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Career Booster or Dead End? Entrepreneurial Failure and Its Consequences for Subsequent Corporate Careers

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ABSTRACT Human capital theory establishes that the human capital gained in prior work experience, such as in traditional corporations, is associated with subsequent entrepreneurial success. However, this perspective does not accommodate increasingly boundaryless careers, during which individuals switch between career tracks in both directions. As a result, research to date is unable to explain whether experience with entrepreneurial failure drives corporate career success. We extend existing human capital research by theorizing that and testing empirically whether entrepreneurial activity builds human capital that is conducive to a subsequent corporate career, even when the new venture fails. We provide two main studies, a résumé experiment with 80 recruiters and a study with a matched sample of 326 failed entrepreneurs and comparable graduates who started a career in a corporation, that support this notion. We find that failed entrepreneurs can have a corporate career advantage over those graduates who started a career in a corporation.

Keywords: entrepreneurial experience, failure, human capital theory, personal initiative

INTRODUCTION

Since societies depend on entrepreneurial initiatives for innovation and job creation, the best minds should be encouraged to consider entrepreneurship as a career option (Shane and Venkataraman, 2000). However, our own classroom experience reveals that even graduates who have entrepreneurial intentions often hold back for fear of harming their potential for a corporate career if their ventures fail. Indeed, one might argue that those who join a corporation immediately after graduation have a substantial head start on a

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corporate career (e.g., because of familiarization with how corporations function) over late entries into the corporate world who first gather entrepreneurial experience.

Research so far does not provide evidence on whether this fear is justified or whether it unjustifiably discourages potential entrepreneurs. This issue touches on the interface of human capital theory and entrepreneurship, where Marvel et al.'s (2016) review identifies a focus on human capital as an antecedent of entrepreneurial initiative and success (see, e.g., Criaco et al., 2021). However, the graduates' situation raises the question concerning whether entrepreneurial failure builds human capital by teaching how to set up a business and how to learn from failure, both of which can facilitate careers outside the startup world. Integrating this perspective into human capital theory addresses our introductory discussion and the growing incidence of boundaryless careers that contain frequent switches among career tracks, such as between entrepreneurial and corporate work (Burton et al., 2016).

Therefore, our research model offers a first step in extending human capital theory by relating experience with entrepreneurial failure to subsequent success in a corporate career (Super, 1957, 1980). To understand the potential value to a corporate career of human capital that is gained during an experience with entrepreneurial failure, we compared the experiences gained from founding and failing in the early career stage with the experiences gained from starting a career in a corporation during the same stage. To determine how experience with entrepreneurial failure translates into success in a corporate career, we used the personal initiative corporate recruiters perceive as a mediating mechanism (Frese et al., 1996). We conducted two main empirical studies to test our model. The first study involved a résumé experiment with 80 recruiters from an international consulting company and was complemented by three additional experiments with variants of the scenarios and respondents. The second study used LinkedIn and Crunchbase data to build a matched sample of 326 failed entrepreneurs and their college colleagues who went directly into corporations. We complemented our theorizing with insights from interviews with founders and graduates in corporations.¹

In this way, we made several contributions. First, we extended human capital theory by exposing it to today's realities of boundaryless careers and informed this literature not only that human capital is critical to explaining entrepreneurship but also that entrepreneurship builds the human capital that is critical for other purposes (Burton et al., 2016). Second, we revealed perceptions of (failed) founders' personal initiative (Frese et al., 1996) as a theoretical mechanism through which experience with entrepreneurial failure translates into successful corporate entry, thus informing this line of research regarding how this type of human capital works outside the startup world. Third, more practically, we have equipped advisers of potential entrepreneurs with empirical evidence that the widespread fear of jeopardizing a possible future corporate career if an entrepreneurship fails is not always justified.

CONCEPTUAL BACKGROUND

Human Capital Theory

Building on Becker's (1962) seminal work, human capital theory's general notion is that human capital in the form of education and experience is positively related

to success in a career. Human capital can be general or task-related: while general human capital is not firm- or task-specific and can be transferred to other settings, task-related human capital is beneficial only to a specific firm or task (Alvarez and Crespi, 2003; Custodio et al., 2017). Entrepreneurship research uses human capital theory as a major lens through which to investigate entrepreneurial activity and success (Baron and Markman, 2000; Unger et al., 2011). A significant stance of empirical studies is that various human capital-related constructs of a general or task-related nature that reside in an entrepreneur's knowledge gained prior to the entrepreneurial activity are related to engaging in entrepreneurship and subsequent entrepreneurial success (Unger et al., 2011).

Marvel et al.'s (2016) review of the literature at the interface of human capital theory and entrepreneurship documents that the extant research focuses on explaining the kind of human capital that drives the decision to engage in entrepreneurial activity, as well as entrepreneurial success. Their review also indicates that career success outside the startup world has not been investigated, an observation that Burton et al.'s (2016) review of this line of research shares. Some studies relate entrepreneurial experience to the success of the next entrepreneurial endeavour (i.e., serial entrepreneurship), thus suggesting that those who build entrepreneurship-related human capital remain in the entrepreneurial world as their final career destination (Burton et al., 2016). However, prior research also indicates that at least half of new entrepreneurs (re-)turn to paid employment within the first seven years of founding a new venture, and only 15 to 30 per cent of first-time entrepreneurs become serial founders (Hyytinen and Ilmakunnas, 2007).

Career Track Models

To extend the human capital perspective in entrepreneurship and determine which dependent variables in the corporate context might be driven by experience with entrepreneurial failure, we require a framework that specifies the career stages that take place after a switch from the startup world to the corporate world. The literature on career tracks indicates that corporate careers follow a predictable pattern of stages that differ in terms of their challenges and requirements and that are correlated with the individual's professional tenure. Super's (1957) model offers four phases: exploration, establishment, maintenance, and decline. While the maintenance stage (keeping one's current position and network) and the decline stage (re-focusing on private life and disengaging stepwise from one's career) are not relevant to our phenomenon of interest, the exploration and establishment stages are.

In the exploration stage, individuals identify their interests and skills and are socialized in their organizations (Super, 1957). They develop their first competencies, which are often related to their specific tasks and their specific company's products and industry. The establishment stage follows when individuals master the basic product-related tasks and develop into candidates for promotion and managerial- and leadership-related challenges (Super, 1957). Outstanding performance, hierarchical advancement, and the ability to lead people become a focus, as does competition with peers (Ng and Feldman, 2007; Super, 1980). Overall, while the exploration phase

is characterized by task orientation, the establishment phase is characterized by increased independence in how the job is addressed and by pronounced goal orientation. Blau (1999, p. 687) summarizes this transition as transferring from an “apprentice-dependence” state in the exploration stage to a “colleague-independence” state in the establishment stage. Prior studies indicate that graduates in their first jobs usually spend two to five years in the exploration stage before they move into the establishment stage (Hall and Mansfield, 1975; Super, 1980).

The literature offers two major criteria with which to assess the level of career success during the phases of a stage: employability at the beginning of the stage and career advancement during the stage. Employability refers to successful entry into a career stage (i.e., a recruiter hires the candidate). It provides an early indication of possible career success and signals how successful an individual may become (van der Heijde and van der Heijden, 2006). Employability is driven by a recruiter’s expert judgment and builds on the recruiter’s experience in terms of how a candidate is likely to perform. Career advancement, on the other hand, refers to an individual’s career path after being hired, which is most easily observed in corporate employees’ hierarchical rank.

RESEARCH MODEL AND HYPOTHESES

We examine how human capital built during an experience with entrepreneurial failure translates into career success in a corporation during the establishment phase. This notion is guided by the boundaryless career concept, which refers to individuals’ spending their careers with various employers and in various industries and engaging in various types of jobs, including switching between the corporate and startup worlds (Hyytinen and Ilmakunnas, 2007). By investigating entrepreneurial experience as part of a career trajectory, we complement human capital research, which tends to treat entrepreneurial activity rather as a final career destination (Burton et al., 2016).

We compare the human capital built by entrepreneurs with the human capital built by graduates in corporations during their exploration stage.² We map the two types of human capital onto the criteria for entry into a career and career advancement in the establishment stage. To assess whether one type of human capital is superior in terms of these two performance measures, we apply the rationale from human capital research that the type of human capital that best fits a situation – here, the requirements of the establishment stage – is more useful in driving the desired outcome (Unger et al., 2011). Since the literature is silent on how experience with entrepreneurial failure is useful in subsequent corporate careers, we apply arguments from human capital theory’s differentiation between general and task-related human capital (Datta and Iskandar-Datta, 2014) and discuss the degree to which human capital from experience with entrepreneurial failure and human capital from corporate experience in the exploration stage correspond to general and task-related human capital. We use insights from our interviews to complement our reasoning and clarify the nature of the human capital built in the course of entrepreneurial failure and in corporate careers in the exploration stage.

We limit our theoretical investigation to comparing graduates who started their career in a corporation in the exploration stage (i.e., typically the first two to five years after graduation) with failed entrepreneurs. We also use data to examine empirically a more extreme time frame (failure eight years after founding a new venture) and alternative dependent variables (e.g., person-organization fit) to complement our theoretical arguments and test their limits.

Entrepreneurial Failure and Corporate Experience in the Exploration Stage

Entry success is driven by whether the recruiter assesses that a candidate is ready to deal with the challenges of the job (Bailly, 2008; Cai, 2013). Studies on recruiters' perceptions show that candidates' human capital, especially their academic achievements and extracurricular activities but also their work experience, influence these perceptions (Cole et al., 2007; Tsai et al., 2011). In general, the more relevant the candidate's work experience is to the job's requirements, the better the chances are in the selection process (Cole et al., 2007).

Both the entrepreneur and the graduate who started the career in a corporation build early-stage human capital, which can be critical for the subsequent career (Becker, 1962). However, the type of experience and the resulting human capital differ, leaving the possibility of varying success in entering the establishment stage. Successful entry into the establishment stage is likely when recruiters see the potential to succeed in that stage, that is, when the individual works independently and has a strong goal orientation (Cron et al., 1988).

Graduates who opt for the entrepreneurial path begin either alone or as part of small founding teams as generalists, as "jack[s] of all trades" (Lazear, 2004, p. 208). They perform diverse managerial and leadership tasks that give them experience with many roles and tasks, including managing employees, investors, suppliers, and customers; strategic decision-making; efficient time management; and developing innovative product ideas (Lazear, 2004). They build experience in working independently and setting their own goals, at least until external resource providers (e.g., investors) emerge. Because startups are usually resource-constrained, job specialization is rare (Campbell, 2013). Shrinking resources and numbers of personnel and increasing pressure from stakeholders are likely when entrepreneurial failure manifests, making specialization even less likely. Our interviews emphasized this notion:

I am responsible for the product and all technical activities, but I am also the general manager responsible for the overall strategy and stakeholder management and other tasks. In startups you are never only responsible for one specific area, you do a lot of different tasks in different areas. (Co-founder, tech startup)

Once my failure became obvious, my tasks changed again completely. Suddenly, I had to deal with legal issues, staff dismissal, and contract terminations while standing at the cliff of my personal and professional life. (Co-founder, data science startup)

In contrast, graduates that join a corporation usually start as junior specialists in a corporate department where they perform tasks such as compiling reports on a product line (Lazear, 2012). They join a corporation at the lower end of the hierarchy in a line job that has no or little budget, personnel, or decision responsibilities and become experts in a narrow area of the corporation by building the specific skill set needed for the particular job (Blau, 1999; Campbell, 2013). As one interviewee reported:

My task as junior project risk manager was the risk management of one offshore wind park, including activities like choosing the right insurances, analysing risk KPIs, and preparing risk-related workshops for this wind park. (Graduate in corporation, energy corporation)

The experiences described in these interviews correspond to the human capital literature's distinction between general and task-related human capital (Becker, 1962; Custodio et al., 2017; Wittekind et al., 2010): while general human capital is not firm-specific and can be transferred to other settings, task-related human capital is beneficial only to a specific job or corporation (Custodio et al., 2017). We acknowledge that failed entrepreneurs and graduates who start a career in a corporation both build general human capital and specific human capital related to their jobs. However, entrepreneurs tend to build more general human capital since their experience is more diverse and broader than that of graduates in corporations, who are likely to generate more specific human capital since corporations usually assign them specific, clearly defined tasks (Lazear, 2004, 2012).

The career literature informs us that employers value both general and specific human capital (van der Heijde and van der Heijden, 2006). However, general human capital is often valued more for the managerial and leadership-related tasks that a candidate is likely to face in the establishment stage. After interviewing 233 employees of large corporations in the United Kingdom, Archer and Davison (2008) showed that general human capital skills such as teamwork, communication, and confidence increase applicants' employability and are valued more than specific job-related skills. This preference is particularly relevant at the beginning of the establishment stage, when successful entry into the establishment stage in a corporation is most likely for those who qualify as candidates for managerial and leadership challenges. These jobs require more general skills than entry-level positions do because leading requires the skills to address diverse problems rather than highly specialized knowledge (Lazear, 2012). Recruiters are likely to know the broad challenges of the establishment career stage. As a result, they are likely to assess the general human capital gained through a failed entrepreneurial experience as superior to the specific human capital graduates in corporations tend to gain. We argue that recruiters are likely to value a failed entrepreneur's having "jumped in at the deep end" and gained first-hand practical experience with these broad challenges. A recruiter has less evidence on which to base a conclusion that a graduate who started a career in a corporation will be able to deal with these challenges.

This reasoning suggests that the human capital gained during experience with entrepreneurial failure matches the requirements for entry into a corporate establishment phase more closely than the human capital graduates in corporations gain from their experience in the exploration stage. Therefore:

Hypothesis 1: All else being equal, a failed entrepreneur is more likely than a graduate who started a career in a corporation is to be successful in entering the establishment stage in the corporate world.

Next, we seek a major mechanism along which experience with entrepreneurial failure (compared with corporate experience) translates into success in entering the establishment phase in a corporation. Informed by the notion that human capital-related variables drive recruiters' early screening assessments, we integrate their assessments into our model as a mediator between the applicants' experience and successful entry into the establishment stage (Kristof-Brown, 2000; Tsai et al., 2011). Modelling this intervening mechanism is particularly relevant to the relationship between early-stage human capital and successful entry into a corporation in the establishment stage since how recruiters perceive an applicant's human capital determines whether entry into the establishment stage is possible.

Specifically, we conceptualize recruiters' assessments along Frese et al.'s (1996) personal initiative framework, which defines personal initiative as 'a behavior syndrome resulting in an individual's taking an active and self-starting approach to work and going beyond what is formally required in a given job' (p. 38). This framework builds on the three concepts of proactivity, self-starting, and resilience. These concepts are well-suited to our context since they are also key concepts in the literature on learning from entrepreneurial failure (Shepherd, 2003; Ucbasaran et al., 2013). Further, the broad construct of personal initiative and its underlying concepts have important overlaps with other major constructs at the interface of entrepreneurship and HR. As Frese and Fay (2001) argue, personal initiative is the behavioural outcome of self-efficacy (Bandura, 2012).³ Personal initiative has further overlaps with various views on the important construct of self-regulation, and the need for achievement construct is a major motive to show personal initiative (Frese et al., 1996; McClelland, 1987). The concepts underlying the personal initiative construct are also critical to success in corporate managerial careers during the establishment stage (Eby et al., 2003). Already more than 25 years ago, Frese and Fay (2001) argued that employees' personal initiative was getting more important as the surveillance function of supervisors decreased, a tendency that has only accelerated since then due, among other reasons, to increased use of home office work (Raghuram et al., 2018).

We theorize that recruiters rate failed entrepreneurs higher on these concepts than they do graduates who started a career in a corporation, increasing the likelihood that these candidates will enter the establishment stage. Entrepreneurial activities are inherently linked to individual proactivity (Shane and Venkataraman, 2000). Founding a new venture involves prompt reaction to problems. Learning from failure, too, involves highly proactive behaviour and teaches failing entrepreneurs to react quickly so they can minimize damage and loss. In contrast, entry-level corporate jobs are usually characterized by a high level of standardization and compliance with instructions (Frese and Fay, 2001).

Founding a venture is not a task other people assign but is the result of the entrepreneur's own intentions, decisions, and activities (Bird, 1988; Cardon et al., 2009), so the ability to self-start is essential. The entrepreneur's need to be self-starting also manifests in the new venture's ongoing business since entrepreneurs typically have no formal hierarchies that assign them tasks, and there is no externally defined action plan to follow. Their personal initiative is necessary for almost all activities, as one interviewee explained:

I structure my work completely on my own. Of course, we have external deadlines like year-end audits, but apart from that, I structure processes and tasks myself in accordance

with my co-founder. This requires a lot of initiative, engagement and learning-by-doing, but I am always motivated, because it is our own company. (Co-founder, nutrition startup)

On the other hand, candidates who decide to begin with an entry-level corporate job may signal that they prefer a structured environment:

Especially in the beginning, my tasks were pre-structured by my manager daily in terms of goals, to-dos and timelines. He told me what to do, and I executed on it. [...] After a few months in the job, these interactions became less frequent, but at least on a weekly basis we had meetings, in which we aligned tasks and deadlines. (Employee, energy sector)

Given the strong emotional burden that is typically associated with failing in a major endeavour like starting a business, such failures can increase resilience, the third component of personal initiative (Shepherd, 2003). The literature on learning from failure finds that failed entrepreneurs grow personally and professionally and benefit from what they have learned in their future occupations (Cope, 2011; Shepherd, 2003; Ucbasaran et al., 2013). In addition, because of founders' close involvement with, identification with, and passion for their ventures, entrepreneurial failure is compared to the grief one feels when a loved one dies. Such grief may be aggravated when accompanied by harsh judgments from stakeholders (Shepherd and Patzelt, 2015). The same emotional burden of failure is not usually experienced in the corporate world, at least not at the entry level (Shepherd, 2003). Of course, graduates in corporations also experience setbacks and failures, but they do not share the same exposure and personal responsibility that failed entrepreneurs do.

The employability literature provides evidence that proactivity, self-starting, and resilience consistently drive a candidate's employability and, thus, their success in entering the establishment phase in a corporation (van der Heijde and van der Heijden, 2006). Recruiters perceive that candidates who rank high in these dimensions can be flexible and adapt to new situations quickly, can easily take over responsibilities for tasks and personnel, and can cope with and recover quickly from difficulties, all of which are useful in the establishment stage. Thus:

Hypothesis 2 The relationship between entrepreneurial failure and successful entry into the establishment stage in the corporate world is mediated by a recruiter's perception of a candidate's personal initiative.

Corporate Career Advancement and Entrepreneurial Experience with Failure

The success of corporate employees in the establishment stage is based on career advancement that increases the employee's hierarchical position (Ng et al., 2005; Tharenou, 2001). Career advancement in the establishment phase is driven by independent and goal-oriented behaviour and the ability to address managerial and leadership-related challenges.

The establishment stage requires general, transferable skills and advancement in hierarchical position (Custodio et al., 2010, 2017; Datta and Iskandar-Datta, 2014;

Lazear, 2012). Failed entrepreneurs can have an advantage vis-à-vis graduates who started a career in a corporation because of the general human capital they build in their entrepreneurial projects that can make them independent and responsible employees with leadership experience (Pollack et al., 2020). Since failed entrepreneurs have already worked independently and have often had their own employees, they are more likely than graduates who started a career in a corporation to manage the transition to the establishment stage well (Lazear, 2012). Frederiksen and Kato (2018) and Lazear (2012) find that their general human skills increase the likelihood that they will become managers, and Custodio et al. (2010) find that managers who have general human capital earn 10 per cent more than specialist managers do. While a failed entrepreneur's socialization into a potential corporation may be limited, research indicates that broad socialization across hierarchy levels and functions in a corporation happens in the establishment stage rather than in the exploration stage (Blau, 1999; Lynn et al., 1996), suggesting that failed entrepreneurs are on an equal footing with graduates who started their careers in a corporation in this regard.

Building on the literature on learning from failure, which provides strong support for entrepreneurial failure's helping people grow as leaders (Cope, 2005; Shepherd, 2003; Ucbasaran et al., 2013), we argue that failed entrepreneurs are particularly well equipped with general management and leadership skills. Numerous studies show that failed entrepreneurs have enhanced business knowledge, strong and resilient personalities, high levels of ambition, and self-awareness, all of which are positively related to individual performance (Hayward et al., 2010; McGrath, 1999; Shepherd, 2003; Ucbasaran et al., 2013), especially in the establishment stage, when competition among peers for limited resources sets in. Therefore, we expect that the failure experience increases failed entrepreneurs' ability to advance in their careers. Our interviews underscore this expectation:

Managing my shrinking business has given me many skills that I use today in my department manager role. I learned how to work under enormous pressure, fight against resistance, and become clear and focused on my personal goals in life, which made me grow as a person and as a leader. (Co-founder, data science startup)

The experience of graduates who started their career in a corporation tends to equip them with task-specific skills that prepare them for expert roles on lower hierarchical levels (Campbell, 2013; Lazear, 2004). Frederiksen and Kato (2018) show that the most efficient way for corporate employees to acquire more general, transferable skills is to change jobs, employers, and industries throughout their careers. However, while feasible and potentially successful, this approach takes the graduate who started a career in a corporation substantially more time than it takes an experienced entrepreneur to be equipped to perform in the establishment stage (Ucbasaran et al., 2010), so we expect a career advantage for entrepreneurs in this stage. Thus:

Hypothesis 3 All else being equal, a failed entrepreneur is more likely than a graduate who started a career in a corporation to see corporate career advancement success in the establishment stage.

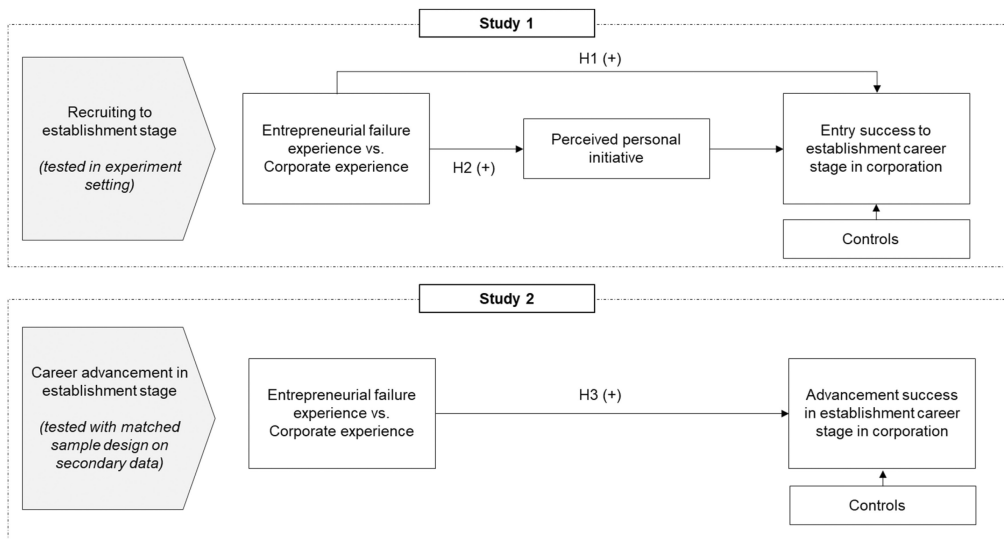


Figure 1. Research model. H1, Hypothesis 1; H2, Hypothesis 2; H3, Hypothesis 3

Figure 1 summarizes our overarching research model.

OVERVIEW OF STUDIES

We present two studies. Study 1, which uses an experimental design based on data from a large international consulting company, investigates whether an entrepreneurial experience with failure is a barrier or a benefit to corporate entry in the establishment stage and whether recruiters' perceptions of candidates' personal initiative mediates this relationship. We present three additional experiments that offer variants of this experiment to corroborate our findings. Study 2 uses a matched sample of failed founders and graduates who started a career in a corporation retrieved from Crunchbase, commercial registers, and LinkedIn to test for the effect of an experience with entrepreneurial failure on career success, measured as hierarchical advancement in a corporation.

STUDY 1

Methodology

Sample. We conducted an experiment with 94 recruiters in a large international consulting company in Germany. Consulting firms attract top talent from all disciplines; they receive significantly more applications than they have vacant positions, so they apply strict selection criteria; and they are large companies in which employees' advancement follows the typical career path that our studies seek to explain. Recruiters' résumé evaluation is the starting point in the recruiting process and is the most common tool in the selection process (Cole et al., 2007). Therefore, we focused on the résumé evaluation and the decision to invite a candidate for a

job interview, rather than evaluating the final hiring decision, which may depend on factors such as sympathy. With the help of the résumé's information about applicants' work experience, education, and activities, recruiters infer abilities and attributes and make recommendations about whom to interview.

Materials and conditions. In each condition, we gave participants a short scenario that introduced an applicant for a senior consultant job at the company. The role of senior consultant fits well-educated young professionals who are entering the establishment career stage and is likely to lead to a project manager role within the next one to two years of employment. The participants confirmed that this scenario is in line with reality and that it occurs regularly in their companies. The scenario read as follows:

It is a usual Friday morning at work when your telephone rings. A senior partner of your company calls you and asks you for your recruiting advice. Peter, the son of a close friend, is considering applying to your company and asked the senior partner for help. Now the senior partner would like to get your view on the candidate's profile to understand if it generally matches your company's recruiting requirements.

We assigned each participant randomly to one of three candidates: (A) one with three years of corporate experience but no entrepreneurial experience with failure, (B) one with three years of entrepreneurial experience with failure but no corporate experience, and (C) one with eight years of entrepreneurial experience with failure but no corporate experience. We chose these experimental conditions since studies show that graduates who start a career in a corporation spend an average of three years at their first job (Blau, 1999) and that failed entrepreneurs quit their ventures at about the same time (Evans and Leighton, 1989). Eight years is unusual for both groups. These conditions allowed us to investigate differences between failed founders and corporate employees and between failed founders with different time periods as entrepreneurs. The profiles are identical in other regards, including education and the use of attributes to describe their quality of work. We also pretested scenario A and scenario B in interviews with experienced recruiters to ensure they were equally positive. We presented the following description to participants who were assigned to Scenario A:

The senior partner describes the candidate as follows:

He has a great profile – achieved excellent grades during his studies at the University of Maastricht and the London Business School with semesters abroad in the USA and Hong Kong. During his studies, he did internships at Deloitte Consulting and Siemens, and after graduation, he directly joined Siemens in their controlling department. He is working there for three years now as a business analyst and is searching for a new challenge now. As far as I have heard, he is doing a great job there. His analyses and forecasts are always on point. The product line he is reporting on is known to have very transparent reports. In addition, all his reports are always on time, and he fulfils all his daily duties excellently. What do you think? Should we give him a chance?

We presented the following description to participants who were assigned to scenario B:

The senior partner describes the candidate as follows:

He has a great profile. He achieved excellent grades during his studies at the University of Maastricht and the London Business School, with semesters abroad in the USA and Hong Kong. Instead of joining one of the companies where he did internships (Siemens and Deloitte Consulting), he decided to found his own business. His startup introduced radically new technology in the field of Computer-Aided Text Analysis (CATA). During the first two years, the business went extremely well and grew rapidly, and he managed to get seed funding and hired ten people. Unfortunately, the situation turned in the third year, mainly because of market conditions, and he finally had to declare bankruptcy in August of this year. Overall, he did an amazing job leading his whole team as CEO, managing all stakeholders from customers to employees, attracting venture capitalists, and reacting to sudden changes in daily business. This impressed me a lot.

Scenario C is the same as scenario B except for extending the entrepreneurial experience from three to eight years. After reading the scenario, we gave the participants a summary note on the candidate's profile to ensure they did not miss the main points of the profile description (see [Figure 2](#) for scenarios A–C).

Measures. The scenario manipulation, which serves as our main independent variable, consists of three categories. We analysed them with the help of two dummy variables, where 0 represents the base case of a graduate who started their career in a corporation and 1 the three- or eight-year entrepreneurial experience with failure. After the participants read their scenarios, they answered questions about how they perceived the candidate's personal initiative based on Frese et al.'s (1996) framework. The framework consists of seven questions on perceptions of an individual's proactivity, resilience, and self-starting behaviour, answered on a 5-point Likert scale (see [Appendix 2](#)). We weighted all seven items equally and computed their averages to assess the three candidates' overall perceived personal initiative.

We measured entry success using a binary question on whether they would invite the candidate for an interview as well as participants' answers to questions on the candidates' person-job fit and person-organization fit using a 5-point Likert scale (Kristof-Brown, 2000). Entry success serves as our main dependent variable, whereas we used person-job fit and person-organization fit in the post-hoc analyses. We also used person-organization fit as a control for how the participant perceived the candidate. Finally, the participants provided their gender, the number of employers they had worked for, their recruiting experience, and their intention to become an entrepreneur, all of which serve as controls.

Analysis. Before conducting our analysis, we excluded 14 responses because of non-completion of the questionnaire or unengaged answering patterns (wrong answer to control questions, clear answer patterns). Control questions include 'For which employer does the candidate currently work?' for scenario A and 'What happened to the candidate's startup?' for scenarios B and C. The remaining 80 participants' answers entered the final data set. [Table I](#) presents the descriptive statistics for this sample. All participants

(Scenario A)



(Scenario B)



(Scenario C)



Figure 2. Scenario A: Study 1 experiment summary note for scenario A. Scenario B: Study 1 experiment summary note for scenario B. Scenario C: Study 1 experiment summary note for scenario C

Table I. Descriptive statistics and correlations (study 1)

	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
1 Interview invitation	0.69	0.47	0	1										
2 Person-job fit	3.58	1.12	1	5	0.49									
3 Person-organization fit	3.35	1.18	1	5	0.34	-0.13								
4 Corporate experience (0/1)	0.34	0.48	0	1	-0.09	-0.51	0.33							
5 Entrepreneurial failure experience (3y) (0/1)	0.35	0.48	0	1	0.16	0.49	-0.06	-0.52						
6 Entrepreneurial failure experience (8y) (0/1)	0.31	0.47	0	1	-0.07	0.02	-0.27	-0.48	-0.49					
7 Perceived personal initiative	3.56	0.94	1.29	5	0.46	0.84	-0.27	-0.61	0.39	0.22				
8 Gender (female = 1, male = 2)	1.55	0.50	1	2	0.20	0.13	0.40	0.01	0.08	-0.09	0.04			
9 Recruiting experience (years)	2.24	1.50	1	10	-0.31	0.23	-0.19	-0.17	0.15	0.02	0.16	0.18		
10 Number of employers	2.67	1.89	1	10	0.20	0.11	-0.01	-0.13	0.08	0.04	0.05	0.18	0.05	
11 Entrepreneurial intention	2.48	1.17	1	5	0.32	0.18	0.21	-0.06	0.04	0.03	0.10	0.39	-0.04	0.22

Note: N = 80; values above 0.22 or below -0.22 are significant at $p < 0.05$.

were recruiters who worked in the consultancies' recruiting areas. All averaged 2.2 years of recruiting experience. We assigned the participants randomly to one of the three experimental conditions to exclude confounding effects.

Next, we performed a manipulation check to determine whether the scenario experiment worked in the intended way. We asked the participants in scenarios B and C whether the candidate had an entrepreneurial failure experience. As expected, all participants in the entrepreneurial failure conditions indicated that the candidate had an entrepreneurial failure experience.

We conducted z-tests and t-tests to test our hypotheses. Before we applied mediated regression analyses to our data set, we inspected the histogram of standardized residuals to check for normality and found that our data was normally distributed.

Results

Our z-tests and t-tests test the effect of the two main experimental conditions (graduates who started their career in a corporation and failed entrepreneurs with three years of experience) on the dependent variables. Results are shown in Table II. As expected, three years of failed entrepreneurial experience have a positive effect on perceived personal initiative (4.06 vs. 2.77, $p < 0.001$) and fit-for-job (4.32 vs. 2.78, $p < 0.001$). While the percentage of failed entrepreneurs in the scenarios who the participants indicated would receive a job invitation (79 per cent) is higher than that of graduates who started their careers in a corporation (63 per cent), the difference is not significant ($p > 0.10$), which can be explained by the mediation hypothesized in Hypothesis 2.

Next, we applied stepwise mediated regression to test our model (Hayes, 2013). First, we investigated the independent variable's direct effect on entry success. Then we analysed the relationship between the independent and the mediator variable and, finally, the impact of the mediator on our dependent variable, controlling for the independent variable. Model 1, shown in Table III, includes the control variables and the direct effect of the manipulation variables and shows that entrepreneurial experience with failure after three years has a positive, direct effect on successful entry into

Table II. Overview of main effects (study 1)

<i>Dependent variable</i>	<i>Corporate experience</i>	<i>Entrepreneurial failure experience (3 years)</i>	<i>Test</i>	<i>p-value</i>
Interview invitation	63%	79%	Two-proportions z-test	$p > 0.10$
Perceived personal initiative	2.77	4.06	Two-sample t-test	$p < 0.001$
Person-job fit	2.78	4.32	Two-sample t-test	$p < 0.001$
Person-organization fit	3.89	3.25	Two-sample t-test	$p < 0.05$
Sample size	27	28		

Table III. Regression findings (study 1)

	<i>Model 1 Logit</i>	<i>Model 2 OLS</i>	<i>Model 3 Logit</i>
Dependent variable	Interview invitation	Perceived personal initiative	Interview invitation
Intercept	−2.61 (1.42) ⁺	3.01 (0.42)***	−21.74 (7.36)**
<i>Main effects</i>			
Entrepreneurial failure experience (3y) (0/1)	2.39 (1.05)*	1.21 (0.22)***	−1.38 (1.68)
Entrepreneurial failure experience (8y) (0/1)	0.93 (0.74)	0.99 (0.23)***	−3.94 (2.04) ⁺
<i>Mediator</i>			
Perceived personal initiative			5.46 (1.73)**
<i>Profile-related controls</i>			
Person-organization fit	0.66 (0.31)*	−0.11 (0.09)	2.54 (1.06)*
<i>Recruiter-related controls</i>			
Gender (male)	0.39 (0.73)	0.11 (0.21)	0.24 (1.32)
Recruiting experience	−0.66 (0.26)*	0.02 (0.06)	−2.53 (0.87)**
Number of employers	0.16 (0.19)	−0.03 (0.05)	0.52 (0.40)
Entrepreneurial intention	0.55 (0.31) ⁺	0.06 (0.08)	0.88 (0.65)
<i>Model fit statistics</i>			
N	80	80	80
R ² /Pseudo R ²	0.30	0.39	0.73

⁺p < 0.1; *p < 0.05; **p < 0.01; ***p < 0.001; standard errors in parentheses.

the establishment stage in a corporation (0 = graduate who started their career in a corporation, 1 = entrepreneurial experience with failure (3 years)) ($\beta_1 = 2.39$, $p < 0.05$) but no direct effect after eight years (0 = graduate who started their career in a corporation, 1 = entrepreneurial experience with failure (8 years)) ($\beta_2 = 0.93$, $p > 0.1$). Therefore, we find partial support for Hypothesis 1. We ran mediation analysis for both the three-year and the eight-year entrepreneurial experience with failure. Model 2 presents the effect of the independent variables from Model 1 on the participants' perception of personal initiative. Both manipulations – three-year and eight-year entrepreneurial experience with failure – are significantly positively associated with perceived personal initiative, although the three-year experience has a stronger effect ($\beta_1 = 1.21$, $p < 0.001$; $\beta_2 = 0.99$, $p < 0.001$, respectively). Finally, Model 3 reveals that the perception of personal initiative has a significant positive effect on entry success ($\beta_3 = 5.46$, $p < 0.001$) and that eight years of entrepreneurial experience with failure has a direct negative effect ($\beta_2 = -3.94$, $p < 0.10$), but there is no significant effect of three-year entrepreneurial experience with failure ($\beta_1 = -1.38$, $p > 0.10$). Using the *mediation* R package, we bootstrapped our models with 1000 replications to test the significance of the independent variable's indirect effect on the dependent variable

via the mediator perceived personal initiative (Tingley et al., 2014) and found significant mediation (0.32, $p < 0.001$). Overall, these results support perceived personal initiative's full mediation of the relationship between entrepreneurial experience with failure and successful entry into the establishment stage, supporting Hypothesis 2.

Additional Experiments

We conducted three additional experiments to corroborate our findings, especially the relationship between experience with entrepreneurial failure and perceived personal initiative (see Appendix 3 for details). The first additional experiment uses scenarios very similar to the ones we use in our main experiment but frames the scenarios in another context. While our main experiment asks actual recruiters from a consulting company, this first additional experiment simulates a recruiting decision made by a large corporation. We use 40 experts with management education backgrounds and in many cases experience with recruiting decisions as respondents. The findings remain consistent with our main study's findings. We also measured the perceived self-efficacy in this experiment. As opposed to perceived personal initiative, the perceived self-efficacy is not driven by the entrepreneurial failure experience. Since the perceived personal initiative is considered the behavioural outcome of self-efficacy (Frese and Fay, 2001), it follows that respondents/recruiters conclude specific behaviours from the job candidates based on the applications. The findings suggest that they do not interpret potential candidates' deep-seated self-efficacy-related beliefs or capacities from the application.

The second additional experiment uses the same scenarios but relies on MTurk respondents, which are increasingly used in the management and psychology literature (e.g., Gupta et al., 2019). We follow recommendations (e.g., attention checks) by top-tier publications for using MTurk respondents in experiments (Aguinis et al., 2021). Findings are again consistent with our main experiment's findings.

Finally, as a third additional experiment, we tested whether the perceived personal initiative is higher or lower when the former founder failed due to external (e.g., market conditions) or internal (e.g., management errors) reasons. Again we used MTurk respondents. Interestingly, we do not find significant differences, from which we conclude that the entrepreneurial experience and not the reason for the failure was in the foreground of the respondents' evaluations.

Robustness Checks and Additional Analyses

Career theory research distinguishes between person-job fit and person-organization fit and finds that both drive employability (Kristof-Brown, 2000). We suggest that this distinction can help to explain the weak direct effect of longer experiences with entrepreneurial failure on entry success, as the increased time as an entrepreneur may increase perceptions of the person-job fit but decrease perceptions of the person-organization fit. Therefore, we asked the participants to rate the candidates' fit with the job and fit with the organization and regressed the entrepreneurial experience with failure on these variables. In line with our main results, Model 1 (Table IV) shows that the three-year entrepreneurial experience with failure significantly increases recruiters' perceptions

Table IV. Additional analyses (study 1)

	<i>Model 1 OLS</i>	<i>Model 2 OLS</i>	<i>Model 3 OLS</i>	<i>Model 4 OLS</i>
Dependent variable	Person-job fit	Perceived personal initiative	Person-job fit	Person-organization fit
Intercept	2.25 (0.32)***	2.62 (0.27)***	−0.23 (0.31)	4.08 (0.53)***
<i>Main effects</i>				
Entrepreneurial failure experience (3y) (0/1)	1.46 (0.26)***	1.27 (0.21)***	0.25 (0.20)	−0.34 (0.34)
Entrepreneurial failure experience (8y) (0/1)	0.77 (0.26)**	1.08 (0.22)***	−0.25 (0.19)	−0.66 (0.33)*
<i>Mediator</i>				
Perceived personal initiative			0.95 (0.09)***	−0.19 (0.15)
<i>Recruiter-related controls</i>				
Gender (male)	0.07 (0.23)	0.01 (0.19)	0.06 (0.15)	0.96 (0.25)***
Recruiting experience	0.10 (0.07)	0.03 (0.06)	0.06 (0.05)	−0.16 (0.08)*
Number of employers	−0.00 (0.06)	−0.02 (0.05)	0.02 (0.04)	−0.04 (0.06)
Entrepreneurial intention	0.13 (0.10)	0.05 (0.08)	0.08 (0.06)	0.08 (0.11)
<i>Model fit statistics</i>				
N	80	80	80	80
R^2	0.37	0.38	0.76	0.34

+ $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; standard errors in parentheses.

of the candidates' person-job fit and that the longer entrepreneurial experience has a smaller but still significant effect ($\beta_1 = 1.46$, $p < 0.001$; $\beta_2 = 0.77$, $p < 0.01$, respectively). Models 2 and 3 provide evidence that this relationship is fully mediated by increased perceived personal initiative compared with the graduates who started their careers in a corporation. In contrast, Model 4 reveals that the participants perceived the person-organization fit of those with eight years of entrepreneurial experience with failure to be significantly lower than that of graduates who started in a corporation ($\beta_2 = -0.66$, $p < 0.05$). For failed entrepreneurs with three years' experience, we found no difference in person-organization fit compared with that of graduates who started their careers in a corporation ($\beta_1 = -0.34$, $p > 0.1$). These findings indicate why our main analyses show no strong direct positive effect of entrepreneurial experience with failure on entry success. Long entrepreneurial experiences that end in failure might evoke negative judgments from recruiters in terms of organizational fit, despite their acknowledgment of the person-job fit.

We tested for multicollinearity using bivariate correlations and variance inflation factors (VIFs). While correlations and VIFs are generally low, the VIF of perceived personal initiative exceeds the threshold of 10 in the model that includes both perceived personal initiative and person-organization fit (Model 3, Table III). Therefore, we excluded

person-organization fit in a robustness check, which reduces the VIF of perceived personal initiative to 4. Results are largely consistent with our core analyses.

STUDY 2

Sample

We constructed an initial sample of failed founders using Crunchbase, a database that compiles information on new ventures and their funding rounds, top management teams, and investors. We identified 2468 startups registered on Crunchbase that were founded in 2009 or 2010 and for which founders' details were available. For this set of companies, we identified the status of each venture as of August 2017 by manually searching online for information about them. We consulted the national commercial registers and coded a firm as failed if the national commercial register stated that it had declared bankruptcy or had been dissolved. When we could not determine a company's status with the help of commercial registers, we checked to see whether its homepage was offline and whether news channels reported its insolvency or financial distress. We excluded 37 firms that failed after August 2016 because of the short time frame between failure and analysis.

We used information from Crunchbase to extract education, employer, and job details for the 824 founders of the 652 failed companies from LinkedIn. We excluded founders who did not provide information on their current occupations, their failed businesses, and their educational degrees, which further reduced our sample to 292 failed entrepreneurs.

For this sample, we checked all employer and job titles in the founders' LinkedIn profiles that appeared subsequent to entrepreneurial failure so we could select the individuals who entered paid employment instead of restarting as entrepreneurs. All 166 failed founders who entered paid employment held a college degree, 67 per cent had at least a master's degree, and 27 per cent graduated from one of the top 100 universities worldwide, so our sample is constituted of well-educated entrepreneurs who are likely to qualify for corporate careers. Seventy-two remained in the same industry as their failed venture.

Next, to build a matched sample that reduces the effect of confounding variables, we leveraged LinkedIn to find people who graduated with the same educational degree from the same educational institution in the same year as at least one of our failed entrepreneurs. For example, for one founder who graduated from Harvard University in 2008 with a master's degree in Computer Science, we retrieved all profiles of individuals who also obtained a master's degree in Computer Science from Harvard University in 2008. This approach allowed us to compare the career development of individuals whose professional tenure, education, and networks were roughly the same as those of our failed entrepreneurs when they started their careers. We identified 9472 such colleagues, among whom we identified corporate positions for 3732 individuals to match the 166 failed founders who started a corporate career.

We accounted for the natural imbalance and heterogeneity between failed entrepreneurs and their non-entrepreneur peers by applying coarsened exact matching (CEM) to our sample (Iacus et al., 2012). We identified a set of observable covariates to help balance the data on gender, year of graduation, size of current employer, and country of residence. We identified strata that accounted for the distribution of the covariates and applied a k-to-k coarsened exact matching, which led to a final sample of 163 failed entrepreneurs (treatment group) and 163 graduates who started their career in a corporation (control group). CEM can also help to address possible unobserved self-selection in our sample (Aggarwal and Hsu, 2014). As in most entrepreneurial research settings, the self-selection that is part of choosing to become an entrepreneur can introduce a bias that the matching procedure reduces.

Measures

Dependent variable. We operationalized career advancement success as individuals' hierarchical position by categorizing the hierarchical level of the current job position from LinkedIn. We adapted the eight-category scale developed by Tharenou (2001) to a six-category scale to reflect the level of detail provided on the LinkedIn profiles: non-supervisory/non-manager (category 1), team leader/first-level supervisor (category 2), manager (category 3), executive/divisional head (category 4), board member (category 5), and CEO/president (category 6). This scale and minor adaptations to it are widely used and well-established in the career success literature, largely because they reflect the traditional hierarchical levels of most major companies worldwide (Ng et al., 2005). Three independent management researchers placed the current job positions of the failed entrepreneurs and the graduates who started in a corporation into the six hierarchical categories. Most individuals mention their official job titles in their LinkedIn profiles, so the categorization is relatively straightforward. The 84 per cent kappa statistic for inter-rater agreement shows that the ratings do not differ significantly from each other.

Table V shows that, of the 163 failed entrepreneurs in our sample, 33 per cent occupied non-managerial positions (category 1); 50 per cent a team leader, management, or executive position (categories 2–4); and 17 per cent a board or CEO position (categories 5 and 6). Among the graduates who started their careers in a corporation, 44 per cent occupied a non-managerial position; 39 per cent a team leader, management, or executive position; and 17 per cent a CEO or board position.

Independent variable. We measured the main independent variable, entrepreneurial experience with failure, as a binary variable that takes the value of 1 if the individual founded a venture that ended with failure (treatment group) and 0 if the individual never founded a business and spent her whole career in the corporate world (control group).

Control variables. We controlled for individuals' work experience (Datta and Iskandar-Datta, 2014), gender (Fugate et al., 2004), organizational tenure in their current company (Eby et al., 2003), field of education (business, engineering, computer sciences,

Table V. Dependent variable distribution (study 2)

<i>Hierarchical position^a</i>		<i>Graduates who started a career in a corporation</i>	<i>% of total</i>	<i>Failed entrepreneurs</i>	<i>% of total</i>
1	Non-supervisor	72	44%	54	33%
2	Team leader/first-level supervisor	15	9%	8	5%
3	Manager	28	17%	43	26%
4	Executive/divisional head	21	13%	31	19%
5	Board member	22	14%	26	16%
6	CEO/president	5	3%	1	1%
Total		163	100%	163	100%

^aValues rounded to integer numbers (averages of rater assessment produced non-integer values).

other), educational degree (Eby et al., 2003), international experience (Ng et al., 2005), and whether they lived in an urban environment (a city with >300,000 inhabitants). We also controlled for the size of the organization in which the individuals worked. Finally, we included industry dummies on the two-digit Standard Industrial Classification (SIC) level. We retrieved all these controls from LinkedIn profiles and coded them manually.

We also controlled for nation-level variables based on country of residence. We used the GLOBE cultural dimensions. We relied on the cultural values, rather than the cultural practices, as Cullen et al. (2014) recommend, since this approach is closer to the anthropological tradition of culture assessment. We controlled for uncertainty avoidance, performance orientation, assertiveness, institutional collectivism, in-group collectivism, and power distance. The literature identifies the first five of these dimensions as drivers of entrepreneurial activity (Cullen et al., 2014). We include power distance because our dependent variables pertain to job success in terms of hierarchical position. We also controlled for institutions and economic wealth. Specifically, following previous research on national-level drivers of entrepreneurial activity and using data from the World Bank, the United Nations Development Programme, and the Index of Economic Freedom, we controlled for GDP per capita, growth of GDP per capita, government activism in terms of taxation and spending, and education in terms of mean years of schooling. We took the average across all years in our sample. Since missing data on country-level variables reduced our matched sample, we used country dummies instead of country-level controls in an alternative analysis.

Missing data on the country-level variables further reduced our sample by 17 observations, resulting in a final sample of 309 individuals. Table VI reports the descriptives and correlations for the entire sample. Of the final sample of individuals, 87 per cent were men and had an average of 4.7 years with their current employers, which averaged about 35,000 employees. The matrix shows that the independent and control variables are not highly correlated. With an average variance inflation factor of 3.17 and no single inflation factor greater than 5.97, multicollinearity is not a serious concern in our models.

Table VI. Descriptive statistics and correlations (study 2)

	<i>Means</i>	<i>SDs</i>	<i>Min</i>	<i>Max</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1 Hierarchical position	2.69	1.54	0.00	6.00																					
2 Entrepreneurial failure exp.	0.50	0.50	0.00	1.00	0.11																				
3 City inhabitant	0.72	0.45	0.00	1.00	0.04	0.14																			
4 Work experience (years)	17.01	7.51	0.00	41.00	0.32	0.01	-0.18																		
5 International experience	0.44	0.50	0.00	1.00	0.06	0.02	0.17	-0.11																	
6 Gender (male)	0.87	0.34	0.00	1.00	0.06	0.21	0.02	0.07	-0.04																
7 Organizational tenure	4.71	3.95	0.00	31.00	0.13	-0.30	-0.13	0.18	-0.08	0.12															
8 Highest educational degree	1.77	0.66	0.00	3.00	0.16	-0.06	-0.01	-0.07	0.23	-0.07	0.12														
9 Business profile	0.31	0.46	0.00	1.00	0.30	-0.11	0.00	0.13	0.13	-0.08	0.00	0.13													
10 Engineering profile	0.19	0.39	0.00	1.00	0.04	0.00	-0.05	0.21	-0.03	0.09	0.05	0.14	-0.32												
11 Computer science profile	0.38	0.49	0.00	1.00	-0.29	0.05	0.00	-0.25	-0.03	0.10	0.02	-0.13	-0.52	-0.38											
12 Number of employees	35,146	98,200	1	566,000	0.05	0.02	0.04	0.09	-0.03	0.09	0.09	0.05	0.13	-0.03	-0.04										
13 Uncertainty avoidance	4.06	0.43	3.16	5.60	0.07	-0.04	0.03	0.04	0.11	-0.01	0.10	-0.01	0.04	-0.14	0.08	0.13									
14 Institutional collectivism	4.45	0.37	3.83	5.62	0.04	0.01	0.02	-0.16	0.12	0.01	0.05	0.10	0.02	0.01	-0.08	0.07	0.24								
15 In-group collectivism	5.59	0.28	4.06	6.21	-0.08	0.05	0.04	0.19	0.00	-0.03	0.01	-0.11	-0.02	-0.05	0.03	0.05	0.38	-0.20							
16 Assertiveness	3.80	0.47	2.66	5.44	-0.10	-0.09	0.23	0.12	0.00	0.05	0.06	-0.13	-0.04	-0.07	0.08	0.14	0.40	-0.39	0.46						
17 Performance orientation	5.93	0.30	2.35	6.40	-0.04	0.01	0.12	0.09	-0.03	-0.01	0.02	0.05	0.06	-0.02	-0.03	0.11	0.06	0.06	0.51	0.28					
18 Power distance	2.72	0.26	2.19	4.35	-0.01	0.00	0.02	0.10	0.09	-0.03	-0.02	-0.11	0.00	-0.07	0.07	-0.05	0.13	-0.45	0.29	0.38	-0.21				
19 GDP	44,664	14,982	1570	84,243	-0.05	0.03	0.01	0.02	-0.14	0.04	-0.07	0.00	-0.02	0.10	-0.06	-0.11	-0.75	-0.36	-0.10	-0.08	0.10	0.03			
20 Government activism	47.01	13.11	8.14	76.01	0.02	0.09	-0.17	-0.03	-0.06	-0.05	-0.05	0.15	0.09	0.07	-0.13	-0.07	-0.20	0.16	-0.05	-0.56	-0.08	-0.31	0.01		
21 GDP growth	0.01	0.02	-0.04	0.11	-0.05	-0.08	0.14	0.07	0.02	0.00	0.05	-0.18	-0.11	-0.05	0.17	0.05	0.14	-0.30	0.14	0.62	0.11	0.39	-0.05	-0.75	
22 Schooling	12.23	1.68	5.89	13.95	0.04	0.04	-0.06	0.10	-0.12	0.02	-0.07	0.02	0.07	0.05	-0.07	-0.15	-0.65	-0.64	0.00	-0.07	0.03	0.22	0.72	0.11	-0.11

Note: $n = 309$; values above 0.11 or below -0.11 are significant at $p < 0.05$.

Analysis

We used OLS regression analyses to investigate the impact of entrepreneurial experience with failure on individuals' hierarchical position:

$$\text{Hierarchical position}_i = \beta_0 + \beta_1 \text{Entrepreneurial experience with failure}_i + \beta_C \text{Controls}_i + \varepsilon_i$$

Results

Table VII reports the results of the regression. Model 1 shows our analysis, including country dummies, and Model 2 shows our analysis, including country-level variables.⁴ Both models show that a person's entrepreneurial experience with failure (1 = entrepreneurial experience with failure; 0 = graduates who started their careers in a corporation) is significantly positively related to career success ($\beta_1 = 0.55\text{--}0.57$, $p < 0.01$), providing support for Hypothesis 3. Based on Model 2, entrepreneurial experience with failure increases an individual's hierarchical position by an average of 0.55 (on a scale from 1 to 6).

Robustness Analyses

We performed three additional analyses to test the robustness of our results. To rule out the potential impact of omitted variables, we investigated the impact threshold of a confounding variable (ITCV). Based on Model 2, the results show an ITCV of 0.07, so the partial correlation between entrepreneurial experience with failure and hierarchical advancement with an omitted confounding variable must be at least 0.27 ($\sqrt{0.07}$) to bias our results. To put this result into perspective, an omitted variable would have to have an effect about two times stronger than those of the controls included in our model (highest partial impact: 0.03), which seems unlikely because of our rich set of controls (Busenbark et al., 2021). We also report the robustness of inference to replacement (RIR), as Busenbark et al. (2021) recommend for binary independent variables. To invalidate the inference, 34.48 per cent of the estimate would have to be due to bias, and 34.48 per cent (107) of cases would have to be replaced with cases with an effect of 0.

In another robustness analysis, we used all 3732 graduates who started in a corporation as a control group, rather than the closest matches we found using CEM. We lost 166 observations because of missing data (particularly data on SIC codes and tenure), arriving at a sample size of 3731 individuals, of which 165 had entrepreneurial experience with failure, and 3566 did not. Core results remain largely consistent, as experience with entrepreneurial failure has a positive effect on the hierarchical position (0.26, $p < 0.05$).

Finally, our main models rely on two-digit SIC dummies as controls. One might argue that more fine-grained information is necessary, so we control for three-digit SIC codes instead in an additional analysis. Results remain highly consistent.

Additional Analyses

We explored potential moderating effects using national-level variables in multilevel models and included interaction terms between our treatment variable and national

Table VII. Regression findings with hierarchical position as dependent variable (study 2)

	<i>Model 1 OLS</i>	<i>Model 2 OLS</i>
Entrepreneurial failure exp.	0.571 (0.193)**	0.549 (0.183)**
City habitant	0.391 (0.218) ⁺	0.476 (0.199)*
Work experience (years)	0.049 (0.014)***	0.055 (0.013)***
International experience	0.179 (0.192)	0.092 (0.181)
Gender (male)	0.568 (0.298) ⁺	0.467 (0.276) ⁺
Organizational tenure	0.053 (0.024)*	0.046 (0.023)*
Highest educational degree	0.246 (0.150)	0.272 (0.139) ⁺
Business profile	0.191 (0.317)	0.133 (0.299)
Engineering profile	−0.555 (0.345)	−0.533 (0.327)
Computer science profile	−0.881 (0.305)**	−0.828 (0.278)**
Firm size	−0.000 (0.000)	−0.000 (0.000)
Uncertainty avoidance		1.177 (0.420)**
Institutional collectivism		−0.017 (0.405)
In-group collectivism		−0.986 (0.511) ⁺
Assertiveness		−0.764 (0.323)*
Performance orientation		0.058 (0.411)
Power distance		−0.299 (0.451)
GDP		−0.000 (0.000)
GDP growth		14.633 (7.195)*
Government activism		0.006 (0.011)
Schooling		0.224 (0.110)*
Industry dummies	Included	Included
Country dummies	Included	
Constant	−0.255 (2.038)	−3.867 (2.054) ⁺
Observations	326	309
R^2	0.443	0.403
F -statistic	2.014*** (df = 92; 233)	2.784*** (df = 60; 248)

⁺p < 0.1; *p < 0.05; **p < 0.01; ***p < 0.001; standard errors in parentheses.

cultural dimensions. National cultural dependencies that emerge from these analyses include uncertainty avoidance, which negatively moderates the relationship between entrepreneurial failure and career success, a notion that is in line with the generally low acceptance of uncertainty and failure in cultures with high uncertainty avoidance (Luque and Javidan, 2004). Assertiveness negatively moderates the relationship between entrepreneurial failure and career success, possibly because of the higher success orientation in these assertive cultures, which stigmatizes failure. Overall, these first analyses indicate that our baseline associations' strength depends to some degree on national cultural variations.⁵

DISCUSSION

One might argue that experience with entrepreneurial failure negatively influences subsequent corporate career success because of, for example, lack of acquaintance with corporations and recruiters' negative view of the lack of corporate experience. Embedded in considerations related to human capital theory, our study challenges this wisdom by showing that students who engage in an entrepreneurial activity immediately after graduation build human capital that is conducive to a subsequent corporate career, even when their new ventures fail, especially since recruiters read strong personal initiative into their profiles.

Implications for Theory and Literature

Our study has at least three important implications for theory and the literature. First, we complement research on human capital theory (Markman and Baron, 2003; Marvel et al., 2016), which extensively examines the kind of human capital that is most conducive to entrepreneurial activity and success (thereby treating entrepreneurship as a “final career destination”) (Burton et al., 2016; Unger et al., 2011). However, this line of research does not examine how human capital that is built in the course of entrepreneurial failure works outside the startup world. We expose human capital theory to the phenomenon of graduates who are considering entrepreneurial activity but fear the effect of failure on potential subsequent corporate careers. By exposing human capital theory to this phenomenon, we extend this research by showing that human capital that is built during the entrepreneurial failure process can drive career success outside the startup world, especially for the establishment stage in the corporate context. By defining the human capital gathered during entrepreneurship, we link human capital theory to a broader analysis of entrepreneurial and corporate career paths and bring the concept of boundaryless careers to human capital research in entrepreneurship. This perspective indicates that corporations appear to be more open to failed entrepreneurs than is the general public, which sometimes judges entrepreneurs who fail harshly.

Second, in addition to unveiling the value of human capital gained in entrepreneurial failure, our study also suggests a major theoretical mechanism that translates experience with entrepreneurial failure into subsequent career success. We find that recruiters' perceptions of personal initiative (Frese et al., 1996) are positively related to successful entry into the establishment stage. Recruiters who are looking for candidates for jobs in the establishment stage assign higher values of personal initiative to failed entrepreneurs than they do to graduates who started in a corporation. It follows that one reason for the advantage of failed entrepreneurs over graduates who started in a corporation is the opportunity to build and show personal initiative, a skill that is highly appreciated in the corporate context. In this way, an entrepreneurial failure creates a skill that more “isolated” graduates who started their careers in a corporation face only later. As indicated by an additional experiment, this assignment was rather independent of whether the failure was attributed to internal or external reasons, suggesting that the entrepreneurial experience and not the failure evaluation is at the foreground of the recruiters' evaluation.

Third, while our investigation points to associations between experience with entrepreneurial failure and subsequent success in a corporate career, we also inform the literature that these associations have clear boundaries that theory building in this area of human capital research needs to consider. For example, our research indicates that long periods of entrepreneurial activity (e.g., eight years) that end in failure may, indeed, be disadvantageous to subsequent corporate careers. The additional analyses also reveal that recruiters see a poorer fit between failed entrepreneurs and corporate culture, suggesting that switching from entrepreneurship to the corporate world might come with cultural obstacles. The longer the entrepreneur was self-employed, the more pronounced this misfit becomes, so eight years of entrepreneurial experience that ends in failure in our experiment, compared with three years in the other scenario, cause recruiters to question failed entrepreneurs' corporate fit. The results indicate that switches from entrepreneurship to the corporate world can be comparatively feasible early on, but that failed entrepreneurs may suffer from disadvantages in the labour market after long entrepreneurial experiences that end in failure. Our additional analyses also indicate that cultural dependencies are likely. Failure is deeply linked to culture, and some national cultures might be less open (e.g., those with high uncertainty avoidance and high assertiveness) to failed entrepreneurs' entering corporate career tracks.

Limitations and Future Research

Our research comes with some limitations that provide avenues for future research. First, as a starting point in the investigation of how experience with entrepreneurial failure affects corporate career objectives, we focus on well-positioned former entrepreneurs and graduates who started in a corporation in the establishment stage. Future studies could broaden our perspective by analysing less well-positioned former entrepreneurs and graduates who started in a corporation. Anecdotal evidence on successful entrepreneurs often reports on entrepreneurs who did not finish their studies, leading to the question concerning whether failed entrepreneurs without university degrees can also manage the transition to successful corporate careers.

Second, Super's (1957) career model also covers the maintenance and decline stages of a career. Future research could examine these stages to broaden our view by determining the long-term consequences of experience with entrepreneurial failure.

Third, we focus on the corporate-career-related consequences of failed entrepreneurship. However, the many other possible negative consequences of failed entrepreneurship include compromised health, extensive debt, and stigma (Shepherd and Patzelt, 2015). Future research could use these possible consequences of failed entrepreneurial activities to develop a complete picture of the consequences of failure.

Fourth, failure and career tracks are linked to national cultural conditions. Our additional analysis in study 2 indicates that our baseline associations hinge on cultural dimensions like uncertainty avoidance and assertiveness. A natural extension of our study would develop a comprehensive framework on how national and cultural conditions affect the various consequences of failure as they occur in the corporate world.

Fifth, we focus on one mediator in our research model. While personal initiative is a broad construct that shows many overlaps with other important concepts at the interface

of HR and entrepreneurship, future research might investigate alternative mediations. As such, specific leadership competencies gained during the entrepreneurial experience, as perceived by recruiters, might be interesting and important to understand.

Sixth, while we present two complementary methods, we acknowledge that the first study presents a vignette experiment that comes with some limitations. In particular, we create realistic but fictional situations. Future studies could test our research model in field settings to corroborate our conclusions.

Practical Implications

Public policy and universities promote entrepreneurship among graduates to boost economic growth but are largely silent on the possible consequences of early entrepreneurship on subsequent careers in corporations. However, these consequences are what drive graduates' decisions for or against an entrepreneurial activity since most entrepreneurs (re-)turn to paid employment eventually. Our study sheds light on this issue by showing that entrepreneurial experience with failure can boost career success in the corporate world, so long as it takes place within a certain time period. Our findings suggest that policymakers should directly address graduates' fears of drawbacks to landing subsequent corporate jobs by applying a boundaryless-career view that paves the way for flexible, integrated career paths inside and outside entrepreneurship after failure. However, our study also shows limits to the possibility of smooth subsequent careers that are based on the length of the entrepreneurial endeavour, and advisers should have them in mind when coaching budding entrepreneurs.

Further, our results should encourage young, well-educated individuals to opt for entrepreneurship and to consider the positive effects an experience even with entrepreneurial failure can generate. Our studies emphasize that choosing entrepreneurship does not shut the door to a corporate career but can boost the chances of advancement in a subsequent corporate career. Entrepreneurially oriented students should see an entrepreneurial experience as a career phase similar to first jobs in other settings.

Finally, our findings have implications for companies' recruiters. Our results from study 2 reveal that well-educated failed entrepreneurs are more likely to become managers and advance in the corporate hierarchy than graduates who started their careers in a corporation are, so experience with entrepreneurial failure should signal managerial skills.

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NOTES

- [1] The interviews' main purpose was to complement and inform the arguments that lead to our hypotheses. (For a similar approach, see Kim and Miner, 2007.) We do not intend to provide a full-fledged inductive study. Appendix 1 shows the interview partners' profile.
- [2] The question might arise as to why we do not consider the benefits of successful entrepreneurship to a subsequent corporate career. If the venture succeeds, entrepreneurs usually stay with their ventures and develop them further as members of the board, or they sell their ventures and become serial entrepreneurs. In either case, successful entrepreneurs are unlikely to enter corporations and compete for jobs.

Their resulting absence from corporations makes them unsuitable for inclusion in an analysis of the effect of entrepreneurial experience on corporate careers. Therefore, we focus only on entrepreneurs whose ventures fail.

- [3] In an additional experiment that complements our study 1, we later show that the measures for personal initiative and self-efficacy correlate positively ($r = 0.66$).
- [4] Since we lost 17 observations when we included country-level variables, we show our analyses including country dummies using the entire matched data set, as well as including country-level variables.
- [5] While our core models remain highly consistent for two-digit and three-digit SIC levels, we identify significant interaction effects with national culture only when using three-digit SIC levels, likely because three-digit SIC levels control for industry on a more fine-grained level.

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APPENDIX 1

INTERVIEW SUMMARY

Pseudonym*	Post-graduate first experience	Industry	Duration of first experience (years)	Current position	Educational background	Duration of interview (min)
Peter	Co-founder	Web analytics	1.5 (ongoing)	CTO and co-founder, web analytics startup	M.Sc. Computer Sciences	11
Max	Co-founder	Nutrition	2.5 (ongoing)	CEO and co-founder, nutrition startup	M.Sc. Industrial Engineering	12
Sebastian	Co-founder	Data science	3	Project leader IT, public sector	M.Sc. Computer Sciences	12
Anna	Junior Risk Manager	Energy	3	Senior consultant, strategy consulting company	M.Sc. Information Systems	14

<i>Pseudonym*</i>	<i>Post-graduate first experience</i>	<i>Industry</i>	<i>Duration of first experience (years)</i>	<i>Current position</i>	<i>Educational background</i>	<i>Duration of interview (min)</i>
Mike	Project engineer	Energy	2	Project manager (wind farms)	M.Sc. Renewable Engineering	10
Christoph	Assistant to the management board	Media	1.5	Senior consultant, strategy consulting company	M.Sc. Marketing Management	11

* Names changed.

APPENDIX 2

MEASURES: THE CONCEPT OF PERSONAL INITIATIVE

Peter seems to be a person...

- ... who actively attacks problems
- ... who searches for a solution immediately, whenever something goes wrong
- ... who takes the chance to get actively involved whenever possible
- ... who takes initiative immediately even when others don't
- ... who uses opportunities quickly in order to attain his goals
- ... who usually does more than he is asked to do
- ... who is particularly good at realizing ideas

APPENDIX 3

ADDITIONAL EXPERIMENTS TO COMPLEMENT STUDY 1

In the following, we describe the three additional experiments, conducted to corroborate the findings from study 1, especially regarding the association between entrepreneurial failure experience and perceived personal initiative.

ADDITIONAL EXPERIMENT 1

The first additional experiment uses scenarios very similar to the ones we use in our main experiment but frames the scenarios in another context. While our main experiment asks actual recruiters from a consulting company, the first additional experiment simulates a recruiting decision made by a large corporation. The scenarios to which the respondents were assigned randomly read as follows:

Scenario 1 (entrepreneurial failure experience)

Please put yourself in the following situation:

You are working in the recruiting department in a large corporation and you are in charge of deciding which applicants should be invited to a job interview. It is a usual Friday morning at work when your telephone rings. A senior manager of your company calls you and asks you for your recruiting advice. The son of a close friend of his (Peter) is considering applying to your company as a team leader and asked the senior manager for help. Now the senior manager would like to get your view on the candidate's profile to understand if it generally matches your company's recruiting requirements. You know that team leaders need the necessary skills to lead at least three persons. You typically recruit people with at least three years of working experience for this type of position, since graduates immediately after their studies are too inexperienced

He describes the candidate as follows:

He has a great profile. He achieved excellent grades during his studies at Stanford University and the London Business School, with semesters abroad in the Netherlands and Hong Kong. Instead of joining one of the companies where he did internships (General Electric and Deloitte Consulting), he decided to found his own business. His startup introduced radically new technology in the field of Computer-Aided Text Analysis (CATA). During the first two years, the business went extremely well and grew rapidly, and he managed to get seed funding and hired ten people. Unfortunately, the situation turned in the third year, mainly because of market conditions, and he finally had to declare bankruptcy in March this year. Overall, he did an amazing job leading his whole team as CEO, managing all stakeholders from customers to employees, attracting venture capitalists, and reacting to sudden changes in daily business. This impressed me a lot

Scenario 2 (corporate experience)

Please put yourself in the following situation:

You are working in the recruiting department in a large corporation and you are in charge of deciding which applicants should be invited to a job interview. It is a usual Friday morning at work when your telephone rings. A senior manager of your company calls you and asks you for your recruiting advice. The son of a close friend of his (Peter) is considering applying to your company as a team leader and asked the senior manager for help. Now the senior manager would like to get your view on the candidate's profile to understand if it generally matches your company's recruiting requirements. You know that team leaders need the necessary skills to lead at least three persons. You typically recruit people with at least three years of working experience for this type of position, since graduates immediately after their studies are too inexperienced

He describes the candidate as follows:

He has a great profile – achieved excellent grades during his studies at Stanford University and the London Business School, with semesters abroad in the Netherlands and Hong Kong. During his studies, he did internships at Deloitte Consulting and General Electric, and after graduation, he directly joined General Electric in their controlling department. He has been working there for three years now as a business analyst and is searching for a new challenge now. As far as I have heard, he is doing a great job there. His analyses and forecasts are always on point. The product line he is reporting on is known to have very transparent reports. In addition, all his reports are always on time, and he fulfils all his daily duties excellently. What do you think? Should we give him a chance?

We recruited 40 respondents. All respondents have a management education background with 78 per cent taking part in a Ph.D. program and all having work experience. Sixty per cent indicate that they have at least some recruiting experience. Forty-eight per cent of the respondents are female and they are on average 30 years old. As a dependent variable, we again used perceived personal initiative. We find that participants perceive the personal initiative of the applicant with entrepreneurial failure experience as significantly higher (5.18) compared with the applicant with corporate experience (4.53, $p < 0.05$). This indicates that our main findings are not specific to the consulting context which we chose as the setting in our main analysis.

We also consider the effect of entrepreneurial experience with failure on self-efficacy as a related construct (measured based on Frese et al., 1996). Self-efficacy is correlated with perceived personal initiative with $r = 0.66$. Interestingly, we find no significant difference between entrepreneurial experience with failure (5.13) and corporate experience (4.87, $p > 0.10$) with regard to perceived self-efficacy. Since the

perceived personal initiative is considered the behavioural outcome of self-efficacy (Frese and Fay, 2001), it follows that respondents/recruiters conclude specific behaviours from the job candidates based on the applications. Findings suggest that they do not interpret potential candidates' deep-seated self-efficacy-related beliefs or capacities from the application and the other information provided in the setting.

ADDITIONAL EXPERIMENT 2

The second additional experiment uses the same scenarios but relies on 75 MTurk respondents, following recommendations (e.g., attention checks) by top-tier publications for using MTurk respondents in experiments (Aguinis et al., 2021). We again find that participants perceive the personal initiative of the applicant with entrepreneurial experience with failure as significantly higher (5.94) compared with the applicant with corporate experience (5.57, $p < 0.10$), corroborating our conclusions drawn from the first additional experiment.

ADDITIONAL EXPERIMENT 3

In the third additional experiment, we tested whether the perceived personal initiative is higher or lower when the former founder failed due to external (e.g., market conditions) or internal (e.g., management errors) reasons. The scenarios to which the respondents were assigned randomly read as follows:

Scenario 1 (external reasons)

Please put yourself in the following situation:

You are working in the recruiting department in a large corporation and you are in charge of deciding which applicants should be invited to a job interview. It is a usual Friday morning at work when your telephone rings. A senior manager of your company calls you and asks you for your recruiting advice. The son of a close friend of his (Peter) is considering applying to your company as a team leader and asked the senior manager for help. Now the senior manager would like to get your view on the candidate's profile to understand if it generally matches your company's recruiting requirements. You know that team leaders need the necessary skills to lead at least three persons. You typically recruit people with at least three years of working experience for this type of position, since graduates immediately after their studies are too inexperienced

He describes the candidate as follows:

He has a great profile. He achieved excellent grades during his studies at Stanford University and the London Business School, with semesters abroad in the Netherlands and Hong Kong. Instead of joining one of the companies where he did internships (General Electric and Deloitte Consulting), he decided to found his own business. His startup introduced radically new technology in the field of Computer-Aided Text Analysis (CATA). During the first two years, the business went extremely well and grew rapidly, and he managed to get seed funding and hired ten people. Unfortunately, the situation turned in the third year, mainly due to external market conditions which were beyond his area of influence. Peter finally had to declare bankruptcy in March this year. But overall, he did an amazing job leading his whole team as CEO, managing all stakeholders from customers to employees, attracting venture capitalists, and reacting to sudden changes in daily business. This impressed me a lot

Scenario 2 (internal reasons)

Please put yourself in the following situation:

You are working in the recruiting department in a large corporation and you are in charge of deciding which applicants should be invited to a job interview. It is a usual Friday morning at work when your telephone rings. A senior manager of your company calls you and asks you for your recruiting advice. The son of a close friend of his (Peter) is considering applying to your company as a team leader and asked the senior manager for help. Now the senior manager would like to get your view on the candidate's profile to understand if it generally matches your company's recruiting requirements. You know that team leaders need the necessary skills to lead at least three persons. You typically recruit people with at least three years of working experience for this type of position, since graduates immediately after their studies are too inexperienced

He describes the candidate as follows:

He has a great profile. He achieved excellent grades during his studies at Stanford University and the London Business School, with semesters abroad in the Netherlands and Hong Kong. Instead of joining one of the companies where he did internships (General Electric and Deloitte Consulting), he decided to found his own business. His startup introduced radically new technology in the field of Computer-Aided Text Analysis (CATA). During the first two years, the business went extremely well and grew rapidly, and he managed to get seed funding and hired ten people. Unfortunately, the situation turned in the third year, mainly due to some management decisions Peter made. Peter finally had to declare bankruptcy in March this year. But overall, he did an amazing job leading his whole team as CEO, managing all stakeholders from customers to employees, attracting venture capitalists, and reacting to sudden changes in daily business. This impressed me a lot

Again we used MTurk respondents. We generated 84 responses. Interestingly, we do not find significant differences between internal and external reasons concerning perceived personal initiative ($p > 0.10$).