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Publication date

2022

Document Version

Final published version

[Link to publication](#)

Citation for published version (APA):

Stoker, S., & Martens, J. (2022). *“Is there a fit?”: An investigation of gendered vocabulary in entrepreneurship education and its effect on students*. Paper presented at 3E 2022 - Entrepreneurship Education Excellence: from Outcome Assessment to Individual and Societal Impacts , Dijon, France.



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Title: “Is there a fit?”

An investigation of gendered vocabulary in entrepreneurship education and its effect on students

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Key words: Entrepreneurial education (EE), Social Role Theory (SRT), role models, gender bias and gender stereotypes.

Question we care about

While debates are ongoing about the actual effectiveness and success of EE in general, evidence suggests that EE is attracting more male than female students, and that female students who do participate in EE, are relatively less likely to engage in entrepreneurial careers. A possible explanation might be that the dominant narrative that is being shared in EE remains rather masculine. Consequently, female students may insufficiently recognize themselves as potential future entrepreneurs. Furthermore, the different ways in which male and female entrepreneurs are generally perceived, approached and treated in the entrepreneurial ecosystems which seems hardly addressed in classrooms. By ignoring these gendered entrepreneurial challenges female students might be less prepared for a career path as entrepreneur. This leads to the question: *how does EE prepare female students to overcome barriers within entrepreneurial career?*

Approach

First, a literature review was conducted on the obstacles that female entrepreneurs experience within the ecosystem and the attention paid to it within entrepreneurship education. Next, in-depth interviews were conducted with EE (graduated) students (n=35). They were recruited via a snowball method using our network of EE educators at various HEI's in the region of Amsterdam. We used a semi-structured topic list focused on entrepreneurial characteristics, role models, networks and classroom social safety topics and the gender situations within, and how they were stimulated to become (potential) entrepreneurs. Subsequently, interview transcripts were deductively coded.

Results

Most of the students interviewed mentioned stereotypical ideas (unconscious) about gender roles, which makes them wonder whether, as female students, they have the right skills for successful entrepreneurship. This is because entrepreneurship in education is educated with male characteristics such as risk-taking, profit (maximization) and having guts. The female students indicate that 'how to' access to the right network, but also the obstacles that women might encounter are not discussed in the lessons. The additional obstacles for women in obtaining funding are not discussed either. In their experience, in EE little attention is paid to the wider ecosystem including institutional parties, important networks, and stakeholders.

Implications

Our findings point to the importance of addressing gendered obstacles that (potential) female entrepreneurs may face in EE. This study shows that this is due to two facets. On the one insufficient attention within EE is paid to the gendered challenges experienced in the ecosystem. Secondly, because EE is masculine in its approach, female students feel less invited by the language used and they hardly see any relatable role models. Ignoring and/or even denying gendered obstacles does not create resilience for all students.

Value/originality

Our study contributes to the broader domain of EE by focusing on the underexplored role of gender in approach and narrative. Our findings offer initial explanations as to why the underrepresentation of female students and female graduates persists to this day. As such these insights offer guidelines for educators to come up with novel practices that are better geared towards stimulating female students for an entrepreneurial career.

Introduction

Since gender equality contributes to economic growth and social progress by promoting women's social and economic participation (Gawel, 2021; Woetzel et al., 2015) it is surprising that women entrepreneurs still comprise only about 30% of entrepreneur (Bosma et al., 2021). This gender gap in entrepreneurship has typically been understood through women's structural disadvantages in acquiring the resources relevant for successful business ownership (Dileo & García-Pereiro, 2018; Kelley et al., 2017; Williams & McGregor, 2021) and women entrepreneurs around the world tend to be younger, poorer and less educated than men entrepreneurs (Bosma et al., 2021).

As the development of entrepreneurial mindsets is currently deemed important for all professions, entrepreneurship education (EE) is increasingly taught across Higher Educational Institutions (HEIs). While debates are ongoing about the actual effectiveness and success of EE in general, evidence suggests that EE is attracting twice as many males than females' students, and that female students who do participate in EE, are relatively less likely to engage in entrepreneurial careers (Westhead & Solesvik, 2016). Since female students account for more than half of the current population at HEI's graduates, though their underrepresented in EE creating a gender imbalance in classes. EE programs that do have a gender balance in class have a significant and positive impact on all graduates' likelihood of engaging in start-up activity post-graduation (Hägg et al., 2022).

The current gender imbalance in EE constitutes a problem which calls for a critical analysis of current EE practices considering their appropriateness to attract and prepare female students for (potential) entrepreneurial careers. EE students generally report high intention, but EE did not unequivocally benefit all participants and indeed female EE students were significantly less likely to report high entrepreneurial intention (Westhead & Solesvik, 2016). Though policy, research, and educational contexts positions entrepreneurship as meritocratic and open to all (Jones, 2015), a possible explanation might be that the dominant narrative that is being shared in EE remains rather masculine (Bui et al., 2018; Stoker et al., 2021) and it is not a meritocratic form of endeavor (Jones, 2015). Examples and role models that are being portrayed include mostly male founders, and the entrepreneurial vocabulary is riddled with concepts that are more masculine such as competition, growth, and success (Crijns & Tilleuil, 2009). Consequently, female students may insufficiently recognize themselves as potential future entrepreneurs (Hentschel et al., 2018).

Furthermore, the different ways in which male and female entrepreneurs are generally perceived, approached, and treated in the entrepreneurial ecosystems which seems hardly addressed in classrooms (Swail & Marlow, 2018). By ignoring these gendered entrepreneurial challenges and barriers female students might be less prepared for a carrier path as entrepreneur and it can be concluded that the benefits of EE are not the same for female and male EE students (Westhead & Solesvik, 2016). Given that few people will not become entrepreneurs under any circumstances and few people will become entrepreneurs under all circumstances, a large majority of us "will become entrepreneurs under certain circumstances" (Sarasvathy, 2004, p. 709). Thus, according to Sarasvathy we should refocus research on the barriers to entrepreneurship rather than on motivations and incentives. This leads to the main research question: *how does EE prepare female students to overcome barriers within entrepreneurial career?*

To be able to answer the main research question, sections 2 and 3 will provide a theoretical background on the effects of gender within entrepreneurial education. The method and data collection are elaborated within Section 4. Next, the results are presented along with a discussion resulting in a model and finally the paper provides conclusions and areas for further research in this nascent intersectional research field.

Theoretical background

Bird & Bush (2002) point out in their study that there is a difference between gender and sex even though within the literature it is often confused as the same. The term sex refers to a biological difference between male or female where gender refers to masculine and feminine characteristics. Therefore, a distinction is made within the literature between different perspectives of gender (Ahl, 2006a). In recent years, there is a notable shift in gender and entrepreneurship literature towards a post-structural feminism as the main theoretical approach (Hendry, Foss, Ahl, 2016), which entails that the differences and similarities between men and women are seen as being socially constructed (Ahl, 2006, p. 597). From this perspective it is not interesting what women and men are, but how the feminine and masculine are constructed, and its impact on the social order. Following this perspective, in our study we use the term gender as a part of a gender role socialization which describes masculine and feminine characteristics and is therefore a social construct.

Social Role Theory

To better understand the origin of gender roles and their implications of entrepreneurial intentions Social Role Theory (SRT) was developed. According to Wood and Eagly (2002) gender roles describe women to that they are expected to convey friendliness, as well as being caring, self-sacrificing, submissive, and compassionate, while their male counterparts are categorized as aggressive, dominant, ambitious, decisive, and independent. These authors elaborated on their initial work (Eagly, 1987) regarding Social Role Theory and found a distinct alignment between the perceived necessary skillset of a leader and the male gender role, ultimately creating a mismatch with the female gender role. According to SRT, societal values may affect gender stereotypes in terms of the ideal types of jobs for men and women. Moreover, the theory insists that women have a higher tendency to conform to societal roles (Thébaud, 2010). Since entrepreneurship is a gendered phenomenon, where masculinity overtrumps femininity (Ahl & Marlow, 2012) it is considered a suitable job for man, and it entails a lot of masculine characteristics. As a result, women might feel less invited to start working in the field of entrepreneurship and even after women pursue entrepreneurship as a work strategy, they are still much less likely than men to believe they are competent as an entrepreneur (Thébaud, 2010). Thébaud's study points out that gender status beliefs provide a basis for self-evaluations since there is no objective, collective criteria that makes a person suitable as an entrepreneur (2010). To reconcile these contradictory roles women are required to engage in specific forms of gender identity work to demonstrate characteristics which confound their feminine subject, and there is an opportunity to ameliorate this dissonance that exists between being a woman and being an entrepreneur (Swail & Marlow, 2018).

Gender in entrepreneurship education

Since female students account for more than half of the current population at HEI's graduates, though they are underrepresented in EE. This constitutes a problem which calls for a theoretical background of EE practices considering their appropriateness to attract and prepare female students for entrepreneurial careers. To understand the effects of gender in the learning process of different types of students pre, during and post EE practices are considered in this section and the educational vocabulary used within.

Educational vocabulary used in education entrepreneurship as a profession is positioned as meritocratic and open to all (Jones, 2015), though paradoxically the literature shows a tension that arises within EE from gender differences that must be considered. One of the things that create this tension is the narrative within curricula of the ‘white heroic male’ entrepreneurs (Jones, 2015; Westhead and Solesvik, 2015) creating real effects in bias and stereotypes “othering” those who do not represent this persist image of an entrepreneur. This persistent stereotype of the ‘heroic white male’ entrepreneur indirectly suggests that women do not understand the opportunities that entrepreneurship might offer, and do not have the necessary confidence or knowledge compared to their male counterparts which is emphasized by this normalization of the ‘white heroic male’ entrepreneur in documents for instance (Jones, 2015). This means whilst they certainly must pursue legitimacy, they are not required to undertake self-reflection upon their gender identity and how this positions them since maleness and entrepreneurship is a normative combination (Swail & Marlow, 2018) and the narrative of entrepreneurs has been built around this normative combination.

Pre-educational practices are found at the start of the courses for instance in-class gender balance. In-class gender balance can serve to change the perceptions of and discourse on who might be a prospective entrepreneur (Jones, 2014) and also challenge taken for granted norms that developed over time (Hägg et al., 2022) arguing mixed-balanced classes are beneficial for all EE-students even though there is little acknowledgement how representation may influence perceptions and/or acts as barriers (Jones, 2015). Research from Hägg et al. (2022) suggests that, besides the form of EE, student gender balance in class has also a significant and positive impact on students’ likelihood of engaging in start-up activity post-graduation and it is important to know that improved gender balance is not only beneficial to the underrepresented gender (2022).

Educational practices within entrepreneurship education aim to create to serve all students attending and wants to raise entrepreneurial intentions equally between its students, EE may need to be tailored to different types of students (women and men) (Westhead & Solesvik, 2016) and include real-world issues (like the effects of gender on an entrepreneurial carrier) in class because the learning experience of all students are enriched when projects deal with real-world issues (Cascavilla et al., 2022). This ‘lack of fit’ argument if one of the reasons there may be a case for female-only EE classes that are taught by female entrepreneurs and female practitioner guest speakers who can promote female entrepreneurship by overcoming this lack of fit in relation to the entrepreneurial process (Gupta et al., 2009). However, a ‘women only’ proxy for women students could potentially further emphasize the ‘otherness’ of women and their lack of fit with being entrepreneurs too (Westhead & Solesvik, 2016). Additionally, Thebaud’s (2010) study points out that gender status beliefs provide a basis for self-evaluations since there is no objective, collective criteria that makes a person suitable as an entrepreneur meaning female students tent to evaluate their competences already less suitable based on just being a female student this learning environment.

Post-educational practices are for instance when female students experience different learning outcomes compared to male students. Additionally, female students report poorer learning results from the education (Ferrerias-Garcia et al., 2021), lower entrepreneurial intentions (Wilson et al., 2007) and are less likely to start their own venture later as adults (Dabic et al., 2012; Johansen, 2015).

Additionally, research from Wilson, Kickul and Marlino (2007) point to that fact that EE is critically important to raise entrepreneurial self-efficacy amongst female students but that this is not enough to increase their actual entrepreneurial intentions and behaviors later on. Since entrepreneurship is a gendered phenomenon, where masculinity overtrumps femininity (Ahl & Marlow, 2012) and it is considered a suitable job for man as a result, women might feel less invited to start working in the field of entrepreneurship and even after women pursue entrepreneurship as a work strategy, they are still much less likely than men to believe they are competent as an entrepreneur (Thébaud, 2010). Following these theoretical insights – that there is a lack of fit within educational practices the following proposition is formulated:

Proposition 1. “There is a lack of fit between the female students and entrepreneurial (pre, during, post) educational practices”

The importance of networks, role models and the effects on gender stereotypes

Several studies have highlighted the importance role models as part of the networks within EE (Barnir, 2020; Hägg et al., 2022; Jones & Underwood, 2017). The learning context in a venture creation program consists of a group of students and the faculty that often includes practicing entrepreneurs who may act as role models for the students (Hägg et al., 2022). Additionally different role models have the potential to increase student interest in a subject like entrepreneurship (Bettinger & Long, 2005) and ultimately can disrupt the effects of gender stereotypes (Barnir, 2020).

The importance of networks in entrepreneurship education

Networks have an important role to play in obtaining information, in getting help and in being available for new (business) contacts (Martens, 2020). Networking is relevant not only in the early stages of a venture, but also in other stages, for example to obtain access to finance or other resources beneficial as an entrepreneur (Martens, 2020). For students in EE, it is important to understand the role and importance of creating a valuable network as an entrepreneur. A good network can kick start your venture because it provides (moral) support and encouragement to build self-confidence, but it also gives you access to different sources for financial support (Pugalia et al., 2020). Pugalia et al. (2020) addressed the importance of networking, but this study did not look at differences in networking between women and men.

Access to networks is not equal for women entrepreneurs compared to male entrepreneurs, and the literature shows that on the one hand women face exclusion from networks and on the other hand are not always familiar with the relevant networks within their field (Martens, 2020). It could be concluded therefore that women entrepreneurs have different networks than male entrepreneurs (Kepler et al., 2007), which means different information and different type of help reaches them, and they may have less access to contacts that could be important to them. In general, women's networks are considered less valuable (by both men and women) because of the limited number of contacts they have and the value of these contacts (Stuart & Sorenson, 2005). In conclusion, networks are important not only because they make necessary resources more available but also because relevant role models are available through networks.

The importance of role models in entrepreneurship education and the effects on gender stereotypes

The research of Laviolette et al. (2012) shows in their experimental study on 276 French students that successful role models reinforce role model identification and generate favorable attitudes toward the message, thus enhancing self-efficacy and entrepreneurial intention. On the other hand, unsuccessful entrepreneurial role models also favorably reinforce the relationship between self-efficacy and entrepreneurial intention. Moreover, their study indicates that the gender of the role model had a stronger moderating effect for women than for men participants and confirms that women are much more sensitive than men to the presence of same-gender role models, particularly for masculine professional occupations (Laviolette et al., 2012, p. 733). Something that is also shown by the work of Barnir (2020) who's research indicates that having women as role models and in one's work unit can disrupt the effects of gender stereotypes. One of the risks in the use of role models or other forms of external experts is that it positions their practical knowledge over academic knowledge, suggesting that entrepreneurship cannot be learned but is an innate behavior (Jones, 2015, p. 245). It calls on the need for EE educators to ensure that all EE is (more) sensitive in their approach, which relates to a diverse range of role models, case studies and industry sectors, and it focuses upon critical engagement with entrepreneurship theories that do not solely focus on the personality traits and behavior of the dominant stereotype of the 'white heroic male' entrepreneur (Westhead & Solesvik, 2016).

If these insights from the literature on the importance of gender balance in networks and for role models - to strengthen role model identification for all genders and to reduce prejudice and stereotypes - are extended to EE, we would expect that understanding networks and a diverse range of role models would generate favorable attitudes towards entrepreneurship as a profession among all students. This leads to the following proposition:

Proposition 2. There should be attention within EE to gender balance in networks and availability of role models to generate favorable attitudes towards entrepreneurship as a profession

Method

The theoretical background gives an insight in the effects of the dissonance that exists between being a woman and being an entrepreneur (Swail & Marlow, 2018). Additionally, the focus of the analysis is whether this dissonance is incorporated within entrepreneurial education and which effects this has on the preparation of female students for a career in entrepreneurship. Using an interpretative phenomenological analysis (IPA), which is a type of analysis that explores in detail how participants are making sense of their personal and social world, and examines the meanings of experiences, events, states hold for participants (Smith & Osborn, 2012). According to Smith & Osborn, 2012, the aim of an IPA-analysis is to try to understand the content and complexity of those meanings rather than measure their frequency.

Data and sample

For this study data were collected via a snowball method at a few different large, public institutes of higher education (both Bachelor and Master) in the Netherlands. Since studies argue the need to move beyond a focus on 'average students' (Westhead & Solesvik, 2016, p. 996) the in-depth interviews (t = 60 minutes on average) were with 35 entrepreneurship alumni or students based on a snowball sample from amongst a group of entrepreneurship students active at different type of faculties ranging from Business and Economics to Health care, and from Technology to Creative Industries.

The interviewees were selected so we would obtain a balanced division in terms of gender, students versus alumni, level of education (bachelor versus master) as well as a spread across the different faculties. Interviews were conducted in the spring of 2021, in an online setting (due to corona situation). All interviews were taped for transcription. All interviews were guided by an interview protocol which included semi-structured questions and interview topics to facilitate cross-interview comparisons. Using semi-structured interviews facilitates rapport/empathy with the respondent, allows a greater flexibility of coverage and allows the interview to go into novel areas, and it tends to produce richer data (Smith & Osborn, 2012). The questions pertained to the nature of course taught by the educators as well as of the student-population participating in the course. Also, questions were asked about the respondents' views of on entrepreneurial characteristics, role models, networks, and the gender situations within, and how they were stimulated to become (potential) entrepreneurs. These interviews enabled us to 1) developing insight into gendering in EE at the investigated institution and 2) how EE stimulates female entrepreneurs. We used a semi-structured topic list focused on entrepreneurial characteristics, role models, networks and classroom social safety topics and the gender situations within, and how they were stimulated to become (potential) entrepreneurs. Subsequently, interview transcripts were deductively coded looking for themes and afterwards trying to connect the different themes as common for an IPA-analysis (Smith & Osborn, 2012), to develop an insight into the gender effects of EE at the investigated institution.

Results

Proposition 1. “There is a lack of fit between the female students and EE”

The lack of practical elements within EE, such as contacting the Chamber of Commerce and/or filing tax returns, is reported as a major failing in entrepreneurship education by the respondents. Although not all students aspire to a career in entrepreneurship, those who do express the ambition, want to feel supported by their environment as they do so. Students, both female and male students, indicate that gender aspects are not discussed in entrepreneurship education. Occasionally, it is hesitantly mentioned that there may be opportunity for this, but then it is still indicated by the respondents that it is not being discussed. There is no discussion of the barriers that women may encounter or of the differences between women and men in entrepreneurship that are already known. Nor is there any discussion of aspects such as women who want to start a business being taken less seriously (by for instance venture capitalists (Malmström et al., 2018).

No, no. I don't think so, actually, while I have also heard people say that, well, maybe women are sometimes taken less seriously by men, so to speak. But then again, we haven't had much lessons about that ourselves (respondent AP).

Based on the interviews, respondents indicate that the ratio of m/f/x students in the classes appears to be unequal in various educational institutions with mostly white male students in general. In the classes, female students and students with a diverse ethnic background are a minority. Even though female students are generally in the minority, there is no direct gender discrimination experienced by them. The same can be seen with students from other ethnic backgrounds. Here too, several students indicate in their interviews that there is underrepresentation but no direct discrimination. Students do think, however, that people with a non-Dutch name have a harder time in a few areas, such as when applying for a job or obtaining financial resources. Remarkably, they do indicate that female students are judged differently and must perform before taken seriously by their other classmates' indication a form of discrimination. These implicit prejudices and behavior seem to indicate the presence of microaggressions.

Microaggressions are small verbal or non-verbal expressions based on implicit assumptions that may not only be experienced as hurtful or insulting, but also indirectly perpetuate stereotypes and inequality. Examples can be traced back to gender-specific tasks assigned to female students, such as the communication role. For many of the students, stereotypes about men and women still exist, with references to women not having the right skills for successful entrepreneurship. A student explained that her male educator made the following comment:

“There are always a few blonde psychology girls, who come from the bachelor Psychology, and they always have a hard time with it, so they drop out. But anyway, that’s just natural selection, right?” (Experience from a female alumnus; AE001)

On the one hand, it is recognized that there are differences in entrepreneurial opportunities, but on the other hand, this is not discussed in education.

Well, actually, it is not so bad. The women who are on our study program are perhaps a little less outgoing – they are actually all women who are outspoken and stand up for their own opinions. And they are not afraid, they are also just people, so maybe it is weird to talk like this, but they do have a lot in common with us, with men, so to speak. (AE002)

There does not seem to be much bias, even though the figures show a difference in numbers of female and male students. These differences are, it seems, more due to the image of entrepreneurship in general, rather than the image that arises during education.

Underrepresented groups within entrepreneurship (such as female students) do not seem to belong as ‘one of them’ at first. Here, ‘them’ refers to the dominant group, white men. Only after the female students show the other entrepreneurship students that they have the same knowledge, skills, and characteristics as the white male students, they are granted access to the group and seen as having entrepreneurial potential. It is useful that they value the same things within entrepreneurship. All students reported having a sense of social security in the groups.

The student discourse highlights several visions on entrepreneurship. Many students indicate that entrepreneurship is something you have / are / can do and therefore cannot be learned (nature). A prevalent attitude was that if you want to become an entrepreneur, you should not be in entrepreneurship education because there are not many ambitious students and students commented on a lack of entrepreneurial ambition(s) among their peers. A positive group states that entrepreneurship education has contributed to personal growth, development and stimulates entrepreneurship as a potential career path and is therefore something that can be taught (nurture).

Well, I think they also see woman standing there, so they can do it too. Because often, it sounds a bit stupid, but they put you down as, oh, you’re a woman, you know, just do the work, we’ll do the rest. And that... You have to, so to speak, conquer your own place as a woman. So you actually have to have a pretty big mouth, if you want to make sure they just chill with you and do what you... say. I think it’s good for them too, for the men to see, hey, there’s a woman here who has achieved much more than all of us put together. So it’s not just a man’s job (SE001).

Female students indicate that they must show what they are capable of and that they will then be seen as equal within the group. Those who do not find enough connection in the group generally also conclude that entrepreneurship does not suit them. The students also indicate that entrepreneurship education is not the place to learn entrepreneurship. Conclusively, little to no attention is paid in the educational system to different obstacles, (gender) bias or different entrepreneurial opportunities that students (may) encounter in different phases in their entrepreneurial journey, or how they can deal with this, and students are unaware of the current gendered narrative intertwined in their education. It can be concluded that gender aspects are a non-issue in the classroom and there seems to be a lack of fit between the female students and EE.

Proposition 2. There is attention within EE to gender balance social attributes (role models, networks, mentors) to generate favorable attitudes towards entrepreneurship as a profession

Networks and role models

Entrepreneurial role models are examples of entrepreneurs, or their ventures, or of a type of entrepreneurship to which others can aspire (or emulate) (Bosma et al., 2012; Abbasianchavari and Moritz, 2021; Nowiński and Haddoud, 2019). Students were asked to identify who are role models for them. Many of the required characteristics for entrepreneurial role models, as mentioned by students/alumni, have masculine characteristics. For instance, characteristics like 'risk taking', 'profit maximization' or 'being sales minded' are mentioned. According to the students/alumni, entrepreneurship is something you are always doing (24/7) and this is mentioned by both male and female students/alumni. Associations with successful entrepreneurs is that they are eager to invest their time and energy (and even money) in their ventures. So, who are the role models mentioned by the students / alumni? Many of the students' role models are white male entrepreneurs and/or masculine type enterprises, like the entrepreneur Elon Musk. Other students use examples closer to home, for instance entrepreneurs from within their close environment where mostly male family members (uncle, father, or brother-in-law) are mentioned as role models or inspirational. In a few cases, a mother is cited as an example but within these examples, the mother has started a venture within female domains, such as the beauty industry. The entrepreneurial characteristics of potentially successful entrepreneurship students are similar to the characteristics already identified in entrepreneurship role models.

Remarkably, a lot of guest speakers are used in entrepreneurial lessons as inspiration, someone to aspire to and/or to learn from their entrepreneurial journey. Several aspects stand out here. First, students indicate that the entrepreneurs who come into the classroom often come from the educators network and are predominantly white male, corresponding to the image of 'the heroic male' entrepreneur. They miss a diverse representation of entrepreneurs within their classroom.

Yes, I think so. I think it's a good thing to highlight that kind of topic, because - as I said - you're not actually consciously working on it. But still, it's in your head, and even if you're in a class with eighty men and there are four women there, it's nice to see a female entrepreneur being highlighted. Then you're like, oh, she can do it too. Then I can do it too. To get rid of the image (respondent AG).

Thirdly, these entrepreneurs do business in the traditional way and only a few examples of social entrepreneurs are reported as memorable by the students/alumni. Noted from the student/alumni interviews was the lack of impact of the guest entrepreneurs' stories for the student.

The students, both female and male, do not see the predominantly white entrepreneurs who come to share their stories during the lessons as role models. Fourthly, students/alumni reported that they weren't influenced by media perceptions of entrepreneurship and/or social media. However, it may have consciously or unconsciously influenced the students' because when asked who the students consider to be a role model, the male students often refer to large, very successful entrepreneurs (Elon Musk for instance), whereas the female students less often mention these names.

Networks

Many of the students/alumni are not very active in either informal or formal networks. Students indicate that networking is hardly stimulated or discussed in their entrepreneurial education, except for the creating of a LinkedIn account. Many students mention networking as an important part of entrepreneurship and as a necessary skill. Despite knowledge of the importance of networking, it is striking that the students/alumni themselves show little networking behavior. An exception is those who see themselves as entrepreneurs, and these students appear to actively network. Organizing social networking events appears to be part of some of the curricula but since social and network events did not take place due to COVID-19, networking and its importance remains barely discussed. Especially alumni and a few students mentioned that prior to the pandemic, networking events inspired them and were organized regularly, though almost never connected to relevant institutional parties or stakeholders. As a result, students mostly mention the Chamber of Commerce or traditional banks as examples of institutional parties. Students cannot judge whether these mentioned programs are (gender) inclusive and they tend to assume that there is no difference in access to and experience of various institutional parties for entrepreneurs of different genders, social economic status, or ethnic background.

It was very much about: you want to set up a company, what do you want to do, what do you have to arrange for that? We didn't really talk about financing or relationships with other parties. We didn't really discuss that either (respondent MT).

Although it is not quite the same for all educational institutes, the general insight about which stakeholders are relevant for an entrepreneur is not a subject in the lessons either. There are students who indicate that the lecturers, during the course, give advice and make contacts if necessary but there are also students who indicate that it was not discussed which stakeholders are needed or which networks are recommended.

Discussion

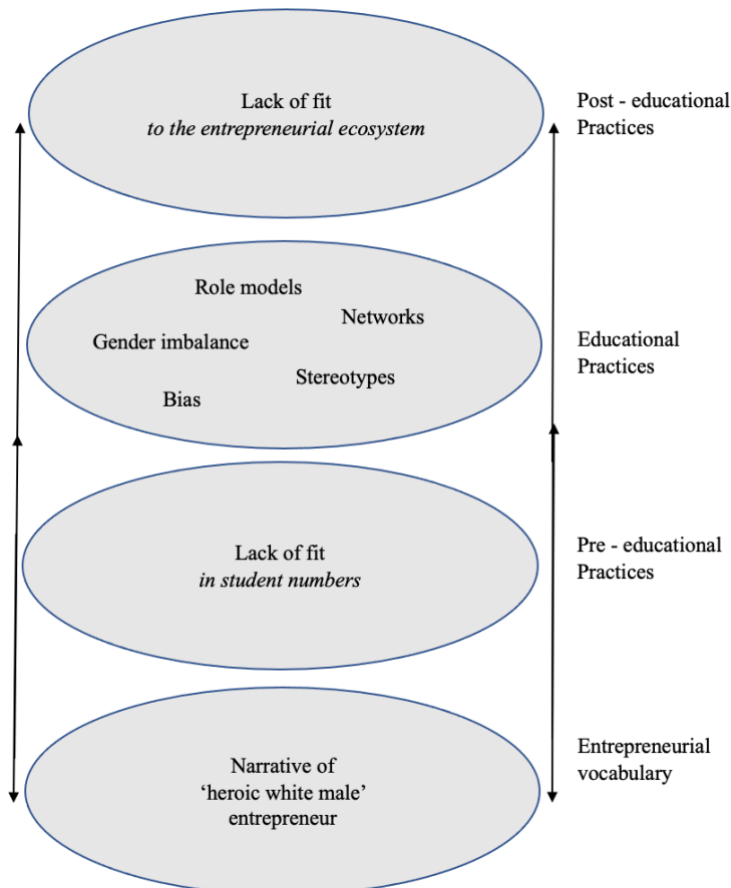
In our study we explored gender from a broader perspective than sex differences and sought to develop insights asking ourselves whether the EE is serving all students for a successful career in entrepreneurship. The themes described above give an insight into complexity of gender in entrepreneurship education, with its issues of the current white male as the norm and the real gender bias and the gender stereotypes resulting for it. The analysis and discussion of this data bridges theory and practice and illustrates how gendered perspectives are brought into the classroom of students and which effects this has on female students to become nascent entrepreneurs.

Based on the insights the results, students mention a gender imbalance in student numbers, with more male than female students in classes though vary in discourse used to discuss entrepreneurship between a more nature view that entrepreneurship is innate following (Jones, 2015, p. 245) but also a nurture vision on entrepreneurship that the needed skills and competences can be learned and therefore entrepreneurship education often contributes to the development of self-confidence in general, and for entrepreneurship (Jardim, Bártolo & Pinho, 2021). Additionally, the differences in entrepreneurial barriers aren't discussed to prepare

diverse type of students and entrepreneurship is positioned as meritocratic and open for all. The educational practices include micro aggressions (implicit bias and prejudice) “othering” students who defy from the masculine norm. Therefore, the first proposition that there is a lack of fit between the female students and EE is partly (but not solely) based on the *educational vocabulary* used to describe entrepreneurship already from the start. This *educational vocabulary* is masculinizing educational practices and is offered as a ‘one size fits all’ approach communicating the *narrative* of the ‘heroic white male’ as the right fit for an entrepreneur, which might be a reason for the gender imbalance in student numbers which creates a *lack of fit* already at the start. The respondents mention an important implication therefore for educators in deciding the efforts they should devote to recruiting female students to entrepreneurship education, such as by adjusting information and marketing material and communication, examining if recruitment policies are gender-biased and more directly directing information towards female students (Hägg et al., 2022). This *narrative* of the ‘heroic white male’ is also used a lot within *educational practices*. There is attention within *educational practices* for the importance of role models in general identifying the importance of inspiration from practical entrepreneurs (Jones, 2015; Laviolette et al., 2012). Unfortunately, there is little attention to gender balance role models to generate favorable attitudes towards entrepreneurship as a profession resulting (unintentionally) into many white male entrepreneurs in educational practices. An (unintentional) effect is unsuccessful entrepreneurial role model identification for instance for female students which reinforces the relationship between self-efficacy and entrepreneurial intention (Laviolette et al., 2012). Additionally, therefore, it is argued that in entrepreneurial education there is little attention paid to the wider ecosystem including relevant institutional parties and stakeholders and students are not informed about the (dis)advantages networks offer entrepreneurs and how these experiences differentiate between gender. Knowing that, the delivery of EE may need to focus on the accumulation of skills that can be employed by women to address female subordination and gender stereotyping (Westhead & Solesvik, 2016). This current “one-size fits all” approach within EE might result into a *lack of fit* within *educational practices* for female students which indicates that they are not equally prepared for the barriers within the entrepreneurial ecosystem. Since EE aims to serve all students attending and wants to prepare all its students equally to an entrepreneurial career, EE may need to be tailored to different types of students (women and men) (Westhead & Solesvik, 2016) and include real-world issues (like the effects of gender on an entrepreneurial carrier) in class because the learning experience of all students are enriched when projects deal with real-world issues (Cascavilla et al., 2022).

Having reviewed each of the propositions in the findings separately this study now brings together several key findings while bearing in mind that what we are looking at here are the dynamics of gender and the role of the entrepreneurship education within it. Below is a summarized overview the results in a framework (figure 1).

Figure 1: Educational vocabulary, educational practices, and a lack of fit



Conclusions

While exploratory in nature, this study illustrates how the narrative of the heroic white male entrepreneurs is constructed and reconstructed in entrepreneurial education which creates a major lack of all students who do not resonate or resemble this image and answers the formulated research question *how does EE prepare female students to overcome barriers within entrepreneurial career?* It has been argued that stereotypical ideas (unconscious) about gender roles are integrated within EE which makes students wonder whether they have the right skills for successful entrepreneurship. This is because entrepreneurship in education is educated with male characteristics such as risk-taking, profit (maximization) and having guts. The female students indicate that 'how to' access to the right network, but also the obstacles that women might encounter are not discussed in the lessons. Notably, respondents state that they do not learn which networks are suitable and if these networks are equally accessible for all nascent entrepreneurs. There is also no attention to the concepts of embeddedness, closeness or homophily. The additional obstacles for women in obtaining funding are not discussed either. In their experience, in EE little attention is paid to the wider ecosystem including relevant institutional parties, important networks, and stakeholders. Entrepreneurial role models are examples of entrepreneurs, their businesses, and/or a type of entrepreneurship that

others can aspire to (or emulate). Many of the students' role models are white male entrepreneurs. Yet, few female role models are visible in EE and students therefore lack the example, they say, of how to become entrepreneurs i.e., role model identification (Laviolette et al., 2012). Another insight is that female students do not always feel taken seriously in entrepreneurship education. Therefore, gender is insufficiently an issue. Due to the lack of institutional anchoring, a gender perspective now remains completely dependent on individual teachers. Integration of this gender perspective requires a cultural change in disciplines, whereby gender is no longer regarded as a (marginal) specialization, but as part of the disciplinary basic training (Roggeband et al., 2016) in EE. This study highlighted some ways in which masculine discourses have infiltrated the narrative used within entrepreneurship education and the (gendered) the lack of fit for “others” wanting to pursue this as a career. As such, this study contributes to the growing body of knowledge on entrepreneurial education and helps position an agenda for future research. Specific empirical investigation, for example, which effects this masculine narrative within entrepreneurial education has on for instance entrepreneurial intentions of female students, and if a gender stereotype threat occurs must be an outcome to substantiate some of the conclusions drawn in this article. Hence following (Barnir, 2020) we conclude that having female entrepreneurs as role models and in one's work unit can disrupt the effects of gender stereotypes and that such insights should be implemented in EE and in conclusion we expect to see no ‘one size fits all’ approach but tailored education that prepares all students to different type of barriers and challenges they might encounter as an entrepreneur.

Recommendations and future research This study, as any, is not without a few limitations. First, for the current study, data was only collected in one country (though from different Universities on both bachelor and master level). Since perceptions of gender in entrepreneurship are socially constructed differences in culture(s) it could be important on this subject. From this perspective, future research should reproduce current research in various countries. Finally, various studies have shown that gender stereotypical thinking of both men and women is part of a larger societal problem in the entrepreneurship climate (both in the general image of investors, governance of the educational institute and co-entrepreneurs) (Wilson, Kickul and Marlino, 2007; European Student Union, 2008; Muntean and Ozkazanc-Pan, 2015; Malmström *et al.*, 2018). Accordingly, if we want to resolve gender biases within entrepreneurship education, future studies should incorporate not just the views of directly involved actors like students but rather include other actors within this broader entrepreneurial ecosystem. As suggested by European Student Union (2008) the integration of perceptions on gender equality and female empowerment in the different entrepreneurial courses and curricula should have the attention of educations and policy makers. One of these challenges is the effects of gender bias and stereotyping to especially female students. Knowing that, the delivery of EE may need to focus on the accumulation of skills that can be employed by women to address female subordination and gender stereotyping (Westhead & Solesvik, 2016) and future research could focus on the effect(s) of more gender-sensitive EE on both male and female students their entrepreneurial intention.

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