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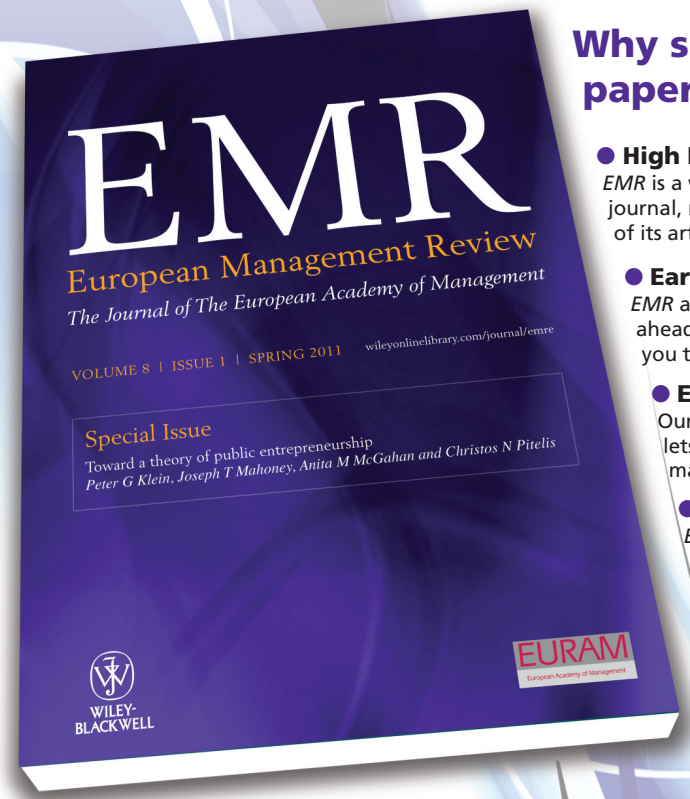

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Introduction

Welcome to your 2012 Submission Pack for the *European Management Review* (*EMR*). *EMR* is the official journal of the European Academy of Management, and is dedicated to advancing management knowledge, through empirical investigation and theoretical analysis.

EMR invites high-quality research across a broad range of management topics. This pack is designed to provide you with guidance and advice on how to have your work published in this leading international journal. Here we include *EMR*'s full author guidelines, and details of the submission procedure. We have also provided you with an editorial by Alfonso Gambardella and Maurizio Zollo, which explains *EMR*'s vision, and given you a sample *EMR* article, so that you can see the caliber of paper that we are looking for.

Eminent scholars who have recently published their work in the *European Management Review* include: Jordi Canals, Pierre Dussauge, Nicolai Foss, Ed Freeman, Brownyn Hall, Morten Huse, Steve Klepper, Bruce Kogut, Joe Mahoney, Anita McGahan, Will Mitchell, Jeffrey Pfeffer, Olav Sorenson, Richard Priem, Jeff Reuer, Charles Ragin, Joan E Ricart, David Teece, and Shaker Zahra.

If you would like to join this list, by having your paper published by us, then read on!

Aims and Scope

The *European Management Review* is an international journal dedicated to advancing the understanding of management in private and public sector organizations through empirical investigation and theoretical analysis. The journal provides an international forum for dialogue between researchers, thereby improving the understanding of the nature of management in different settings, and promoting the transfer of research results to management practice.

Although one of the *EMR*'s aims is to foster the general advancement of management scholarship among European scholars and/or those academics interested in European management issues, submissions are encouraged from all management scholars, regardless of national origin, and manuscripts should not be limited to themes dealing with European countries. The journal's international scope is reflected in its international editorial board and its sponsorship by the European Academy of Management (EURAM).

The *European Management Review* is receptive to research across a broad range of management topics such as human resource management, organization theory, strategic management, corporate governance, and managerial economics. Contributions can also be grounded in the basic social disciplines of economics, psychology, or sociology. Articles can be empirical, theoretical or measurement oriented. Conceptual articles should provide new theoretical insights that can advance our understanding of management and organizations. Empirical articles should have well-articulated and strong theoretical foundations. All types of empirical methods -quantitative, qualitative or combinations- are acceptable. *EMR* encourages the interplay between theorizing and empirical research, in the belief that they should be mutually informative.

The *European Management Review* is especially interested in new data sources, including models that test new theory, and expand sample pools, by including alternative approaches to sampling and measurement and samples drawn from nontraditional or less traditional sources (e.g., from European corporations), and the examination of the validity and reliability of such samples.

Author Guidelines

Preparation of manuscripts

All manuscripts should be double-spaced. Margins should be one inch (2.5 cm) at the top, bottom and sides of the page. Font size should be 12 point or larger.
Regular articles should be no longer than 40 pages, and 'research notes' no longer than 25 pages. Constructs and variables should be identified in words, not abbreviations. Any hypotheses should be explicitly identified as such.

Title page

As the online submission system captures author names and contact details, the title page should list only the title of the article, and suggestions for a short running title of no more than 40 characters (including spaces). Titles should be short, and abstracts should be informative for non-specialists.

Abstract

Authors are asked to supply an abstract of no more than 150 words. Please be sure that the abstract page does not contain any information identifying the author(s). Also, please take care to create a title and an abstract that are direct and 'reader-friendly'.

Keywords

Include up to six keywords that describe your paper for indexing and for web searches in your manuscript.

Text

The introduction should state clearly the objective of the paper as well as the motivation and context of the research. The literature review should be limited to the articles, books and other items that have a direct bearing on the topic being addressed. Theoretical papers may devote a full section to the motivation and potential usefulness of the proposed theoretical framework. Empirical papers that do not develop new theories or hypotheses should be kept short. The empirical section should give details of the methodology used only if it is new.

Details of the empirical section tests should not be included in the paper itself. The conclusion should summarize key findings and state their importance to the field.
The first lines of paragraphs, except the first paragraph of the manuscript, should be indented and separated by a double carriage return.

Endnotes and footnotes should be kept to an absolute minimum. Substantive comments should be integrated within the text rather than placed in a note. Endnotes, references, appendices, tables and figures should be placed at the end of the manuscript.

Referencing Procedure

References to published works must be cited in text according to the author/date system and listed alphabetically as a separate appendix titled 'References' at the end of the manuscript.

The following are examples of proper form:

Journal Articles

Ortega, Jaime. 2001. "Job Rotation as a learning mechanism".
Management Science, 47: 1361-1370.
Only include an issue number in brackets after the volume number if every issue of the referenced periodical begins with a page numbered 1.
Ortega, Jaime, 2001, "Job Rotation as a learning mechanism".
Management Science,47(10):11-13.

Books

Arora, Ashish, Andrea Fosfuri and Alfonso Gambardella, 2001, Markets for technology: The economics of innovation and corporate strategy. Cambridge, MA: MIT Press.
(Use city where published, with abbreviation for state or province (North America) or full name of country, only if needed to identify a small city or eliminate ambiguity).

Unpublished Papers, Dissertations and Papers presented at meetings

Surname, First name, year, Title of paper. Working paper no. 54, Name of University, Town, State.

Surname, First name, year, Title of paper. Unpublished doctoral dissertation, Name of university, City.

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Chapters in Edited Books

Surname, First name, year, "Title of chapter" (in lower case letters except for the first letter of the first word and first word after a colon). In Firstname Surname (ed.)Title of Book. City where published: State or Country (only if needed to identify the city): Name of Publisher, pp xxx-xxx.

Online Documents

Surname, First name, "Full title of document" ; full title of the work it is part of ; the ftp, http or other address ; date document was posted or accessed.

Figures and Tables

Figures and tables should follow the references. Tables must be numbered with Arabic numerals. Please check that your text contains a reference to each table. Indicate in the text approximately where each table should be placed. Type each table on a separate page at the end of the paper. Tables must be self-containted, in the sense that the reader must be able to understand them without going back to the text of the paper. Each table must have a title followed by a descriptive legend that should indicate the statistical test, variables, and central results. Authors must check tables to be sure that the title, column headings, captions, etc., are clear and to the point. They must include sources and acknowledgements. Examples are given below.

Figures must be numbered with Arabic numerals. All figure captions must be typed in double space on a separate sheet following the footnotes. A figures title should be part of the caption. figures must be self-containted. Each figure must have a title followed by a descriptive legend that provides a full explanation of the axes and a clear interpretation. Final figures for accepted papers must be submitted in native electronic form and uploaded as separate files on the submission site.

There are three preferred formats for digital artwork submission: Encapsulated PostScript (EPS), Portable Document Format (PDF), and Tagged Image Format (TIFF). We suggest that line art be saved as EPS files. Alternately, these may be saved as PDF files at 600 dots per inch (dpi) or better at final size. Tone art, or photographic images, should be saved as TIFF files with a resolution of 300 dpi at final size. For combination figures, or artwork that contains both photographs and labeling, we recommend saving figures as EPS files, or as PDF files with a resolution of 600 dpi or better at final size. More detailed information on the submission of electronic artwork can be found at http://authorservices.com/bauthor/illustration.asp

Author Names

All articles submitted to *European Management Review* are double-blind reviewed. Please ensure that no author names are given on the first page of the manuscript and that author names have been taken out of the 'File' 'Properties' screen in word.

Submission

All submissions should conform to our author guidelines, and be submitted online at *European Management Review*'s Manuscript Central site:
http://mc.manuscriptcentral.com/emr.

Before submitting a manuscript, please gather the following information:

- Details of all authors, including:
  First and Last Names
  Postal Addresses
  Work Telephone Numbers (for Corresponding Author only)
  E-mail addresses
- Title and Running Title (you can cut and paste this from your manuscript)
- Abstract (you can cut and paste this from your manuscript)
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In the electronic files please be sure to:

- clear the file of all possible viruses
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- remove all information that could identify the author(s) of the paper (including acknowledgements and contact information); be sure to remove all identifying information from the 'File, Properties, Summary' menu.
- Accuracy for all material supplied on the disk and manuscript is the responsibility of the author. The manuscript text must be spell checked and any technical material must be absolutely clear. These requirements apply to all stages of production.

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Conditions of Submission

Manuscripts are reviewed with the understanding that they:

- are original
- are not under consideration by any other publisher
- have not been previously published in whole or in part
- have not been previously accepted for publication
- have not been previously reviewed by the *European Management Review*
- will not be submitted elsewhere until a decision is reached regarding their publication in the *European Management Review*

Any prior publication of the data featured in the manuscript should be explicitly acknowledged. Any forthcoming or 'in press' articles which use the data should be forwarded to the editor.

Please state whether you wish your submission to be reviewed as a regular article or as a 'research note.' Any manuscript submitted as a research note should also include the phrase 'submitted as a research note' on the bottom of the page containing the abstract.

In order to facilitate processing of submissions, please make sure that your submission contains only the absolute minimum necessary footnotes or endnotes.

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Early View Facility

European Management Review is covered by Wiley-Blackwell's EarlyView service. EarlyView articles are complete full-text articles published online in advance of their publication in a printed issue. Articles are therefore available as soon as they are ready, rather than having to wait for the next scheduled print issue. EarlyView articles are complete and final. They have been fully reviewed, revised and edited for publication, and the authors' final corrections have been incorporated. Because they are in final form, no changes can be made after online publication. The nature of EarlyView articles means that they do not yet have volume, issue or page numbers, so EarlyView articles cannot be cited in the traditional way. They are therefore given a Digital Object Identifier (DOI), which allows the article to be cited and tracked before it is allocated to an issue. After print publication, the DOI remains valid and can continue to be used to cite and access the article.

Editorial Contacts

The *EMR* team are happy to discuss any queries you may have about submitting your paper to the journal. You can email **Serena Giovannoni** directly at: **emreoffice@wiley.com**

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Editors' Introduction

Alfonso Gambardella, Maurizio Zollo

Department of Management, Bocconi University, Italy.

European Management Review (2009) ***6,*** 1–4. doi:10.1057/emr.2009.5

The *European Management Review* has the ambition of being the journal of first choice for scholars interested in the theory and empirical study of management.
(Bruce Kogut, EMR, Volume 3, Issue 1)

These are the first words that Bruce Kogut, the editor of the *European Management Review* (EMR) from 2005 until 2008, wrote in his editorial introduction to the first issue for which he was responsible. He could just as well have written them for us, as we take on the baton from his expert hand. The aspiration he set for our journal, to be the 'first choice' for everyone who is engaged in academic scholarship in the field of management, is an ideal articulation of what we also believe ought to be the goal for which we are all aiming, and Bruce certainly led the journal towards the realization of that overarching ambition with great strides during his three years as chief editor. Under his guidance, EMR has taken on a well-defined character, a personality that we have learned to respect and appreciate, and has begun to develop a strong reputation for quality output and fast, efficient process, both of which are crucial for the future success of the enterprise. Today, the journal offers a unique, and increasingly visible, forum for cutting-edge debate in management scholarship, defined by both innovative insights and rigorous, albeit non-dogmatic, methodologies. You will see an excellent example of the quality level and the attractiveness that the journal has achieved among top scholars in the papers that compose this issue, including contributions from some of the most admired authors in the field.

But let us take a moment to reflect on the challenges before our community of scholars, as we aspire to place EMR among the restricted list of top-rated general management journals. There is no question that this is a tall order. At its sixth volume, EMR is still a young journal, trying to compete in a particularly crowded, non-specialized domain, that of general management. This is a domain where building a specific identity is particularly difficult. It is crucial, therefore, that we are clear on how we intend to pursue this ambitious goal, and on the shared responsibility connected to its realization.

The strategy is relatively simple to describe, but harder to execute. We will build on the distinctive traits that are already emerging and develop an identity for the journal that will be recognized by all scholars, whether European, American or from any other corner of the globe. An identity that will be based on two, equally important, dimensions: (1) clear editorial principles and top-quality process for scholars as contributors and as members of the editorial board, and (2) content themes for which the journal will be recognized as *leading* the global academic debate.

The editorial principles will not differ substantially from those highlighted by Bruce in his opening editorial, but it is useful to clarify and prioritize them.

Quality above all. To be recognized as the journal of choice for management scholars worldwide, we have no option but to aim for top quality in the selection of published output. Irrespective of the methodology used, and even in theoretical papers, the standards of quality are very clear and understood by any experienced scholar. The paper must have one central idea that is not only innovative *vis-à-vis* the received literature, but also well supported by clear arguments that recognize alternative logics and show the relative strength or distinctiveness of the novel explanation. Alternatively, but even taller an order, the paper will identify novel and relevant managerial questions to pose, to which it offers a sensible and credible set of answers. Achieving this top priority means sharing the responsibility among the editorial board and the senior scholars in the community (especially the non-American ones) of choosing EMR as the journal of choice for our best work. If we do not show the way with a clear commitment to the success of our collective enterprise, then who will? We, as chief editors, will insist that the members of our team of senior editors will contribute some of their best work to the journal, and will leverage their position in the networks of scholars in which they are recognized contributors to identify promising manuscripts. The members of the editorial review board will also be expected to do their part, as they have been chosen especially for the quality of their work and their expertise in the academic publishing game. Finally, the entire community that reads and appreciates this journal, especially the members of the European Academy of Management, have a shared responsibility to contribute to the quality of what they read and use by preferring EMR to the other top journals as they select the publication for at least part of their best work. We cannot overstate the importance of this shared commitment to the success of EMR: the journal can only be as good as the quality of the best work submitted to it.

Diversity. The second principle that has been at the core of the distinctive identity of the Journal is the search for and embrace of diversity in all its multiple dimensions. We

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want to build the only top-quality journal where there are no artificial, more or less subtle, barriers to the publication of ideas that might go against common wisdom or generally accepted 'truths', based on observation and data from under-observed contexts, using methodologies that might be less than established in the mainstream, top-quality journals. As long as the quality standards for the specific questions pursued, the context analyzed and the methodology used are the highest possible, in considering publication we will also take into account the constraints under which such research is being conducted. So it is up to us, as a community of scholars, to have the courage to pursue this type of research and to prioritize EMR as the preferred venue to publish it.

Influence. We will also actively seek publications that aim to influence the global academic debate on issues that are broader than the specific research questions pursued. A top-quality journal in the general management domain has a responsibility, in our view, to not only describe reality with the highest-quality research, but also to shape it towards ever-improving quality of managerial practice, of public policy related to micro-economic activity, and of the resulting social and environmental development. This is reflected, of course, in the themes that will be identified as particularly relevant to building the distinctive identity of the journal, but also in the type of work that the community of scholars that recognizes itself as part of this collective enterprise will choose to pursue and to publish with EMR. European scholars, in particular, are citizens of an important experiment of socio-political integration. The European project, with all its strengths and weaknesses, stands before us as management scholars with a tacit request of engagement to contribute to the definition of the model of the firm and the model of the economic system that will allow it to grow and flourish. The recent developments, with governments from all over the world (including the US, India and China) looking with increasing interest to the 'European model' as a possible answer to the economic crisis puts us even more in the spotlight. Our voice in the debate has been, however, barely audible, and certainly marginal to its evolutionary course. Should we leave the role and the responsibility to provide insights and scientific evidence about the shaping of this as well as other global change processes to other, better-organized communities of scholars, such as the economists, sociologists, psychologists, political scientists, etc.? We certainly hope your answer is 'no'. Then, coherence requires that we explicitly aim to pursue research that has implications for the broader, global, socio-economic and political debates, and for the profound change processes that we are witnessing as they unfold. EMR is ready to prioritize management research work that exhibits also these types of aspirations, over and above the more specific contributions to debates internal to the management academy.

Ideas vs precision. In a similar spirit, we recognize that there is a trade-off between papers that provide new contributions to fairly navigated topics and papers that propose new ideas or theories that have not been raised earlier, that have been poorly understood or that have not been studied systematically. We expect the former type of paper to be extremely rigorous in terms of theory, precision of data (types of variables, methods and measurement) and tightness of logic. If we asked the same of the latter type of paper, we may end up with a bias against publishing work with new ideas. By definition, a new idea cannot rely on the same longstanding background and experience of previous work. It is bound to be more explorative, and hence more imperfect. The criteria that we shall use to identify these papers are that they have to explore a new area or suggest a new perspective, while at the same time showing the potential for encouraging work by others. In such cases, we may be more lenient about precision of measurements or about the tightness of the theory if the paper can trigger new research that can solve these problems and open up new trajectories of inquiry.

Speed and efficiency. Finally, a distinctive trait of any top journal is the quality of the process that characterizes its operations. Bruce has brought the speed of the reviewing and selection process to the highest levels among management journals. EMR has had an average of 45 days from submission to editorial decision (without considering desk rejections) during his tenure, a statistic that any American journal can only dream about. There are still, however, areas of improvement that we will prioritize, especially in the quality of the information systems that support the process. As we have been witnessing an impressive growth in the number of submissions to the journal in the last few months, we expect that our ability to maintain the speed and reliability that are now part of the journal's legacy will crucially depend on the user-friendliness and flexibility of the support systems. To build a world-class publishing operation, however, we will also rely on the input in the form of constructive criticism and concrete suggestions, coming from you, the users of the system in your capacity as authors, reviewers and associate editors. Please keep the flow of ideas coming; we are certainly committed to systematically evaluating and selectively implementing them.

We hope that the above serves to enhance clarity and transparency on the ambitions we want to set for the journal, and, more importantly, about how we see us accomplishing them through the combination of our work and choices as editors and your work and choices as authors and reviewers. The other dimension of the problem relates to the content of what we aim to publish. This is a sensitive matter, as whatever we will describe as priorities will inevitably be read as discounting anything else that is not mentioned. This is a misleading read of our intentions. We are committed to publishing research work that reflects the standards of quality, diversity and influence that we have described above, no matter what the content is, as long as it responds to research questions pertinent to the management field. However, we also want to give priority to a small number of carefully selected themes, where we believe that our journal, and the community that refers to it, will have the greatest chances of playing that leading role in the global academic debate that will define its identity and recognition as a top-level outlet for scholarly work. The list of these themes might find minor variations as we progress in the future, and is always subject to dialog and debate among our community of scholars. At the current time, here are the themes that we believe merit particular attention for the overarching strategy of placing EMR among the top journals in the field:

1. *The theory of the firm.* The answer to foundational questions such as those related to the logic for the

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existence and the boundaries of firms, to their role in the broader socio-economic and political context, and to the consequent ways in which they should best be governed, have never been more current and topical. The crisis that we are currently experiencing had its origins in fundamental managerial errors, despite its more frequent description as a public policy problem: errors such as the over-confidence in the availability of financial service firms to manage risk, and the unprecedented levels of managerial greed in their leadership teams all over the world in the pursuit of personal wealth; errors for which we as management scholars have both a direct (related to our teaching activity) and an indirect (related to the content of our research) responsibility. We aspire to position EMR as the leading forum for the debate on the most appropriate model of the firm and of its relationship with the socio-political environment, and the consequent model of economic system, to develop and pursue: a debate that will be grounded on descriptive power of the current state of affairs, as well as on evidence-based prescriptions for the future evolution of the role of firms in the pursuit of both sustainable advantage *vis-à-vis* its competitors and sustainable development for the societies and the natural environment in which they are immersed.

2. *Micro-foundations.* If the first domain described above builds on distinctive traits and legacy of European scholarship, the study of the role of the individual as foundational actor to explain firm-level outcomes, more recently labeled as the 'quest for micro-foundations', is not ascribable to any specific community of research scholars, whether defined in geographic or in domain terms. Organizational psychologists have generally not been able to link their work to organizational phenomena and outcomes, whereas scholars with either an economic or sociological bent have traditionally failed to recognize the importance and role of the individual actor in their models and theories of firm-level characteristics, choices and outcomes. Nonetheless, the tide is rapidly turning away from these artificial separations along levels of analysis and (at least on an aspirational level) towards a more integrated study of managerial phenomena that encompasses both individual and collective action. It is our intention for EMR to be the place where this convergence might occur, and where scholars worldwide can draw inspiration to shape the questions and the methods that they pursue. We will look with skepticism to work that implicitly assumes a view of the firm as a unitary actor, and will welcome studies that attempt to consider explicitly the role of the individual manager, leader and employee in the context of broader organizational dynamics. The psychological determinants of decisions, behaviors and performance, based on the influence of cognitive, emotional and identity-based (values) factors are becoming front-stage concerns of an increasing number of leading scholars for which EMR wants to be the venue of choice, and thus contribute to the development and integration of the management field.
3. *Entrepreneurship, in its widest sense.* The study of founding processes, either at the enterprise level or of innovative initiatives within established firms, is a third crucial area of development for management research. This research domain is particularly relevant for non-American scholars, given the industrial structure of their sectors and economies, where small and medium enterprises and family-owned enterprises own the lion's share *vis-à-vis* large and publicly owned companies. However, and strangely enough, European scholars have historically played a marginal role in the global academic debate, despite their best intentions. EMR intends to offer a forum where quality research on the dynamics of enterprise foundations, as well as of innovative initiatives in established firms, can find its home. This will be even more attractive to us if there is an explicit treatment of the micro-foundational issues related to the psychological traits characterizing the behavior and performance of the individuals involved in these initiatives. Alternatively, the development of theoretical and empirical contribution linking the study of entrepreneurial initiatives with that of theory-of-the-firm questions described above (consider the study of social entrepreneurship, or of innovative modes of governance for highly innovative activities, for example) would be particularly welcome.
4. *Dynamics of growth, learning and change in established enterprises.* The next logical step in a progression of content domains that begins from macro- and micro-foundational issues and continues with the study of entrepreneurial initiatives, is the analysis of the dynamic processes through which firms grow, develop competence and adapt to constantly changing environments. The three dynamics are clearly distinct processes, but they are strongly linked to each other in interdependent causalities of decisions and performance implications. They also occur and can be studied at different levels of analysis: starting from macro-processes that see social communities and sectors grow, learn and adapt through relatively poorly understood interactions between firms and their contexts, and continuing with more classic analysis of organizational deliberate and emergent learning and change processes, to then dive deeply inside the firm with the study of groups and individuals' knowledge development and evolutionary (in a Lamarckian sense) processes.
5. *Social Dynamics.* The study of dynamics of learning and change has been studied primarily in terms of the evolution of knowledge capital and the consequent accumulation of stocks of competence and of resources. It is clear, however, that these processes can hardly be considered divorced from the dynamics of social relationships, reputation, legitimacy and trust, which produce critical evolutionary processes shaping stocks of social capital at the community, sectoral, organizational, group and individual levels of analysis. Understanding how the dynamics of knowledge and those of relationship influence each other to determine the growth and demise of firms and of their human actors inside and outside their boundaries, constitutes perhaps the most challenging and fascinating set of questions that management scholarship can consider today: questions that this editorial team is convinced can shape the future of our scientific endeavor as well as, hopefully, the object of our study; questions that we are committed

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to pursuing and prioritizing in our collective quest for intellectual leadership and impact in the management field.

Most of the themes described above are especially congenial to European scholars, either because of historical trajectories that shaped the context of their study or because of traditional interest and well-advanced debate among the academic networks present in the various countries that make up this variegated continent. However, none of them are of exclusive interest to European scholars, as they have been shaped by contributions from scholars worldwide. We are clearly determined to strengthen the debate across the different academic communities within and outside Europe, on themes that are of crucial relevance, not only for our knowledge development quests, but for the development of entire economies and of the societies that rely on and evolve around them.

These are highly ambitious goals, no question about it. We indeed see the setting of clear and high aspirations as one of our main responsibilities as incoming editors. But we are fully conscious that none of these aspirations can be achieved without your commitment as author, reader and reviewer. A commitment that begins with the selection and the promotion of EMR as the venue for some of your and your colleagues' best work; that continues with the reading and sharing of the work published in EMR with students and colleagues; and that reaches completion with the dedication to high-quality and swift reviews of the manuscripts that our colleagues entrust us with, when you will be asked to provide that crucial service for the journal and the community.

We are very excited about taking on this challenge, and are committed to providing our best effort to establish EMR as a leading forum for management scholarship, a journal that we will all be proud of. With the enthusiasm and the active support of the community of scholars that shares the views highlighted above, we have little reason to doubt that the challenge will be met and passed with flying colors. We welcome you to join us in this exciting, and important, academic enterprise!

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The embedded entrepreneur

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Abstract
Using comprehensive data on the Danish population, this paper examines the determinants of entrepreneurs' choices of where to locate their new ventures. Our findings suggest that entrepreneurs place much more emphasis on being close to family and friends than on regional characteristics that might influence the performance of their ventures when deciding where to locate those businesses. Two factors could explain our findings: On the one hand, entrepreneurs may simply value proximity to family and friends. On the other hand, these relationships may help them to assemble the assets and to recruit the personnel that they need to succeed in their ventures. Our results suggest that the former plays the greater role in entrepreneurs' location choices.
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Introduction

The idea of someone being embedded conjures up certain images. It suggests someone who knows their neighbors, someone who can navigate the local scene, someone who understands the history of a place, someone trusted by the community. It also suggests someone with a certain level of social attachment, someone who undoubtedly has friends in an area and who probably has family there as well.

The notion of an embedded entrepreneur summons similar impressions. One points to the advantages of the local in terms of connections and private information, in the ability to raise funds, to recruit employees, to position products and services, and to sell to customers. Another reflects the emotional affinity of the founder to the place and the people that live there.

Although these images and impressions suggest somewhat divergent mechanisms, they converge in portraying the entrepreneur as someone rooted firmly in place.

Much of the management literature, however, points to a potentially different picture of the entrepreneur. It suggests an individual unbothered by ambiguity, unfettered by uncertainty, an individual with a predisposition for novelty (Kirzner, 1973; Begley and Boyd, 1987; Åstebro and Thompson, 2007). One might expect such people to embrace not just new technologies but new places as well. Indeed, Saxenian (2006) has gone so far as to describe many of these entrepreneurs as modern-day Argonauts roaming the world in search of their own golden fleeces.

Certainly, either of these images serve as but a caricature of a real entrepreneur, but which holds greater sway? Is the typical entrepreneur more a local, embedded in the community, or more a nomad in search of oases of economic opportunity? At first blush, the evidence seems to favor the former. Not only do entrepreneurs tend to locate their businesses near to their homes (Figueiredo *et al.*, 2002), but also they appear even more geographically rooted than those employed by others (Michelacci and Silva, 2007). But such evidence is equivocal. Jobs at existing employers, for example, may have first attracted future entrepreneurs to these regions. Consider Robert Noyce, the co-founder of Intel. He grew up in Iowa and moved to Silicon Valley, not to found Intel, but for a job at Beckman Instruments (Berlin, 2005). Regions might also vary in both their propensities to produce entrepreneurs and their abilities to anchor individuals in place.

We propose a novel approach to addressing this question. Drawing on an exceptionally rich database of entrepreneurs in Denmark, we examine which factors appear most important to where entrepreneurs choose to locate their fledgling ventures. We focus on two kinds of factors: (1) the sensitivity of entrepreneurs to regional attributes that they might consider informative in terms of the expected success of their ventures; (2) the value that entrepreneurs place on being proximate to family and friends and to staying in the regions that they know. We also explore the extent to which these factors vary in determining location choice across subsets of entrepreneurs – among those spinning out of existing employers in the industry *vs* those entering without prior industry

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experience, and according to the sectors of the economy that they enter.

Our results suggest that the image of the entrepreneur as an embedded local is an appropriate one. Social factors weigh in more than four times as heavily as economic ones in entrepreneurs' location decisions. At least two facts, moreover, suggest that these weights reflect more their preference for being close to family and friends than the potential value of those connections to the success of their firms. First, entrepreneurs place similar value on being near to family and past residences as a random sample of employed individuals in the process of changing jobs. Second, our exploration of these preferences across subgroups found little variation in them, despite the fact that some of these entrepreneurs should have more to gain from connections than others. Entrepreneurs, therefore, appear little different from the general population in their preferences for proximity to family and friends. Being their own bosses may nonetheless afford them greater freedom in satisfying those desires.

Whether staying at home helps or hinders entrepreneurs remains an open question (Dahl and Sorenson, 2007), but these findings substantially bolster the stories of cluster formation and persistence that do *not* depend on agglomeration externalities. Sorenson and Audia (2000), for example, argue that clusters in shoe manufacturing persist not because of benefits to clustering but because entrepreneurs tend to come from incumbent firms in the industry and to found their firms in close proximity to these 'parent' firms (Stuart and Sorenson, 2003). Klepper has similarly shown that spin-outs, rather than agglomeration externalities, can account for the geographic concentration of automobiles in Detroit and of tires in Akron (Klepper, 2007; Buenstorf and Klepper, 2009). Our results, which span the entire economy, suggest that these industries and processes probably represent the rule, more than the exception.

Entrepreneurs' location choices

Although a large body of research considers the location decisions of existing firms, either establishing new branches or plants, or entering foreign countries, relatively little is known about where entrepreneurs choose to locate their ventures. Several recent studies nevertheless strongly suggest that entrepreneurs usually locate their businesses near to their homes. Figueiredo *et al.* (2002), for example, report that 72% of Portuguese entrepreneurs began their businesses in the same counties in which they had previously been employed. Examining data from an Italian survey, Michelacci and Silva (2007), moreover, find that entrepreneurs have an even stronger tendency than employees to remain in their regions of birth. Single industry studies come to similar conclusions. Parwada (2008), for instance, reports that 56% of entrepreneurs founding new investment firms in the United States headquartered their firms within 1 km of their prior employers. Buenstorf and Klepper (2009) find a similar pattern in the tire industry in the United States.

Although these studies have begun to establish the geographic inertia of entrepreneurs as an empirical regularity, they have shed limited light on the reasons underlying these location choices. At least four sorts of stories might account for these results.

First, these 'home' regions might have more attractive economic attributes than other locations. They might have better educated labor forces, lower taxes or less expensive real estate. Bartik (1985), for example, finds that US states with lower wages and lower tax rates had higher odds of being chosen as sites for new plants in a study of the expansions of existing organizations. Or, these regions might offer agglomeration externalities. Firms can potentially benefit by locating near to other firms in their industry if they can share the same suppliers (Romer, 1987), if by doing so, they can attract a more able labor force at lower cost (Diamond and Simon, 1990), or if they can share information spillovers (Arrow, 1962). In certain types of businesses, primarily retail and consumer services, firms might also want to collocate to minimize the search and travel costs incurred by their customers (Graitson, 1982). These economic factors, of course, do not directly predict that entrepreneurs would locate near to their homes or their prior employers. But when one recognizes that most entrepreneurs in an industry come from the ranks of employees of existing firms in that industry (Vesper, 1979; Franco and Filson, 2006), then one would expect the same factors that attracted their employers to anchor (spin-out) entrepreneurs to the region.

Entrepreneurs might also choose these home locations so that they can leverage their social capital. Sorenson and Audia (2000), for example, argue that entrepreneurs remain rooted in their regions of origin because personal relationships help entrepreneurs to raise capital, to recruit employees and suppliers, and to attract customers.[1] Or, potential employees, customers and financiers may place greater trust in entrepreneurs with deep roots in a region, and therefore more readily offer them their assistance. These resources can not only help entrepreneurs to get their firms going, but also improve the ongoing performance of these firms. To the extent that the advantages of these relationships erode over distance, however, entrepreneurs can only exploit them when they stay close to these prior connections.

These first two explanations portray the entrepreneur as rationally choosing home locations because these places promise better performance than the alternatives. But this tendency to remain near to home may also reflect other processes. Most notably, entrepreneurs may locate their ventures to satisfy social preferences. People generally have family in their birth regions, whether parents, siblings or more distant relatives. Over time, they also develop friendships in their communities (Lansing and Mueller, 1967). Moving to a new location leads not just to a loss of the instrumental value of these relationships, but also to the loss of their emotional value. Moving away means seeing these family and friends less frequently and having less culture and fewer experiences in common with them. Reflecting this disutility, Davies *et al.* (2001) estimated that the average American would only consider moving to another state if it had an average income of $170,820 to $238,639 more than his or her current state of residence (Dahl and Sorenson, 2008). Since entrepreneurs have almost complete control over where they locate their ventures, they may indulge

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these preferences and choose places close to family and friends.

Finally, of course, it is possible that entrepreneurs do not even actively consider their location choices. Many entrepreneurs begin their businesses while working full-time elsewhere (Gudgin, 1978). The location of that job therefore constrains their ability to move. Even those unencumbered by such dependencies might nonetheless simply fail to consider place an important choice in the founding of their firms.

Empirical strategy

To gain greater insight into which of these explanations might hold the most sway, we examined entrepreneurs' location choices directly. Our approach to estimating these choices stems from a random utility model. If an entrepreneur i has J possible choices for where to locate his or her new venture, let us define the utility, u_{ij}, associated with choosing region j as:

$$u_{ij} = \beta' x_{ij} + \varepsilon_{ij} \quad (1)$$

where x_{ij} represents a vector of region-specific characteristics, β captures the weights that an average individual assigns to each of these attributes, and ε denotes a random error in this utility function. By including both economic and social factors in the vector of region-specific covariates, we can determine whether the economic attractiveness of regions or whether proximity to family and friends drive these location choices.

If we assume the errors in (1) to be independently and identically drawn from a Weibull distribution, then the probability that individual i chooses region j is:

$$P(y_i = j) = \frac{e^{\beta' x_{ij}}}{\sum_J e^{\beta' x_{ij}}} \quad (2)$$

Equation (2), known as the conditional logit or the McFadden choice model, nets out the attributes of the entrepreneur – though one can examine individual-level heterogeneity in the weights by splitting the sample or through interaction terms – and the intrinsic randomness in the choice of locations. The β parameters (attribute weights) can be estimated using maximum likelihood methods.

Practically, our data set comprises J (grouped) observations for each entrepreneur, one of which the entrepreneur chooses as a location for his or her business. In each set of cases, the dichotomous dependent variable is coded one in the location chosen and zero in the $J-1$ locations not chosen.

Data

Our data come from government registers collected in the Integrated Database for Labor Market Research (referred to by its Danish acronym, IDA) and the Entrepreneurship Database (ED), both maintained by Statistics Denmark. IDA holds comprehensive, annually updated, longitudinal data on all individuals residing in Denmark from 1980 to 2006, including their family relations and the locations of their homes. It also links individuals to annual information on their employers. The Entrepreneurship Database, meanwhile, includes information on the identities of the primary founders of new limited liability companies and sole proprietorships in Denmark from 1995 to 2004.

Our sample of entrepreneurs consists of the primary founders of all new firms with at least one employee in the first year, where we have information on the founder in both the firm's year of establishment and the preceding year. We excluded start-ups in the wholesale, primary and public sectors from the sample because we expect a host of other factors to affect location choices for those businesses. In total, the sample used for estimation includes 15,408 startups.

Central to our analysis is the selection of a spatial unit. We measured all regional attributes at the finest grain possible, at the level of the 271 municipalities ('kommuner' in Danish) in Denmark.[2] Figure 1 depicts the boundaries of these municipalities. These administrative units are similar in size and significance to counties or parishes in the United States. In essence, by measuring regional attributes and choices at this level, we assume that entrepreneurs care about the characteristics of these regions (though estimates of zero for the regional attributes could reveal that they do not), and that they are sensitive to distances at this relatively fine-grained scale (the average kommune covers 156 km^2, or 61 square miles).[3]

Figure 1 also maps the distribution of entrepreneurs across Denmark. The shading on the map indicates into which quartile, of entrepreneurs per 1000 employees in the year 2000, each municipality falls. Lighter shading signifies regions with lower levels of entrepreneurship while darker shading denotes municipalities with higher levels. Although rural areas exhibit both very low and very high rates of entrepreneurship, the largest cities – Copenhagen, Århus,

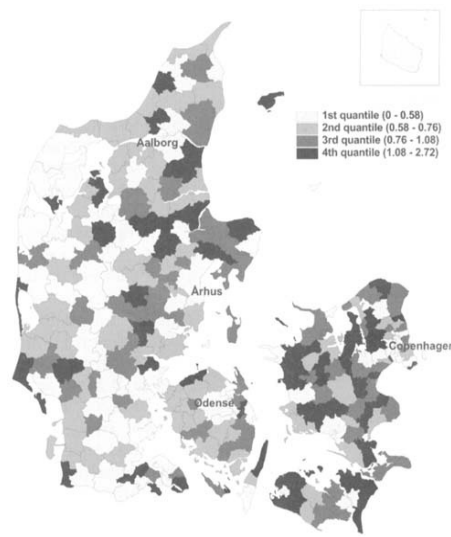

Figure 1 Danish municipalities (kommuner) shaded by entrepreneurship per 1000 employees.

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Aalborg and Odense – uniformly have relatively low rates of entrepreneurship.

To assess whether economic or social factors weighed more heavily in producing these patterns, we created a number of measures of these factors.

Economic factors

We began by calculating several variables that might serve as meaningful signals of the economic attractiveness of municipalities to entrepreneurs.[4]

Ln (*city size*) counts the logged number of employed individuals in a municipality. Since most municipalities have no more than one city or town of any size, one can reasonably consider it a measure of city size. Large cities may prove attractive to entrepreneurs either because they offer cultural amenities that attract employees (Glaeser *et al.*, 2001), such as theater or music, or because the diversity of businesses in these regions promotes cross-industry spillovers (Jacobs, 1969).

Ln (*city education*) averages the logged number of months of education for all individuals employed in each municipality. Many have suggested that more educated populations attract firms, though this attraction may depend on whether those businesses can usefully employ more educated workers.

Ln (*rivals*) counts the logged number of firms in the municipality in the same four-digit industry code as the entrant. If entrepreneurs anticipate benefits from agglomeration, regions with a large number of rivals should attract them.

Ln (*avg size of rivals*) averages the logged size of firms, in terms of number of employees, in the municipality in the same four-digit industry code as the entrant. Larger rivals may produce more intense competition, but concentration may also leave niches available to local specialists (Carroll, 1985).

Ln (*related industries*) counts the logged number of firms in the municipality in the same two-digit – but not in the same four-digit – industry code as the entrant. This measure should assess even more directly the perceived value of being close to buyers and suppliers.

Exit rate measures the failure rate of similar firms in the region. In particular, it calculates the average proportion of firms in the same four-digit industry and in the same municipality that survived from one year to the next in the previous year. Presumably, entrepreneurs recognizing that some regions offer superior conditions for their sorts of businesses would prefer to locate in those places.

Ln (*avg wage*) computes the average logged wage for employees in the same four-digit industry and in the same municipality as the firm being founded. In essence, it captures whether the region is a high- or low-wage one. Although one might expect entrepreneurs to prefer low-wage environments, differences in pay may also reflect productivity. Whether business owners can benefit from these wage differentials depends on whether these deviations diverge from differences in productivity.

Social factors

We also created a number of measures to assess the importance of family and friends. Here, however, we faced an obstacle. Although our data allowed us to locate family, the Danish government does not track each individual's friends. We therefore adopted an indirect approach: We used information on the prior geographic locations of individuals to proxy for the potential availability of friends in each municipality.

Work is an indicator variable that has a value of one if the entrepreneur worked in the municipality in the year before founding his or her firm. To the extent that entrepreneurs form friendships with co-workers from their prior employers, they may wish to remain near to these colleagues.

Ln (*distance to home*) measures the distance, in logged km, between each municipality and the entrepreneur's home address in the year before the founding of his or her firm.[5] Since friendships most commonly form among geographically proximate individuals (Stouffer, 1940; Festinger *et al.*, 1950; Feld, 1981), entrepreneurs' home locations should proxy well for the locations of their friends.

Ln (*distance to prior residences*) calculates the distance, in logged km, between each municipality and places that the entrepreneur has lived between 1980 and the year of founding. For the same reason that one would expect home locations to attract entrepreneurs, one would also expect them to value living near to friends formed in other places that they have lived.[6] If the entrepreneur lived in more than one location during this period, we averaged the logged distances across these locations.

Ln (*distance to parents*) calculates the distance, in logged km, between each municipality and the home addresses of the entrepreneur's parents in the year of founding. If the parents lived at separate addresses, we averaged the logged distances across these locations.

Ln (*distance to siblings*) averages the distance, in logged km, between each municipality and the home addresses of the entrepreneur's brothers and sisters in the year of founding. Table 1 reports descriptive statistics for all of the variables used as predictors of location choice.

Results

The results of our estimates of the determinants of location choice begin in Table 2. Model 1 includes only economic factors. All of these factors have significant effects on location choice, though perhaps not always in the direction that one would have expected *a priori*. Consistent with expectations, entrepreneurs prefer more populous municipalities, more educated labor forces, municipalities that have both more other firms in the same industry and in closely related industries. Surprisingly, they also prefer regions with larger rivals and higher wages – though because concentration may allow for resource partitioning and because these wages may reflect higher average productivity, we cannot really consider either preference irrational.

The most surprising result is that entrepreneurs appear to prefer regions in which businesses of their type have been experiencing higher exit rates. One possible explanation is that entrepreneurs errantly view these places as attractive. They may not consider exit a favorable event. But high exit rates and high entry rates usually go together. Entrepreneurs may observe these high entry rates as

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Table 1 Descriptive statistics

Variable	*Mean*	*Std. dev.*	*Min.*	*Max.*
Ln (city size)	10.577	1.404	7.472	12.927
Ln (city education)	4.950	0.052	4.819	5.081
Ln (rivals)	2.804	1.686	0	6.792
Ln (avg size of rivals)	1.734	0.849	0	6.709
Ln (related industries)	3.521	2.250	0	7.828
Exit rate	0.111	0.092	0	1
Ln (avg wage)	10.289	4.740	0	13.411
Work	0.276	0.447	0	1
Ln (distance to home)	0.937	1.402	0	5.458
Ln (distance to prior residences)	1.644	1.268	0	5.308
Ln (distance to parents)	1.329	1.628	0	5.417
Ln (distance to siblings)	1.433	1.636	0	5.417
Number of startups		15,068		
Number of regions in choice set		271		
Number of startup-region cases		4,083,428		

Table 2 Conditional logit estimates on location choice

	Model 1	*Model 2*	*Model 3*	*Control group*
Ln (city size)	0.419**		0.174**	0.587**
	(0.017)		(0.024)	(0.014)
Ln (city education)	1.908**		−1.651**	1.144**
	(0.209)		(0.301)	(0.283)
Ln (rivals)	0.521**		0.361**	0.924**
	(0.016)		(0.022)	(0.026)
Ln (avg size of rivals)	0.041**		−0.005	0.916**
	(0.013)		(0.018)	(0.015)
Ln (related industries)	0.192**		0.251**	−0.622**
	(0.013)		(0.019)	(0.023)
Exit rate	1.264**		1.112**	2.163**
	(0.112)		(0.145)	(0.252)
Ln (avg wage)	0.055**		0.022*	−0.003
	(0.008)		(0.010)	(0.015)
Work		1.302**	0.756**	1.045**
		(0.037)	(0.036)	(0.028)
Ln (distance to home)		−1.344**	−1.308**	−0.815**
		(0.012)	(0.012)	(0.012)
Ln (distance to prior residences)		−0.444**	−0.323**	−0.465**
		(0.020)	(0.020)	(0.017)
Ln (distance to parents)		−0.130**	−0.222**	−0.126**
		(0.017)	(0.017)	(0.015)
Ln (distance to siblings)		−0.222**	−0.091**	−0.123**
		(0.019)	(0.019)	(0.015)
Pseudo R^2	0.17	0.63	0.66	0.58
Log-likelihood	−69,753	−30,931	−28,384	−35,115
Individuals	15,068	15,068	15,068	15,068

Standard errors in parentheses.
Significance levels: †: 10%, * : 5%, ** : 1%

indicative of attractive opportunities and either ignore or misinterpret the correspondingly high exit rates. Sørensen and Sorenson (2003), for example, find that entry in television broadcasting in the United States encouraged other would-be entrepreneurs to attempt entry despite the fact that these earlier entries substantially reduced the attractiveness of the market.

Model 2 reports estimates considering only social factors. Similar to the economic factors, all of the social factors have significant effects on location choice. Here, all of the

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coefficients have the expected signs. Entrepreneurs prefer to locate in the same municipalities as their prior employers and to locate close to their homes, their prior residences, and the current homes of their parents and siblings. These effects, moreover, explain much more of entrepreneurs' location choices than do economic factors; model 2 has a pseudo-R^2 more than four times larger than that of model 1.

In model 3, we simultaneously estimated the importance of both economic and social factors. Four changes stand out. First, with one exception – the number of firms in the region in related industries – all of the coefficients are smaller in model 3. To some extent, economic and social factors appear positively correlated. Second, of the economic variables, city size shrinks the most in importance. Larger cities may attract individuals because so many of their family and friends reside there, rather than because these places offer more amenities or cross-industry spillovers. Third, of the social factors, work location declines the most in importance. As noted above, the same (economic) factors that attract entrepreneurs to regions probably drew their prior employers to these places as well. Finally and most intriguingly, the average level of education flips from having a positive to a negative sign when one controls for social factors. Entrepreneurs appear to prefer *less* educated labor forces.

Although these results suggest that entrepreneurs place greater weight on social relationships than on economic factors, they do not indicate whether these weights stem from the anticipated value of these connections to their businesses or from their preferences for spending time with family and friends. To tease apart these alternatives, we compared the weights attached to social factors across a number of groups for which these connections should have differing economic value. First, we isolated entrepreneurs who had parents that owned business in the same industries that the entrepreneurs themselves entered. These entrepreneurs should have more to gain from locating near to their parents and from being able to access their connections. Second, we compared entrepreneurs to employees. Although employees do sometimes use connections to help them find jobs, they arguably have less to gain economically from these connections. The relationships that matter, moreover, have been acquaintances rather than family and friends (Granovetter, 1974). Third, we explored whether the determinants of location choice varied across the economic sectors that the employees entered. In particular, one might expect social relationships to matter more in the service and high-tech sectors. As experience goods, customers face a great deal of uncertainty in dealing with new service providers. Connections to the local community may therefore be particularly important to sales. In high tech, meanwhile, the need for highly skilled labor means that entrepreneurs must rely more heavily on their networks for recruiting.

Turning to the first subset, less than 8% of entrepreneurs actually have parents that own businesses. Only a small proportion of these parents, moreover, own businesses in the same industries that their children enter. Because of the small number of cases in this subset, we had little power for analyzing the weightings among this sample. Interestingly, though, even in these cases, entrepreneurs located near their parents at essentially the same rate as entrepreneurs without parents in the industry (~38%). Thus, even in the cases where family connections would appear to offer the largest potential economic benefits to startups, entrepreneurs do not appear unusually sensitive to their proximity.

Entrepreneurs *vs* employees

To determine whether entrepreneurs differ in their preferences from other individuals, the final column reports a model estimating the importance of the same factors to a control group. Since entrepreneurs are shifting from one job to another, our control group comes from a random sample of employees that changed jobs in 2000. We estimated the effects of the same economic and social factors on those employees' choices of employer locations. The results reveal some interesting differences between entrepreneurs and employed individuals. First, employees find more attractive cities, regions with more, and larger, firms in their industry, and regions with higher wages. Given that they receive wages and have more to gain from having multiple employment opportunities, one might expect them to value these factors more highly. Second, employees place no positive value on proximity to firms in related industries. That fits with the notion that, while these firms might represent important buyers or suppliers for the entrepreneur, they offer no direct benefit to the employee. Entrepreneurs nevertheless appear to place relatively similar weights, on average, on social factors. Although entrepreneurs weight proximity to parents and their current home a little more heavily, employees place somewhat greater value on being close to siblings and past residences.

Industry differences

Table 3 explores heterogeneity in the determinants of location choice across sectors of the economy. For this analysis, we divided the sample into four groups: Financial service firms include those involved in accountancy, banking and brokerage ($N = 3664$). Other service firms represent a wide range of industries, including cleaners, clubs and retail sales ($N = 7300$). New manufacturing groups a variety of businesses that one might broadly classify as high tech, such as biotechnology, computer hardware and software, and telecommunications ($N = 1211$). Old manufacturing, meanwhile, comprises all other manufacturing firms and construction ($N = 2893$).

We would call attention to one point here: Entrepreneurs vary relatively little in the valuations that they place on social factors. Once again, the absence of variation suggests that entrepreneurs value these relationships for emotional rather than instrumental reasons. Customers and suppliers dealing with fledgling service providers face far more uncertainty as to the quality of these businesses than those dealing with manufacturers. These service providers, moreover, usually do not have any assets against which they can secure debt and other obligations. Relationships should therefore be far more valuable to entrepreneurs in the service sector – and particularly in financial services. Entrepreneurs in the high-tech sector, meanwhile, rely on connections to recruit early employees. Despite these differences in the value of social relationships across

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Table 3 Conditional logit estimates on location choice

	Financial services	*Other services*	*New manufacturing*	*Old manufacturing*
Ln (city size)	0.111*	0.087*	0.478**	0.214**
	(0.056)	(0.038)	(0.064)	(0.070)
Ln (city education)	−3.813**	−0.734†	0.413	−1.872*
	(0.645)	(0.416)	(0.959)	(0.866)
Ln (rivals)	0.558**	0.385**	0.151*	0.188**
	(0.046)	(0.032)	(0.073)	(0.071)
Ln (avg size of rivals)	0.050	−0.037	0.002	0.002
	(0.037)	(0.028)	(0.049)	(0.041)
Ln (related industries)	0.238**	0.238**	0.363**	0.406**
	(0.040)	(0.026)	(0.065)	(0.071)
Exit rate	1.076**	1.560**	0.074	1.641**
	(0.330)	(0.245)	(0.341)	(0.361)
Ln (avg wage)	0.008	−0.028	−0.003	0.027
	(0.023)	(0.025)	(0.017)	(0.023)
Work	0.841**	0.770**	0.808**	0.606**
	(0.078)	(0.050)	(0.137)	(0.090)
Ln (distance to home)	−1.486**	−1.138**	−1.417**	−1.509**
	(0.027)	(0.017)	(0.043)	(0.032)
Ln (distance to prior residences)	−0.328**	−0.378**	−0.183*	−0.302**
	(0.044)	(0.025)	(0.074)	(0.053)
Ln (distance to parents)	−0.128**	−0.243**	−0.158*	−0.279**
	(0.038)	(0.023)	(0.060)	(0.042)
Ln (distance to siblings)	−0.111*	−0.071**	−0.049	−0.110*
	(0.044)	(0.026)	(0.066)	(0.048)
Pseudo R^2	0.73	0.61	0.67	0.74
Log-likelihood	−5,591	−15,990	−2,214	−4,224
Individuals	3,664	7,300	1,211	2,893

Standard errors in parentheses.
Significance levels: † : 10%, * : 5%, ** : 1%.

sectors, however, all entrepreneurs place roughly the same weights on proximity to family and friends.

Movers *vs* stayers

Table 4 reports models that explore two additional dimensions of heterogeneity in the choices of entrepreneurs. The first two columns split the sample into movers and stayers. Stayers are those who founded their firms in the same municipalities in which they worked in the prior year. Movers did not. Separating movers and stayers allows us to determine whether some factors play an unusually strong role in keeping individuals in their current locations and whether others prove particularly attractive to those who decide to move. Perhaps the most interesting differences across these two sets appear in their weightings of economic factors. Those that move appear less attracted to agglomerations and to regions with high exit rates in their industries. These differences may, however, reflect heterogeneity in the entrepreneurs themselves: Many individuals, for example, become entrepreneurs because they lose their jobs (Evans and Leighton, 1989).

Spin-outs *vs de novo* entrants

The next two columns split the sample into spin-outs and *de novo* entrants. Spin-outs are entrepreneurs that found firms in the same four-digit industries as their prior employers. Despite the fact that spin-outs come from employers in the same industry, they are *less* likely to locate their firms in the same municipalities as these prior employers. But perhaps the most interesting difference between the choices of these two sets of entrepreneurs is that spin-outs appear less attracted to regions with high exit rates in the industry. We see at least two explanations for this result. Both ultimately reflect the idea that spin-outs outperform entrants without prior industry experience because they understand better how to succeed in the industry. One possibility is that location choice represents one dimension on which spin-outs systematically better position their firms. Another possibility is that these locations have lower average exit rates precisely because so many spin-outs call them home. Differentiating between these two accounts, though interesting, would nonetheless require an analysis of performance and therefore falls outside this paper's scope.

Discussion

Why do entrepreneurs tend to locate their firms in close proximity to where they have lived? Does this pattern reflect the underlying economic attractiveness of these regions, the value of the social capital that entrepreneurs

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Table 4 Conditional logit estimates on location choice

	Move	*Stay*	*Same industry*	*Diff industry*
Ln (city size)	0.162**	0.323**	0.197**	0.071
	(0.026)	(0.069)	(0.027)	(0.060)
Ln (city education)	−0.881**	−8.026**	−1.679**	−1.573*
	(0.319)	(0.900)	(0.335)	(0.686)
Ln (rivals)	0.318**	0.766**	0.353**	0.381**
	(0.024)	(0.062)	(0.024)	(0.053)
Ln (avg size of rivals)	−0.015	0.109*	−0.017	0.049
	(0.019)	(0.049)	(0.019)	(0.042)
Ln (related industries)	0.246**	0.293**	0.244**	0.293**
	(0.021)	(0.053)	(0.022)	(0.043)
Exit rate	1.010**	2.139**	1.003**	1.756**
	(0.155)	(0.428)	(0.161)	(0.352)
Ln (avg wage)	0.019†	0.051	0.018†	0.053†
	(0.010)	(0.032)	(0.010)	(0.031)
Ln (distance to home)	−1.324**	−1.527**	−1.329**	−1.209**
	(0.014)	(0.032)	(0.014)	(0.029)
Ln (distance to prior residences)	−0.258**	−0.750**	−0.332**	−0.281**
	(0.022)	(0.052)	(0.022)	(0.045)
Ln (distance to parents)	−0.220**	−0.260**	−0.247**	−0.159**
	(0.018)	(0.042)	(0.019)	(0.035)
Ln (distance to siblings)	−0.077**	−0.205**	−0.074**	−0.160**
	(0.021)	(0.049)	(0.022)	(0.039)
Work			0.619**	1.154**
			(0.044)	(0.066)
Pseudo R^2	0.59	0.87	0.67	0.66
Log-likelihood	−24,934	−3,059	−22,579	−5,749
Individuals	10,907	4,161	12,054	3,014

Standard errors in parentheses.
Significance levels: † : 10%, * : 5%, ** : 1%.

have built up in these places, or the desire of entrepreneurs to live close to family and friends?

Our answer to these questions is that entrepreneurs appear to be embedded in their communities. The economic attractiveness of regions matters, but its importance pales relative to proximity to family and friends in determining where entrepreneurs locate their ventures. Entrepreneurs, moreover, appear to value proximity to family and friends not for the help that those connections might offer to their ventures but for emotional reasons.

Although one might worry that our results apply only to Denmark, studies in other contexts appear consistent with the notion of embedded entrepreneurs. The high value that founders place on being near to family and friends, for example, accords with the fact that Figueiredo *et al.* (2002) estimate that entrepreneurs in Portugal would pay three times higher wages to employees to remain in their home regions. It also fits with the high levels of geographic inertia that Michelacci and Silva (2007) find among Italian entrepreneurs. Studies of founders in the United States suggest similar conclusions (Parwada, 2008). Although we would welcome the replication of our research, nothing suggests that these processes would unfold differently elsewhere.

Our findings have at least two important research implications. First, the fact that entrepreneurs value family and friends for emotional reasons suggests that the locations of these individuals may offer a source of exogenous variation in where entrepreneurs locate their firms. Attempting to link place to performance has been a difficult task because firms undoubtedly consider the economic attractiveness of regions when deciding where to locate their plants and headquarters. Differences across places in performance may therefore reflect heterogeneity in the firms rather than in the regions (Shaver and Flyer, 2000). Detailed information on the locations of the family and friends of entrepreneurs (and potentially of managers that have substantial input into the placement of facilities) could offer a solution to identifying these performance effects.

Second, our results lend substantial support to theories of the origins and persistence of clusters that emphasize spin-out processes rather than the economic efficiency of these regions. Sorenson and Audia (2000) argue and provide evidence that the clustering of firms in the US footwear industry persists, not because firms benefit from being located near to one another, but because entrepreneurs that spin-out of incumbents found their firms in close proximity to their prior employers, thereby maintaining the cluster. Similar processes have been found to operate in apparel (Staber, 2001), automobiles (Klepper, 2007), biotechnology (Stuart and Sorenson, 2003),

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book publishing (Heebels, 2009), tires (Buenstorf and Klepper, 2009), and computer workstation manufacturing (Sorenson, 2005). Our results suggest that this process may hold generally across nearly all sectors of the economy and therefore that these spin-out processes, rather than economies of agglomeration, may account for nearly all of the geographic clustering of industries.

From a public policy point of view, our results suggest that programs designed to lure entrepreneurs to a region might prove inefficient at best. These incentives would need to overcome the value that entrepreneurs place on family and friends and that value appears very high. Although spin-outs may provide a mechanism through which regions can reap rewards from luring large existing firms (Greenstone *et al.*, 2008), the relative immobility of entrepreneurs suggests that governments should pursue policies to stimulate entrepreneurship among the existing population rather than to attract migrating entrepreneurs to the region. Entrepreneurs are not an imported crop; they're home grown.

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Notes

1 Sorenson (2003) provides a review of the extensive empirical literature that supports the value of social relationships to entrepreneurs.

2 Denmark had 276 municipalities until 1 January 2003, when the five municipalities on the island of Bornholm merged into one. We therefore combined these municipalities for the entire period. We also excluded one municipality: the island of Christiansø located 20 km north-east of Bornholm, which has fewer than 90 residents. Effective 1 January 2007, Denmark reorganized and consolidated its administrative units into 98 kommuner. This change, however, occurred outside of the range of our data and therefore does not affect our analyses.

3 As a robustness check, we estimated a set of models defining the choice set at the level of the 33 regions identified as labor markets through observed commuting patterns (Andersen, 2000). Defining the units at that level produced substantively equivalent results. When entrepreneurs do move, they typically move not just away from their former kommune of residence but also outside of their former commuting region.

4 Tax rates and unionization rates, two of the more widely studied determinants of location choice among existing firms in the United States, do not vary meaningfully across Denmark, so we could not estimate their influence on this sample of entrepreneurs.

5 Although we experimented with a variety of functional forms, a comparison of the logged distance to a 10-piece linear spline showed almost no difference between the two. We therefore used the simpler logged distance in our estimations.

6 One might also expect the strength of these emotional attachments to increase with an individual's tenure in the region and to erode over time. In unreported models, we found evidence of both effects. These more nuanced specifications nevertheless had little effect on the predictive power of our models, so, in the interest of simplicity, we report models that treat all past residences as equally attractive.

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