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Organizations as Fonts of Entrepreneurship

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Most entrepreneurs emanate from established organizations, yet systematic theorizing about the ways in which organizations shape the entrepreneurial process has only recently begun to emerge. We provide a framework for organizing this emerging literature. We focus on four different metaphors in the literature for how organizations matter in the entrepreneurial process and suggest promising avenues for future research.

Key words: entrepreneurship; organizational theory; careers
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Introduction

Organizations beget organizations. Although tales of successful entrepreneurs emerging from college dormitories capture the popular imagination, the vast majority of entrepreneurs enter into entrepreneurship from employment in established firms. Precise data are difficult to come by, but estimates suggest that at least 9 in 10 entrepreneurs work for established employers before launching their ventures. For example, in a study of Silicon Valley start-ups, Burton et al. (2002) were able to identify (from publicly available data) prior employers for all but 7% of the founding team members. Thus at least 93% of the founders were employed before becoming entrepreneurs. Similarly, Gompers et al. (2005) were able to identify a prior employer for approximately 90% of venture capital-funded entrepreneurs in 1999.

In light of this fact, it is natural to expect that our understanding of the entrepreneurial process would be informed by the vast literature on organizations and organizational processes. Yet until recently, there has been a rather distinct separation between the literature on entrepreneurship and the literature on organizations. For example, consider the literature on turnover. Although a key concern of this literature was to understand how workplace conditions influence turnover processes (e.g., Mowday et al. 1982), turnover was viewed largely from the perspective of the originating organization. Even though a portion of turnover events involves entrepreneurial activity, theories of turnover generally do not focus on explaining why some people leave to become entrepreneurs whereas others leave for other jobs. Similarly, much of the focus of the entrepreneurship literature was on understanding the entrepreneur or what makes some individuals more likely to become entrepreneurs. In particular, much of the focus was on the dispositional and biographical features of individuals that make them more likely to launch a new venture. Although elements of social context played a role in these explanations, they were generally very broad features of the economic and social environment or more tightly focused elements such as family background and personal networks.

This division between the study of organizations and the study of entrepreneurship was unfortunate, because entry into entrepreneurship is to a large extent an organizational process (Freeman 1986). By this we mean something very straightforward: in the vast majority of cases, the decision to launch a new venture (or indeed, the decision not to) is made while a person is employed by an existing organization. This does not, of course, mean that the organization plays a large role in shaping the entrepreneurial decision in all cases; a job may just be a job that pays the bills until long-held entrepreneurial ambitions can be realized. Yet such a view would seem inconsistent with much of what we have learned from the literature on organizational behavior on how the structures, composition, and policies and practices of organizations shape individual preferences and beliefs, access to information and opportunities, and creativity and risk taking. Working people spend a large portion of their waking hours in formal organizations, and these organizations shape their experiences in a multitude of ways that they have little control over. It thus seems natural to bring our understanding of these processes to bear on our understanding of entrepreneurship.

Fortunately, in recent years we have seen a convergence in the research interests of organizations and entrepreneurship scholars. In particular, there has been a growth in research that examines the interface between existing organizations (viewed primarily as places of employment) and entrepreneurship, and that seeks to understand how the workplace shapes entrepreneurial activity and outcomes. Our goal in this paper is to provide an initial review of this still-nascent literature. We have not sought to conduct an exhaustive search of the literature and do not claim to be comprehensive. Rather, our aim is to provide an initial framework for organizing research on how the workplace shapes entrepreneurial activity. As will become apparent, scholars have taken up the relationship between the workplace and entrepreneurship with different goals in mind; as a consequence, this nascent area of research can appear to lack coherence, which may stand in the way of progress. We hope that our review will help clarify the major areas of focus and identify issues for future research.

We begin by providing a framework for organizing the literature according to the types of entrepreneurial outcomes studied and the nature of the theoretical mechanisms invoked. We then use papers from the literature to illustrate this framework and to identify continuing puzzles and unresolved issues for future research.

Mapping the Relationship Between Employment and Entrepreneurship

As might be expected when considering research that stands at the intersection of multiple literatures, much confusion can arise from a lack of clarity about basic definitional issues. In considering what has been written about the workplace and entrepreneurship, perhaps the central point of definitional divergence between scholars lies in their conceptual definitions of entrepreneurship. This is a more general characteristic of the entrepreneurship literature, which has not reached consensus on how entrepreneurship should be defined. We do not hope to resolve this issue, and in fact, we are skeptical that it can be resolved. Instead, we merely seek to identify the diversity of approaches.

It is useful, in this respect, to distinguish between two different motivations for being interested in entrepreneurship as a form of economic activity. One motivation lies in the conceptual distinction between entrepreneurship and paid or dependent employment; in other words, this is entrepreneurship viewed primarily as a labor market status. Often this falls under the heading "self-employment." Scholars who focus on this sense of entrepreneurship are interested in why people choose to (or are forced to) launch their own ventures as opposed to working for others. This puzzle is particularly intriguing given evidence that the returns to entrepreneurial activity are, for most who try it, far from lucrative (Hamilton 2000, Shane 2007). But it is also of interest because the whole range of entrepreneurial activity (ranging from the sole, self-employed contractor to the founder of a high-growth venture) is in the aggregate an important component of economic activity and growth.

Some scholars are more interested in understanding entrepreneurship as a source of value creation and economic growth. In this second view, entrepreneurship is interesting because it is the motor of the process of creative destruction and change in advanced capitalist economies (Schumpeter 1950). It is through entrepreneurial activity, broadly defined, that change and renewal happen in organizations and markets. Much of this conceptualization of entrepreneurship therefore emphasizes its innovative and creative aspects: Where do new products and technologies come from? What are the factors that encourage the emergence of new firms with revolutionary, market-transforming products? One interesting feature of this focus is that entrepreneurship does not, strictly speaking, have to imply self-employment or the creation of new ventures. Indeed, Schumpeter's supposition concerning the evolution of capitalism was that large firms would excel at this form of entrepreneurial creativity, thanks to their ability to invest in research and development, etc. For individuals, this form of "intrapreneurship" may take the form of initiating new projects or divisions in an established firm.

Figure 1 cross-classifies these two meanings of entrepreneurship to arrive at a clearer understanding of the different types of outcomes (and implicit comparisons) that are prevalent in the study of the workplace and entrepreneurship. Although it is relatively uncontroversial to treat the labor market dimension as dichotomous (but see Folta et al. 2010), the degree of creativity and value creation involved in an entrepreneurial act varies more continuously. For simplicity, however, we treat it as a high–low dichotomy.[1]

The lower left quadrant of Figure 1 signifies the absence of entrepreneurship; this is the case of continued conventional paid employment where people do the jobs that they have been assigned to do. For most individuals, this is where their careers start, and indeed for many people, their entire working careers are spent in a series of jobs in this quadrant. The upper left quadrant of Figure 1, by contrast, encompasses forms of entrepreneurial activity that are low in innovation and growth potential, but where the worker is self-employed. Allowing for a range of value creation in the ventures, examples in this cell include independent contractors, freelance workers, self-employed professionals and craftsmen, as well as proprietors of small businesses. In the lower right cell of Figure 1, we find cases of individuals who actively contribute to innovation and the process of creative destruction, but do so while maintaining their employment. Although these individuals create new products or processes, they do not assume full risk and responsibility

Figure 1 Types of Entrepreneurial Transition

	Innovation and novelty	
Labor market status	Low	High
Self-employment	Independent contractor Small business proprietor	Venture-backed start-ups Spin-outs
Dependent employment	Conventional employment	Intrapreneurship

for them. This form of entrepreneurial activity may be labeled "intrapreneurship" or "spin-offs," with the latter term perhaps best reserved for the creation of distinct organizations in which the parent company retains ownership. It is worth noting that what falls in this quadrant can be generally thought of as innovation and change by existing organizations. Finally, the upper right quadrant of Figure 1 covers cases that involve both a transition from employment to self-employment and the discovery of an innovative value creation opportunity. This covers to a large extent the forms of "entrepreneurship" that are the focus of popular attention, as well as the types of entrepreneurial activity of interest to business school students, venture capitalists, and the like, who dream of being involved in the next Google or Facebook.

An important reason for highlighting the two distinct dimensions in Figure 1 is that it makes apparent some of the challenges that students of entrepreneurship can create for themselves. This is particularly the case in developing theories to account for outcomes in the upper right corner of Figure 1. Here, we need to explain the intersection and potential interaction of two processes: not only why some people are more likely to discover innovative entrepreneurial opportunities but also which of those people are more likely to pursue those opportunities by launching their own independent venture. Although it is not hard to understand why students of entrepreneurship would want to solve this problem—who would not want to be able to predict who is going to launch the next eBay?—this may be too difficult a challenge, given the current state of theory.

Instead, it may be more productive to think of the two different dimensions as different objects of theorizing. Put simply, it seems unlikely that there is a perfect overlap between the set of theoretical processes that account for changes in employment status and the set of processes that account for the likelihood that individuals will identify the next game-changing innovation. Moreover, even if one recognizes that different "main effects" may be at play, there is no guarantee that they combine in a simple additive manner. Thus when thinking about how existing workplaces may influence the entrepreneurial process, it seems most useful to focus clearly on one chosen dimension. This suggests that theory development in this area will most likely be fruitful to the extent that authors are clear about what aspects of the entrepreneurial process they are trying to explain.

Metaphors for the Relationship Between Existing Firms and Entrepreneurship

We organize our discussion of existing approaches to the relationship between work environments and entrepreneurship in terms of four basic metaphors for how established firms matter in the entrepreneurial process. These basic metaphors are as follows:

- The organization as fonts of knowledge and skills
- The organization as fonts of beliefs and values
- The organization as fonts of social capital
- The organization as fonts of opportunities

We discuss each of these in turn.[2]

The Organization as Fonts of Knowledge and Skills

The most common conceptualization of why the workplace might matter in the entrepreneurial process rests on the idea that the organization is an arena for learning. Thus existing organizations are thought to matter because they shape (directly or indirectly) the skills and knowledge that people bring to the table in the entrepreneurial process and thereby influence the likelihood that those people will become and/or succeed as entrepreneurs. In this sense, existing firms are viewed as potential training grounds for future entrepreneurs. This learning can be along both of the dimensions identified in Figure 1; in other words, existing organizations may teach their employees what they need in order to make the transition to self-employment, and/or they may give them the knowledge needed to launch new products and processes.

One approach in this vein is to emphasize how organizations shape the development of entrepreneurial abilities, where entrepreneurial abilities are thought of as the skills needed to make an independent venture viable. This approach focuses on the determinants of the propensity to leave paid employment for self-employment. The basic logic of this viewpoint is perhaps most clearly articulated in Lazear's (2005) jack-of-all-trades theory of entrepreneurship. Lazear posits that successful entrepreneurship requires the mastery of a wide range of functional areas, such as marketing, sales, manufacturing, etc. Lazear argues that individuals who have a breadth of functional skills have greater entrepreneurial ability: their expected value for a given entrepreneurial opportunity is greater than for individuals who have specialized in a particular functional area. This prediction rests on the assumption, then, that individuals recognize and assess the relevance of their career experiences when evaluating entrepreneurial opportunities.

Employers are important in this kind of story because they determine the extent to which individuals can acquire the breadth of skills needed for entrepreneurship in the jack-of-all-trades story. Organizational structure plays a central role here; the extent to which jobs and roles are broadly versus narrowly defined affects the ability of their incumbents to acquire a wide range of skills. Because organizational size is a major driver of such role differentiation, skill development may be one reason why individuals from small firms are more likely to become entrepreneurs (Sørensen 2007); likewise, it may explain why entrepreneurs from small firms perform better (Sørensen and Phillips 2011). In addition to role differentiation, other firm policies play a role as well; for example, job rotation, cross-training, and cross-functional teams may all increase the exposure of employees to a wider range of functional skills.

Whereas a jack-of-all-trades argument emphasizes an indirect mechanism through which the workplace shapes entrepreneurship, firms may also be arenas for learning about the entrepreneurial process from others. Thus it may be in the workplace, from coworkers and others, that individuals learn how to organize and mobilize the resources necessary for the launch of a new venture. Gompers et al. (2005, p. 612), for example, argue that in entrepreneurial firms, employees can "learn from their co-workers about what it takes to start a new firm." Nanda and Sørensen (2010) show that the presence of former entrepreneurs among one's colleagues increases the rate of entrepreneurship, and they argue that this reflects, in part, an informal training process whereby former entrepreneurs shed light on the entrepreneurial process.

A challenge for skill-based explanations for entrepreneurial entry decisions lies in the fact that entrepreneurial skills are difficult to measure and, indeed, to conceptualize clearly. If we observe that people who have worked in a wider variety of functional roles are more likely to become entrepreneurs, this may indeed be because they have developed greater entrepreneurial abilities. Likewise, the association between exposure to former entrepreneurs and subsequent entry may be due to learning about entrepreneurship. But other explanations are possible. For example, it may be that fixed dispositions cause people to change jobs more frequently because they never like their boss or assigned tasks; this eventually causes them to launch their own venture, creating a spurious association between career experiences and entrepreneurship. Therefore, in the absence of a clear specification of "what it takes" to be an entrepreneur, these types of learning accounts of the entrepreneurial entry decision are on shaky empirical ground. Progress can be made through a clearer conceptual specification of the rather abstract notion of entrepreneurial abilities, along with a stronger empirical validation. We need stronger claims about what it is people learn and how that learning is relevant to the entrepreneurial decision.

A different view of the entrepreneurial learning that goes on in existing organizations focuses not on how it shapes the choice between self-employment and dependent employment, but on how what is learned in existing organizations shapes the new ventures themselves. In this perspective, organizations are consequential for entrepreneurship because they are the places where individuals discover the ideas or innovations around which they build their entrepreneurial ventures, or learn the practices and policies that they implement in their new ventures.

A substantial literature explores the role of "pre-entry knowledge" on entrepreneurial outcomes (e.g., Helfat and Lieberman 2002, Carroll et al. 1996, Klepper 2001, Klepper and Sleeper 2005, Agarwal et al. 2004, Dencker et al. 2009). These studies take the decision to leave paid employment for granted and focus on qualitative differences in the experience and knowledge that the founders bring to the venture. A general theme in this literature is that entrants perform better to the extent that there is greater similarity between the resources and capabilities required for success in the origin and destination industries (Helfat and Lieberman 2002). Whereas much of this literature has focused on industry differences, perhaps more relevant for current purposes is the growing literature on "spin-outs" in an industry, i.e., new ventures that are founded by former employees of industry incumbents (Klepper 2001, Klepper and Sleeper 2005, Agarwal et al. 2004).

The dominant view of spin-outs is that they are a form of knowledge diffusion though employee mobility (Franco and Filson 2006) because they "exploit knowledge their founders acquire from their employers" (Klepper and Sleeper 2005, p. 1292). In his interviews with founders of successful entrepreneurial ventures, Bhidé (2000) finds that the large majority of the founders claimed to have had the idea for their venture while working for their prior employer. Consistent with this, in a study of the laser industry, Klepper and Sleeper (2005) show that the large majority of spin-outs in this industry initially produce a type of laser that the parent company had produced. Moreover, they show that more successful firms—which they interpret to be due to superior knowledge—have higher spin-out rates. Klepper (2001) and Agarwal et al. (2004) argue that there is an association between the quality of the parent company and the quality of the spin-outs, as measured by survival rates.

This may suggest that the most successful entrepreneurs come from the most successful parent firms; however, care must be taken in interpreting the mechanisms behind these associations. In particular, it is not clear whether the better outcomes for entrepreneurs from higher-quality firms can be attributed to their access to better ideas and innovations at the parent firms. Beyond the issue of whether people working for firms of different quality are equally skilled, one must be careful not to assume that the opportunity costs of entrepreneurship are the same across firms. The most successful firms may be the most attractive to work for, either because their success generates pecuniary benefits or because they are simply exciting places to work. By contrast, a long career with a straggling competitor may be less appealing. Employees of successful firms may therefore have a higher threshold for entry into entrepreneurship. The expected value of observed spin-outs will therefore increase with the quality or success of the parent firm because of its increasingly stringent threshold, not because of the quality of the knowledge generated in the parent firm.

Damon Phillips used his organizational genealogy framework to develop an alternative way of conceptualizing the transmission of knowledge from parent firms to the ventures founded by their former employees. Using law firms as an empirical context, Phillips (2002, 2005) argues that much of what prospective entrepreneurs learn from their employers is how to run an organization. In other words, Phillips focuses on the transmission of organizational routines. Unlike decisions about which products to sell or which markets to serve, many organizational founders spend little time consciously reflecting on how to structure organizational routines. Phillips shows that this often means that the new ventures behave in ways similar to their parent firms. This in turn has consequences on competition and the ability of the new firms to grow (Phillips 2002, Sørensen 1999). One advantage of this approach is that it is less ambiguous evidence of learning from the parent organization, because it is unlikely that organizational routines are related in a systematic way to the opportunity costs of entrepreneurship.

The Organization as Fonts of Beliefs and Values

Organizations are not simply places where people acquire skills and encounter ideas and information. They also set the tone. Through formal and informal socialization processes, organizations shape individual values and aspirations. In this way, organizational processes may influence the entrepreneurial decision-making process—in particular, the decision to leave the firm to launch a new venture. It is commonly argued, for example, that people become entrepreneurs because they have a taste for autonomy (Hamilton 2000, Benz 2009), because they have different attitudes toward risk (McClelland 1961), or because they possess a broader set of entrepreneurial job values and aspirations (Halaby 2003). Although these attitudes and values are often viewed as being innate dispositional characteristics, they may also be usefully viewed as arising from social interactions in the workplace.

Work in this area is limited. Drawing on the literature on peer social influence processes, Nanda and Sørensen (2010) argue that coworkers define an important normative environment, based on their own beliefs and experiences, that shapes entry into entrepreneurship. They argue that peers may play an important role in shaping the motivation to leave paid employment to become an entrepreneur. For example, contact with former entrepreneurs in the workplace may demystify the entrepreneurial process, changing beliefs about the nature of entrepreneurship. Furthermore, such contact may help individuals construct a vision of a viable alternative to paid employment and may help develop or accelerate the adoption of entrepreneurial job values.

In addition to peer influences, workplaces may socialize their employees for entrepreneurship through their formal and informal practices. We do not know of work that explores this connection systematically, but such work can identify potentially fruitful areas of intersection. There are natural linkages here, for example, to the extensive literature on the organizational determinants of creativity and innovation (Amabile 1996). Consider the fact that some firms are hotbeds of new ventures whereas others are not (Burton et al. 2002). Although this may, in part, reflect differences in the ability of firms to retain the new ideas generated by their employees, it also undoubtedly can be traced to elements of organizational structure and culture that have been shown to influence individual creativity.

Turning to the decision to leave paid employment, variations within and across firms in the delegation of authority and in the autonomy granted to employees in different roles may play a role in developing the attitudes conducive to entrepreneurial activity. The paucity of research on this topic means that it is not clear whether greater autonomy within the workplace should increase or decrease rates of entrepreneurship; for example, does greater autonomy strengthen or weaken the taste for autonomy? On the one hand, it is commonly asserted that entrepreneurs left their previous former employer in order to have greater autonomy; this seems to imply that the problem with the previous employer was that workers were overly controlled and monitored. On the other hand, the evidence demonstrates that rates of entrepreneurship are lower in more bureaucratic firms (Sørensen 2007). Because one of the hallmarks of bureaucracy is monitoring and control, this suggests that a negative reaction to such practices may not play an important role.

Corporate cultures and the firm's normative environment may also play an important role in stimulating entrepreneurship, although these influences have yet to be fully explored. The potential effects of corporate culture on entrepreneurship can be thought of usefully in terms of two key dimensions of the cultures: their content and their strength. The content of a culture refers to the dominant norms and values in the workplace, which may directly or indirectly shape attitudes toward entrepreneurship or the ability to identify entrepreneurial opportunities. For example, Stuart and Ding (2006) argue that transitions to entrepreneurship among university scientists are influenced by the dominant norms in the university and profession and, in particular, the stigma attached to entrepreneurship. Traditionally, the community of academic scientists associated the pursuit of private science (in the form of entrepreneurial activity) as a betrayal of the core values of science. Stuart and Ding (2006) argue, however, that these norms have changed over time such that the pursuit of entrepreneurial opportunities has become more accepted within leading universities. Cultural norms and values may also shape capabilities for innovation and assumptions about the proper way to pursue such innovations (e.g., inside or outside the firm). Thus Saxenian's (1994) comparison of Silicon Valley and Route 128 suggests that part of the reason for the greater dynamism in Silicon Valley lies in the culture of Valley firms, which she claims were less bureaucratic, command-and-control environments than the dominant firms in Massachusetts.

Corporate cultures may also influence entrepreneurship through their strength, or the extent of agreement about and commitment to core norms and values. For example, Sørensen (2002) suggests that strong corporate cultures encourage exploitation in organizational learning processes, as the lack of diversity in worldviews and assumptions within the firm leave little room for novel thinking. This suggests the possibility that employees of strong-culture firms are less likely to generate innovative entrepreneurial ideas (although they may be more likely to leave if they have the ideas and they are blocked; see "Organizations as Fonts of Opportunities" below). Likewise, the higher levels of organizational attachment generated by strong-culture environments may create a situation where innovations are more likely to be exploited within the boundaries of the existing organizations than through the launch of a new venture. Part of what successfully innovative companies like 3M and Johnson & Johnson do is to use strong cultures (along with other organizational policies) to simultaneously stimulate innovation and maximize the probability that the firm will capture those innovations internally. In this sense, strong cultures may represent a solution to the incentive problems identified by economists as a reason why people leave paid employment for entrepreneurship when they have new ideas (Anton and Yao 1995, Hellmann 2007).

The Organization as Fonts of Social Capital

A central claim in the study of entrepreneurship is that social networks and social capital play an important role in the entrepreneurial process (e.g., Stuart and Sorenson 2005). Social ties to others structure the flow of information and hence affect access to opportunities for innovation and creativity (Burt 2004). The trust required to mobilize resources for uncertain new ventures often resides in the pattern of social relationships, thus enabling the transition from paid employment to entrepreneurship. Likewise, reputation generated through patterns of affiliation plays an important part in the entrepreneurial process by facilitating access to exchange partners.

Employers may shape individual social capital in two ways that are relevant to entrepreneurial activity. First, the workplace is a source of interpersonal connections that can either help facilitate entrepreneurial entry or the identification of growth opportunities. Second, affiliation with an employer is a source of reputational capital that may help a person mobilize resources to transition to an independent venture.

The workplace is one of the central arenas of social life in modern society; people in the labor force spend a large proportion of their working hours in the workplace, interacting with a potentially wide range of individuals. These connections are important because—unlike friendship ties—they are not fully voluntary. Your job makes you interact with a lot of people because you have to, not because you want to. It also may expose you to interaction partners you may not otherwise have been able to meet; in this way, the employer facilitates and structures social contact. This fact suggests the methodological advantages of studying workplace influences on entrepreneurial networks, because one might be less concerned (than in the case of friendship or discussion ties) that the observed ties were chosen with entrepreneurial goals in mind (Nanda and Sørensen 2010). However, it also suggests an important place for theorizing about how the workplace affects entrepreneurship through its impact on individual social networks (Romanelli and Schoonhoven 2001). These effects may be relevant both in terms of the ability of individuals to mobilize the resources needed to launch a new venture and of being in the right place at the right time to identify promising, value-creating opportunities.

Employer identities also constitute a form of social capital that is relevant to the entrepreneurial process. In other words, who your employer is says something about you: it may serve as a marker of differences in ability (witness how academics are assessed by their university affiliations), or it may signal qualitative differences in skills, beliefs, and attitudes. In 2011, the benefit of having worked for Google is presumably that it tells people that you are smart and creative; the cost of having worked for an aging industrial giant is presumably that it signals the opposite. These assessments influence the entrepreneurial process, particularly in terms of the ability of individuals to mobilize the resources needed to launch a new venture. Along these lines, Burton et al. (2002), in a study of new ventures in Silicon Valley, show that ventures launched by employees from "entrepreneurially prominent" employers (i.e., employers that have been the source of many entrepreneurial ventures) are more likely to pursue innovative ideas and more likely to secure external financing. They argue that this reflects the reputational consequences of employer affiliation, because affiliation with prominent firms helps reduce the perceived uncertainty of innovative ventures.

The Organization as Fonts of Opportunities

Our final view of the role of organizations in the entrepreneurial process focuses on the organization as an opportunity structure. This perspective is most germane to the question of understanding why people leave paid employment to become entrepreneurs. The central insight is that organizations encourage or discourage entrepreneurship in proportion to the extent to which they provide opportunities to their employees. In other words, the main driver of entrepreneurship is the (relative) absence of opportunities. This suggests a different perspective on how established organizations matter for entrepreneurship. When we consider the workplace as an arena for learning, socialization or social capital formation, we focus on mechanisms whereby features of the workplace drive changes in individual characteristics. A view of the workplace as an opportunity structure, by contrast, does not trace the effects of the workplace to any changes in individuals; rather, the workplace matters because it shapes the structure of the choices the employee with an entrepreneurial idea faces. In this sense, this type of explanation is situational. This is an important theoretical distinction, in particular for our understanding of how careers of attachment to different firms might matter. In the situational view, what matters for driving entrepreneurship is the structure of choices at a particular moment. In approaches that emphasize individual change, by contrast, history matters. Two people working for the same firm, with the same entrepreneurial idea, may have different risks of becoming entrepreneurs if they have been exposed to different work conditions.

In perhaps the earliest articulation of this situational view, John Freeman (1986, p. 50) famously noted that organizations are sources of entrepreneurial ventures, in part, because they "create frustration, political disruption and lost opportunity" for those individuals inside the firm attempting to pursue new ideas. This view rests in large part on the assumption that established organizations, and in particular large, bureaucratic incumbents, resist or are unable to pursue new ventures. In the face of this inertia, employees with entrepreneurial ideas and the willingness to pursue them are forced to pursue them outside the boundaries of the firm.

This expectation echoes the widespread argument in organizational research that firms are slow to change and respond to new opportunities (e.g., Hannan and Freeman 1984). Thus firms with high levels of routinization and role specialization should be less likely to pursue their employees' entrepreneurial ideas. For example, a formal division of labor with specialized roles can make decision making more cumbersome, particularly regarding nonroutine issues. Resistance to entrepreneurial proposals may be greater if the task demands of the new venture do not correspond well to the established role structure in the firm. Furthermore, as the firm moves toward the exploitation of successful routines, its willingness and ability to invest in exploring alternatives declines (March 1991). Routinization makes it more difficult for organizations to incorporate and react to nonstandard forms of information, including possible entrepreneurial opportunities (Cyert and March 1992, Nelson and Winter 1982). Thus even when entrepreneurial opportunities are identified, established firms may be unlikely to pursue them if the opportunities are surrounded by great uncertainty about the likelihood of success and if they require highly uncertain investments in new organizational capabilities (Henderson 1993).

The fact that established firms generate new ventures because they do not take advantage of innovations discovered by their employees is often viewed as a failure on the part of those organizations. However, it should be recognized that it may in many cases be quite rational for the established firm to pass on entrepreneurial opportunities, as when pursuing them would distract the firm from exploiting its core competencies, for example. One should also be careful to draw inferences from the very successful ventures that can be traced back to established firms (Bhidé 2000, Hiltzik 1999). Typically, we do not know about the many entrepreneurial opportunities that the firm turned down and that ultimately failed.

A more formal approach to the idea that the organization can stimulate entrepreneurial activity through its responses to employee innovation can be found in economic models analyzing the incentive and contracting issues surrounding innovation and entrepreneurship in firms. Anton and Yao (1995), for example, focus on the difficulties firms have in preventing entrepreneurial exit, conditional on the employee discovering an innovation. They analyze a situation where an employee makes a private discovery and must decide whether to reveal that discovery to her employer, who then must decide whether to pursue the idea. The dilemma in their model arises from the absence of enforceable property rights in the idea, which means that once revealed, neither party can prevent the other from exploiting the idea. Gromb and Scharfstein (2002) analyze the trade-off between intrapreneurship and entrepreneurship from the firm's perspective. They note that intrapreneurship (i.e., funding employee initiatives) allows for learning about the skills and abilities of their employees, but it creates weaker incentives compared with entrepreneurship because workers may know that they will be redeployed if their venture fails. This suggests that firms will pass on intrapreneurship opportunities when the need for strong incentives outweighs the informational benefits of the internal labor market, either because of the nature of the project or because the external labor market is rich in appropriately skilled managers.

Whereas these papers treat the arrival of entrepreneurial opportunities as exogenous to the incentive system, Hellmann (2007) tackles the broader issue of how incentive design affects both the discovery of new ideas and whether these will be pursued within the firm. In Hellman's model, a key trade-off for the firm in designing incentives is how to balance the desire for a focus on established competencies and the development of firm-specific skills with a desire for the discovery of new ideas (March 1991). The key issue, then, is the firm's responsiveness to new ideas, and not, for example, the extent to which the organizational structure is formalized. Hellmann shows that employees leaving to pursue entrepreneurial ideas discovered at the firm may reflect an optimal policy by the firm designed to promote a greater focus on established competencies. (The cost for the firm, though, is that in equilibrium, employees will not generate innovations.)

A broader view of the impact of organizations as opportunity structures can be gained by considering in a more general way how organizations structure career opportunities. Central to this conceptualization is the recognition that spells of entrepreneurship are surprisingly common features of many careers and that transitions to entrepreneurship therefore share much in common with other career transitions, particularly between jobs in paid employment. This logic suggests that moves into entrepreneurship should, like moves between paid jobs, be understood as components of an attainment process: people pursue entrepreneurial opportunities because they seem like the best way to get ahead (Sørensen and Sharkey 2010). From this perspective, then, the central issue in understanding why people become entrepreneurs is understanding what makes it seem attractive relative to other career opportunities.

Organizations play a central role in defining the opportunity structures that workers face in the labor market (Baron and Bielby 1980). One of the important ways in which organizations can shape entrepreneurship, then, is by changing the attractiveness of entrepreneurial opportunities relative to other forms of mobility. At its simplest, we can imagine that being at the bottom of a well-defined job ladder should lower the appeal of entrepreneurship, because leaving to pursue an (uncertain) entrepreneurial venture implies incurring the opportunity cost of not being able to progress up the ladder. By contrast, if one reaches the point where advancement opportunities in paid employment dwindle, entrepreneurship begins to look relatively more attractive as a means of advancement.

Sørensen and Sharkey (2010) formalize this intuition by developing a simple model of the mobility process in which increased rates of entrepreneurship result from people getting "stuck" in (organizational) opportunity structures. The central insight of their model is that in situations where employers reward people whose skills and abilities are well matched to the firm's needs, a good match can be a double-edged sword, depending on the firm's opportunity structure. On the one hand, a good match implies higher wages and better advancement opportunities within the firm. Yet the rate of external offers declines in the quality of the match (Jovanovic 1979), leading to lower rates of interfirm mobility. Sørensen and Sharkey (2010) demonstrate that this leads to the somewhat counterintuitive conclusion that, holding constant the attainment level, the odds of choosing entrepreneurship are increasing in the quality of the person–firm match. Moreover, they show that the characteristics of the opportunity structure, such as the height of the job ladder and degree of inequality, interact with match quality in affecting entry into entrepreneurship. In particular, rates of entrepreneurship are higher when workers have good matches with structures that have limited opportunities. Sørensen and Sharkey (2010) show how this model accounts for a number of well-known empirical regularities, including the relationship between firm size and entrepreneurship (Sørensen 2007).

Conclusion

In this paper, we have offered a simple framework for organizing the emerging literature on the role of organizations in generating entrepreneurship. We have not attempted to provide a comprehensive survey of work done in this area; rather, we have sought to identify, through our four metaphors, broad differences in the classes of theoretical mechanisms that have been invoked to explain the impact of established employers on the entrepreneurial process. In addition, our highly schematic consideration of the definition of entrepreneurship in Figure 1 is meant to highlight the importance of being clear about the object of study in developing work in this area.

Our reading of this young literature suggests two imbalances, one primarily theoretical and one primarily methodological. Theoretically, the dominant approach to conceptualizing the relationship between the workplace and people's entrepreneurial activity has been to focus on the ways in which workplaces change people to make them more likely to become entrepreneurs. This can be because the workplace facilitates the acquisition of entrepreneurially relevant skills, changes career aspirations, or changes job values. This emphasis on entrepreneurship as the outcome of a personal development process is consistent with a tendency in much entrepreneurship research to understand entrepreneurs as distinctive types of individuals; with this perspective, it is natural to focus on what experiences generate these unique characteristics.

However, there is a different, less developed approach to conceptualizing the relationship between the workplace and entrepreneurship. This is the perspective characterizing the work that views organizations as fonts of opportunities and has to do with understanding the workplace as a structural context that shapes the parameters involved in career decision making. Thus it may be that different workplaces generate entrepreneurs at different rates because they differ in the extent to which they expose individuals to entrepreneurial opportunities or because differences in incentives and opportunity structures make entrepreneurship more attractive in some settings than in others. In this view, work environments do not have to induce any changes in individual characteristics; rather, they shape behavior by shaping the structure of opportunities. Developing this type of structural approach more fully would be a promising direction for future research.

The second, more methodological, imbalance we note is in the nature of the evidence. For understandable reasons, papers on the linkage between workplace characteristics and entrepreneurship rely on observational data of various sorts. Yet such observational data pose inferential challenges that are arguably quite severe when trying to develop and test theories about how established firms shape entrepreneurship. As Elfenbein et al. (2010) phrase it, the issue is one of treatment effects versus selection effects (cf. Sørensen 2007). Theories of the impact of workplace characteristics on entrepreneurship are theories of treatment effects: claims that firms change individual preferences or skills, or that firms change the choices individuals make. Yet many of the empirical associations between firms and entrepreneurial outcomes may arise through sorting and selection processes. The study of workplace effects is particularly complicated because they are subject to selections both on the front end and the back end, so to speak. On the front end—that is, at the point of hire—sorting processes in the labor market mean that there may be unmeasured compositional differences between firms that are related to entrepreneurial outcomes. Workers with a predilection for entrepreneurial activity, for example, may choose to work for firms with certain characteristics, leading to the mistaken conclusion that those characteristics play a causal role in encouraging entrepreneurship. On the back end—that is, at the point of exit from the firm—firms also shape the threshold for entrepreneurial entry, or how attractive an opportunity must seem in order for an individual to pursue it. In short, firms and their policies define the opportunity costs of entrepreneurship. Unmeasured variation in these opportunity costs is a plausible alternative explanation for many accounts of the relationship between firm characteristics and entrepreneurial entry rates and outcomes.

Despite these imbalances, we are confident that the literature on organizations and entrepreneurship will flourish over the coming years. Organizations are fonts of entrepreneurship; the vast majority of entrepreneurs have careers of prior paid employment. The simple fact that such transitions are so prevalent is reason enough for scholars to devote their attention to how existing organizations affect the entrepreneurial process. Better yet, this area is both conceptually rich and largely unexplored. As a consequence, the opportunities for theoretical advancement are plentiful.

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Endnotes
[1]There is a difficult question here, which we elide, with respect to how (or when) one defines entrepreneurial outcomes along the value creation dimension. In particular, it is not a priori clear whether one should focus on intentions (i.e., the entrepreneur believes that this is going to be a big thing) or outcomes. In principle, it seems unsatisfying to focus on the outcomes because that is confounded with postentry performance; in practice, however, it is often difficult to avoid it because measuring the creativity or innovation of entrepreneurial intentions at the point of entry is very difficult.
[2]We use the term "font" here not to denote a typeface, although that may be its most common current usage. Rather, we use it in the sense of a "well" or "fountain."

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