear within particular communities or groups" (Gross 2009:365).

Applying this concept to the creation of organizations, we can think of the generic social mechanisms involved in recruiting members, seeking resources, developing organized and replicable processes, and protecting boundaries. For example, considered at this abstract level, all founders of organizations confront the problem of recruiting other people. For social movements, such people may be thought of as "supporters." For sports and leisure oriented groups, such people may be thought of as "players." For philanthropic and charity oriented groups, such people may be thought of as "volunteers." Finally, for newly forming small firms, such people may be thought of as "employees," paid and unpaid. The specific way in which recruitment occurs is not spelled out within the generic mechanism, but the problems to be solved are made manifest by socio-cultural understandings of the "recruitment mechanism." The specifics are spelled out in "routines," to which we turn next.

Routines

Given that the concept of routines was introduced to the organization theory community almost 3 decades ago (Nelson and Winter 1982), it is surprising that the concept has been so little used in entrepreneurship. Nelson and winter's book has been cited almost 20,000 times, according to Google scholar, but a cursory search through the entrepreneurship journals found few articles that have made serious use of the "routines" concept. Its diffusion to the entrepreneurship field has been delayed in part by major challenges in studying routines empirically and also because the concept has mostly been used by researchers studying established organizations, rather than new ones. Nonetheless, we think

the concept makes concrete the idea of social mechanisms and helps us understand the challenges facing nascent entrepreneurs.

Organizational learning theorists and evolutionary economists have created an international community oriented to the development of the "routines" concept. In 1996, a review article summarized progress to that point (Cohen et al. 1996:683), with the working group even offering a definition: "a routine is an executable *capability* for repeated performance in some context that has been *learned* by an organization in response to *selection pressures*." That apparent consensus doesn't seem to have lasted. An article a decade later provided an updated review (Pentland and Feldman 2005), followed by an edited book that took a comprehensive look at the field in 2009 (Becker and Lazarc 2009). We cannot do justice to the complexities of all the issues involved, but we can give a sense of why we see the concept as relevant to understanding the gap between "cultural codes" and "blueprints."

Pentland and Feldman, following terminology used by Latour (1986), distinguished between two aspects of routines: ostensive (abstract patterns) and performative (specific actions). From an ostensive point of view, routines can be characterized as "abstract patterns that participants use to guide, account for and referred to specific performances of a routine," whereas from a performative point of view, routines can be characterized "as actual performances by specific people, at specific times, in specific places" (Pentland and Feldman 2005:795). They noted that these two aspects of routines are mutually interdependent, because the ostensive side not only guides performances but is also reproduced by them. Hodgson (2009) made a similar distinction in a critique of what he saw as Winter's mischaracterization of routines as "behaviors." He argued that routines are organizational dispositions rather than the actions themselves, noting that routines exist even when no one is doing anything, and offered the following definition "a routine is ... a generative structure or capacity within an organization. Routines are organizational dispositions and energize conditional patterns of behavior within an

organized group of individuals, involving sequential responses to cues" (Hodgson 2009:33). Notice that he has removed the requirement that routines be "learned."

Returning now to the example of recruiting people to new organizations that we offered in the previous section on social mechanisms, we were pleased to discover that Pentland and Feldman actually provided an example of a hiring routine for businesses in their depiction of the ostensive aspects of routines. They noted that such a routine "involves attracting, screening and choosing applicants. If applicants are chosen, the routine also includes some form of extending an offer and joining up. These concepts are ordered as in "first we attract, then we screen" with the end of the narrative being the successful or unsuccessful hiring of one or more employees" (Pentland and Feldman 2005:796). For a startup, founders will probably know the general cultural template provided by the social mechanism for recruiting members to organizations, but a hiring routine will have to be crafted for the specific context each new firm faces.

Similar actions will be required to translate the generic social mechanisms into organization-specific routines involved in seeking resources, developing organized and replicable processes, and protecting boundaries. Nascent entrepreneurs constructing new organizations without comprehensive blueprints face a situation of considerable complexity. Founders may bring some knowledge of pre-existing routines with them, especially if they have founded the organization with coworkers. If they attempt to apply ready-made solutions, their dilemma will be how to adapt them to their specific context. If they have no pre-existing routines to adapt, then they face the problem of developing new ones, in contexts that might be unfamiliar to them. Moreover, simply developing routines implied by the appropriate social mechanisms will not be sufficient to sustain the organization. They must find ways of making the routines replicable, and as many investigators studying routines have pointed out, there's often a sizable gap between the ostensive and performative aspects of routines (Pentland and Feldman 2005).

Studying the Development of Routines in Startups

Because of their dual nature, conducting empirical studies of routines poses a substantial problem for investigators (Pentland and Feldman 2005) and these problems apply with special force to startups, as we will note later. Many studies of organizational routines take a "black box" approach, identifying inputs and outputs and then inferring that what happens in between result from the operation of "routines." Understanding the content and dynamics of routines, however, requires examining them directly. This can be accomplished by observing performances of routines, by listening to people explain why they are doing something, and by looking at the various artifacts associated with routines, such as rules, forms, and checklists. Clearly, a comprehensive understanding would require that investigators consider both the ostensive and performative aspects simultaneously, which is a daunting challenge.

Our review of the empirical projects studying organizational routines identified four diverse research designs. First, a few investigators have created simulated organizational situations in laboratories and have observed people interacting under closely controlled conditions, including the iconic study of card players by Cohen and Bacdayan (1994). Second, some investigators have spent months combing through the archives of organizations, reconstructing routines by tracing the processes involved in conducting some organizational activities (Salvato 2009). Third, investigators have surveyed individuals, through structured and unstructured interviews, to learn how participants themselves describe what they are doing (van der Steen 2009). Fourth, and much less frequently, researchers have gone into the field for extended visits at organizational sites, during which time they observed activities, talked with people, and examined organizational records (Edmondson et al. 2001; Bingham and Eisenhardt Forthcoming). Bingham and Eisenhardt used the label "heuristics" to characterize what entrepreneurial firms learned through their internationalization experiences, whereas we would call the product of their learning "routines." Interestingly, as a member of a research team carrying out an

intensive ethnographic study of a children's camp that was re-created on a yearly cycle every summer, Michael Cohen refused to use the term "routines" (Birnholtz et al. 2009). The researchers described a "coherent set of action patterns" rather than "routines" because they associated that term with mindlessness! In our review of research methods, we found no studies of the genesis of routines in *startup organizations* beyond PSED-type studies.

Habits

Much of human behavior is driven by habits and reactions to context-specific cues, rather than by contemplative forethought (Wood et al. 2002). The same is true of people's internal psychological processes, much of which is governed by "external stimuli and events in one's immediate environment, often without knowledge or awareness of such control" (Bargh and Williams 2006). Campbell (1969) made habitual behavior of a cornerstone of his evolutionary theorizing, and Hodgson has carried on that tradition in evolutionary economics. Indeed, Hodgson considers habitual behavior essential to understanding organizational routines: "routines are not reducible to habits alone; they are organizational meta— habits, existing on a substrate of habituated individuals in a social structure. Routines are one ontological layer above habits themselves" (Hodgson 2009:29-30). Habits are simply dispositions to act in particular ways under certain conditions.

Habits play an important part in our model of how nascent entrepreneurs go about constructing new organizations. Just as we noted in our two examples of the improvisational jazz group and the pickup soccer team, effective human performance in complex situations usually rests on a substrate of habitual behavior. Thus, skilled jazz musicians are not only masters of their instruments but can also read music, understand chord structures, and recognize when their turn comes in collaborative performances. Similarly, if a pickup soccer team is to have any success on the field, players must have some rudimentary skills which are embodied in habitual reactions to common game situations. Outstanding performances by jazz groups and consistently winning performances by soccer teams

depend on more than individual habits, of course. Through coaching and practice, such groups can improve upon the routines that emerge from their actions together, and NIT researchers might eventually say that their routines have become “institutionalized.”

With regard to the example of recruiting people to new organizations that we have been pursuing throughout our discussion, we note that individuals’ habits will affect the way nascent entrepreneurs enact the recruiting routines that have emerged. Earlier we quoted the definition of a recruiting routine offered by Pentland and Feldman which involved attracting, screening and choosing applicants as well as extending an offer. Note that this description is completely shorn of emotional content. It says nothing about being dispassionate in responding to applicant characteristics or holding one's emotions in check when problems arise in interviews. Baron (2008) has noted that affect – – feelings and emotion – – play a strong role in entrepreneurs’ habitual responses to choices they must make. What will employers do when prospective employees question their authority? React with anger or seek a compromise? Thus, the substrate of individual habits underlying organizational routines will affect the way they are actually executed.

For the moment, we point to the importance of habits simply to call attention to what we think is overlooked aspect of the startup process. Many authors writing about corporate and entrepreneurial strategy, especially from a knowledge-based perspective, implicitly assume that entrepreneurial knowledge refers to what is in people's heads. Specifically, it is available for conscious and reflexive processing. By contrast, much of what nascent entrepreneurs will bring to a startup attempt involves social cognition, unconscious mental processes, and habitual behaviors of which they are oblivious. Stepping into the role of an "entrepreneurial actor" may be fairly straightforward and the appropriate generic social mechanisms may also be obvious, but there is no easy deductive link from that level to the requisite routines and habits.

Heuristics

We list heuristics separately from habits to emphasize that theories of entrepreneurship should be grounded in a realistic view of human minds. Our arguments concern what nascent entrepreneurs do in constructing new organizations, thus putting an emphasis on action and outcomes. Even though the humans in our implicit model are often governed by their own habits, constrained by organizational routines, and guided by notions of appropriate social mechanisms, they will still have many opportunities to make choices. Within the constraints we have listed, how will those choices be made? This question is not central to our argument, but we do want to make clear that current psychological research is still developing its own answers to this question. As Goldstein (2009:163-164) noted, "there is a long tradition of viewing the mind as a generalized maker of trade-offs, a prudent judge that weighs and combines all available information through mysterious optimizing processes. However, there is promise in coming at the problem from the opposite direction."

For many years, the group of investigators that some called the "heuristics and biases" research program has argued that people use a variety of mental shortcuts when they are faced with uncertainty. These mental shortcuts, also called heuristics, don't make use of all available information and lead people to use unwisely what information they do collect. Thus, for example, researchers have shown that people rely too heavily on their ability to make judgments from small samples, are overly impressed by highly visible and easily available information, and seem unable to grasp the laws of probability (Tversky and Kahneman 1981). These researchers have mostly been concerned with cognitive biases and the errors that humans tend to make, given their cognitive limitations. A research initiative Goldstein labeled the "adaptive decision program" has been more concerned with the use of heuristics as strategies, searching for the conditions under which various heuristics are used. Finally, building on the adaptive decision program, Goldstein, Gigerenzer and Selten (2001), and others have developed a more optimistic view of human minds, which they have labeled the "fast and frugal" research program.

The fast and frugal research program asks how well people do when using simple heuristics in real-world situations. Rather than the old normative models of rationality or the heuristics and biases model of human fallibility, the new program identifies much of human behavior as ecologically rational. That is, it posits that people use information which is appropriate and helpful, given what's available in their local environments. They use simple decision rules, since such as "take the best," which are good enough in situations in which time and resources must be conserved. Humans are not posited as computational machines that collect, process, and weigh all available information, but rather as doing as well as they can, under the circumstances. We find this view helpful in thinking about how nascent entrepreneurs will react when faced when the pressures of constructing organizations in uncertain situations where they must make do with incomplete information and inadequate resources. It fits well with the pragmatist viewpoint that undergirds the analytical sociology and social mechanisms literature on which we draw.

How Do Nascent Entrepreneurs Know What to Do?

In this section, we begin with the assumption that one or more nascent entrepreneurs have embarked on the process of trying to organize a new business. We've argued that widespread social and cultural support for being an "entrepreneurial actor" gives people the sense that creating a business is a feasible and desirable goal. Achieving this goal requires that nascent entrepreneurs mobilize resources, enact operating routines, and build boundaries for their new organizations. General templates and generic social mechanisms exist for "organizing," but we have argued that they are not specific enough to serve as organizational blueprints. Instead, nascent entrepreneurs must fill in the gaps between cultural codes and the missing blueprints with their own knowledge and skills, as well as possible elicit the cooperation of others. To what extent does prior experience prepare nascent entrepreneurs for the work they need to do? What are the possible sources of entrepreneurial knowledge and skills they might bring to the task?

To organize our presentation of the possible sources of entrepreneurial knowledge and skills, we use the life course perspective (Elder et al. 2006) which refers to the social patterning of events and roles over a person's life span, a process shaped by the interaction of individuals' behaviors and changing historical contexts. Temporal organization is embedded in people's work histories and careers, making the life course perspective especially suited for examining the cumulative effects of work and family career choices. In all capitalist societies, work constitutes an important context for the expression and further development of people's identities and knowledge.

Someone's work career can thus be framed in terms of the extent to which they had opportunities to learn knowledge and skills relevant to organizing a startup. Some of what they have learned will be appropriate and some will be irrelevant. Indeed, some things that have been learned, to the extent that they have become encoded in habits and heuristics, may have become so automatic as to interfere with their ability to respond to unprecedented situations. Nascent entrepreneurs encounter a context in which other people -- vendors, investors, employees, customers, regulators, and so forth -- already have their own expectations concerning "entrepreneurship." Such expectations will constrain, to some extent, when entrepreneurs can do. However, those expectations might also educate entrepreneurs by showing them what they're supposed to do, in particular contexts

We will examine three possible sources of entrepreneurial knowledge and skills that have been identified as important in the literature. First, we will briefly consider the importance of socialization and training within families, especially where parents own businesses. Second, we will examine the potential impact of formal education and training, looking not only at schools and colleges but also at specialized courses focusing on entrepreneurship. Third, we will consider other important sources during people's working careers, when they have been employees, managers, and business owners. Because there are very few process-oriented studies of what nascent entrepreneurs actually do during their early organizing efforts, we will offer suggestions for further research.

The Family Context

In their review of the literature on occupational inheritance, Aldrich and Kim (2007) noted that parents have many avenues through which they can influence the occupational attainment of their children: serving as role models, adopting particular childrearing practices, acting as vocational advisors, and so forth. They may also try to shape the educational experiences and peer-group choices of their children, such as by sending them to private schools and controlling their learning environments. Later, during adolescence, they may invest in vocational or college educations for their children and eventually provide capital for business ventures. International and comparative studies have strongly established that the children of self-employed parents are about twice as likely to themselves become self-employed as others (Arum and Mueller 2004), but there is much less evidence regarding whether parents actually can do anything to improve how well their children actually perform as entrepreneurs starting their own **businesses**. From a life course perspective, parent to child transmission of entrepreneurial knowledge is not a very promising route. Spells of self-employment and business ownership are quite short for most people and in the chances that such spells coincide with opportunities for their children to take advantage of the spell are low. Unless their children are teenagers able to work in the business or adults without other careers of their own, gaining direct hands-on experience is unlikely for most children whose parents have owned businesses.

Nonetheless, let us consider how this might occur with regard to social mechanisms and routines, where two levels of learning are possible: learning routines that are specific to particular types of business and learning routines that are general enough to apply across a broad spectrum of businesses. In either case, the most likely family-based avenue for such learning would be through employment in parents' businesses. A study of 229 business owners in Vancouver found that a little more than half had parents who had been self-employed at some point and about 61% of the children had actually worked in the business (Aldrich et al. 1998). The majority of the children whose parents

where owners began working in the business at a fairly young age but the work was short term and most left for other jobs before they turned 21. Using the nationally representative PSED data set, Aldrich and Kim (2007) reported that for families in which businesses were not jointly owned by both parents, most children did not work at all in the business. Full-time work was also rare. Only about one in 20 respondents in their sample spent at least part of their working lives in a traditionally family-owned business. These results indicate that opportunities for learning either industry-specific or general routines in family-owned businesses are quite limited for most people, but they do not indicate whether people who have the opportunity actually gain from it.

We must broaden the search for family influences on children's success in starting businesses beyond a narrow focus on parents who are business owners. Any family could, regardless of their occupation, positively influence their children's performance in the business arena. We note two possible ways by which families could affect the likelihood of startup success among their children. First, there is strong evidence for the heritability of most psychological traits, such as conscientiousness, encompassing such sub-traits as self-discipline and control (Bouchard and McGue 2003). To the extent that these are positively associated with the skills needed to build businesses, families can be influential. Second, Kohn and others have found strong evidence that parents' value systems shape their children's orientations to the general conditions of work, including preferences for autonomy (Kohn et al. 1986). Together with habits such as timeliness and frugality, what children learn within their families could contribute to successful startup activities.

However, we have been unable to find well designed studies that link family of origin characteristics to the enactment of habits and routines that lead to successful business startups. Studies showing an association between parental self-employment and children self-employment are a promising start, but are fraught with potential problems. Most research uses cross-sectional designs and does not ask whether respondents started the businesses they report owning or bought them from

someone else. An intermediate step toward a more comprehensive investigation might link success at building startups with the habits and personality traits that we know have a genetic basis and are thus heritable or that are strongly influenced by family socialization. Even without detailed data for nascent entrepreneurs on their families of origin, we might plausibly infer that families have played a role.

Education and Training

We have noted that the knowledge-based view of the firm and related approaches to understanding entrepreneurial and corporate strategies emphasizes the positive role of knowledge accumulation on a firm's performance. In reviewing the importance of knowledge acquisition for entrepreneurs, Chrisman, McMullen, and Hall (2005:776) characterized Drucker's (1985) position as "the most likely reason for the high failure rates of startups is that most people do not know what they are doing." They argued that entrepreneurial knowledge can come from many sources, including formal education and experience gained previously as a manager or in startups, particularly in relevant industries. They noted also that knowledge alone is not sufficient, because entrepreneurs must also know how to interpret the knowledge and recognize conditions under which it should be used. Almost all the papers that make claims for the impact of knowledge and skills presume that they improve a firm's performance. In the abstract, this is an unassailable position.

Framed in terms of habits and routines, our question is whether education and training can increase nascent entrepreneurs' knowledge to the extent that they do better in building their businesses than people without such education and training. Empirically, the question actually has two parts. First, what is the evidence that education and training do, in fact, create more knowledgeable entrepreneurs? As Ding (2011:257) noted, education is often used as a background variable in entrepreneurship research, but typically as "a human-capital explanation for individuals' transition[s] into entrepreneurship." Second, what is the evidence that this knowledge makes entrepreneurs more effective in creating viable businesses? Many commentators have pointed out that research on these

two questions has been plagued with methodological difficulties, particularly with respect to research design (Gu et al. 2008; Shane 2010a). For example, in describing the state-of-the-art in research on entrepreneurship education at the college and university level, von Graevenit et al. (2010:91) noted that "the literature has not generated consistent assessments as of yet," primarily for methodological reasons. The most rigorous designs would involve experiments in which potential entrepreneurs are randomly assigned to treatment and control groups, to avoid the biases typically found when people who might already have characteristics that make them likely to succeed are self-selected into training programs. Studies should also control for exogenous factors that might affect the success of education and training, such as economic and demographic characteristics. We have located only a few studies that have evaluated education and training programs using such rigorous standards.

We focus on programs specifically designed to educate potential entrepreneurs, as it is in such programs that we would expect to see the likely impact of education and training, if they are consequential for the startup process. Gu, Karoly, and Zissimopoulos (2008), after noting that there are 16 major small business assistance programs in the United States, conducted a highly critical analysis of research carried out on their effectiveness. They found 22 peer-reviewed studies that evaluated assistance programs, focusing on a heterogeneous set of outcomes, with few actually looking at post--assistance business performance. They concluded that "many evaluation designs do not distinguish the effect of the program's business outcomes from the effect of the economy or other programs, or more generally do not measure the counterfactual of what business outcomes would have been in the absence of the program" (Gu et al. 2008:3). They concluded that "with so few reliable studies, it is hard to be definitive about the effects of small business assistance programs on relevant outcomes" (Gu et al. 2008:26). One should not read their report as saying that education and training have no effect but rather that is simply premature to draw conclusions.

Several authors have looked more closely at a program that was designed from the start to be evaluated, using the standards we have described as the most rigorous: random assignment of people to treatment and control conditions. The Growing America through Entrepreneurship (GATE) program, a five-year project funded by the Department of Labor, enrolled people who were interested in starting or growing a business. The program had a very broad outreach campaign designed to reach as many potential entrepreneurs as possible. Treatment group members met with counselors to assess their needs and then were assigned to a training provider where they received free classroom training and/or one-on-one business counseling. The control group received no free services. Participants were followed up at 6, 18, and 60 months after their application. Although there were slight differences between the two groups in starting a business and in business ownership at the first and second waves, by the third wave, the differences were no longer significant (Michaelides and Benus 2010; Fairlie and Holleran 2011).

In his summary of the Labor Department report on the same project, Shane (2010a) noted that compared to the control group, the recipients of the entrepreneurship training and assistance did not differ in terms of self-employment income, sales, employees, receiving unemployment benefits, or receiving public assistance benefits. Fairly and Holleran (2011), in a more nuanced analysis, examined whether particular individuals might have benefited, even if overall group differences were insignificant. They examined three psychological characteristics of the program participants and found that people with higher risk tolerance did actually benefit more from the program than those with lower risk tolerance, but there was no difference with regard to preferences for autonomy and innovativeness. Their results suggest that the impact of education and training might well be contingent upon individual personality characteristics, a finding that reminds us of our earlier point regarding differences based upon family of origin diversity.

In his quest for evidence that entrepreneurship education might actually make better entrepreneurs, Shane (2010b) located three international studies that were not covered in the review of US assistance programs by Gu, Karoly, and Zissimopoulos (2008). All involved interventions designed to improve the economic status of impoverished people with extremely limited access to resources. Karlan and Valdivia (2006) conducted a randomized experiment in which they randomly assigned participants in a Peruvian village banking micro-finance program for women to regular training sessions or to normal meetings without training sessions. They reported that the training sessions led to improvements in business practices, knowledge, and revenue. A somewhat similar experiment was conducted by a Norwegian team in Tanzania (Berge et al. 2011). They offered business training on a weekly basis for about six months to a selected group of men and women and also offered loans to a subset of them. The training improved the performance of the men but not the women and the authors were quite positive in their assessment of the program's human capital effects. Gine and Mansuri (2009), in partnership with the Pakistani Poverty Alleviation Fund, conducted a large randomized field experiment involving over 5000 participants in four different regions of Pakistan. In the human capital part of the experiment, half the participants were randomly assigned to a six day training course whereas the other half were not. Although men benefited more than women, a test of business knowledge showed improvements in both groups. Financial performance effects were modest, but again the authors were quite optimistic about the intervention.

Whether entrepreneurial knowledge can be improved through formal instruction, based on the studies we have reviewed, is difficult to assess. Ideally, a test of this proposition should begin with research designs that distinguish between habits, general business routines, and industry-specific routines, and then use a rigorous research longitudinal design in which participants are assigned to treatment and control groups. Until such designs are used, we must be content with the mixed evidence provided by the studies we have reviewed. We note that there are many studies of entrepreneurship

education at the college level, but we have not found them useful for our purposes because very few people quit college to start businesses or start them when they graduate. Studies of whether MBA programs provide the tools needed for business startups hold more promise, but again, such studies would need to be conducted using the criteria we have spelled out for effective research designs.

Work Careers

Unlike time spent with family or on informal instruction, working as an employee or manager has a more immediate and direct connection to habits and routines that might prove useful for nascent entrepreneurs. Indeed, many of the scholars using a knowledge based view of the firm make an implicit assumption that nascent entrepreneurs gain valuable knowledge through their employment experiences, whether as employees or managers. Even when knowledge is gained through search rather than experience, some argue that understanding its meaning requires relevant prior experience. We consider the possible effects on entrepreneurial knowledge of three events of varying duration in the life course of entrepreneurs, some of which can be repeated: working as employees, as managers, and as founders of businesses.

Skills that require frequent practice with repeated applications will take a long time to fully mature. With more years of practice, the skills can become habits and implicit, carried out without thinking. However, they might be somewhat narrow and only useful in a small range of applications. If the skills are task specific, then returns to experience are probably important, whereas if skills are fairly general and applicable across many tasks, then repeated applications are less important. Lazear (2005) described people with a wide range of entrepreneurial management skills as having "jack-of-all-trades" sets of skills. Gathmann and Schoenberg (2007) noted that the concept of task specific skills is different from that of occupation specific skills, and implies that high skilled workers only retain their advantages if they move into new positions making use of such skills. Their view suggests that nascent entrepreneurs benefit the most when they attempt to start businesses in industries where they already

a substantial depth of experience. In contrast, one could argue that metacognitive skills that require people to recognize the appropriate contexts for specific skills will not accumulate if people simply engage in repeated applications of the same skills. Instead, the "skill" required is what Simon (Simon and Chase 1973) called "expertise" – an idea made famous by Gladwell's (2008) assertion that true expertise in a field requires at least 10,000 hours of practice. Thus, long spells of employment in the same kind of organizations and perhaps even the same industry would yield only limited returns to experience.

Entrepreneurship scholars have examined the phenomena of employee entrepreneurship for several decades, studying what happens to employees who leave their employers to start a new firm (Brittain and Freeman 1980; Klepper 2001; Franco 2005). Sometimes this occurs with the blessing of the parent firm, in which case we refer to spin outs, and at other times employees leave because they are disgruntled with their promotion possibilities or with the failure of the firm to listen to their ideas. In either case, the question is how much employees benefit from the time they spent with their employer. Some authors have argued that working in small firms gives entrepreneurial advantages to employees because they get to work on a wider variety of tasks, broadening their skill set, and they become more involved in external networks (Shane 2003; Gompers et al. 2005; Sorensen 2007). For example, using panel data on job moves by scientists and engineers covering 1995 to 2001, Elfenbein et al. (2010) found that small firms not only generated disproportionate numbers of entrepreneurs but also ones who became successful. As is common in such archival data sets, they had no information on what the scientists and engineers actually did in their jobs or what role they played, if any, in creating a new business.

A number of studies suggest that the technical know-how employees acquire in technology-based industries allows the spinoffs they create to become highly successful, such as in the disk drive industry (Agarwal et al. 2004; Franco 2005). The process by which they acquired the knowledge and how

they actually used it to build their new firms is not examined in the studies, given their research designs. Indeed, research in this tradition treats the actual construction of spin out firms as unproblematic, focusing instead on the technological competence assumed to have been acquired by employees in parent firms.

Experience in working as an employee may not be sufficient to allow potential entrepreneurs to acquire enough knowledge of organizational routines so that they can later reproduce them. We postulate that experience as a *manager* is much more likely to put people in situations where they actually enact some of the organizational routines they can put to use later. Testing this speculation requires that we determine whether there are general managerial skills that give people the capability of organizing and succeeding at a wide range of businesses, whether they are industry specific, or are so different from the actual knowledge required to create a business that they have little impact on subsequent entrepreneurial success. At one extreme, we could envision entrepreneurial skills that would accumulate within a specific industry but which would not easily translate across industry boundaries. At the other extreme, we could envision metacognitive organizing skills that would accumulate as managers moved across diverse workplaces, learning which practices worked in different kinds of organizations and industries. As Halebian and Finkelstein (1999) noted, lack of experience often leads people to make inappropriate generalizations, not recognizing that they are facing a different situation for which their favored solutions do not work.

Several studies suggest that knowledge from previous work in the same industry can increase the likelihood of a startup's survival. In their study of unemployed people in Germany who founded firms with government assistance, Dencker et al. (2009) found that pre-entry knowledge from prior work experiences lowered the hazard rate of failure for new ventures, whereas general work experience had no effect. Similarly, using the PSEDII to study the liability of newness among US firms, Yang and Aldrich (2011) found that years of work experience in the same industry as the startup significantly

lowered the hazard of failure, whereas years of managerial experience had no effect. Yang and Aldrich also found that the number of startups created by founders lowered failure rates. From these two studies, we infer that significant work experience in the same industry as their new venture relieves founders of having to adapt under extreme time pressures what they have previously learned in other industries to a new context, thus increasing their survival chances.

Summing Up: How Do Entrepreneurs Know What to Do

We examined three possible sources of entrepreneurial knowledge and skills that have been identified as important in the literature: socialization and training within families, formal education and training, and important spells during peoples' working careers, when they have been employees, managers, and business owners. Our review is merely suggestive, because there are very few process-oriented studies of what nascent entrepreneurs do prior to their startup attempts, as well as of what they actually do during their organizing efforts. With regard to families as sources of the habits and routines that might prove useful for nascent entrepreneurs, we found strong arguments that the genetic endowments of children, as expressed in a family context, shape personality traits that might affect the likelihood of someone attempting entrepreneurship and possibly also kinds of activities they would undertake (Shane et al. 2010). Habits often identified as important to entrepreneurial success, such as discipline and a preference for autonomous working conditions, are nurtured in the crucible of the family. Finally, with regard to routines, either general or industry specific, we argued that the odds are slight that children acquire much from their families, given how few of them actually work and family businesses and the sizable gap in time between when they enter the workforce and when they actually attempt to start their own businesses.

With regard to education and training, our review is hampered by the small number of well-designed studies that have examined the impact such programs on starting and running businesses. We noted that one study design according to the gold standard of treatment and control groups, the GATE

project, found little support for the impact of counseling and classroom training on subsequent entrepreneurial success. However, we found some evidence from studies in developing nations that training and counseling can enhance the chances of success for impoverished people beginning from a low baseline of knowledge about business practices. Finally, with regard to work careers, we noted the proliferation of studies that link the success of former employees to what they gained in parent firms, but many of these studies suffer from some of the same design flaws plaguing studies of education and training. Nonetheless, we think there is plausible support for the argument that relevant experience in prior jobs carries useful benefits for nascent entrepreneurs, supporting a point we have made several times concerning embodied cognition and what actions nascent entrepreneurs take in constructing organizations.

CONCLUSIONS AND IMPLICATIONS

We began by posing two questions. First, we noted the widespread appeal of entrepreneurship in nearly all capitalist nations and asked what accounts for the positive valuation placed on business ownership. To explain entrepreneurship's popularity, we drew on new institutional theory (NIT) and identified many sources of institutional support. Second, we noted the great difficulties most people have in actually turning their entrepreneurial dreams into reality and asked what accounts for the relatively low likelihood of success. To explain entrepreneurial failures, we pointed to the gap between "entrepreneur" as a socially desirable role and the tools actually available to aspiring entrepreneurs to build organizations. Puzzled by the size of this gap, we drew on ideas from the literature on social mechanisms, routines, habits, and heuristics, and adapted principles from the life course perspective to explore nascent entrepreneurs' opportunities for learning about startup processes. As we reviewed the literature in search of evidence concerning our inferences and propositions, we discovered that we know less than we should about the nature of entrepreneurial work. In this final section, we offer suggestions for further investigation.

Too Many Entrepreneurs or Too Many Failures?

Are too many people trying to become entrepreneurs? Do the celebration and the veneration of entrepreneurship draw too many people into a hopeless quest? One could argue that if it weren't for the huge supply of people seeing entrepreneurship as a desirable status, capitalist societies would not have enough new businesses. Thus, capitalist economies succeed only because so many nascent entrepreneurs are waiting in the wings to try their luck. Or, one could argue that fewer nascent entrepreneurs would be needed if the ones who tried knew what they were doing, in keeping with Drucker's (1985) droll observation. We have argued that many people want to be "entrepreneurial actors." From this point of view, may fail because they don't have the necessary blueprints -- in our terms, the habits and routines associated with constructing startups -- but rather simply the desire to "be" entrepreneurs. For these people, however, achieving "actor-hood" is not sufficient to deliver the "entrepreneurial knowledge" they need, nor does it seem to guide what they actually do. In short, they are ill-prepared.

Lack of Blueprints as a Source of Entrepreneurial Variation

Cultural codes and the celebration of entrepreneurship don't give nascent entrepreneurs very much on which to base their actions. Flushing out the shell provided by cultural codes requires education and experience, according to our review. Using the perspective of organizational forms as "blueprints," we would argue that imperfect, broken, corrupted, fragmented, and otherwise incomplete sets of routines produce high variability across startups. From an evolutionary viewpoint, such heterogeneity constitutes the raw material on which evolution selection process operate. Variability lies at the heart of evolution and innovation.

In evolutionary theory, outcomes are a product of the interaction between organizations and environments, rather than a result of either taken by itself (Aldrich and Ruef 2006). Applied to entrepreneurship, this formula treats entrepreneurs as agents constructing organizations under

conditions where environments are uncertain and changeable. In addition to this moving target, entrepreneurs are also potentially handicapped by problematic habits and the difficulty of building effective routines with limited resources and knowledge. Selection pressures are relentless and unforgiving, but nonetheless many entrepreneurs persist long beyond the point at which it would have made sense to give up (Yang and Aldrich 2011). Typically, clashes between startup attempts and selection pressures simply reproduce existing organizational forms, but occasionally, departures from the norm succeed. To some extent, then, innovative organizational forms are consequence of a lack of definitive organizational blueprints.

Doing What's Appropriate

NIT points to the institutional pressures on people and organizations to do "what's appropriate," rather than "what works." In the hard-edged version of NIT, institutional forces severely limit variation and that's problematic when variation might help people adapt to local conditions. In the kinder and gentler version of NIT, analysts see institutions as less constraining and people as capable of flexibly adapting to new circumstances. Evolutionary theory, as informed by pragmatism (Hodgson 2004; Gross 2009), goes further and sees humans as capable of situated creativity. That is, under certain conditions, humans have the capacity of acting creatively to construct effective solutions to new problems (Baker et al. 2003). Humans behaving pragmatically, using fast and frugal heuristics (Goldstein 2009), can construct routines that are better fit to local environments than the old routines available to them. We think it is an empirical question as to whether successful startups are a result of prior knowledge, locally adaptive behavior, or some combination of the two. That is, humans acting pragmatically, constrained to some extent by habits and existing routines, can modify "blueprints" to fit local conditions.

Entrepreneurship as Collective Process

Constructing organizations is inherently a social process. Even "solo" nascent entrepreneurs draw on others as they assemble the resources, construct routines, and defend their emerging

organizations' boundaries (Burton et al. 2009). In addition to the founders who either invest or are granted equity in a new venture, often there are also others whom entrepreneurs consider part of the founding team, even if they have no direct investment in the venture. There are also people who lend a helping hand when called upon, such as family and friends, and their services often make the difference between taking advantage of versus missing a momentary opportunity (Kim et al. 2007). We have defined habits at the level of individual actions, but routines clearly involve others, whether they are employees, vendors, consultants, customers, regulators, or other organizations and agencies. Some "business failures" could actually be construed as "social failures" – a failure of nascent entrepreneurs to use social practices that work.

Learning about What Entrepreneurs Actually Do

A common theme throughout our review of the rather large literature relevant to understanding the gap between cultural codes and blueprints has been the lack of detailed and systematic information about what entrepreneurs actually do in building organizations. Without such knowledge, it is difficult to ascertain the antecedents to organizing successes, as we don't know what nascent entrepreneurs are doing and when they are doing it. Most of the literature published under the label of "entrepreneurship research" these days takes the existence of organizations as given and examines what happens next. Studies of organizational foundings generally fall into three groups: (!) using archival or survey data to study the transition from the status of "non-entrepreneur" to "entrepreneur," focusing on individual social, economic, and demographic characteristics; (2) population level studies on the association between industry and community characteristics and rates of startup; and (3) surveys and semi-structured interviews of entrepreneurs who have been through the process already and are asked about what they did (Zott and Huy 2007). All these studies contribute to our understanding of some aspect of the entrepreneurial process, but what we also need is an analysis of what nascent entrepreneurs actually *do* to construct new organizations and how they might learn what works and what doesn't. To

explore this question further, we turn now to analytic ethnography, focusing on actors, actions, and outcomes.

Ethnography in Entrepreneurship Research

In a paper that is been cited more than 1500 times since it appeared, Gartner (1988:63) argued that "who is an entrepreneur?" was the wrong question. Instead, he urged entrepreneurship researchers to go into the field to discover what entrepreneurs actually do: "I believe that research on entrepreneurial behaviors must be based on fieldwork similar to Mintzberg's (1973) study of managerial work. Researchers must observe entrepreneurs in the process of creating organizations. This work must be described in detail and the activities systematized and classified." Among the questions he listed were what specific organizational creation skills are needed, how are those skills acquired, and what special knowledge do serial entrepreneurs gain from their startups. Among the other activities he listed that might be discovered through fieldwork were: team formation, problem diagnosis, and understanding which problems need attention immediately. As we have documented elsewhere (Martinez et al. 2011), with few exceptions (Stewart 1989), entrepreneurship researchers have not heeded Gartner's call. Thus, we repeat it here.

We have found a strong champion of ethnography in Watson (2011), who has strongly endorsed the need for ethnographic studies in the field of organizations and management, arguing that researchers need to watch what people actually do, rather than just tape recording interviews with them. He defined ethnography more broadly than most, calling it "a style of social science writing which draws upon the writer's close observation of and involvement with people in a particular social setting and relates the words spoken and practices observed or experienced to the overall cultural framework within which they occurred" (2011:205). His eclectic definition thus includes not only observation but also interviews, analysis of documents, statistical analysis, and even surveys. The critical element to the method is linking people's words to their actions.

Analytical Ethnography

As we noted when discussing the concept of "social mechanisms," analytical sociology offers explanations of social phenomena using the actions of people involved in social mechanisms that produce outcomes and events (Hedstrom and Udehn 2009). The approach is event-oriented, rather than variable oriented, and is of necessity process-oriented because it tries to explain the dynamics of social life in cause-and-effect terms. Vaughan (2009) argued that the right kind of ethnography can make important contributions to analytical sociology because it also seeks mechanism-based explanations that link multiple levels of analysis. She defined ethnography more narrowly than Watson, describing it as "research conducted by situating oneself in a social setting to observe and analyze individual interaction in order to understand some complex social process, event, activity, or outcome" (2009:690). She argued that analytical ethnography is evidence-based and aims for reliable and valid observations and explanations. Ethnographers spent considerable time in their settings because they need to see the full scope of the processes, including beginning and ending points, and go into the field with no clear guidelines as to how long the process might take. In a review of methods of research on entrepreneurship, Aldrich and Baker (1997) noted the scarcity of entrepreneurial ethnographies and concluded that the resource-intensive nature of observational methods discouraged most investigators from trying them. More recently, Martinez, Yang, and Aldrich (2011) confirmed that the situation had not changed.

We see great promise in the possibility that entrepreneurship researchers -- at least a few -- might take up the challenge of studying nascent entrepreneurs engaged in startup processes. Ethnography can tell us what humans are doing, at the micro level, and allow us to link their actions to routines and social mechanisms that higher levels of analysis. Vaughan noted that an iconic pair of ethnographers, Glaser and Straus (1967), emphasized going from the particulars of a single study to a more general level of explanation. Glaser and Straus described two kinds of explanations. The first is

substantive theory, which explains a particular case being studied, and the second is formal theory, which not only explains a case but also makes comparisons to other cases, possibly research by other ethnographers, and creates a generalization covering all of them. Vaughan noted that the pursuit of theory at a formal level has not been very successful, as most ethnographers have stuck to their own cases. Nonetheless, there is no reason, in principle, preventing analysts from comparing and contrasting multiple cases to derive generalizations about entrepreneurial startups. For example, Kurke and Aldrich (1983) replicated Mintzberg's (1973) study of managerial work, following the same number of managers over the same interval of time as Mintzberg and confirming almost all of his findings regarding how managers use their time. The work is labor intensive, but it can be done.

Concluding thoughts

If entrepreneurship theory is to understand the *emergence* of organizations, not just their structures and strategies after nascent entrepreneurs have created viable organizations, investigators must find new ways of learning about what entrepreneurs do during their early days. Entrepreneurship scholars have done an excellent job in explaining how things work in organizations that have been around for a while, but not how they came to be that way. Even really large organizations started small, usually, but we still know very little about the work that nascent entrepreneurs do in constructing them. Without understanding why and how new social units emerge, we miss the connection between the on-going creative ferment in human societies and the particular realizations of it in new organizations.

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