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Are we equal? Characteristics and performance of entrepreneurial spinoffs resulting from M&A

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Abstract

This paper argues that M&A trigger employee mobility and spinoffs. It studies to what extent firms undergoing M&A ?push? employees into competitors? hands or to spin off and start their own venture. The competitive implications for incumbents are further explored by analysing the characteristics of those employees most affected by the M&A and the performance of their ventures when they spin off. This article contributes to our knowledge about the consequences of M&A, and how spinoffs originating from certain organizational contexts differ in characteristics and performance from other spinoffs. It argues that the motivation of those who enter entrepreneurship following M&A is different from other spinoffs, and that we should expect different performance outcomes. Moreover, I predict that managers and technical employees will be particularly affected in their behaviour by M&A. An extract from the employer-employee linked Danish Labour Market database is used to test these predictions.

THIS IS A VERY PRELIMINARY VERSION OF THE PAPER, WITHOUT THE EMPIRICAL RESULTS. AN UPDATE CONTAINING RESULTS WILL FOLLOW BEFORE THE CONFERENCE.

M&A and Spinoffs

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This paper argues that M&A trigger employee mobility and spinoffs. It studies to what extent firms undergoing M&A “push” employees into competitors’ hands or to spin off and start their own venture. The competitive implications for incumbents are further explored by analysing the characteristics of those employees most affected by the M&A and the performance of their ventures when they spin off. This article contributes to our knowledge about the consequences of M&A, and how spinoffs originating from certain organizational contexts differ in characteristics and performance from other spinoffs. It argues that the motivation of those who enter entrepreneurship following M&A is different from other spinoffs, and that we should expect different performance outcomes. Moreover, I predict that managers and technical employees will be particularly affected in their behaviour by M&A. An extract from the employer-employee linked Danish Labour Market database is used to test these predictions.

Keywords: Mergers & Acquisitions, Employee Mobility, Spinoffs

Introduction

Recent research on the organizational consequences of employee mobility has found that where employees go to affects the performance of the source firm [Campbell et al. 2012; Gjerløv-Juel and Dahl 2012; McKendrick et al. 2009; Phillips 2002; Wezel et al. 2006]. Whether an employee leaves to enter entrepreneurship or to work for a competing firm can have different effects on the parent firm. Moreover, the characteristics of those leaving also affect the negative impact on incumbents' performance [Campbell et al. 2012]. This emerging line of research focusing on the competitive implications of spinoffs for the source firms highlights the strategic relevance of spinoffs for management. Employee mobility deriving from M&A might therefore have substantive performance implications for incumbents depending on the characteristics and destination of those leaving the firm. Moreover, the motivation and characteristics of those employees who enter entrepreneurship as a result of M&A might differ from other entrepreneurs, and so their performance may also differ.

The limits to accessing employee-level data has meant that questions regarding how employees are affected by M&A and what they do afterwards have remain largely underexplored. There is currently an relevant research gap in our understanding of how organizational context conditions employees' propensity to spin-off and affect the performance of their ventures. Yet it is highly relevant to understand how entrepreneurs resulting from organizational shocks differ from other entrepreneurs in terms of characteristics and performance.

Research on spinoffs has shown that they tend to outperform other start-ups [Agarwal et al. 2004; Buenstorf and Klepper 2009; Dahl and Reichstein 2007; Eriksson and Moritz Kuhn 2006; Klepper 2001; Moore and Davis 2004]. The resemblance between spinoffs and source firms, much as the resemblance between children and parents, has been at the heart of spinoffs formation theories [Burton et al. 2002; Klepper 2001]. Empirical evidence has also shown that knowledge-rich firms beget better spinoffs [Franco and Filson 2006], and that parent and progeny performance are correlated [Buenstorf 2007a; Dahl and Reichstein 2007]. It is apparent that resource endowment at early stages of the venture are critical determinants of survival [Agarwal et al. 2011]. Since entrepreneurs reproduce organizational blueprints and routines from previous workplaces, coming from a superior firm is expected to reflect positively on performance. Agarwal et al. [2004] expose, more specifically, that firms that are good at both exploring and exploiting innovation (i.e. are technical and market pioneers) will produce fewer spinoffs, but that these spinoffs will perform better than others.

It has been argues that that parents with weak technical or market capabilities will yield more, albeit lower quality, progeny [Agarwal et al. 2004]. The ability to reproduce knowledge and blueprints of parent firms form the basis of spinoffs competitive advantage, and thus the organizational origin of entrepreneur will reflect on performance. We much less is known, however, about how originating from different organizational contexts will affect both the likelihood that an employee will spin out and the performance of the resulting venture. There are some studies that have argued that M&A trigger increased employee mobility [Walsh 1988] and spinoff formation [Brittain and Freeman 1986; Buenstorf 2007b; Klepper 2009], but evidence is at best sparse,

probably caused by a limited access to employee level data. Motivation to spin out might be different not only across individuals, but also across organizational realities. Employees' ability to reproduce organizational capabilities might vary according to the gestation context. This paper contributes to filling this gap, by providing large scale evidence in the case of M&A. It brings together literature on spinoffs, entrepreneurship, turnover and organizational change to address the question of how spinoffs resulting from M&A are different from other spinoffs. The findings have implications for managers, entrepreneurs, and policy makers alike.

Moreover, advancing who are the employees leaving the firm might contribute to the overall discussion on the effect on the source company [[Campbell et al. 2012](#)], and analysing the performance of the new entrepreneurs may shed light on the overall economic impact of spinoffs from M&A. This investigation seeks to answer the following questions: Is there an effect of takeovers on the likelihood to spinoff? Who are those leaving to start-up a new firm in terms of performance, education, rank, age, tenure and previous entrepreneurial experience? How do they perform in relation to other entrepreneurs and spinoffs -and what affects their survival chances?

I argue that acquisitions affect the likelihood of spinoffs by increasing the motivation to enter entrepreneurship. Takeovers have been shown to trigger employee mobility [[Carriquiry 2014](#)], some of whom may become entrepreneurs. Organizational shocks, such as takeovers, are pivotal points in employment relationships when employees evaluate their fit with the new organizational reality [[Holtom et al. 2005](#); [Lee et al. 1996](#)]. Moreover, management's attention is likely to divert towards issues related to the takeover and away from opportunities, which might be sized by employees who see underexploited avenues.

The ability to depart the organization will depend on barriers to exit the organization, such as non-compete clauses and forfeit benefits. In organizational contexts such as M&A, exit probabilities might be enhanced by emphasis of minimizing duplication of activities in the new organization to achieve synergies. Therefore firms are more willing to facilitate employee exits in this context. Moreover, with management's attention focused on the takeover, employee behaviour might be less monitored, and therefore managers chances of spotting early signs of intention to leave are reduced.

Competitive Implications of Spinoffs

Spinoffs have received a variety of names, from (entrepreneurial) spinouts to intra-industry spinoffs. All these labels refer to firms with a particular characteristic: they are founded or directed by former employees of a firm in the same industry. Typically, this definition implies that the employees spinning out found the new venture immediately after leaving the parent (source) organization, although some definitions might include firms funded up to 5 years after employment at the parent. Spinoffs have raised a significant amount of attention due to the systematic finding that they outperform other types of ventures [Agarwal et al. 2004; Buenstorf 2007b; Buenstorf and Klepper 2009; Dahl and Reichstein 2007; Delmar and Shane 2006; Eriksson and Moritz Kuhn 2006; Klepper 2001; Moore and Davis 2004].

Dahl and Reichstein [2007], nevertheless, found that the positive performance of spinoffs depend on the performance of the source company. This is in line with the inheritance story, whereby the attributes, knowledge and routines of parent firms are transferred to their progeny [Klepper 2001]. Better knowledge and routines will be associated with higher performance, and worse routines and knowledge translates into lower probability of survival. Therefore, if parent firm perform strongly, so will spinoffs, and if parent firms fail, progeny will be more likely to fail too.

Less consistency has been found, however, on the performance implications of spinoffs for the source firm. On the one hand, Campbell et al. [2012] find that, for a sample of professional law firms, spinoffs are more detrimental to the source firm than other types of employee mobility. On the other hand, Agarwal et al. [2004]; Gjerløv-Juel and Dahl [2012]; McKendrick et al. [2009]; Phillips [2002]; Wezel et al. [2006] find that all types of mobility affect source firm performance negatively. The discussion on how different types of mobility affect parent firms, thus, remains a point of contention.

Considering the substantial amount of research about both M&A and spinoffs, our knowledge about their relationship is relatively underexplored. One of the main challenges behind this gap, has been the lack of employee-level data. Data at that level that tracks employees both before and after M&A is hard to come by, both because firms are reluctant to provide the data, and because M&A must be explored retrospectively -i.e. we only know about the events after they are already unleashing.

That said, there have been some studies that offer evidence of the link. M&A have been previously linked by a large study with increased employee mobility across the board for most types of employees [Carriquiry 2014]. A small-sample -55 companies- study by Walsh also shows that M&A triggers increased turnover for top managers [Walsh 1988]. Regardless of the type of M&A, he finds that top managers will leave the target company at a rate significantly higher than "normal".

Klepper [2009] cites the case of Electronic Arrays spinning off from General Microelectronics after the takeover by Philco in the semiconductors industry as an example of how M&A may lead to spinoff formation. Klepper and Thompson [2010], moreover, argue that spinoffs result from strategic disagreements, which are often due to major organizational events such as M&A. They argue that there is a pattern of higher spinoffs formation around the time of an acquisition. This

they call an empirical regularity, and yet they fail to provide references to studies that show such finding.

There are two studies of entrepreneurship, namely [Brittain and Freeman \[1986\]](#) and [Buenstorf \[2007b\]](#), that consider M&A as an explanatory variable in their models. Although it is not the focus of either study, they do show that there is a certain correlation between M&A and entrepreneurship. [Buenstorf \[2007b\]](#)'s thorough study of the German laser industry shows mixed results regarding the significance and size of the relationship, but nevertheless indicates that there is a relationship. [Brittain and Freeman \[1986\]](#)'s study of entrepreneurs as organizational products finds a correlation between time-to-entrepreneurship and unrelated acquisitions which seems to hold across different specifications. The latter study, nonetheless, focuses exclusively on the semi-conductors industry in Silicon Valley, and we have wonder if these results would hold in other industries and context that are perhaps less supportive of entrepreneurship. Silicon Valley is particularly well-known for its capacity to attract both talent and finance for the creation and development of high-tech companies.

[Klepper and Thompson \[2010\]](#) also argue that it is an "empirical regularity" that spinoffs are founded by top managers and engineers/scientists, after disagreements on the strategies and technologies to pursue by a firm. This is also empirically supported by [Dahl and Reichstein \[2007\]](#)

Research has found that M&A represent a major challenge for employees who appraise the change in a negative way, generating uncertainty about career prospects [[Bordia et al. 2004](#)] and increasing occupational stress [[Begley 1998](#); [Dahl 2011](#); [Ferrie et al. 1998](#)].

from M&A

Why do employees spin-off?

Quite possibly the most significant point of contention in the study of entrepreneurship is why do some individuals become entrepreneurs while others do not. The debate on whether individuals are born with certain entrepreneurial traits or if they learn how to become entrepreneurs has yielded an extensive body of literature. Psychological theories of entrepreneurship argue that entrepreneurs possess specific characteristics that other do not. Individual qualities, such as tolerance of uncertainty and internal locus of control, drives some people into entrepreneurship and not others.

Austrian economists, on the other hand, argue that the determinant of entrepreneurial action is the discovery of opportunity, rather than innate individual characteristics [[Shane 2000](#)]. Since individuals possess different knowledge and information, none of them are able to discover all entrepreneurial opportunities. Lastly, they argue that this process is marked by factors outside the individuals' control, and are thus unrelated to their innate desire or tendency to become entrepreneurs.

Strategic disagreement

The focus of the spinoff literature lies elsewhere. Since spinoffs are seen as organizational products, Klepper and Thompson [2010] have described strategic disagreements as a main source of spinoffs. Fall outs on regarding reward schemes, the technological direction of the firm, and managerial changes have been key factors in the prominent case studies they analyse. They provide evidence not only of the semiconductors industry, but also the automotive, laser, and hard-disk drive industries.

Klepper and Thompson [2005]

Opportunity Vs. Necessity, Push Vs. Pull

This might, in Amit et al. [1995] terms, "push" some employees to look for alternative career paths, either in other firms or start their own venture within or outside the source firm industry. "Push" in this framework refers to individuals who become entrepreneurs because of particular contextual factors, such a dissatisfaction with the current job, which are unrelated to their entrepreneurial qualities. "Pull" entrepreneurs, in contrast, are those driven by desire to pursue a particular business idea. Buenstorf [2009] similarly categorises entrepreneurs according to their motivation to enter entrepreneurship as being either "necessity-driven" or "opportunity-driven". "Necessity-driven" would be those individuals who chose to became an entrepreneur because of situational factors, such as being laid-off or seeing ones career options hampered by recent developments. "Opportunity-driven" entrepreneurs, by contrast, would be those that are motivated by the sheer desire to pursue an opportunity, relatively unaffected by their contextual situation.

In essence, both Buenstorf [2009] and Amit et al. [1995] are arguing that the motivation to become entrepreneurs varies, and that it matters for performance. Amit et al. [1995], in fact, argue that being a "pull" entrepreneur is associated with stronger performance than being a "push" entrepreneur. Buenstorf [2009]...

Whether or not we embrace these categorization, the uncertainty about the future of the organization itself, and of the individual employees within the organization, will affect the trade-off between continuing employment following the M&A and becoming self-employed. Once future employment conditions are uncertain, the opportunity cost of pursuing an entrepreneurial opportunity suddenly decrease relative to continuing employment at the firm. At the margin, this should induce some employees to start their own venture who would have otherwise continue as part of the organization if no triggering event had taken place.

It is a general finding from the entrepreneurship literature that opportunity-based entrepreneurship outperforms necessity based startups. Since we expect an increase in the proportion of necessity-based entrepreneurs following M&A, we should expect that, on average:

H1a: Spinoffs resulting from M&A perform worse than other spinoffs.

If the necessity factor explains a performance difference between spinoffs resulting from M&A and other spinoffs, this necessity should be even stronger in the case of workers in plants that are

shut down. That is, the latter group of employees are "pushed" into entrepreneurship even harder than employees working for a firm that is acquired.

H1b: Spinoffs resulting from plants that close down will perform worse than other spinoffs resulting from M&A.

Heterogeneous effect

As discussed above, the psychological perspective of entrepreneurship has long argue that selection into entrepreneurship depends on individual traits, and has consequently focused on individual differences that explain entrepreneurial tendencies. Therefore, those individuals who possess certain traits will tend to become entrepreneurs, while those who do not possess them will not. In an organizational context, the question then becomes, which groups of employees are most likely to possess those characteristics? This question is a complex one, since what these characteristics are -and how they should be measured- remains a major contention point [Cromie 2000]. No individual trait claimed to determine entrepreneurship has proven robust across samples and showed significant exploratory power.

Perhaps more importantly, the view that certain enduring individual characteristics determine the decision to become an entrepreneur rules out contextual causes. Individuals who possess certain traits, according to this view, will tend to become entrepreneurs, while others who do not have them will not do so. This leaves little room for organizational context to affect an individual's likelihood of entering entrepreneurship. In this view, sudden shocks to organizational career prospects or working reality will have limited influence on individuals' decision to become entrepreneurs.

Another stream of research, based one Austrian economics, argues that the *discovery* of opportunities is a critical element of entrepreneurship. Although traits are important, the opportunity discovery itself is generally related to individuals' knowledge stock [Eckhardt and Shane 2003; Shane 2000]. In this view, opportunities are fundamentally surprising and they stuck people when they were not looking for them. There are no particular traits that will make individuals more likely to spot *all* entrepreneurial opportunities [Shane 2000]. Even when faced with the same event or invention, individuals perceive markedly different opportunities as a function of what they already know. This implies that individuals who differ in their knowledge stock and access to either technical or market related information will not be equally likely to spot an entrepreneurial opportunity[Shane 2000]. Each person's idiosyncratic knowledge, whether obtained through education, work experience, or elsewhere, determines their ability to identify potential entrepreneurial opportunities.

The discovery of an opportunity, naturally, does not necessarily lead to its exploitation. Pursuing an entrepreneurial opportunity may in itself depend on several factors, such as social and financial capital, knowledge of how to found a venture and other resources. To pursue an opportunity one naturally has to be able to identify it.

Although, this view of entrepreneurship does not seem to suggest, a priori, that changes at the

workplace could have an effect on entrepreneurship, this is not necessarily the case. M&A generally lead to major strategic changes, which often implies the discontinuation of some activities related to product or market development. Employees who have been close to these developments might see the potential of technologies or markets and spot venture opportunities. Thus, individuals with higher levels of technical and strategic knowledge are more likely to spot entrepreneurial opportunities, and they will be the most likely groups to spin off as a result of M&A.

Opportunity exploitation

It is possible, moreover, that employees who have spotted opportunities in the recent past, but had decided not to pursue them at the time.

Moreover, often a trigger is needed to enter into entrepreneurship [Cromie 2000].

Therefore,

H2a: Employees with higher stocks of knowledge will be more likely to spin off as a consequence of M&A.

Top managers and technical employees -such as engineers- are the most likely groups to possess the knowledge to discover opportunities. Their exposure to the strategic and technical information respectively, and their stock of relevant knowledge, grants them a privileged position to spot market trends, gaps, and potential innovations. Therefore, I would expect these groups to be most affected in their likelihood to spin off.

H2b: Managers and technical employees will be more likely to spin off as a consequence of M&A.

Firm behaviour: anticipating employee departure

The stance that firms do not anticipate a certain degree of employee turnover following M&A would be naive. In fact, it is an established finding by both practitioners and researchers that a number of individuals will leave the company ex post [Carriquiry 2014]. In fact, Younge et al. [2014] find that the anticipation of employee departure puts bidders off, decreasing the likelihood of M&A when institutions are not in place to prevent employee mobility post acquisition. This effect is particularly acute for knowledge-intensive firms, since for these firms human capital represents are particularly strategic asset.

In the case of Denmark, Non-compete clauses play a relatively limited role in limiting individual mobility, even in knowledge-intensive sectors (see, for example, Dahl and Pedersen [2005]). This limits the control of potential acquirers over the destination of employees post acquisition, increasing the uncertainty over both the value of the deal and its competitive outcomes. This, in line with Younge et al. [2014] argument, should reduce the likelihood of M&A occurring in the first place. We should, thus, expect that the deals that do happen are those where the impact on employee mobility will be relatively less pronounced, since anticipation of high employee mobility to competitors would prevent the deal.

Data

Data for this study is obtained from the IDA (Danish Labour Market Database). The IDA contains employer-employee linked data for the whole population of employees and firms with at least one employee since 1980. This includes work related and demographic variables, such as education, income, number and ages of kids, location and job tenure.

Variables

Treatment For the initial estimation, a binary variable that takes the unitary value if the plant went through a M&A in a given year, and zero otherwise. This serves the basis for the simple logit models.

The second possible treatment consists of working for a plant that closes down. If the plant closes down, individuals who worked for the plant in the year before closure are considered to be in the treatment group. This is reflected also by a binary variable, which is equal to 1 for those in the treatment condition and 0 otherwise.

The last possible treatment changes the baseline (control) group for the second condition. This binary variable takes the value 1 if the plant closes down, and value 0 if the plant goes through a M&A.

For the DID analysis, treatment is a binary variable: 0 if the person is in the control group, and 1 if the individual is in the treatment group. An individual is treated when working for a plant that undergoes a M&A during the window period, which in this case was during the calendar years of 2003, 2004 and 2005. Individuals were monitored from 2001 through 2007.

Dependent variables The dependent variable for the analysis of M&A and plant closure on spin-off formation is a binary variable with outcome equal to 1 if the individual left a firm to start her own business venture in the same industry as the focal firm, and 0 otherwise. The definition of industry was strictly taken as 4-digit NACE codes.

For the performance measures, the outcome variable represents the time-to-spin-off

Independent variables At the individual level, the usual demographic variables were controlled for. This includes years of age, gender (1 female, 0 male), number of kids (age 0-6, 7-12 and 13-18, and length of education (log, months of formal education). Job-related individual-level variables include income (log, Danish Kroner), years of job tenure, and position (based on ISCO classification) within the organization.

At plant level, I control for industry (4 digit NACE), size (number of employees), years of age, average length of education (log, months of formal education), location (43 labour market regions), employment growth over the last year. At firm-level, size (number of employees), years of age, and employment growth over the last year are also controlled for in the models.

Industry level variables to capture variations in business opportunities were also included. Industry concentration and growth were controlled for, as well as...

Matching

Results

Effect of M&A on Spinoff

Performance of Spinoffs

References

- Agarwal, R., Campbell, B. A., Franco, A., and Ganco, M. (2011). What do i take with me: the impact of transfer and replication of resources on parent and spin-out firm performance. *US Census Bureau Center for Economic Studies Paper No. CES-WP-11-06*. 3
- Agarwal, R., Echambadi, R., Franco, A. M., and Sarkar, M. (2004). Knowledge transfer through inheritance: Spin-out generation, development, and survival. *Academy of Management Journal*, 47(4):501–522. 3, 5
- Amit, R., Muller, E., and Cockburn, I. (1995). Opportunity costs and entrepreneurial activity. *Journal of Business Venturing*, 10(2):95–106. 7
- Begley, T. M. (1998). Coping strategies as predictors of employee distress and turnover after an organizational consolidation: A longitudinal analysis. *Journal of Occupational and Organizational Psychology*, 71(4):305–329. 6
- Bordia, P., Hobman, E., Jones, E., Gallois, C., and Callan, V. (2004). Uncertainty during organizational change: Types, consequences, and management strategies. *Journal of Business and Psychology*, 18(4):507–532. 6
- Brittain, J. W. and Freeman, J. (1986). Entrepreneurship in the semiconductor industry. In *46th Annual Meeting of the Academy of Management, New Orleans*. 3, 6
- Buenstorf, G. (2007a). Creation and pursuit of entrepreneurial opportunities: An evolutionary economics perspective. *Small Business Economics*, 28(4):323–337. 3
- Buenstorf, G. (2007b). Evolution on the shoulders of giants: entrepreneurship and firm survival in the german laser industry. *Review of Industrial Organization*, 30(3):179–202. 3, 5, 6
- Buenstorf, G. (2009). Opportunity spin-offs and necessity spin-offs. *International Journal of Entrepreneurial Venturing*, 1(1):22–40. 7
- Buenstorf, G. and Klepper, S. (2009). Heritage and agglomeration: The akron tyre cluster revisited*. *The Economic Journal*, 119(537):705–733. 3, 5
- Burton, M. D., Sørensen, J. B., and Beckman, C. M. (2002). 7. *Coming from good stock: Career histories and new venture formation*, volume 19 of *Social Structure and Organizations Revisited (Research in the Sociology of Organizations)*. Emerald Group Publishing Limited. 3
- Campbell, B. A., Ganco, M., Franco, A. M., and Agarwal, R. (2012). Who leaves, where to, and why worry? employee mobility, entrepreneurship and effects on source firm performance. *Strategic Management Journal*, 33(1):65–87. 3, 4, 5
- Carriquiry, J. M. (2014). Impact of plant takeover on employee turnover: Cutting fat or losing talent? Available at SSRN 2519927. 4, 5, 9

- Cromie, S. (2000). Assessing entrepreneurial inclinations: Some approaches and empirical evidence. *European Journal of Work and Organizational Psychology*, 9(1):7–30. 8, 9
- Dahl, M. S. (2011). Organizational change and employee stress. *Management Science*, 53(2):240–256. 6
- Dahl, M. S. and Pedersen, C. Ø. (2005). Social networks in the r&d process: the case of the wireless communication industry around aalborg, denmark. *Journal of Engineering and Technology Management*, 22(1):75–92. 9
- Dahl, M. S. and Reichstein, T. (2007). Are you experienced? prior experience and the survival of new organizations. *Industry and Innovation*, 14(5):497–511. 3, 5, 6
- Delmar, F. and Shane, S. (2006). Does experience matter? the effect of founding team experience on the survival and sales of newly founded ventures. *Strategic Organization*, 4(3):215–247. 5
- Eckhardt, J. T. and Shane, S. A. (2003). Opportunities and entrepreneurship. *Journal of management*, 29(3):333–349. 8
- Eriksson, T. and Moritz Kuhn, J. (2006). Firm spin-offs in denmark 1981–2000 patterns of entry and exit. *International Journal of Industrial Organization*, 24(5):1021–1040. 3, 5
- Ferrie, J., Shipley, M., Marmot, M., Stansfeld, S., and Smith, G. (1998). The health effects of major organisational change and job insecurity. *Social Science & Medicine*, 46(2):243–254. 6
- Franco, A. M. and Filson, D. (2006). Spin-outs: knowledge diffusion through employee mobility. *The RAND Journal of Economics*, 37(4):841–860. 3
- Gjerløv-Juel, P. and Dahl, M. (2012). The effect of top-employee migration and spin-offs on incumbent firms. *Available at SSRN 2031395*. 3, 5
- Holtom, B. C., Mitchell, T. R., Lee, T. W., and Inderrieden, E. J. (2005). Shocks as causes of turnover: What they are and how organizations can manage them. *Human Resource Management*, 44(3):337–352. 4
- Klepper, S. (2001). Employee startups in high-tech industries. *Industrial and Corporate Change*, 10(3):639–674. 3, 5
- Klepper, S. (2009). Spinoffs: A review and synthesis. *European Management Review*, 6(3):159–171. 3, 5
- Klepper, S. and Thompson, P. (2005). Spinoff entry in high-tech industries: motives and consequences. *Economic Perspectives on Innovation*, Cambridge University Press, 6:187–218. 7
- Klepper, S. and Thompson, P. (2010). Disagreements and intra-industry spinoffs. *International Journal of Industrial Organization*, 28(5):526–538. 5, 6, 7
- Lee, T., Mitchell, T., Wise, L., and Fireman, S. (1996). An unfolding model of voluntary employee turnover. *Academy of Management Journal*, 39(1):5–36. 4

- McKendrick, D. G., Wade, J. B., and Jaffee, J. (2009). A good riddance? spin-offs and the technological performance of parent firms. *Organization Science*, 20(6):979–992. [3](#), [5](#)
- Moore, G. and Davis, K. (2004). Learning the silicon valley way. *Building high-tech clusters: Silicon Valley and beyond*, pages 7–39. [3](#), [5](#)
- Phillips, D. J. (2002). A genealogical approach to organizational life chances: The parent-progeny transfer among silicon valley law firms, 1946–1996. *Administrative Science Quarterly*, 47(3):474–506. [3](#), [5](#)
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization science*, 11(4):448–469. [6](#), [8](#)
- Walsh, J. P. (1988). Top management turnover following mergers and acquisitions. *Strategic Management Journal*, 9(2):173–183. [3](#), [5](#)
- Wezel, F. C., Cattani, G., and Pennings, J. M. (2006). Competitive implications of interfirm mobility. *Organization Science*, 17(6):691–709. [3](#), [5](#)
- Younge, K. A., Tong, T. W., and Fleming, L. (2014). How anticipated employee mobility affects acquisition likelihood: Evidence from a natural experiment. *Strategic Management Journal*. [9](#)