Developing intrapreneurial self-efficacy through internships?
Investigating agency and structure factors

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Abstract

Purpose – This paper seeks to identify how intrapreneurial self-efficacy (ISE) grows in a group of graduate students during their internship. We investigate which agency and structure factors shape their experience and stabilize or help grow their ISE and how this evolves in the course of their internship.

Design/methodology/approach – We conducted group interviews with 49 last year master students of a large Belgian university during their seven-month internship. We focused on those interns with low starter ISE to better understand which factors aid or hinder ISE development.

Findings – Our results show that students who did not experience ISE growth were less aware of their own agency factors, lacked supportive colleagues and experienced a misfit with their supervisors. Students who did grow their ISE did so mostly because of an initial experimentation phase, which was structured by their supervisor. This created a positive spiral where they started feeling increasingly better and able to act intrapreneurially.

Originality/value – With this study, we contribute to the extant literature in two main ways. First, we use a graduate employability lens to study the genesis of ISE. As such, we are amongst the first to investigate how education can nurture intrapreneurship and which agency and structure factors are particularly important for this. Second, we take a qualitative process approach, rather than a static and quantitative focus of most entrepreneurial education studies. As such, we gain better knowledge to the drivers of ISE at students first steps and during their internship.

Keywords Intrapreneurship education, Internship, Agency and structure

Paper type Research paper

Introduction

Starting a new venture often forms a high risk, induces levels of uncertainty and requires a high level of launching resources and (human, social and financial) capital. Traditionally, top management was the driver of corporate venturing and other entrepreneurial initiative (e.g. Hurst et al., 1989). Today, employees are more and more expected to play a role in these processes by demonstrating a range of proactive, innovative and risk-taking behaviors coined intrapreneurial behavior (De Jong et al., 2015). Hence, intrapreneurial behavior is more and more performed (Singer et al., 2018) and formally expected from employees and young graduates alike (e.g. in a job description, Accenture, 2015). Entrepreneurial skills, including innovative skills – creativity, critical thinking and problem solving – and life and career skills – such as showing initiative, being self-directed and accountability (i.e. the twenty-first century skills, Voogt and Roblin, 2012) – are among the core skills that are expected to enable individuals to safeguard their future and build a sustainable career in an increasingly changing labor market. Young graduates will thus enter a workplace that expects them to be
– at least to some degree – entrepreneurial, either as an independent entrepreneur because of changing labor relations or within existing organizations.

To better prepare young graduates for these new labor market requirements (i.e. to improve their graduate employability), higher education promotes entrepreneurial – and per extension intrapreneurial – behaviors (Carretero Gomez et al., 2017) through Entrepreneurship and Intrapreneurship Education (E/IE) (Bae et al., 2014; Fellnhofer, 2019; Nabi et al., 2017). E/IE mostly include the use of traditional classroom courses but also experiment with having students manage their own practice company (Martin et al., 2013) and more rarely immerse via internships (Silva et al., 2016). The outcomes of E/IE usually include entrepreneurial intentions (e.g. Schlaegel and Koenig, 2014) with intrapreneurship receiving virtually no attention. While entrepreneurial skills are relevant for intrapreneurs and entrepreneurs alike, there are some distinct differences between both. For example, intrapreneurship will require less personal financial risk but far more political skills (Parker, 2011). Entrepreneurs, by contrast, do not have an in-house coach ready to think things over with them and focus more on B2C than B2B (Claycomb et al., 2005). Since even the most entrepreneurial students are very likely to start working as an employee and need to act intrapreneurial at some point in their career, it does makes sense to expand the knowledge on preparing graduates for intrapreneurship (Harvey and Evans, 1995; Yuan and Woodman, 2010).

The aim of this qualitative study is to study the development of intrapreneurial self-efficacy (ISE) during internships. More specifically, the authors conducted group interviews with 49 last year master students of a large Belgian university during their seven-month internship, during which students were expected to behave intrapreneurally. Doing so, the authors add to the existing literature in two main ways. First, both in graduate employability (Tomlinson and Nghia, 2020) and traditional entrepreneurship research (e.g. Doll and Ajzen, 1992), exogenous influences are only assumed to have an indirect and thus weak effect on behavior. Therefore, an “agency” perspective, consisting of personal factors and actions of the individual, is dominant in these fields. Job design models (Bakker and Demerouti, 2016) also emphasize the relevance of environmental or “structure” factors. In intrapreneurship research, factors like work overload (Elie-Dit-Cosaque et al., 2011) or no recognition (Hornsby et al., 1999) are found to discourage people from developing ISE. Additionally, interactions between individuals’ characteristics and the context or situation may hamper or stimulate ISE (Nabi et al., 2017). Rarely both agency and structure factors are studied in unison, which is what the authors will do in this study, thus adding to the intrapreneurship and the graduate employability literature. Second, previous research showed contradictory and inconclusive results for E/IE and its outcomes (Nabi et al., 2017). Potentially due to a static and quantitative approach (exceptions, e.g. Kubberød and Pettersen, 2018; Pittaway and Cope, 2007), thus neglecting the more complex process behind the development of ISE (Linán and Fayolle, 2015). The authors thus take a process approach to better understand when agency and structure factors are most important in the development of ISE. For the nascence of intrapreneurship, the authors target students at the dawn of their career, since they bare more potential in explaining the small steps in developing this behavior (Peterman and Kennedy, 2003). As such, the authors are among the first to shed a light on the first, small steps that individuals take on the road to becoming an intrapreneurial individual.

**Theoretical underpinnings**

Used in parallel to entrepreneurship, which denotes self-employment, intrapreneurship is used to describe an individual who shows similar “entrepreneurial” (or intrapreneurial) behavior but works as an employee in an established firm (Pinchot, 1985). Intrapreneurs
demonstrate “a range of proactive, innovative, and risk-taking behaviors—including identifying opportunities and threats, generating and searching out ideas, championing ideas and selling those to peers in the company, putting effort in making it happen, and boldly moving forward in the pursuit of opportunities while accepting the risk of potential losses” (De Jong et al., 2015, p. 984). They set up new corporate ventures and integrate them into the overall business portfolio of their employer (Gawke et al., 2017).

From a company standpoint, the creation of new businesses, products and ventures is the most frequently given definition of intrapreneurship (cfr. review Neessen, 2018). These ventures are spearheaded by regular employees, sometimes but not always by giving them a minority stake in the new organization. These ventures usually remain spin-ins or form new departments, however, some ventures become spinouts thus leaving their former mother holding (Kolaković et al., 2014). Compared to regular new ventures, founded by an entrepreneur, corporate ventures are distinct in four ways. First, a corporate venture uses seed money and expertise from the mother holding. In this sense, the intrapreneur wanting to start the venture will need to convince a board of directors rather than investors or a bank to fund their idea (Kacperczyk, 2012). During the development of the venture, the board will usually also remain involved or offer another way of guidance to the venture. Second, this guidance also offers some restrictions. Established companies usually want their new ventures to have a strategic fit and thus have clear ideas about which ventures are worthwhile (Ivanov and Xie, 2010). Traditional entrepreneurs have a lot more freedom to follow a certain idea and to decide which market to operate in. Third, corporate ventures can build on the brand and reputation of the mother holding. They usually have an established customer base who they cater too. It is possible that the new venture will require them to broaden this customer base; however, they are unlikely to start completely from scratch as a regular entrepreneur. Last, while an entrepreneur is normally the majority (or sole) stakeholder, an intrapreneur will at the most be a minority stakeholder (Fitzsimmons and Douglas, 2011). While this comes with less freedom, it also comes with increased (financial) risk (Parker, 2011). When the traditional venture fails, this will likely bankrupt the entrepreneur. However, an intrapreneur will usually be able to resume another position in the organization and will not suffer personal losses from the potential failure of the venture.

Entrepreneurial individuals have been found to alternate between working as an entrepreneur or as an intrapreneur at the start of their careers (Luthje and Franke, 2003), and later on (Kacperczyk, 2012). As entrepreneurs and intrapreneurs share similar underlying behaviors, the authors use research from both fields to develop our theoretical framework and link our findings back to the literature. However, when discussing the results within our own sample, the authors will use the term intrapreneurship for clarity’s sake. More specifically, the authors will focus on ISE, which can be defined as “people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective and selection processes.” (Bandura, 1991, p. 257). Analogous to this definition, and building on definitions for entrepreneurial self-efficacy (Liu et al., 2019), the authors define ISE as the individuals’ belief in their ability, sense of control and self-confidence regarding the ability to successfully exercise intrapreneurial behavior. This type of self-efficacy appears to be trainable (Florin et al., 2007).

Organizations today are inclined to attract young employees when they want to increase or re-boost intrapreneurship (Posthuma and Campion, 2008). Young employees are presumed to see the organizational context with “new eyes” and spot opportunities where others do less so. Similarly, younger individuals are more risk-oriented (Wiersema and Bantel, 1992) and have less commitment to the status quo (Goll et al., 2008). Thus, to enhance graduates’ employability (i.e. increase their (future) opportunities on the labor market, Kivinen et al., 2000), universities
put an increasing focus on intrapreneurial behaviors in their curriculum (Cosner Berzin and Dearing, 2019; Schmitz et al., 2017). Intrapreneurship contributes to graduates’ employability because it increases future employment opportunities through better matching the required skills and attitudes on the labor market and their own human capital (Tomlinson, 2012). Employability, also known as “reemployment self-efficacy”, and graduate employability strongly relies on the sense of control and belief of being able to perform behavior successfully, i.e. self-efficacy. Moreover, and more specifically, since the labor market strongly focuses on intrapreneurship, the authors premise that, in light of graduates’ employability ISE is the translated version of what is looked for in graduates’ employability (cf. Bell, 2016).

**Intrapreneurship education and internships**

Higher education institutes are important contexts to study entrepreneurship and intrapreneurship (Aggarwal and Shrivastava, 2021), since, through the right or suitable educational program, they build entrepreneurial education and students’ entrepreneurial competencies (Bauman and Lucy, 2021). Entrepreneurship education consists of “any pedagogical [program] or process of education for entrepreneurial attitudes and skills” (Fayolle et al., 2006, p. 702). Intrapreneurship education which has a similar goal is studied far less often, but is gaining more popularity recently (Frank et al., 2016). It is assumed that Entrepreneurship and Intrapreneurship Education (E/IE) increases entrepreneurial self-efficacy (Fayolle and Gailly, 2015). However, previous studies have shown some heterogeneity in the results (Martin et al., 2013). Whereas entrepreneurial self-efficacy has been studied through surveys and efforts have been made to uncover dimensionality (e.g. Chen et al., 1998), it remains unclear what it constitutes. Moreover, previous studies showed contradictory results regarding entrepreneurial self-efficacy especially in light of entrepreneurship education. For example, a meta-analysis found no difference in growth when it controlled for pre-education entrepreneurial intentions (Bae et al., 2014).

However, within these E/IE, it appears to be important to be able to build experiences (Ferreras-Garcia et al., 2021), which refers to an active pedagogy and a practice-oriented program (van Ewijk et al., 2020; Hahn et al., 2017). Furthermore, learning-by-doing is found fruitful in light of entrepreneurship behavior (Chen et al., 2021). Internships could be particularly relevant in this sense as they provide a safe learning arena for trying out new ideas and taking initiative (Sørensen and Fassiotto, 2011) were found to be more beneficial than other forms of active learning such as live case teaching (Green and Farazmand, 2012), and improve knowledge through experimentation (Minniti and Bygrave, 2018). They involve three stakeholders: the host organization, the student and the university (Helyer and Lee, 2014). Through internships, interns are believed to become more in control of skills (Liu et al., 2019) and improve their sense of self-efficacy (Brooks et al., 1995). As these internships can signal that taking initiative (Scott and Bruce, 1994), or finding new opportunities (Hayes et al., 2002) is important and expected, or alternatively, may signal that the “real” working environment is rigid (Sørensen, 2007), or provides too little slack (Ireland et al., 2009) they could significantly impact the students’ future intrapreneurial behavior as employees. Since higher education institutes focus on learning and are intended to be psychological safe environments with guidance of study mentors, and given the positive effects of learning-by-doing, the authors propose that internships, which have not often been used in E/IE research (e.g. not mentioned in the above meta-analysis), could be an interesting research avenue.

The internships within the context of this study are performed by university students (cf. Turker and Selcuk, 2009). This universities pedagogical approach is in line with the demand and competence model in which interaction and exchange is stimulated among students through discussion groups (Nabi et al., 2017), which through the “power of peers” are found to benefit intrapreneurial intentions (Bello et al., 2018). In our study context, coaching moments were organized to reflect on internship experiences and to share best practices
amongst students. The evaluation criteria of the internships were based most prominently to the extent they acted intrapreneurally during the course of their internship which is likely to be an important element of the environment of E/IE and enables intrapreneurial behavior (Shirokova et al., 2016). This was communicated to the students and the mentors before the start and had to be evaluated at least once during the course of the internship.

**Intrapreneurial agency, structure and self-efficacy**

In the graduate employability literature, agency and structure factors are used to investigate perceived employability. First, agency can be defined as agentic action, which stems from within the individual and leads to positive employment-related outcomes in line with the agency perspective on employability (overview by Forrier et al., 2018). Entrepreneurial agency consists of five elements (McMullen et al., 2020). Ability, motivation and opportunity identification are similar to the concepts found in graduate employability and enable an individual to be capable of entrepreneurial agency (McMullen and Dimov, 2013). The fourth element is the amount to which someone is able to come loose from or immune to institutions (Scott, 2013). The last element, process skill refers to the moment of seizing an opportunity at a specific moment or turning point in time (Lévesque and Stephan, 2020). Agency is found to have a positive impact on self-efficacy (Boyd and Vozikis, 1994). However, the most relevant agency factors for the development of ISE are yet to be discovered. The authors aim to do so in this study:

**RQ1.** What is the role of agency in the development of ISE during internships?

Additionally, research counterbalances agency with structure or contextual factors (McMullen et al., 2020). Structures are seen as “objective social institutions influencing how people live and act” (Tholen, 2015, p. 766) and lie outside of the individual. Within structure factors, the authors differentiate three levels. Firstly, the direct context in which one operates may offer opportunities. For example: work characteristics like job design and work roles may enable individuals to act intrapreneurially (De Jong et al., 2015). Secondly, at an interpersonal level, social ties with colleagues and supervisors may enable individuals to act intrapreneurially. Since a professional community is likely to nurture an entrepreneurial mindset, and social capital intensifies interactions and connections (de Villiers Scheepers et al., 2018), the authors believe that at an interpersonal level, the environment and context may stimulate or hamper ISE. Thirdly and finally, the wider context of the organization, the culture within the organization and society comprises expectations and opportunities which may enable individuals to act intrapreneurially. Within our sample, from their host company’s standpoint, students are urged to behave intrapreneurially and use a “fresh pair of eyes” to come up with critical. Having the organizational culture, rewards, recognition and managerial support geared toward intrapreneurship was found to be beneficial (Kuratko et al., 2005). In sum, the authors expect that the structure can provide opportunities and limitations for individuals to exercise ISE. The authors will explore which structure factors are most relevant for graduates:

**RQ2.** What is the role of structure in the development of ISE during internships?

**Interplay of intrapreneurial agency and structure elements**

In line with the process-view on the elements of entrepreneurial agency, structure factors might influence this agency at different moments in this process. Within this process, whether an individual may become capable of acting in an agentic way, requires the right setting and conditions. These two factors (agency-structure) result in an agency-structure...
interplay (Forrier et al., 2018). This interplay has hardly received any attention in research despite its crucial role (for exceptions see Tomlinson, 2010). From the perspective on graduate employability and the needs for future employment opportunities, individual agency and the proactive attitude toward seizing opportunities and acting upon them received a vast amount of attention (Crisp and Powell, 2017). However, since the situations and contexts – i.e. structure – differ for everyone, the opportunities among individuals will differ (Forrier et al., 2018). With regard to E/IE, contextual factors like the level of innovativeness of the university and related opportunities received some attention in previous research. For example, possibilities to develop a spin-off and to take part in extracurricular activities appear to enable students to explore intrapreneurship (e.g. Piperopoulos, 2012). However, the interplay with agency and the nascence of ISE received much less attention in studying intrapreneurship and entrepreneurship.

Individuals with similar agency factors are likely to differ with regard to outcomes like ISE due to structural barriers and enablers at different points in time in the process and evolution of ISE. For example, not all interns will receive sufficient time and resources from their hosting company when they have a good idea. Next, advantages and disadvantages outside of the individual (structure) may also play a significant role. For example, family members of a student may help with regard to signaling and working on opportunities. And finally, while an individual might make a specific and deliberate choice and act upon it at a specific turning point, structures are likely to strengthen this agency. For example, an event like a phone call or an interruption by a colleague might be decisive, strengthen and facilitate or delay the agency to happen and the ISE to increase. In this way, structure and agency can alternate and influence each other in the evolution of ISE. For example, the graduate might remark an interesting project in which they want to participate, thanks to the knowledge and attitude of the graduate he or she is able to act upon this, but fears some contextual boundaries like time constraints and support of the mentor might hamper his or her agency which restricts ISE to evolve. This dynamic stresses the importance of scrutinizing the interplay between agency and structure in light of the (incipient) evolution of ISE.

RQ3. How do agency and structure jointly influence the development of ISE during internships?

**Method**

**Sample**

To learn more about how ISE can develop during internships, the authors conducted focus group interviews with all last year students in work and organizational psychology in a Belgian university (N = 49). Participants were mostly female (68%) and had a mean age of 23.86 years. On average they had 1.4 years of experience in volunteering and student jobs. Our respondents did internships in different contexts, ranging from small SMEs to large multinationals in different sectors. The activities of the internship itself varied from traditional HR and selection jobs, to training, and even sales. Within the companies, students had an appointed mentor. As per university requirement, mentors for the internships have a degree in psychology. Mentors are briefed by the university that interns have to conduct at least one intrapreneurial project themselves (i.e. individually spotting a need and coming up with a creative new solution to this).

**Procedure**

In 2019, the authors conducted seven focus groups with 49 students during the student’s tenth coaching moment (the last month of their internship), which exceeds the theoretical saturation threshold of 3–6 focus groups (Guest et al., 2016). Focus groups have several
distinct benefits to study our research questions; compared to individual interviews (1) they are found to enable more disclosure of sensitive and personal themes because they build on and relate to other’s stories (Guest et al., 2017), (2) enable spontaneous interaction more (Krueger and Casey, 2014) and (3) are particularly useful in educational settings (Williams and Katz, 2001). Focus groups ranged from four to nine participants. They were all conducted by the same moderator in order to maximize similarities between the process and topics of the different participant groups. The moderator followed a standardized instruction text and structured interview questions (Appendix), ensured that all participants were able to express their opinions, and asked additional questions to get deeper insights into the topics. The order of questions varied in each subgroup in order to prevent sequence effects. Each group interview lasted about 50 minutes (ranging from 43 to 59 minutes), combining into a total of five hours and 53 minutes of recorded materials.

Data analysis
The videotapes were transcribed per verbatim by the research team. The authors started by coding all the different quotes that gave an indication of the ISE level of an interviewee, different factors affecting their ISE, and source (coming from themselves – agency, or coming from their context – structure). Following qualitative research procedures (Glaser and Strauss, 1967) firstly, each transcript was read line by line, and quotations with similar meanings were coded with appropriate labels (open coding). Secondly, quotations were compared, adjusted and refined and quotations that had something in common were brought together under a core label. Main groups and subgroups were made (axial coding). Finally, relationships between the concepts were identified (selective coding) and the findings were linked back to theory. Two researchers did this independently by reading through all the quotes and dissecting the core themes/nodes. The authors compared these codes and later aggregated them into the cluster concepts as now described in Table 1. As such, analyses were not a linear, but an iterative process. Where there was incongruence, the authors discussed until consensus. To ensure inter-rater reliability, two members of the research team independently coded one group interview. The resulting kappa of 0.80 was deemed an “almost perfect agreement” (Viera and Garrett, 2005). To facilitate the analysis, the researchers used qualitative data analysis software (Nvivo 12).

The authors employed the critical sampling technique to maximize the usefulness and applicability of information from our student sample (Flyvbjerg, 2006). More concrete, to better be able to investigate which agency and structure aspects encourage ISE growth, the authors coded each respondent’s self-indicated ISE level at the start and end of their internship. The authors did not explicitly ask respondents about their ISE level. Nor did the authors directly ask respondents to link their perceptions of agency and structure to their perceptions of ISE. Rather, the authors let interviewees elaborate on their own subjective experiences throughout their internships. The authors then looked at the quotes per person and per phase (beginning and end of internship) and distilled their ISE level from this. This was again done independently by the researchers and then discussed until consensus. For example, 12 interns described their ISE levels at the start of their internship as: “I am someone who always sees opportunities for improvement. I was convinced this would be the case in my internship as well. (f1 p1)“ [1] and “To me, being intrapreneurial comes from within. I do not believe that an employer could have a positive or negative impact on my initiative taking. (f5 p1)” These interns did not just have a high level of ISE, they equated this as being innate, and thus consistently high. Since this gave us no chance to study ISE growth, the authors excluded these respondents from further analyses.

The remaining 37 interns had low starting levels of ISE. They indicated feeling uneasy or unsure about acting intraprendeuicularly or going against their nature: “When I started, I wanted
<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
<th>Exemplary quote</th>
<th>Number of respondents Stable group (N = 11)</th>
<th>Number of respondents Growth group (N = 26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency</td>
<td>Personal factors and actions undertaken by an individual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency required knowledge</td>
<td>Knowledge related to the working of a specific organization or sector</td>
<td>“I found that actually having a better knowledge of our product line really helped me to take new initiative” (f3 p3)</td>
<td>3 (27.27%)</td>
<td>16 (61.54%)</td>
</tr>
<tr>
<td>Need for autonomy</td>
<td>Desiring autonomy in tasks</td>
<td>“I need to be able to put my own ‘flavor’ in my work. If it is too narrowly defined, I just do not care” (f1 p2)</td>
<td>4 (36.36%)</td>
<td>10 (38.46%)</td>
</tr>
<tr>
<td>Intrapreneurial attitude</td>
<td>Considering intrapreneurial behavior to be positive to oneself or one's environment</td>
<td>“I think acting intrapreneurially is a good way to grow and learn. It allows me to get interesting tasks and be better prepared for my future” (f7 p7)</td>
<td>0 (0%)</td>
<td>11 (42.31%)</td>
</tr>
<tr>
<td>Intrapreneurial internal locus</td>
<td>Motivation to behave intrapreneurial comes from within</td>
<td>“No one expects me to act intrapreneurially. I just like doing it” (f3 p6)</td>
<td>2 (18.18%)</td>
<td>3 (11.54%)</td>
</tr>
<tr>
<td>Need for Belongingness</td>
<td>Wanting to be a part of a group</td>
<td>“I take initiative because it makes me feel like a part of the group” (f4 p1)</td>
<td>0 (0%)</td>
<td>3 (11.54%)</td>
</tr>
<tr>
<td>Structure</td>
<td>Objective social institutions influencing how people live and act</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expectations from others</td>
<td>Expression of expectations to be entrepreneurial by others or the organization (explicit and implicit)</td>
<td>“The first time my boss told me he expected me to be intrapreneurial, it really clicked for me. It felt like pressure” (f3 p2)</td>
<td>7 (63.64%)</td>
<td>18 (69.26%)</td>
</tr>
<tr>
<td>Decision latitude</td>
<td>Degree of freedom in the process and content of a task</td>
<td>“I get the freedom here to choose how to do my tasks” (f4 p3)</td>
<td>7 (63.64%)</td>
<td>16 (61.54%)</td>
</tr>
<tr>
<td>Supervisor</td>
<td>Amount of feedback, support and coaching by a supervisor</td>
<td>“My supervisor encouraged me to take initiative, but the first time I pitched an idea, she cut me short” (f1 p8)</td>
<td>6 (54.55%)</td>
<td>12 (46.15%)</td>
</tr>
<tr>
<td>Societal contribution</td>
<td>Relevance of a task for the organization or society</td>
<td>“Knowing that future starters will use the toolbox that I have developed really motivates me to go above and beyond” (f6 p1)</td>
<td>5 (45.45%)</td>
<td>12 (46.15%)</td>
</tr>
</tbody>
</table>

Table 1. Summary of results (continued)
to say: 'please hold my hand for a couple of months'. I really did not feel comfortable to take initiative. (f5 p8)" and "I'm just fresh off the college benches. Who am I to criticize a company that has been running well for decades? If I were to say: 'should not we try a different approach here', I would not even expect the organization to pay attention to that. (f6 p9)" From this group, the authors differentiate between two subgroups; those who felt an increase in ISE during the course of their internship (26 interns), and those who did not (11 interns): respectively "After a while I started to enjoy it and I just started doing it so to keep feeling the rush I get when I successfully take initiative. (f2 p5)" and "At that point I felt that since I had waited two months to

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<tr>
<td>Colleagues</td>
<td>Supportive atmosphere and sense of helping each other in a team</td>
<td>“My colleagues know what I'm working on and they often come and talk to me about it and ask me if they can help” (f5 p4)</td>
<td>3 (27.27%)</td>
<td>14 (53.85%)</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Having the final responsibility for the success of a task</td>
<td>“When they tell me that I am solely responsible for a project, it just feels like too much pressure to handle” (f5 p8)</td>
<td>4 (36.36%)</td>
<td>12 (46.15%)</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>Contradictions and unclarities in description and execution of tasks</td>
<td>“It is demotivating when I get assigned a task and afterwards, I have no idea what is really expected” (f5 p8)</td>
<td>4 (36.36%)</td>
<td>9 (34.62%)</td>
</tr>
<tr>
<td>Time pressure</td>
<td>Amount of time available to perform a task</td>
<td>“I have too much time. I spend a day on tasks that would normally take an hour, just to keep busy” (f2 p6)</td>
<td>5 (45.45%)</td>
<td>8 (30.77%)</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>Sense of acknowledgement that respondents receive by others or the organization upon completing a task</td>
<td>“I worked so many hours for this project and when we finally finished it, my colleague got all the praise and presents, and they forgot about me&quot; (f3 p1)</td>
<td>3 (27.27%)</td>
<td>7 (26.92%)</td>
</tr>
<tr>
<td>Task tangibility</td>
<td>Amount to which a task is becoming more tangible and thus attainable</td>
<td>“When vague ideas shift to immediate concrete actions, I get excited” (f2 p5)</td>
<td>4 (36.36%)</td>
<td>5 (19.23%)</td>
</tr>
<tr>
<td>Failure tolerance</td>
<td>Being allowed to make mistakes or fail</td>
<td>“My boss often tells me: I make mistakes too, and I learn from them. So just try, and in the worst case you have learned something” (f5 p2)</td>
<td>1 (9.09%)</td>
<td>3 (11.54%)</td>
</tr>
<tr>
<td>Interesting job content</td>
<td>Amount to which the job content is perceived as interesting and challenging</td>
<td>“When I am working on my burn-out project, a topic I'm very interested in, I give it my all” (f2 p6)</td>
<td>2 (18.18%)</td>
<td>1 (3.85%)</td>
</tr>
</tbody>
</table>

Table 1.
give my input that if I wanted to share an idea it should be mind-blowing. I constantly asked myself whether my idea was creative enough or worth sharing. Thus even though I did start to come up with new ideas, I am convinced my boss did not know as I did not share anything. (f3 p2) In further analyses, the authors will use the term “growth” to indicate the first and “stable” to describe the second group. There were no significant difference regarding age, previous work experience or gender between both groups.

Results

Descriptive analysis

In order to check the assumption of students’ understanding of intrapreneurship, the authors asked the interns what “being intraprendural” meant to them. Their main definition was congruent with the ones mentioned in the literature above, namely looking for improvements, taking action and coming up with new ideas: “To me, being intrapreneurial is being creative and innovative, coming up with new ideas to existing problems, looking to make things better. And not just talk about it, actually doing it. (f7 p7)” Organizations mostly asked students to cast a fresh eye over the day-to-day functioning of their teams and existing processes and products, and quite some interns also considered this to be part of being intrapreneurial: “We are new so we are able to see things that others have become blind to. I consider it intrapreneurial to voice what I see. (f3 p1)” Their intrapreneurial behavior showed in regular daily tasks. However, as per university requirements, interns were also responsible to create and run one innovative project independently. For the majority this constituted of them coming up with a new product idea (e.g. a new manual for onboarding or a new selection exercise), gaining support for this and then developing the product: “I had to completely define my project myself. I had to look for something that was currently missing and then figure out a way to solve it. My boss only gave his approval and some feedback. (f3 p6)”

Agency and structure factors enabling intrapreneurial self-efficacy

The summarized results for our first research question are represented in Table 1. The most prevalent differences between both groups will be discussed in greater detail in the next paragraphs.

Looking at the agency factors, three main differences between both groups appear. First, our respondents see knowledge as a conditio sine qua non for intrapreneurship; without it, coming up with ideas or taking action seems impossible, or at least very hard. This knowledge entails both general job knowledge and contextual information: “When I started, I found it very difficult to be critical. I did not have any experience in the field and nothing to compare things to. Things seemed to work, so I just assumed they were optimal. (f6 p1)” Once they have this knowledge, though, being intrapreneurial becomes a lot easier for the growth group: “Recruiting finance professionals is hard, but once I knew what my colleagues usually did, I could easily find some new ways of improving the contact info in our database. I collected all the details of the finance graduates of last year through their student association, and I am contacting all of them personally. (f6 p7)” However, knowledge is mentioned a lot less by the stable group. For this group, knowledge seems to be less of a steppingstone toward intrapreneurial behavior.

Second, overall, more people in the growth group indicate a need for autonomy. More specifically, our growth group respondents discuss how they prefer autonomous contexts. Regardless, this quest for autonomy is not overpowering: “I like absolute freedom, but not like absolute, absolute freedom at any cost (f2 p5).” They are aware of business reality and know they cannot have unlimited freedom but rather should work within certain boundaries. Some respondents indicate that after a while, they did not mind these directives anymore: “I actually
do not mind the mix now. Having a generally outlined path but still a lot of flexibility to do what I want within these boundaries. (f6 p3)" In the stable group, only one respondent indicated needing autonomy, the others indicate needing the opposite “When I am free to choose something, I just do not know where to start. I rather have more specific tasks (f6 p9).

Third, intrapreneurial attitude, or the positive evaluation of intrapreneurship, is a prominent topic in the growth group: “Intrapreneurship is a good thing. It allows me to become more visible to and independent from my supervisor. (f2 p5)” When asked why they engage in intrapreneurial behaviors, the growth group members mainly see four benefits for acting intrapreneurially: (1) it helps them to learn and get most out of their internship, (2) it makes them more visible to others in the organization and as such provides them with new opportunities, (3) it gives them a sense of contributing to the organization and their team and (4) it provides better employment opportunities for them after their internships. By contrast, the stable group does not necessarily regard intrapreneurship as something negative, they have just never really considered its possible upsides before or cannot recall any specific examples during the interview.

Next to agency factors, the authors also asked interviewees about the structure factors shaping their ISE experience. Plenty of structure factors were equally present or important for both the growth and the stable group. For example, during their internship, all our respondents were required to act intrapreneurially by the university and the employers shared that expectation. However, how they communicated this expectation differed. Merely having it in a job description was fine, but having a supervisor state outright that they should be more intrapreneurial, was very negatively perceived: “My supervisor told me I had to take more initiative. It was intended to light a fire under my ass but rather paralyzed me. (f1 p8)” Explicit expectations from others are, in this regard, equated to pressure and the feeling of not fulfilling the requirements in both groups. Similarly, there was no real difference between both groups when it comes to the amount of received decision latitude, societal contribution, acknowledgement and interesting job content; and in the way task tangibility affects them.

Some structure factors, however, did (slightly) differ between both groups. First, the stable group most often describes task ambiguity as destabilizing: “I do not know where to start when my tasks are so open and abstract. (f3 p5)” While this is also the case for the growth group, they have started developing coping strategies: “I no longer get paralyzed. Now I know to look for more input and plan those aspects that are already clearer. (f2 p4)” Second, the relationship with their supervisor and colleagues is very different. While the growth group describes their supervisor-relationship as positive, with a lot of guidance and support, for the stable group, the supervisor is less supportive or there is a mismatch in personality: “My supervisor told me that I could come with any idea and that everything was welcome. When I did, I thought she would be really enthusiastic, however she just brushed me off. (f1 p8)” In addition, when it comes to colleagues, the growth group had good relationships with their colleagues, like working with them and feeling supported: “I do not like working alone. Here, when I need help, or when I am stuck, there is always someone willing to help. (f5 p4)” The stable group was more skeptical, describing an environment that is individualist and unsupportive. Last, in the stable group, three people reported having too much time and too little tasks: “I become lazy at work. Bored. If I had more work I would feel more stimulated. (f3 p5)” For the growth group, most experienced just enough time pressure to keep them engaged, but not too much to make intrapreneurial behavior impossible: “Deadlines are tight. It pushes me to keep going and not slow down. (f2 p1)”

**Agency and structure dynamic during the internship**

While the above-mentioned agency and structure factors each impact ISE in interns, some factors play a greater role in certain phases of the internship. Certain structure and agency
factors can set a gain spiral in motion and strengthen one another, while other structure factors at the start rather undermine the creation of agency. In general, our interns identified three large internship phases; first, a phase in which students are “getting acquainted” with their new context and are learning the formal and informal practices. Second, as their knowledge of their environment increases (e.g. people, procedures, rules, habits), they receive less defined tasks and more autonomy. This leads to an “exploration and (potential) change in ISE”, depending on the specific agency and structure factors at hand. Last, as the end of their internship approaches, students no longer describe any evolution in ISE (which thus remains stable at that point), but rather focus on getting things done and “wrapping up”. In the description below, the authors will discuss how agency and structure play a role during all three phases.

Phase 1: getting acquainted. At the start of their internship, all interns had the intention to act intraprendually, even for those feeling less naturally inclined to do so: “I am not one to jump on tables. I usually observe calmly. However, during my selection, they put so much emphasis on me taking initiative, I realized I would have to step up my game for the next seven months. (f6 p7)” Most attributed this externally by referring to the requirements of the university, the expectations of the organization, or what they presumed would be requested of them in the job market after graduation. However, for most this went hand in hand with their desire to learn: “The best way for me to get the most I can out of this internship is to take action and be intrapreneurial. This should prepare me best for the future. (f7 p1)”

Looking at the experiences of the growth and the stable group, some differences in agency and structure occur. The students from the stable group report more explicit expectations from their supervisor, which sometimes came as a surprise to them: “When my boss initially told me she wanted me to take more initiative, all I could think was ‘No, I’m not ready for that’. I just ignored her and kept to the more specific tasks I received. (f6 p9)” Furthermore, these students feel hampered by their role as intern and their juniority: “All processes in my company seemed so well developed. It seemed perfect. Even if I would have wanted it, I felt that as a student, I would not be able to add to this. (f1 p8)” This group describes this first phase as one where they feel tested about their competencies and whether or not they fit in the organization. Especially when they are “tossed in the deep end of the pool”, they will do their very best to swim, but will feel very unhappy or uncomfortable doing so. “In the beginning, it felt as if they were constantly trying to test me. They would give me a task, and just see how I was doing, without giving any positive or negative feedback at all. I was incredibly insecure and had no idea if I was doing well or not. Even when they told me afterwards that it was their way to see what I liked and what I was able of, and that I had done great every step of the way, I just continued to feel uncomfortable. (f1 p8)” Some did try to overcome this feeling, only to be shot down when they came with a first idea, only validating their negative ISE: “All ideas I came up with were simply shot down because they were out of the scope of an internship or not interesting to them. That did not help me to try again afterwards. (f4 p3)”

The growth group more often report lacking knowledge as a great inhibitor: “In the beginning, you do not really know the company, how things are done, whom to talk to for what, which ideas they’ve tried in the past, etc. So I lacked the knowledge to even know how to make a contribution. (f2 p4)” However, they also report that particularly at this stage, their supervisor really supported them, by letting them know that it was perfectly okay and understandable to need some warming up time. Additionally, these supervisors proactively started them off with smaller and defined tasks to help their sense of achievement without being pushed out of their comfort zone: “The start was slowly and well defined which helped me to better understand my environment and come out of my shell (f6 p7)” and when the interns came with new initiatives, this was welcomed and encouraged.

Phase 2: exploration and (potential) change in ISE. Once the interns start to feel more at home in the organization, the second phase starts. The stable group suffers from self-
censoring and a lack of ISE. They indicate that even though they have acquired more knowledge by then, this does not have the advantages that they initially thought: “Once I felt more at home and felt that I knew the organization better, I was so preoccupied with my tasks that I did not really find the time anymore to critically observe my surroundings. Even though I did know that some things were not ideal, I also felt stuck in a routine. I found it almost impossible to think outside the box. (f1 p3)” And even those who do try to take initiative get the feeling, or get told, that it is not enough: “When I took initiative, they were enthusiastic. The second time not so much anymore. If I want to get a reaction I would have to go above and beyond. (f3 p7)”

For the growth group, however, this is the phase where they start taking more initiative. Some interns felt that if they wanted to take action it was “now or never”. Others were unsatisfied with their current tasks and felt that if they do not take it upon themselves, they would do the same tasks until the end of their internship: “When I had learned enough, I proactively told my boss it was time to let me work on projects independently and unsupervised. (f1 p5)” Concurrently, there is a shift in the description and nature of tasks: “All of a sudden I noticed that a difference in my task descriptions. Beforehand they would have given me clear expectations, described the process steps and would have shared their ideas during my work. Now, they just made some vague initial description and expected a decent end result. (f6 p8)” Similarly, interns receive more and more personal responsibility for specific projects. As a result, the threshold to start taking initiative decreases.

When interns take initiative and this leads to a well-executed result, this is often met by positive comments and feedback of supervisors or colleagues. While at first they get their motivation from the approval of their supervisor, colleagues or even through the expectation that it will result in good grades, after a while this starts to change. Confronted with their changed new self-image, a majority start to feel more intrinsically motivated, too: “In the beginning I sometimes caught myself thinking I needed to be proactive in order to obtain good grades for my internship. However, after a while I started to enjoy it and I just started doing so to keep feeling the rush I get when I successfully take initiative. (f7 p6)” Some interns even seem to have incorporated this new behavior in their day-to-day habits: “Now I feel that I keep continuously focusing on new ideas. Every time that I start something new, I start thinking about how I can do things differently.” Through taking initiative, they experience small successes, launching an ISE gain spiral. These positive experiences even make them somewhat resilient to future negative occurrences: “The projects that allow me to provide a creative solution for a satisfied customer really give me energy. When I then work on a project where customers are constantly nitpicking and have a super specific focus it does not feel that bad because I just think of my other good experiences. The good sort of gives me a buffer for bad things to occur. (f1 p7)”

Phase 3: wrapping up. In the final phase, interns feel that the end of their internship is nearing. As a result, they shift their focus and no longer seek to start new projects or new ideas, but rather try to finish everything they started and bring things to a great end. However, given the focus on their end date (which serves as a finite deadline) and their changed attitude, this translates less in actual innovative behaviors. Generating new ideas themselves only results in more work and is thus not ideal: “Before I was always enthusiastic about new tasks, but now I do not want to start something that I cannot finish. So I’m just finishing my current projects. If someone pitches me something new, I’m just declining. (f2 p1)” Additionally, feedback in this last phase seems to have less of an impact on their self-image “By the end of my internship I felt a lot more confident in my own abilities. I had stepped out of my comfort zone and proved to myself that I could be intrapreneurial if I wanted to. (f3 p7)”

Given this focus on finishing things, interns in their last phase become more focused on wrapping up (cognitive closure) and become less susceptible to their environment. Supervisors further strengthen this tendency as they tend to emphasize the importance of
finishing the work at hand, rather than doing something new which would further broaden their perspective or be perceived as a new stressful task. Accordingly, the level of ISE that has been established throughout phase two seems to remain stable in phase three with no specific agency or structure factors impacting ISE in this phase for either group.

Discussion
Building on insights from the employability literature, this qualitative study aimed to provide a better understanding of how ISE develops during internships and the role agency and structure play in shaping this process. Teaching young graduates intrapreneurial skills is crucial to enable them to safeguard their future and build a sustainable career in today’s labor market. Organizations are inclined to attract young employees in the expectation that they will increase or re-boost the company’s entrepreneurial orientation (Posthuma and Campion, 2008). At the same time, the labor market offers increasingly less stability and the number of self-employed workers keeps rising (Bosma et al., 2020). Similar behaviors underly being entrepreneurial and being intrapreneurial, and entrepreneurial individuals have been found to alternate between working as an entrepreneur or as an intrapreneur, both at the start of their careers (Luthje and Franke, 2003) and later on (Kacperczyk, 2012).

Results confirmed that all students who started their internship were aware of the university’s requirements and the company’s expectations of student’s intrapreneurial behavior, and defined it in a way that was congruent with the definitions in the literature, including having a critical attitude and coming up with creative or innovative solutions. Some students already showed a natural inclination to act intrapreneurally and had high entrance levels of ISE. Because the authors are interested in how ISE develops, this study only focused on those students who started their internship with a low entrance level of ISE. Within this group, the authors compared students showing increasing vs stable low levels of ISE, in order to understand the mechanisms explaining growth and gain insights into how to stimulate (or perhaps advise against) an intrapreneurial career.

In general, students with low entrance levels of ISE experienced the start of the internship as stressful and felt insecure. Noteworthy, the growth group far more often recognized agency factors that they considered to be necessary to be intrapreneurial than the low growth group did. The most often mentioned agency factors were general business knowledge, need for autonomy and an entrepreneurial attitude. Students found it difficult to develop a critical attitude toward their environment and formulate potential points for improvement, without sufficient content knowledge or understanding of how things work at their company. At the start of their internship, students were very self-conscious about their own potential lack of competency and tended to self-censor their ideas. Two other agency factors that were mentioned less often, and by both the growth and stable group, were an internal locus of control and the need to belong to an (intrapreneurial) team. Even though intrapreneurs have more often been described as lone wolves (Courpasson et al., 2016), the other agency factors students mentioned solely relate to two out of the five entrepreneurial agency, i.e. ability and motivation (McMullen et al., 2020). Whether the high growth group mentioned agency factors more often than the low growth group because of the students’ personality, personal style or whether it may have been stimulated by the environment cannot be concluded based on the current study (Grant and Ashford, 2008). However, from an experiential learning perspective, students’ awareness of the agency factors they need to have or develop can be considered an important first step in the learning process (Kolb, 2015).

As concerns structure factors, the interns mentioned job characteristics, such as decision latitude, supervisor support and feedback, accountability, task relevance, task tangibility and tolerance for mistakes. These characteristics can be labeled motivational job characteristics (Morgeson and Humphrey, 2006) or job resources (Bakker and Demerouti, 2016).
Role ambiguity, and both time pressure and boredom were mentioned as demotivating factors. The factors that are mentioned are mostly in line with those mentioned in the employee innovation and intrapreneurship literature, except for role ambiguity. Some studies have shown that role ambiguity can also provide leeway for employees’ intrapreneurial and innovative behavior (Grant and Parker, 2009; Parker and Wang, 2015). Moreover, in contrast to the literature, which indicates that clearly communicating intrapreneurial expectations are a precondition for employee innovative behavior (Ramamoorthy et al., 2005) the interns rather indicated that this had a paralyzing effect. Possibly, role ambiguity and intrapreneurial demands only stimulate more experienced employees with stronger agency factors.

Differences in the way the growth and stable group respond to structure factors provide a deeper understanding. The growth group indicated they learned to cope with role ambiguity through observing the situation and being assigned smaller tasks, which helped them gain a sense of self-efficacy. They carefully started developing new ideas and new projects, as their ISE grew. What further helped them was a supportive relationship with their supervisor and co-workers, who helped make tasks more tangible at the start. By contrast, the stable group did not perceive their environment as supportive. They perceived a more explicit demand to be intrapreneurial, and continuously felt they were being tested. Their workload was either too low or too high, because of which they lost themselves in routines that hindered them in developing new initiatives.

This study makes three main theoretical contributions. First, the authors add to the knowledge of entrepreneurship education. While ample studies have investigated different educational methods for encouraging and learning entrepreneurship, to our knowledge, no studies have investigated how to facilitate ISE in students. Additionally, of the many studies on entrepreneurship education, only a handful investigated internships (Sirelkhatim and Gangi, 2015). This is particularly surprising because this same review found that teaching methods that encourage students to “live” entrepreneurship yield the best impact. Our study demonstrates the importance of internships for growing ISE in graduates. Moreover, our study also indicates what conditions an internship should meet to provide students with a real learning experience (e.g. long enough to allow for enough agency building and experimentation with ISE and including an intrapreneurial project).

Second, our results show a broader applicability of job design models than has hitherto been assumed. Although job design models also touch upon the learning and growth potential of certain work environments, the actual mechanisms nor agency differences behind employees’ learning processes, have received much attention in this literature. So-called job resources have received ample attention as predictors of positive motivational states (e.g. work engagement; Bakker and Demerouti, 2016), job crafting behaviors (e.g. Bakker et al., 2012) and intrapreneurship (e.g. Gawke et al., 2017). The structure factors the authors found however, only partly overlap with those job resources mentioned in the literature as triggers for proactivity in general, and moreover, also appear to work differently, such as ambiguity and accountability (Grant and Parker, 2009; Parker and Wang, 2015). The authors thus add to previous knowledge by showing that personal differences or background (i.e. ISE) by itself colors interns’ appraisals of structure as being either motivational or threatening (Jumelet et al., 2020).

Third, in Shapero’s model of the entrepreneurial event, the importance of a critical, precipitating event that disrupts the status quo and triggers actual entrepreneurial behavior is emphasized (Krueger et al., 2000). This study did not show evidence for an acute triggering event (apart from starting as an intern). More saliently, this study emphasized the role of the social environment. Results indicated that in order to promote intrapreneurship in novices, descriptive norms based on the belief of what a sufficient number of (important) others do in the team or organization, rather than injunctive norms that indicate what one “ought” to do might be more effective (Bicchieri, 2006). Being part of an intrapreneurial team is seen as
motivating, rather than being called to action by the supervisor. In the Proactive Motivation Theory (Parker and Wang, 2015), this is labeled “reason to” motivation (i.e. the compelling rationale to be proactive). Future studies can be advised to investigate such reason to motivations for intrapreneurial behavior in combination with “can do” (e.g. self-efficacy beliefs) and “energized to” motivation (positive affective states).

Last, in bridging literature on E/IE and (graduates’) employability, the authors advance research in both research streams. On the one hand, using E/IE research, the authors have demonstrated that providing insight in the small steps within the process of education and training and the development of ISE can enhance individuals’ opportunities, chances of success and sustainability on the labor market (Pardo-Garcia and Barac, 2020). Alternatively, focusing on ISE is relatively new in both E/IE and graduate employability research. Our respondents indicate that they do consider ISE to help with their employability. Our study thus benefit the graduate employability field by giving insight into the composition of essential skills and competencies for graduate employability and by determining which factors bear the most contribution and are thus the most essential and promising for future transfer and intrapreneurship (cf. Bell, 2016).

The results of this study also have important practical implications. Studies indicated the potential of entrepreneurship education through a focus on entrepreneurial self-efficacy (e.g. Florin et al., 2007). Our findings indicate the potential for E/IE by focusing on ISE. Students, who do not have a high entrance level of ISE, benefit from an environment with an entrepreneurial climate that provides a high descriptive social norm for intrapreneurship and sufficient peer/colleague support. It is also important that supervisors create role clarity, break up the job into meaningful, but tangible tasks, and keep the workload manageable, but not too low. This should help students in achieving small successes, which helps grow their ISE. For example, they could be specifically given an assignment to improve a specific procedure and be complimented for asking critical questions. This would prevent them from starting more routine tasks that later on hinder them in being intrapreneurial. Once students have developed higher levels of ISE, it may be beneficial to start challenging them to be intrapreneurial to help them get to the next level. Additionally, students benefit from receiving a company-specific knowledge-based introduction, after which they are told they now have all relevant information to really get started. Internships – wanting to stimulate ISE – are advised to be long enough (at least five months to be able to pass through the first and second stage) and include an intrapreneurial focus (e.g. project).

Conclusion
The authors identified three aspects that limit the conclusions of our study. First, as the goal of this study was to gain a better understanding of ISE growth, development of entrepreneurial behavior and agency and structure factors at play, the authors used a relatively open qualitative research design. The impact of several relevant factors on ISE and intrapreneurial behavior emerged from the data. These results would be interesting to quantify. Further quantitative studies could, for example, explore underlying explanatory mechanisms of motivational processes vs energy depletion processes using an integration of employability and job design theories.

Second, even though the authors depicted trends throughout time and a temporal lens, our data were collected during focus group interviews at one point in time. This comes with the risk of biases, such as hindsight bias and attribution bias. For a next study, it would be interesting to collect data at several points in time during the internship. As optimal time lags “should be considered within the broader question of when events occur, when they change, and how quickly they change” (Dormann and Griffin, 2015, p. 491), and based on capturing the theoretical process that is consistent with the temporal change being investigated (Collins, 2006), at least
three two-month intervals would be advised to study interns who do a six-month internship. A future study could also include a follow-up to investigate links with actual intrapreneurial behavior in the first job.

Third, although data were collected among a relatively large and diverse group of graduate students doing an internship across different work contexts, they were all university students from one large university, studying for the same major. Whether results would generalize across other samples, such as students with vocational training or students from different regions or countries, remains unknown. Because of the specific context of the internships in this study that demanded intrapreneurial behavior, it also remains unknown whether internships would increase intrapreneurial-related ISE in case intrapreneurship would not actively be communicated as a performance criterion. Furthermore, new graduates just starting a job might face the same challenges and suffer from the same insecurities as interns. However, given their different role in the organization, this could still prove different. Future research could further investigate the genesis and development of intrapreneurial behavior and ISE in different samples and for different types of internships.

The current study shows how the work context at internship hosting companies can impact the genesis and development of ISE in students. Focusing on the agency and structure factors that are experienced during internships, this study explored the critical first learning stages of intrapreneurship of students who had low entrance levels of ISE. Results show that students who developed entrepreneurial self-efficacy over time recognized more agency factors – knowledge, autonomy and attitude – deemed necessary to be intrapreneurial than the low growth group did, which indicates that creating awareness of necessary agency factors is an important first step. As concerns structure factors, decision latitude, supervisor support and feedback, accountability, task relevance, task tangibility and tolerance for mistakes were mentioned as motivators. Structure factors that have been identified as motivators of innovative behavior and intrapreneurship in studies among more experienced samples, such as accountability and ambiguity, emerged as demotivating factors for interns.

Note
1. For anonymity reasons the authors did not mention names in specific quotes. Identifiable information (e.g. project and company names) was also taken out. The authors do however mention a code at each quote, which refers to the focus group (f) and participant of that focus group (p).

References


Appendix

Interview questions

(1) How would you define intrapreneurial behavior?

(2) To what extent are you supposed/expected in your job as an intern to be intrapreneurial?
   • Can you give an example of this?
Did you know this in advance?
  – From what could you deduce it from?
  – Do you think this has an added value?

(3) Do you find it easy to meet this requirement (to be entrepreneurial)?
  – Why or not?
    – How do you feel about this?
    – Does this just give stress or energy?

(4) To what degree do you feel comfortable/confident acting intrapreneurial?
  – Can you give an example of this?
  – Did this change during your internship? If so, describe this evolution.

(5) What is the effect if you engage in intrapreneurial behavior?
  – Can you give an example of this?
  – Would this help you cope with future challenges?
  – Do you think this will give you a better future?

(6) Are there elements that make entrepreneurial behavior easier or more difficult for you?
  – E.g. within yourself, culture of the organization, leader, etc.
  – Did this change during your internship?

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