Introduction

As teachers and entrepreneurship education researchers we have noted in our training programs that there is a need for discussion on the concept of entrepreneurial pedagogy and to seek a more precise understanding of what it is and what it does. Entrepreneurial pedagogy is often perceived as a “toolbox of new tricks”, in other words a collection of innovative teaching techniques. Hence, although there is undoubtedly a demand for innovative and experiential teaching methods, we feel that more profound insights on entrepreneurial pedagogy and its educational philosophical underpinnings are equally necessary as a basis for entrepreneurship education.

There seems to be some disagreement between the academic and practical fields on how to approach the teaching of entrepreneurship (Jones, 2006; Neck & Greene 2011). There is also a contradiction within academia regarding how to understand entrepreneurial pedagogy (Kyrö, 2005). Entrepreneurship education is about entrepreneurship and education. So far the issues of entrepreneurship education have mainly been addressed from the perspective of economics, whereas the pedagogical discussion is still in its infancy (Kyrö 2001). There seems to be a gap between education research and entrepreneurship research. When discussing entrepreneurship education research these two issues should be in balance. This necessitates more dialogue between entrepreneurship research and education research, as Kyrö (2001) suggests.

The aim of this study is to explore the current use of entrepreneurial pedagogy as a conceptual construct in the light of the recent literature. Our research questions are the following:

1) How is entrepreneurial pedagogy addressed and understood in recent scholarly articles?

2) How are educational philosophical issues taken into account in recent scholarly discussions?

While there is a great deal of literature on entrepreneurship education and case studies of entrepreneurial learning, more
profound investigations into entrepreneurial pedagogy are rare. So far entrepreneurship research has borrowed some ideas from education research. However, when focusing on promoting one method or program over others, the earlier studies generally fail to holistically examine the methods applied by identifying links between a method and wider approach, or to assess the outputs of these processes (Pittaway & Cope 2007). As a result, the term entrepreneurial pedagogy has recently come into wider usage, but its meaning has not been precisely defined. It also seems that the Anglo-American approach to entrepreneurship education is somehow in conflict with the Continental approach. Thus there is a need to clarify what entrepreneurial means in terms of pedagogy (Leffler & Svedberg 2005).

Furthermore, as for instance Biesta (2012, 583) points out, a recent tendency is to “refer to anything educational in terms of language of learning”. This has also happened in entrepreneurship education research, where entrepreneurial learning is one of the key concepts. However, it has been used in a superficial way and discussion in this field is unsteady. As a result a more profound educational philosophical approach seems to be largely lacking. Though learning is the core of education, this kind of discourse easily ignores its teleological nature. Biesta (2012, 583) argues that educational perspective also takes a stand on the purposes of learning. This draws attention to the value bases of pedagogical practices. According to Pulkimattka (1999, 11) and Van Manen (1991) all pedagogical actions are grounded in some educational philosophical premises. Furthermore, as Biesta (2012, 583) points out, “there is always a need for judgement about what is educationally desirable”. These notions highlight the central role of educational consciousness, which refers to an educator’s mental awareness of all the responsibilities and rights related to this role including the value base and goals of education. Being educationally conscious means that an educator is aware of the implications of his/her pedagogical actions and is also able to justify and stand for them (Hirsjärvi & Huttunen 1995, 61.) Although this concept is fundamental in the field of education, it may be unfamiliar to entrepreneurship educators coming from other disciplines.

Our research design is constructed as follows: First we elaborate on the recent theoretical discussion on entrepreneurship education from the Anglo-American and continental perspectives. Second, we present an interpretive study of the concept which explores how entrepreneurial pedagogy and the educational philosophical roots are understood in the recent scholarly articles and discuss the findings of the analysis. Finally, as a result of the findings we emphasize the importance of the educational philosophical roots, which form a basis for entrepreneurial pedagogy. Taking into account the underlying foundations, context and culture as well as the goal of education, we suggest that the fundamental issue is educational consciousness. This aspect has been of minor importance in entrepreneurship education research discussions. To remedy the lack of conceptual precision we propose a theoretical EnTree -model illustrating entrepreneurship education and pedagogy as a five-layered construct. According to this model, educational consciousness forms the basis for entrepreneurial pedagogy, which in turn can be understood as philosophical principles guiding educational practices. Thus the role of learning theories is methodological not paradigmatic, which enables the
flexible and contextual use of different learning theories and models (e.g. transformational education theory as in Mezirow (1998), experiential learning theory as in Kolb (1984), a social theory of learning as in Wenger (1998), etc.). The idea of using theories and theoretical models as purposeful and pedagogically relevant tools is new and brings the Continental and the Anglo-American approaches closer to each other. This idea has not been much discussed so far.

This study does not, however, seek to offer a definite or indisputable conceptualization of entrepreneurial pedagogy, but rather to enhance the understanding of these issues. The paper makes a theoretical contribution by highlighting the role of the educational consciousness behind the pedagogical choices. The concept of educational consciousness is a core issue of the proposed Entree-model. Therefore the logic of argumentation of this paper rests on understanding the significance of the philosophical commitments behind entrepreneurship education. (See: chapter 3.) This paper also offers practical tools for educators, teachers, and trainers.

What do we know about entrepreneurship education and entrepreneurial pedagogy?

There seems to be a contradiction within academia regarding how to understand entrepreneurial pedagogy (Kyrö 2005). In the United States the focus of entrepreneurship education is on “specific steps in the firm creation process”, as Guzmán and Liñán (2005, 3) point out. In the Anglo-American discourse entrepreneurship is mainly posited as knowledge which can be taught as a subject (Remes 2003). The basic idea behind this approach is that teaching such a complex phenomenon as entrepreneurship is a challenging task and therefore it is easier to teach it through methods that present entrepreneurship in a linear and predictable way (Neck & Greene 2011).

On the other hand, in Europe the main objective is to develop entrepreneurial personality (Gibb 1993; Erkkilä 2000). According to this approach entrepreneurship needs to be integrated with a variety of subject areas and thus taught by a variety of teachers and addressed to a variety of target groups (Erkkilä 2000). The Finnish entrepreneurship education initiatives are mainly influenced by continental approach, although the impact of Anglo-American (US and Canada) approach is also discernible (Erkkilä 2000).

Despite the differences as regards the aims of entrepreneurship education, it is widely accepted that entrepreneurship is ultimately about learning and therefore it is essential to know how entrepreneurial learning takes place (Minniti & Bygrave 2001; Rae 2005). Hence entrepreneurship education is mainly seen as entrepreneurial learning; learning entrepreneurial behavior and skills. However, the existing research offers various views on the nature of the entrepreneurial learning process. Some scholars consider entrepreneurial learning to be a cognitive process (Young & Sexton 1997; Holcomb et al. 2009), while others see it as an interactive process or as an experiential and reflective sense-making process (Cope 2005; Rae 2005). Nevertheless, these ideas are only rarely linked to an explicit and profound understanding of the concept of education, learning paradigms, and theo-
ries. As Kyrö (2005) points out, each of the learning paradigms has its time and place and they are not mutually exclusive. However, they provide different views on learning and teaching and as entrepreneurship educators we need to be aware of the premises behind our own pedagogical actions.

A discussion about entrepreneurial pedagogy has been ongoing since the middle of the 1980’s, when, for instance, Sexton and Bowman (1984) drew attention to the imbalance between the needs of entrepreneurship students and the teaching methods applied. One reason for this conceptual void may be that, like pedagogy, entrepreneurship and entrepreneurship education are debatable concepts per se and therefore often confusing.

Originally the concept of pedagogy was derived from the Greek expression paidagogeia, referring to the education of children, especially boys. However, over time the meanings attached to the concept of pedagogy have changed and today it is used in two broad senses; either to refer to the basic assumptions underlying teaching or to teaching practices (TURUNEN 1999). On the other hand, conceptual ambiguity also results from the inconsistent use of the terms pedagogy and didactics, which have divergent meanings in different cultural areas.

As Kyrö (2005) notes, the Anglo-American approach takes educational practices as a point of departure and because ontological, epistemological, and axiological questions are not explicitly considered, pedagogy mainly refers to practice-based suppositions of workable learning and teaching methods as illustrated below (Figure 1). Thus the Anglo-American approach to entrepreneurial pedagogy can be understood as a teacher-centered technical discourse which adheres closely to business planning ideology (Carrier 2005).

The Continental approach derives from the ontological bases of education and takes this aspect in a paradigmatic sense into consideration when building understanding of learning theories and applicable pedagogical practices. In this approach the philosophical commitments and the consequential learning paradigm which leads to learning theories are crucial (Kyrö 2005). Furthermore, the terms pedagogy and didactics are conventionally seen as separate concepts. The term pedagogy usually refers to general assumptions about learning, taking into consideration the mission of education in society, while didactics refers to practical activities in a classroom. (Kyrö 2005.)

In sum, the Anglo-American and Continental approaches have a different understanding of pedagogy and consequently it is sometimes difficult to understand whether entrepreneurial pedagogy refers to entrepreneurship education in general, to the basic assumptions underlying pedagogical actions or to teaching methods, i.e. practical actions taken in a classroom. In the Continental approach pedagogy and didactics are based on learning and teaching theories, which are driven by the learning paradigm. The learning paradigm is based on the philosophical commitments. This seems to be the core issue in the Continental approach, which distinguishes it from the Anglo-American approach.
Educational philosophical questions behind entrepreneurship education

In education it is emphasized that educational practices are connected to a broader understanding of educational knowledge and its philosophical underpinnings (Uljens 2006). In order to understand the difference between the two approaches to entrepreneurship education it is essential to explore how they address issues dealing with ontological, epistemological and axiological bases.

In the Anglo-American approach there is very little discussion about these fundamental premises. The Anglo-American approach emphasizes the questions what and how, while the Continental approach is concerned with why. (Kyrö 2006, 106.) Although the importance of these ques-

Figure 1. The Anglo-American and the continental approaches to education (Kyrö, 2005)
Ontology of entrepreneurship education

Ontology refers to the assumptions about human nature and the nature of society. According to Kyrö (1997, 2001), the early contributors to the Enlightenment described an entrepreneur as a unique and free individual, who had the ability, will, and the right to create his own place in society. Kyrö (1997) defines an entrepreneur not only as a human being who is unique and free but also risk-taking, creative, and responsible actor who lives in a close relationship with his or her environment, culture, and nature. The ontology of entrepreneurship education is therefore based on a holistic idea of man, and a holistic idea of the world, in which an individual is seen as a functional and intentional entity (Kyrö 2001). Remes (2001) likewise points out that these ideas of the world and human beings are compatible with cross-disciplinary humanistic discussions. Hence the ideas of being entrepreneurial are proposed to be grounded in humanism.

Apart from humanism, entrepreneurship education is also suggested to be rooted in an interactionist paradigm and in constructivist theories (Béchard & Grégoire 2005, 115). The interconnectedness of man and reality is also highlighted by Lindgren and Packendorff (2009, 29), who advocate a social constructionist view of entrepreneurship and state that “individuals and collectives define themselves and are defined by others – in relation to general expectations on how to behave and think”. Considering that entrepreneurship education is about education for learning entrepreneurial behavior, individually and collectively, in various contexts, the ontological assumptions of being can be understood as a constant and subjective process of becoming entrepreneurial.

Epistemology of entrepreneurship education

The epistemology of entrepreneurship is concerned with ways to acquire knowledge about entrepreneurship. It is largely acknowledged in the literature that entrepreneurial behavior can be acquired through learning (Rae & Carswell 2001). According to Gibb (2005), the process of learning entrepreneurship has a logic and a learning philosophy all of its own. Like Gibb (2005), many entrepreneurship education scholars advocate the view that entrepreneurial learning takes place through doing, experiences, and collaboration. Hence the epistemology of entrepreneurship is based on pragmatism, according to which beliefs are qualified as true or false depending on their usefulness and functionality in action (Hägg 2011; Kraaijenbrink 2012).

However, knowledge is not created and constructed in isolation. The entrepreneurial process is about interaction between individuals, social networks, structures, and physical contexts, as Lindgren and Packendorff (2009) state. They link entrepreneurial processes with symbolic interactionism, which is a sociological perspective derived from the ideas of pragmatic philosophers Peirce (1839–1914) and Dewey (1938) and further developed by the sociologists Blumer
(1986) and Mead (1934). This perspective emphasizes the relationship between a human being and the social structure. According to this view, a social structure including institutions, moral codes and established ways of doing things have an influence on the acts of individuals. However, at the same time, through interaction between human beings, the social norms and traditions are reproduced and transformed (Blumer 1986). This means that the meanings attached by human beings to various phenomena, issues, and actions (for instance, entrepreneurship) are socially constructed. Hence, human beings, too, act towards and pursue things that they feel to be meaningful for them in a given context.

**Axiology of entrepreneurship education**

Axiology refers to the values related to both ontology and epistemology. From an ontological perspective, it is a question of what we consider valuable in the world and in the existence of a human being (idea of man). In epistemology, it is a question of what kind of knowledge of the world and what kinds of means of acquiring knowledge are valued. Thus the axiology of entrepreneurship education refers to the ethical questions of entrepreneurship education. As Van Manen (1991, 43) states, teaching always involves value judgments which guide the pedagogical actions. Hence, the pedagogical actions are rooted in broader epistemological, ontological and axiological premises. However, these premises are implicitly entailed in everyday pedagogical practices. Nevertheless, as Hirsjärvi (1982) and Van Manen (1991) argue, educators need to be aware of their actions and willing to critically reflect what these actions stand for. In the following section we seek to explore these questions through an interpretative study of concepts focusing on recently published scholarly articles and thereby aim to dispel the conceptual vagueness related to entrepreneurial pedagogy.

**Methodology**

This study adopts an explorative research approach and applies an interpretative study of concepts as its research method. Takala and Lämsä (2000, 387) define the interpretative study of concepts as a literature based method which aims to find and interpret meanings included in given concepts in the light of a chosen theoretical perspective. This method has its background in hermeneutics and is more commonly used in organization and management research.

This study takes a theory-oriented approach, where the interpretations are guided by the chosen theoretical framework. This study adopts Kyrö’s (2005) theoretical model of educational approaches (See page 4.) as a theoretical frame and thus the role of the framework is to delimit the scope of the research. Using a theoretical framework is important, especially when exploring contradictory concepts, because in such cases a study might easily become too extensive and incoherent. Furthermore and as Takala and Lämsä (2001) highlight, theoretical framing is needed, since it is possible to interpret the same concepts from many perspectives.

However, the chosen framing should be developed further when the analysis reveals new aspects not previously considered in it (Takala & Lämsä 2001). Hence
the interpretative study of concepts is a process of interpreting the clues found in the data as well as the active construction of further ideas. In light of these clues and ideas, a researcher tries to uncover something that is not explicitly stated in relation to the theoretical framing (Takala & Lämsä 2001).

The data consist of recent scholarly articles addressing entrepreneurial pedagogy found in the ABI INFORM journal database with the following search limits: Search words entrepreneurship or entrepreneurial and pedagogy, scholarly journals, peer-reviewed, available in full text, published between 2005 and 2012, abstract search. This time span was chosen because the discussions of pedagogical issues in entrepreneurship education became livelier after the beginning of the 21st century (Kyrö 2001). We have focused on those articles likely to afford insights into the definition of entrepreneurial pedagogy. The keywords mentioned above were used as we aim to clarify and crystallize the use and meanings given to the concept of entrepreneurial pedagogy. For instance, the term entrepreneurial learning has been omitted because it has been used in a superficial way among entrepreneurship education researchers. The search with the abovementioned criteria resulted in total 23 articles, of which 18 were eligible for more detailed analysis. Five papers were excluded because they did not actually deal with entrepreneurship/entrepreneurial pedagogy.

The data analysis process applied in this study followed the suggestions by Takala and Lämsä (2001). It went through four main phases starting from identifying the context of the concept, i.e. in this case entrepreneurship/entrepreneurial pedagogy in the recent entrepreneurship education literature. The second phase included narrowing the scope of the study to recent scholarly journals and identification of the use of the concept in the data. This was followed by the classification of the meanings given to the concepts, i.e. we identified and classified different ways to use the key concept. In the fourth phase we interpreted the underlying assumptions related to the meanings attached to the concept.

Research findings

A context and focus of learning

We started the analysis process by examining the context of learning in each case. It turned out that in all cases HEIs formed the context of learning. Then, guided by Kyrö’s theoretical framing, we explored if and how the Continental and Anglo-American approaches could be identified from the data on the basis of the distinguishing features of each approach, as illustrated in the table below (Table 1). Thus we explored how entrepreneurship education was understood in the articles by identifying what was said about the focus of learning. The analysis revealed that in all cases but one the primary goal of entrepreneurship education activity was to enhance entrepreneurial behavior and the secondary aim was to sustain new venture creation and/or development. This is noteworthy because it clearly indicates that entrepreneurship is today conceived in a broader sense as an “essential life skill” (Hegarty & Jones 2008, 626), but this also demonstrates the importance of the development of an entrepreneurial mindset as an important prerequisite in new venture creation and development.

When no clear distinction was found in terms of the focus of learning, we
proceeded by investigating the cultural backgrounds of the journals and authors to ascertain whether these had any impact on this finding. Most of the journals were published in the United Kingdom (11/18) and only six (6/18) in the U.S.A. One of the journals, *the Journal of Small Business and Entrepreneurship*, was published in Canada. The article in this journal clearly represented the Continental approach, which was an interesting observation. It turned out that the majority of the authors were from European cultural areas and only three were Anglo-Americans. This would suggest that in general the interest in pedagogical issues is greater among the scholars with Continental backgrounds. However, as the investigation revealed, the both goals of learning were addressed equally by Continental and Anglo-American scholars. One reason for this may be that on the editorial boards both cultures were quite equally represented. Hence, in contrast to earlier studies it seems that the Continental and Anglo-American approaches have moved closer to each other in this respect.

**Pedagogy as teaching philosophy, models, and practices**

We then ascertained how the concept of pedagogy was defined or understood in these articles. It turned out that in most of the articles entrepreneurial pedagogy was contrasted with “a traditional approach”, although these perspectives were not necessarily fully explained. This indicates that entrepreneurial pedagogy as a concept is often taken for granted, although no unanimous definition so far exists. However, drawing on Gibb (2002; 2005) many articles advocated the view that entrepreneurial pedagogy is based on the essential features of entrepreneurship, which means “being able to feel what it is like to be entrepreneurial”.

We paid particular attention to whether pedagogy was addressed through teaching models, methods, and practices or if there was a wider philosophy guiding teaching practices. In this respect the difference between the Continental and Anglo-American approaches became more obvious (Table 1). This finding seems to confirm that within the Continental approach pedagogy, referring to the basic assumptions behind teaching and didactics, referring to teaching practices, are seen as separate, but interrelated concepts, whereas in the Anglo-American approach this distinction is not evident.

Following a pragmatic approach all authors with Anglo-American background referred to pedagogy as learning and teaching models. For instance, Clark and Stewart (2012) discuss entrepreneurial pedagogy by referring to student-centered learning in general. Likewise Neck and Greene (2011, 56), although criticizing the fragmented landscape of teaching entrepreneurship, explicitly state “we are not proposing a particular pedagogy...we discuss teaching entrepreneurship as a method.” And later on they present various teaching and learning methods (e.g. business plan, business modeling, games, and simulations) as primary pedagogies.

The articles advocating a Continental perspective on entrepreneurship education seemed to have adopted a more philosophical view on pedagogy, albeit also paying attention to teaching practices. However, closer scrutiny of the articles revealed that the concepts of pedagogy and practice were used inconsistently in a confusing way. For instance, Higgins and Elliott (2011, 354) discuss “the concept of practice as a pedagogical approach”. However,
they do not equate pedagogy with teaching practices, but with this statement they refer to the pedagogical choice between theoretical and practice-based approaches, which implies that pedagogy is seen more as a teaching philosophy than teaching methods. Benington et al. (2008, 385) stress that “pedagogy and didactics can never be separated from content”, which indicates that both aspects (pedagogy and didactics) need to be considered, but at the same time the authors discuss applied pedagogy by presenting various learning methods. On the other hand, Wang and Verzat (2011) highlight the link between teachers’ philosophical thinking and “a model of delivery” (influence from the Anglo-American approach) and discuss the pedagogical approach behind learning methods, but do not explicitly use the term didactics. In the same vein, Bager (2011) uses the concept of teaching and learning models, which implies an Anglo-American approach, but at the same time he discusses the need for explicit and relevant underlying pedagogies for the learning methods. Jones and Iredale (2011) likewise make a distinction between a philosophy, referring to an approach to teaching and learning and pedagogical practices taking place on a contextual classroom level.

As these examples show, the use of the concept pedagogy is not straightforward. However, despite the conceptual confusion the findings seem to indicate that the Continental approach is more inclined to advocate the general idea that the objects of teaching guide educators’ pedagogical thinking, which, in turn, informs the didactic choices, not vice versa.

**A connection between pedagogy perceptions and learning theories**

Distinct ways to understand the concept of pedagogy seem to be related to how firmly the pedagogical practices applied are anchored to learning theories. In most of the articles the role of learning theories was not addressed at all. Only eight of the articles analyzed mentioned a connection between learning theories and pedagogy and even these articles differed from each other in terms of how explicitly and profoundly this linkage was expressed, as indicated in the table below (Table 2).

In some cases the learning approach was only briefly touched on (weak connection). For instance, Klapper and Tegtmeier (2010) discussed innovating learning pedagogy which draws on the activity based learning approach, but did not connect this approach to any explicit learning theory. Correspondingly Penaluna and Penaluna (2008) mentioned the importance of experiential learning only briefly with reference to Kolb (1984), but the role of learning theory was not discussed in greater detail.

By contrast Bager (2011) for one mentioned the importance of problem-based, action and future-oriented learning and linked these approaches explicitly to Kolb’s (1984) experience based learning theory. Kettunen (2011) also discussed innovative pedagogy and explicitly mentioned the pedagogical roots by referring to Vygotsky (1978), Piaget (2001) and Dewey (1925). Similarly Prieto et al. (2012) connected their ideas to Freiré’s critical pedagogy. These are examples of strong connections to learning theories.
<table>
<thead>
<tr>
<th>Anglo-American approach</th>
<th>Pedagogy in learning and teaching</th>
<th>Pedagogy as learning and teaching</th>
<th>Models of learning and teaching</th>
<th>Pedagogy as a central element of business focus</th>
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<th>Contential approach</th>
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<th>Pedagogy &amp; teaching pedagogies</th>
<th>Theories of learning and teaching</th>
<th>Focus on enterprise</th>
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<th>Author, article title, year, journal</th>
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<td>Ackland, M., Martin, A.  Research and learning pedagogies, 2012 (Published in U.S.A.)</td>
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<td>Anderson, A., &amp; Jones, S.  Towards, 2009 (Published in U.S.A.)</td>
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<td>Bennet, J., &amp; Hartley, J.  J. R. &amp; Al-Nam, T.  2008 (Published in U.S.A.)</td>
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<td>Cliff, A.  2011 (Published in U.S.A.)</td>
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<td>Harker, D.  &amp; Ellis, G.  2011 (Published in U.S.A.)</td>
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<td>Jarrett, J., &amp; Isak, N.  2010 (Published in U.S.A.)</td>
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<td>Kipper, R.  &amp; Trimier, S.  2010 (Published in U.S.A.)</td>
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<td>Maimo, A., &amp; Coats, J.  Pedagogy, 2008 (Published in U.S.A.)</td>
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<td>Pataras, A., &amp; Phillips, S.  T.  &amp; Frisind, T.  2012 (Published in U.S.A.)</td>
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<td>Wang, A., &amp; Van, C.  2011 (Published in U.S.A.)</td>
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The role of educational philosophical underpinnings

Only a few of the articles considered the role of the ontological, epistemological, and axiological underpinnings of pedagogical approaches and teaching practices. The ontological aspect, referring to the basic assumptions about human nature, was addressed by explaining the characteristics of an enterprising individual (idea of man). For instance, Anderson and Jack (2008, 269) stressed that the aim of teaching entrepreneurship affects the personal growth of an individual. In the same vein Gibb (2011) underlined creativity, initiative taking, and autonomy as attributes of an enterprising individual. On the other hand, Higgins and Elliott (2001, 346) underlined the social nature of the entrepreneur.

Table 2: Connections to learning theories

<table>
<thead>
<tr>
<th>Learning theories</th>
<th>Examples of quotations</th>
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<tr>
<td>Weak connection to learning theories</td>
<td>There is not much literature available about innovative approaches to entrepreneurship teaching – activity based learning is used here - – The practice firm as a means of activity based learning should motivate and teach entrepreneurship.. (Klapper &amp; Tegtmeier 2010, 556)</td>
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<td>The students’ learning is designed to be experiential (Kolb, 1984), responding to - - tell me and I will forget, show me and I may remember, involve me and I will understand. (Penaluna &amp; Penaluna, 2008, 241)</td>
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<tr>
<td>Strong connection to learning theories</td>
<td>Consistent with a Freirian vision of education (critical theory), universities need to embrace forms of teaching and learning that promote increased awareness and understanding of the ways in which social forces act on people’s lives to produce and reproduce inequalities (Prieto et al. 2012, 7).</td>
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<td>Supported by Dewey’s work on experiential learning, I will show how entrepreneurship education works to transform the participant’s ability to operate in remote (entrepreneurial) worlds, and how holistic entrepreneurial action reinforces this transformation (Harmeling 2011, 744).</td>
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<td>Socio-cultural theory…and the constructivist view of learning developed by Vygotsky (1978) and Piaget (2001) are natural starting points for pedagogical development…. The pedagogical roots of innovation pedagogy can be found in the pragmatism of John Dewey (Kettunen 2011, 56–57).</td>
</tr>
</tbody>
</table>
These examples (Table 3) give us some ideas about how they see the nature of an enterprising human being. However, how we understand the essence or the nature of a human being has an effect on our pedagogical thinking. This connection was largely overlooked in the articles or it was only superficially addressed. Anderson and Jack (2008, 269) were a rare exception by linking the nature of an enterprising individual to the pedagogical choices. On the contrary, Harmeling (2011) raised the idea of world as an ontological question of learning. She referred to the pragmatist philosopher Nelson Goodman and his discussion of a concept, which he called “Worldmaking” by which he meant simply, that human beings do not discover worlds; they create them. Nonetheless, all the articles failed to connect those perceptions to more profound philosophical premises.

The articles also differed from each in terms of the epistemological aspects referring to how to gain knowledge in entrepreneurship (Table 4). For instance, Jones and Iredale (2010, 14) emphasized participation and learning by doing. Benington et al. (2008, 384) describe entrepreneurial learning as “an innovative journey” which refers learning through “trial and error”. Hence their perception of pedagogy can be seen to reflect the ideas of Deweyan pragmatism, although this linkage is not explicitly mentioned.

In three articles the epistemological aspects were more explicitly addressed. Penaluna and Penaluna (2008) advocated “curiosity-based learning” and experiential learning, which are drawn from the constructivist paradigm. Higgins and Elliot (2011, 346) follow the same lines, but also stress the role of social processes in acquiring knowledge from the environment. They adopt a social constructionist view, but also recognize the connection to phenomenology by highlighting the importance of engaging in “real life” experiences and making sense of those experiences. Drawing on the ideas of Heidegger (1889-1976) and Gadamer (1900-2002), Higgins and Elliot’s perception of pedagogy rested on hermeneutic phenomenology, which claims that the world can only be understood through human experiences.

The axiological aspect was only addressed in four articles (Table 5). Some authors like Wang and Verzat (2011) and Penaluna and Penaluna (2008) touched on these issues only vaguely whereas others, like Jones and Iredale (2010), were quite precise in this respect. Wang and Verzat (2011) underlined the values of an entrepreneurial way of life behind
### Table 4. The epistemological aspects

<table>
<thead>
<tr>
<th>Epistemology</th>
<th>Examples of quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak connection to epistemology</td>
<td>…pedagogy which encourages participation, learning by doing and asking questions. (Jones &amp; Iredale 2010, 14)</td>
</tr>
<tr>
<td></td>
<td>An innovative journey, which includes theoretical understanding of concepts and their implementation through unexpected and accidental events, stakeholder influences and setbacks. (Benington et al. 2008, 384)</td>
</tr>
<tr>
<td>Strong connection to epistemology</td>
<td>The paper adopts a social constructionist view of learning … to study the manner in which organisations, identities, and knowledge are socially constructed. (Higgins &amp; Elliot 2011, 350-351).</td>
</tr>
</tbody>
</table>

### Table 5. The axiological aspects

<table>
<thead>
<tr>
<th>Axiology</th>
<th>Examples of the quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak connection to axiology</td>
<td>Retaining a sense of ownership of one’s work is considered to be important. (Penaluna &amp; Penaluna 2008, 246)</td>
</tr>
<tr>
<td></td>
<td>The cultural challenge to become more entrepreneurial at university is… to recognize the values of the entrepreneurial way of life (greater freedom, greater control over what goes on, greater responsibility, more autonomy… (Wang &amp; Verzat 2011, 368)</td>
</tr>
<tr>
<td>Strong connection to axiology</td>
<td>…pedagogical approach advocates action, experiential learning styles and as much as anything it is about the broad notion of citizenship and civic responsibilities…Liberal educational ideals have personal liberty and freedom at their core and can be traced back to the work of Mills (1859) and Locke (1979). (Jones &amp; Iredale 2010, 12)</td>
</tr>
<tr>
<td></td>
<td>Social entrepreneurs are different from business entrepreneurs in many ways. The key difference is that social entrepreneurs set out with an explicit social mission in mind. Their main objective is to make the world a better place. (Prieto et al. 2012, 1).</td>
</tr>
</tbody>
</table>
teaching entrepreneurship. Penaluna and Penaluna (2008, 246) followed suit, highlighting the sense of ownership of one’s work.

Likewise Jones and Iredale (2010, 13) advocated entrepreneurial pedagogy emphasizing personal freedom and individual rights and explicitly stated that their perception of entrepreneurial pedagogy has its theoretical base in libertarian values which can be derived from the works of Mill (1859) and Locke (1979). Similarly Prieto et al. (2012) have their theoretical basis in critical theory (Freiré 1985; Banks 1981) where the axiological emphasis is essential. Thus these articles can be seen to reflect the ideas of humanism.

Taken together, the analysis revealed that the entrepreneurship scholars were quite unanimous in their view of the goals of entrepreneurial learning. However, a coherent understanding of the meaning of entrepreneurial pedagogy is still lacking, leading to fragmented use of this concept. The perceptions of entrepreneurial pedagogy are context-bound and thus the influence of the Continental and Anglo-American approaches was discernible in the articles. Nevertheless, conceptual confusion also occurs in the Continental approach. It seems that the absence of a connection to learning theories and philosophical educational underpinnings leads to a narrower understanding of pedagogy as teaching practices. Conversely when pedagogy is understood in a broader sense as a teaching and learning philosophy, the perceptions are derived from learning theories and underlying educational philosophical underpinnings.

What is missing?

These findings outline the current landscape of discussions on entrepreneurial pedagogy. As the findings suggest, this landscape resembles a fragmented mosaic with different perceptions. The data analysis indicated that educational philosophical questions are rarely considered in discussions of entrepreneurial pedagogy. From an educational point of view this is somewhat perplexing. The philosophical questions which in the field of education are understood as the core of any educational activities seem to be largely ignored in entrepreneurship education discussions. As Béchard and Grégoire (2005, 106) aptly put it, these give the reasons for the pedagogical choices and if these premises are not considered, “this is as if we were studying what entrepreneurs do without considering the factors that influence their intentions”.

Educational consciousness and ethical aspects of education

One fundamental issue in education concerns educational consciousness in pedagogical interaction. According to Poikolainen (2002) educational consciousness refers to an educator’s awareness of his/her own educational actions along with responsibilities and moral rights connected to the actions. As, for instance, Lapinoja (2006) noted, teachers’ actions should not be determined solely by the external demands for change, but should be guided first and foremost by ethical and philosophical tenets of education. This awareness becomes explicit in educational practices, i.e. in pedagogical actions. This connection is also highlighted by Hirsjärvi (1982) and Poikolainen (2002), who stressed that
teachers’ educational consciousness is based on their values and on the idea of man and the world.

Educational consciousness is closely related to the ethics of education. As Puolimatka and Airaksinen (2006) pointed out, educational interventions cannot be fully justified without considering the relationship between the educational aims and the meaning of a good life. Ethics in education means caring for others, stepping in if needed, supporting and encouraging; in other words, showing the way to a good and meaningful life (Atjonen 2011). Värri (2004, 13) likewise pointed out that education is ethically justified only when it seeks to support the educational good, i.e., self-formation of the personality and personal growth of the learners. Thus, education should not be harnessed to serve the interests of any strictly limited ideological goals and contents (Värri 2004, 23). Likewise Biesta (2012) stresses that educators should take responsibility for the direction of education. Van Manen (1991, 10) followed suit by arguing that “pedagogy is a self-reflective activity that must always be willing to question critically what it does and what it stands for”.

The same notions concern entrepreneurship education. Nevertheless, the idea of educational consciousness was not discussed in the articles analyzed. Although some of them noted the importance of reflective thinking, it was either connected to student learning (Neck & Greene 2011) or referred to awareness of the desired learning outcomes (Gibb 2011). However, they provided no more profound insights on the underlying values and ethical perceptions of what constitutes “a good life” for students.

We suggest that in entrepreneurship education ethics signifies being responsible for other moral actors. Thus, the mission of entrepreneurship education is to support growth as a moral subject who is autonomous and value-conscious. This requires that as entrepreneurship educators we are aware of the underlying premises of our choices we made and their consequences. Exploring ethical issues would also help to answer the critical questions about the ideology of entrepreneurship education (see e.g. Holmgren et al. 2004; Komulainen et al. 2010) which have arisen among educational scholars and practitioners in terms of the goals of entrepreneurship education.

From a fragmented mosaic towards a more coherent understanding of entrepreneurial pedagogy

The various perceptions of entrepreneurial pedagogy are related to the different goals of learning and teaching. The goals in turn are derived from the basic values. From an educational perspective as entrepreneurship educators we need to consider these aspects when choosing the pedagogical tools to teach entrepreneurship. Therefore we need to understand what the essence of entrepreneurship and education is and what kind of a notion of man and idea of world our pedagogical actions are based on.

Hence, when discussing entrepreneurship education, we can identify different layers of discussion, which we have illustrated in the following five-layered theoretical EnTree- model (Figure 3).
1. The educational philosophical roots of entrepreneurship education
2. Educational consciousness
3. Entrepreneurial pedagogy
4. The objects of entrepreneurship education
5. Entrepreneurial learning contents, methods and environments.

We use a tree as a metaphor to illustrate the links between the educational philosophical foundations and educational consciousness, entrepreneurial pedagogy, goals of learning as well as learning methods and environments. Like a tree, which is anchored in the soil by its roots, education also builds upon the philosophical premises deeply rooted in culture. Thus these form the base (1) of our EnTree-model.

A phloem and sapwood are the vascular layers of a tree’s trunk. A phloem is
needed to transport glucose and starch made during photosynthesis from the leaves to the roots while sapwood is intended to carry water and nutrients from the soil upwards to all parts of the tree where needed.

Together they help the tree to grow and stay alive. In our model the vascular layer symbolizes the role of educational consciousness (2) which is illustrated by the broken line in the figure. Entrepreneurial learning is a dynamic process which takes its core elements from philosophical premises influenced by context and culture but at the same time is constantly evolving through the ideas coming from the upper layers of the tree. Educational consciousness is required to ensure the coherence of the educational process.

The trunk of a tree is needed to produce new cells and connect the roots with the upper parts. In education it is a question of how we perceive learning. For instance Kyrö (2005) and Wang and Verzat (2011) suggest that a change of educational paradigm is needed. Hence, it is assumed that a theory of entrepreneurial learning which combines elements from existing learning theories and considers the essence of entrepreneurship is evolving. Consequently, entrepreneurial pedagogy can be understood as philosophical principles guiding educational practices. In our model the trunk of the tree therefore signifies the entrepreneurial theory of learning and entrepreneurial pedagogy (3), which takes elements from existing learning theories (lower branches).

The upper branches of the tree (4) represent different objects of entrepreneurial learning. Scott, Rosa and Klandt (1998) divided entrepreneurial learning into three constituents: learning about, for, and through entrepreneurship. Hjorth and Johannisson (2007, 64) added a fourth component: learning within entrepreneurship. By this notion they want to pay attention to experienced entrepreneurs’ learning, which occurs in practice as active and reflective dialogue with peers. These objects are not mutually exclusive, but complementary. However, the learning objects can be pursued with various available learning methods and in different learning environments, which are symbolized in our model by leaves (5). The tree needs leaves for the energy transformation process (photosynthesis). Likewise in our model the leaves (teaching methods and learning environments) provide the tree with energy. It is a responsibility of entrepreneurship educators and trainers to seek coherence between all these aspects (Béchard & Grégoire 2005, 125; Hägg 2011, 223).

As the figure illustrates, currently the entrepreneurship education discussions focus on the objects of entrepreneurial learning and learning and teaching methods (top-down perspective). However, we suggest that the questions of entrepreneurial learning and teaching should be approached from a “bottom-up” perspective. The proposed EnTree model illustrates the different aspects of entrepreneurship education and demonstrates that the applied learning and teaching methods are dependent on the objects of learning in a given context, but nevertheless the methods should be grounded in the basic ideas of entrepreneurial pedagogy and the theoretical and philosophical bases of learning.
Conclusions, practical implications, and avenues for future research

This paper described the current landscape of pedagogical discussion in entrepreneurship education research. By adopting an educational approach in the ongoing discussion about entrepreneurship education and entrepreneurial pedagogy this paper aims to broaden the conceptual understanding of entrepreneurial pedagogy. So far this perspective has been largely missing from entrepreneurship education research, which has mainly built upon the economic background importing ideas from education rather than taking the educational view on entrepreneurship education. The aim of this study was to explore the current use of entrepreneurial pedagogy as a conceptual construct in the light of the recent literature. Our first research question concerned how entrepreneurial pedagogy is addressed and understood in recent scholarly articles.

The first result which the data revealed is that the articles relating to pedagogical issues within entrepreneurship education research are still in a marginal role, although interest in this aspect seems to be gradually increasing. Secondly, the interpretative study of concepts showed that although the Continental and Anglo-American approaches to entrepreneurship education can be identified from the data, in terms of the focus of learning they seem to have moved closer to each other. Today entrepreneurship is seen as a learnable and teachable issue and a conception of entrepreneurship as a behavioral and societal phenomenon is now increasing on both sides of the Atlantic. The findings confirmed that these approaches represent different views on pedagogy, as suggested in the literature (Kyrö 2001; Remes 2003). While those advocating the Anglo-American approach focus on presenting instructional cases, which provide models for teaching, the proponents of the Continental approach tend to take a more holistic view of pedagogy. However, even within the Continental approach the use and thus the meanings attached to this concept are diverse. This study bridges the gap between the Anglo-American approach and the Continental approach and achieves a rapprochement of these two viewpoints. We found that these perspectives were not necessarily mutually exclusive but complementary. These distinct approaches to education and pedagogy have an impact on the choices between different teaching methods. These choices need to be based on an in-depth understanding of learners, and the contexts and goals of learning including general ideas about how to guide the learners to achieve the goals they set for themselves. Thus there is a need to anchor the pedagogical practices applied in theoretical teaching and learning underpinnings, as also suggested by Kuratko (2005) and by Béchard and Grégoire (2005).

The second research question concerned how educational philosophical issues are taken into account in scholarly discussions. The findings indicated that in general explicit ontological, axiological, and epistemological discussions are rare in the scientific debate on entrepreneurship education. These premises are closely related to the goals and values of entrepreneurship education. As the findings of this study pointed out, the concept of educational consciousness is unknown. Educational consciousness means that as educators we are aware of the values underlying our actions, thus we have a strong sense of responsibility and a pedagogical under-
standing of learners’ needs (Van Manen 1991) considering context and culture. These findings imply that entrepreneurial pedagogy is seen first and foremost as a practical issue, whereas the value issues have been neglected. We agree with Van Manen (1991) who argues that both methods and philosophy are needed in order to know how to act pedagogically. New and improved methods and learning environments are needed for “energy” and renewal, but if the value base is missing and the pedagogical choices are not thoughtful well thought out and ethical then anything goes.

In light of the findings of this study, we propose that entrepreneurial pedagogy derives from a rich philosophical foundation. Keeping in mind the essence of education and entrepreneurship, it takes responsibility for the ethics and direction of education while safeguarding the freedom, creativity, risk-taking, and responsibility of the learners, and emphasizes that learning takes place through action, experiences, and social interaction.

This paper makes the following theoretical contributions to entrepreneurship education research. Firstly, it highlights the role of educational philosophical roots as a basis for entrepreneurship education. Secondly, it presents the concept of educational consciousness. This has not so far been used as a framework in entrepreneurship education studies. As entrepreneurship educators we should be aware of the values which guide our perceptions of man, the world, and the knowledge underlying our pedagogical actions. Becoming conscious of values is at the heart of entrepreneurship education because they guide educators in their choices in any case; knowingly or unknowingly. We suggest that as entrepreneurship educators we must focus our attention on this.

Thirdly, this paper proposes the EnTree model to illustrate the multi-layered nature of the discussions on entrepreneurship education. We suggest that we should reverse the perspective on entrepreneurship education in general and on entrepreneurial teaching in particular by adopting a bottom-up approach. The data of the study showed that the Anglo-American approach mostly focuses on the “leaves” of the EnTree model, while the Continental approach pays more attention to learning theories. These approaches are not mutually exclusive. It may be that the approach applied is culturally guided. Nevertheless, more profound discussions on the underlying philosophical premises are needed. For us entrepreneurial pedagogy means a holistic understanding of the entrepreneurial learning process. This in turn means that pedagogical actions are grounded in the essence of being entrepreneurial and the related philosophical underpinnings as illustrated in our EnTree-model. Our model is not based on one single learning theory because the key is educational consciousness when adopting pedagogical tools. Educational consciousness enables the use of different learning theories and models as tools.

Thus, as we see it, pedagogy is not a synonym for a teaching method, but provides a general direction and the principles for choosing between the various methods available. Hence, considering the teleological nature of entrepreneurship education, each educator, teacher or trainer should make conscious choices between various methods. Thus the role of learning theories is methodological not paradigmatic, which enables flexible and contextual use of different learning theories and models. This idea has not been much discussed so far. It seems that the absence of a connection to philosophi-
cal educational underpinnings leads to a narrower understanding of pedagogy as teaching practices. Conversely when pedagogy is understood in a broader sense as a teaching and learning philosophy, the perceptions are derived from learning theories and underlying educational philosophical underpinnings.

This paper also has practical implications, as accounting for the fragmented use of the concept of entrepreneurial pedagogy and the conceptual model proposed in this paper may also help practitioners, i.e. entrepreneurship educators, to reflect and renew their pedagogical thinking and teaching practices. It may also provide some guidelines for educators and trainers when planning and conducting entrepreneurial training programs. However, further empirical studies are needed on entrepreneurship educators’ awareness of the educational purposes. More research is also needed on the role of culture and context in relation to educational consciousness. It is important for all entrepreneurship educators to ask themselves: What kind of values and ideas of man and knowledge lie behind my entrepreneurial educational practices? The challenge for entrepreneurship educators is to consider the implications of their ethical choices.

References


