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# Comparative morphogenetic study on structure-agency interplay in entrepreneurship education in Egypt and Finland

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#### Abstract

Mole and Mole (2010) argue that entrepreneurship should focus on the interplay between the structures of a society and the agents within it. By adopting Archer's morphogenetic theory (1995, 2003), the paper tries to deepen comprehension on *how students' understanding of entrepreneurship education varies in two different cultural settings*. To achieve that aim, we first examine two societies and their educational institutions (structure) and try to indicate the role of entrepreneurship education. Then we investigate agents' response to existing structures that is individual students' understanding of entrepreneurship. The study is comparative in focus. By applying the etic-emic approach of Brislin (1976), we compare the society of Finland with that of Egypt, and their educational systems and analyze Finnish and Egyptian students' views on entrepreneurship in order to study dynamics of the interplay between society, educational system and individual students' understanding of entrepreneurship.

**Key words:** structure and agency, entrepreneurship education, cross-national comparative study;

#### 1. Introduction

This cross-national research investigates the interplay between society and individual students' understanding of entrepreneurship in two different societies, Finland and Egypt. Finland, with its population of 5.3 million, is a small, highly developed country where entrepreneurship education has been explicitly embedded in the national curriculum as a part of active citizenship throughout the educational system, in line with the EU policy statement proclamations. Egypt, with a population of 80 million, is facing a new democratic transition after the Arab Spring and is an example of a country that has only very recently started introducing entrepreneurship education in its degree studies. Adopting a structure-agency approach, we assume that the differences between these societies and their education systems are reflected in students' understanding of entrepreneurship. However, it is not so obvious how interplay between a society and individual understanding, which is the relation between structure and agency, takes place and how the differences between societies can be compared.

As Mole and Mole (2010) argue, entrepreneurship should focus on the interplay between the structures of a society and the agents within it. The view of social embeddedness of individual entrepreneurial behavior, where action is impeded or facilitated because of its social context, is also shared for example by Jack and Anderson (2002). However, for entrepreneurship research the moot point concerns the questions of the role of entrepreneurship and its education in changing, renewing or transforming the society and economy, not the interplay per se. In the global setting, entrepreneurship education has been harnessed to education institutions by claims that entrepreneurial attitude and practices should enhance competitiveness of economies and welfare of

societies. Entrepreneurship also plays a role of a change agent in transitions (e.g. Mahieu 2006). It induces renewing processes in societies and fosters democratizing practices. On individual level, it is regarded as a factor triggering entrepreneurial intentions and attitudes (Lee et al. 2005, Lena and Wong 2003, Oosterbeek et al. 2008, Smelstor 2007; Wang, Xingsun 2007). Similar assumption are embedded in the domain of entrepreneurship that highlights the capabilities, competencies, abilities and skills to create, recognize, explore and exploit opportunities to create wealth and change, in whatever context and level they take place (e.g. Brush et al. 2003).

Structure and agency as a meta-theory that enables the analysis of the two aspects of social reality (structure and agency), opinions about how these can be analyzed and what kind of interplay exists between agency and structure varies among scholars. For example functionalists, like Durkheim, perceive society as a major force shaping individuals' behavior. On the other hand, methodological individualists propose that social structure should be explained in terms of the individuals involved (Hodgson, 2007 and Elster, 1982) and regard it rather as the result of individuals' actions. The 'structuration theory' of Anthony Giddens (1984) is an effort to find a middle path between these two extremes. The theory focuses on the mutual constitution of structure and agency, where structure and agency are a duality that cannot be apprehended separately from one another. In entrepreneurship research, for example Sarason et al. (2006) have adopted Gidden's structuration theory in their investigation of entrepreneurial processes as interplay between an opportunity and the individual.

However, Archer (1995, 2000, 2003) has criticized the concept of structuration as analytically insufficient. For her, to analyze the interrelations it is useful to understand structure and agency as being independent from each other, because this makes it possible to analyze the interrelations between the two sides. Since this analytical dualism – separation between agency and structure – allows us to cross-culturally investigate the interplay between structure and agency in entrepreneurship education that includes the reciprocal nature of society, its educational system and the understanding of individual students, we follow Archer's approach. By adopting her morphogenetic theory, we try to understand *How students' understanding of entrepreneurship education (agency) varies in two different cultural settings (structure), that is among Finnish and Egyptian university students?* 

By combining the etic-emic approach of Brislin (1976) and Berry (1989), we compare the society and educational system of Finland with those of Egypt, and analyze Finnish and Egyptian students' views on entrepreneurship in order to study the interplay between society, educational system and individual students' understanding of entrepreneurship.

We start by elaborating how Archer's morphogenetic theory is adopted here and then describe how the etic-emic approach is applied. This is followed first by the analyses of the structure, i.e. both societies and their educational institutions, and the role of entrepreneurship education in these institutions. Then we investigate individual students' understanding of entrepreneurship as their response as agents to existing structures.

### 2. Archer's Morphogenetic Theory

Archer's (1995, 2003) morphogenetic theory focuses on how structural conditioning affects sociocultural interaction that leads to structural elaboration or/and reproduction. Archer hypothesized that structure and agency are ontologically separate and that structure precedes agency. As an explanatory framework, the morphogenetic approach endorses a stratified ontology for structures (Archer 1995), cultures (Archer 1988), and agents (Archer 2000), because each has emergent and irreducible properties and powers, and explains every social outcome as the product of their interplay. Contrary to Giddens, she perceives structure as objective in character and as a single stratum, and she assumes that outcomes, which can be broadly reproductory or largely transformatory, depend upon the intertwining of structure, culture, and agency, but not by rendering them inseparable. Structure has causal power which is independent from agents. Archer perceives structure and agency as dualism, which means in practice that these two powers are independent and to examine their interplay they have to be analyzed separately. Archer claims that agents are the pillars to understanding the linking process between structure and agency. The mediation between these powers might be achieved by human reflexive deliberations.

According to Archer (1995), in order to understand agency, one must understand the context of innumerable interrelated theories, beliefs, and ideas that have had influence over it. Also considering the understanding of entrepreneurship, as Mole and Mole (2010) argue, rather than the structuration theory, Archer's morphogenesis approach might be more useful to handle the nexus of opportunity and entrepreneurship. They argue for the preference of Archer's theory: *It preferences neither strata of social reality; it enables explanation of both causal, emergent and latent powers and the possibilities these sanction, whether acted upon or not, and it allows analysis for those conditions and structures that have to be in place in order for these events to happen; in a subject where the skills, experience and attitudes of individual entrepreneurs can remain dormant until certain combinations are aligned (Mole and Mole 2010 p. 232).* 

The morphogenetic approach identifies a three-part cycle of change, as identified in Figure 1. The morphogenetic analysis of the structure-agency interplay starts at T1 by identifying the structural conditions (systematic proprieties or consequences of past actions) which are present before the interaction we are interested in takes place. The middle stage, from T2 to T3, investigates how agents respond to this conditioning. In this stage, strategies of action are originated and executed. As the agency then does not create structure, but only transforms or reproduces it (McAnnula 2005), the last stage of the morphogenetic system is concerned with how agential interaction has preserved (morphostasis) or transformed (morphogenesis) the initial structural conditions. Morphogenesis refers to "those processes which tend to elaborate or change a system's given form, structure or state" and morphostasis refers to "processes in a complex system that tend to preserve these unchanged" (Archer, 2010)

Applying three phases of Archer's framework into entrepreneurship education context needs following the interplay between society with its education system (structure) and students' (agents) respond to that interplay.

The first phase of the morphogenetic process in the context of entrepreneurship education means examining existing structural conditioning for entrepreneurship education, which represents the systematic properties or aggregate consequences of past action (history and tradition) shaping social situations and endowing people with interests. The morphogenetic approach asserts the ability of agents (with a causal power) to view and react to the emergent properties of structures which are seen as objectives, with independent causal powers. Following Archer's assumptions, education system could enable the creation of new venture process through development of entrepreneurial competences and foster positive values and attitudes among universities' students toward the venture creation process. Archer argued that agents, in addition to being the pillars to understanding and the linking process between structure and agency, trigger changes in societies where structural conditioning is mediated through them. Thus, it is necessary to determine the role of education; that is, to describe the systemic proprieties of the education system and indicate enablements and constraints in its development regarding entrepreneurship education. As Archer (2003) suggests, we have to try to specify how structural and cultural powers impinge upon agents. In phase two of socio-cultural interaction, agents whilst socially conditioned also express their own irreducible emergent powers relating to intentionality, rationality, personal psychology, consciousness and unconsciousness; during this stage, individuals' responses to these enabling or constraining structures are tracked. In our context, this is analyzed by following students' subjective views on entrepreneurship education. Students possess properties and powers different from those related to social forms. They think, believe and intend, which are features applicable to agents but not to structures (Archer 2003). Thus, research concentrates on their reflexive ability. We also try to see how students produce their practical projects; thus we follow their views on their own venture creation processes. Following Archer (2003), we examine how agents use their own powers to act.

Structural conditioning of entrepreneurship education as interplay between history, tradition and education system

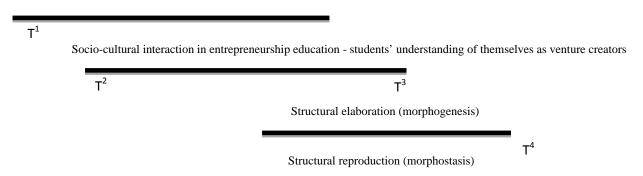


Figure 1. Adaptation of Archer's morphogenetic theory into entrepreneurship education

Adapting Archer's morphogenetic approach to entrepreneurship education context enables us to follow the interplay between history, tradition and education system, that is to find what are the properties of entrepreneurship education that students confront and what role it plays in society. Secondly, it allows us to elaborate on interplay between structure and individuals that is to find what are the agents own configurations of concern regarding entrepreneurship education and their venture creations. The analysis of whole cycle enables us to review current situation of entrepreneurship education in interplay with society and individuals and anticipate the transformation or reproduction of this interplay. Comparison between Finnish and Egyptian students enhance our comprehension on how students' understanding of entrepreneurship education varies in two different cultural settings.

#### 3. Methodology

The cross national comparative study is used to gain a deeper understanding of an observable phenomenon (Hantrais, 2009). Here the phenomenon is the interplay between society, educational system and individual students' understanding of entrepreneurship (venture creation) that is the interplay between structure and agency. As Brislin (1976) argues in psychological cross-cultural studies, the members of various cultural groups facing different experiences are led to differences in behaviour. To analyse the differences he recommends the etic-emic approach as a central concept in current thinking about cross-cultural research contributing to theory development. According to Abou Aish (2002) in the concept of cross-national, the national refers to the Emic view and the term "cross" requires the Etic view.

More precisely the emic approach refers to documenting "valid principles that describe behaviour in any culture under study, taking into account what the people value as meaningful and important", thus it is the ground for understanding cultural differences. Etic approach on the other hand is interested in what is shared in general that can lead to theory building. (Brislin 1976, 16). As Abou Aish (2002) argues, in order to compare different cultures, it is necessary for the phenomenon under

study to be of Etic type. For moving between emic and etic approaches, Berry (1989,730) suggests using the concepts of the Imposed and Derived Etic. By first describing the concepts in a tentative way as have been done in our theoretical frame of references, we explicate our "Imposed Etic". Next by modifying "Imposed Etic" to a specific culture we are led to the Emic approach; and finally drawing potential new shared categories valid for both cultures leads to "the Derived Etic" (see also Abou Aish 2002). Figure 2 below describes this process.

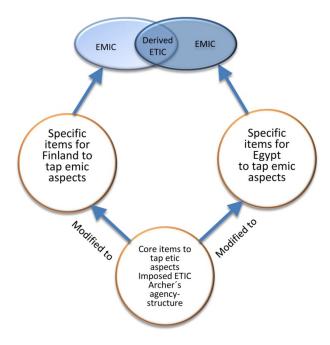


Figure 2. Etic-emic approach (Modified and combined from Brislin (1976) and Berry (1989)

It is recommended that argumenting for similarities and differences among cultures, requires as high construct, instrument, contextual, sampling and measuring equivalence as possible (for example Abou Aish 2002).

Considering the conceptual aspect of the construct equivalence we have chosen two countries both having the same need to adopt entrepreneurship education to their higher education curriculum in order to enhance their competitiveness and innovativeness. Thus they share the same basic problem. However, considering the structural conditions in entrepreneurship education, the situation varies considerably between Egypt and Finland. Since 1994 entrepreneurship has been a recognised objective of the educational system by mainstreaming it through all levels of education in Finland, but in Egypt its importance for the future of the country, has only been recognized very recently. As Ahmad Laiali, Incubation Program Manager at Technology Industry Development Agency (TIDA) in Egypt declared, in 2008 one of the major challenges in developing entrepreneurship in Egypt had been the lack of knowledge and experience that permeated all levels of education, from students to researchers. Thus by studying students' view on themselves as venture creators we can expect to be able to anticipate something about how students (agency) might use their own powers to transform or reproduce the structure.

With respect to the functional aspect of the construct equivalence, that is searching whether entrepreneurship education has been used for performing the same function in Finland and Egypt, we can say that both countries in some respect share a similar aim, which has been recognized by capacity building collaboration projects between them since 2008.

To see the state of the categorical equivalence as an aspect of the construct equivalence - that is searching whether the concept follows the same classification scheme in structure-agency construct - we need to investigate both the structural conditioning and students' understandings (agency view).

Data for structural conditioning was gathered from the existing historical writings, national and university level strategy documents and through field observations and discussions in both countries and universities during 2009-2010.

The agency data were collected at two major universities, one in Finland in 2010 (Aalto University) and one in Egypt in 2011 (Cairo University). Aalto University was created in 2010 from the merger of three Finnish universities: The Helsinki School of Economics, Helsinki University of Technology and The University of Art and Design Helsinki. Aalto University employs 338 professors and has 19 516 students (2010). It offers the highest level of education and research. Cairo University is not only the largest university in Egypt but also in Africa and Middle East area with more than 200,000 students (Faculty of Commerce with more than 38,000 students). Cairo University (CU), with the proportion of female students of 52 %, female employees 41 % and female teaching assistants 53 % offers an excellent potential for enhancing future equality in the Egyptian society and thus serves as the best possible platform for entrepreneurship education capacity building collaboration.

We ensured both sample equivalence and data collection process equivalence. As a research tool, we used an online survey consisting of several demographic types of questions and one open question regarding students' description of themselves as a venture creator and the way they were going to develop themselves as one. We regard venture creation, being the center of interest of entrepreneurship research, as an operationalized concept for entrepreneurship education. To ensure item equivalence we used the same survey in Egypt and Finland. Surveyed students at both universities were at the same stage of starting their master program and they were from art, technology and business schools. To maximize representativeness within the sample the survey was sent to 1200 students. For both group of students English was their language of study and the survey guidelines were put in simple language to ensure understanding. The survey took place in autumn 2010 for Finnish students and in autumn 2011 for Egyptian ones, so there is no temporal equivalence problem. We also used a uniform data collection for both samples.

Validity of research findings is confirmed by applying investigator triangulation as three researchers of different cultural backgrounds (one Finnish, one Egyptian and one not belonging to societies under research-Polish) are involved in the investigation.

# 4. Structural conditioning of entrepreneurship education as interplay between history, tradition and educational system – Emic approach

Finland and Egypt represent different societies, with different histories, traditions and educational systems. Taking emic approach, we describe existing structural conditioning for entrepreneurship education in both countries and then determine the general role of entrepreneurship education (leading to derived etic).

### **Egypt**

The Republic of Egypt in the Middle East, with the largest population among Arab world is now facing a new democratic transition after the Arab Spring 2011. One of the country's major problems that country struggles is the growing unemployment, poverty and also social inequalities. Egypt for

ages has experienced pyramidal social class structure and the Egyptian narrow and upper-class elite continued to dominate in politics and business. However, demographic changes, urbanization and the mass free education brought new phenomena - a wave of well-educated people of different social backgrounds entered the labour market with high expectations but not many chances to complete them. These young people feel disappointed as the education does not prove to be a gateway to better life. They believe that despite becoming, the new type of country's elite empowered by education and professional work, their social status has not improved much. Thus, Egypt has started to experience a youth bulge, which economic and social consequences. might be long-lasting and, if not stopped, catastrophic.

The situation of Egyptian young people is difficult as they are exposed to constant changes. They face transition and struggle to create new opportunities in an unstable environment. The changes take place in the society structure, politics and economy. They have to adjust to a new situation full of contradictories which cause often a tier between modernity and tradition, religion and secularism, and between the reality that existed and the reality that is about to become into existence.

Reforms are needed due to the youth bulge and the growing of population (the population of Egypt increased from 30 to 80 million in the last forty years). However, reforming Egypt due to its traditions, cultural values and religion is a challenge. There is an obvious conflict between the traditional values and ideas, and the requirements of the modern world to be competitive and innovative. Moreover, as Barakat (1993) argues Arabs regard identity as something that is completely formed and not something to be achieved. Egyptian society avoids changes and uncertainty (Parnell et Hatem 1999), striving rather for sense of belonging and harmony. Transition period thus causes frustration and feeling of lost.

Young people are confronted with pressure to become modern in Western sense but at the same time they are brought up in the Egyptian culture that is for ages strongly based on Islamic traditions. Almost 90% of Egyptians are Muslims and the Quran remains the basic source for both temporal and spiritual life (Cook 1999). Islam is understood not only as a religion but also as a system, with beliefs and doctrines, where unity of Muslim thought and practice is stressed (Eickelman 1992). Islam is regarded as the state religion and according to Egypt's constitution each new law has to be in line with the Islamic law. Young people although much westernized still refer to the Islamic values in their everyday life.

To understand young Arabs it has to be stressed that they are traditionally excluded from participation in shaping their own futures and destinies (Barakat 1993). In Arab world, personal success is measured by high incomes and social success relates to the fulfilment of social obligations (Yasin 1996). Personal goals are characterised by low individualism. Because of tribal nature of Arab society, individuals usually subordinate personal ambitions for the sake of the collective (Richardson 2004). Egyptian culture is thus classified as a collectivist one which means that team work, cooperation and loyalty to group are valued. Saving face in front of a group is a crucial issue (Parnell et Hatem 1999). Traditionally, individuals are mutually dependent on others and there is little space left for realizing own aspirations. Working in groups and depending on others impose a high power distance culture where superior and subordinates consider each other as unequal and network of interdependent kinship relations continues (Parnell et Hatem 1999). The Egyptian culture is known as male dominated, which in practice means that men have more influence and power, visible for example in disproportion between man and women at political or business positions, but also traditional Egyptian family is patriarchal and authoritarian. At the same time a growing number of women are graduating from universities and want to participate on an equal position in society's life.

To be able to understand Arab culture it has also to be noted that Arab national identity is based primarily on the language and [the?] Arabic writing is more suggestive than informative (Barakat 1993). Language represents the whole culture and a set of links across time and space.

Egypt's educational system reflects socio-economic situation of the country and its tier between tradition and modernity. Egypt is ranked 135 of 142 countries for the quality of education indicator, which measures the extent to which a country's education system meets the competitiveness requirements of an economy (International competitiveness report, 2011/2012). At the same time, there is rapidly growing demand for higher education as a result of free access to the pre-university level and the social image of higher education graduates.

The situation of Egyptian education is the result of a dichotomy of two educational tracks, secular one (based on Western experience, partly inherited from British system) and traditional Islamic one (Egypt EDUCATIONAL SYSTEM OVERVIEW). Historically, education in Egypt has its roots in Islam. Higher education in Egypt dates back to 988AD by the opening of Al-Azhar mosque, founded by the Fatimids and considered to be the world's oldest university still operating. Al-Azhar still shapes the country's religious, educational, and cultural life. In consequence, two separate educational systems exist in Egypt, the secular one (based on reason and logic), a system for technological, practical, specialized training and a non-secular, Al-Azhar, a system based upon spiritual and cultural instruction.

Entrepreneurship education might be the solution for transforming society of Egypt and the expectations of the young educated people. These people, by graduating universities, aspire to be part of the elite class. This class consists of bureaucratic and managerial elites, contractors, top members of liberal professions (such as engineers, doctors or lawyers) but also entrepreneurs (Barakat 1993). Thus, entrepreneurship is naturally embedded in Egyptians' thoughts about future career life. Being an entrepreneur gives the chance to be regarded as part of country's elite and represent the class young educated people are part of or opt for.

However, Egypt has only just started to adopt entrepreneurship education in its degree studies According to GEM 2008 Egypt has the second lowest rate for the percentage of the population that has received any exposure to entrepreneurship in the educational and training system. Only 7.5% of Egyptians reported ever having taken any courses on starting a business as part of school-based activity, or participating in related training after leaving the formal education system.

Education in Egypt is embedded in cultural and political settings. It is controlled and steered by government bodies. Enterprise and innovation are increasingly being acknowledged by Egyptian government as the driving force behind innovative change and job creation. To follow the modern world, the Egyptian government is encouraging the introduction of entrepreneurship into the curriculum. However, entrepreneurship education which is identified in other countries as a key component in advancing the competitiveness of the country, has not yet received as much attention as the reforms of physical infrastructure and small business reforms.

Introduction of entrepreneurship education in Egypt refers to not only new courses but also new teaching and learning practices. Arab students, influenced by Islamic traditions, are in favour of prescriptive learning where they are told what to do and directed along the learning process (Richardson 2004). Students have problems with taking responsibility for learning and are used to passive learning. The teaching methods are based on memorizing and recitation, which is a heritage of Quran learning traditions. As the Islamic tradition calls for looking for absolute truth there is no

place for relativism and pluralism of beliefs (Cook 1999). This challenges a lot the entrepreneurship education which is in Western countries based on active learning and experimentation.

#### **Finland**

Finland is a small, high developed Nordic country with the population of 5.4 million, very sparsely populated. Finland represents a mature, high industrialized and open economy. Economic development of Finland is related to high investments in technology and focus on innovativeness. In the 2011/2012 Global Competitiveness Index, Finland ranked 4th out of 142 countries. According to GEM 2008, Finland ranks the 7th among 18 innovation driven economies in the early stage entrepreneurship.

High standard of living is experienced by all in Finland. Social structure is diamond shaped, which shows the existence of a large middle class. The policy discourages disparity of wealth and division into social classes. The core Finnish values are liberalism and equality, despite the gender, religion, etc. As a welfare society with reasonably low unemployment, public sector takes care of many social obligations, like health care, child care and education equally for all, thus the dependency on family is low. The Finns nuclear family model is limited to the closest relatives. Family ties are not tight; relations in family are based on partnership and equality. In Finland individual achievement is valued. Networking is important but has a professional not family dimension and is based on fair rules and trust. Over 80% of Finns belong to the Evangelical Lutheran Church. However, religion is a private and intimate issue and does not interfere with politics, economics or education.

Education in Finland is free and well known for its high quality. For example Finland is ranked 3 of 142 countries for the quality of education in International competitiveness report, 2011/2012.

Finland follows Western, liberal understanding of education. The role of education is to develop individuals and their individuality. It not only provides access to knowledge and expertise but also enables self-development.

Entrepreneurship education in Finland has been explicitly embedded in the national curriculum as a part of the active citizenship throughout the educational system as the EU policy statements proclaim since 1994. Its adoption throughout the educational system follows the recommendations of European Commission (2002, 2003, 2006). In 2002 the European Commission report recommended acknowledging the importance of entrepreneurship teaching in the national curriculum as well as in the curricula for each level of the educational system as one of the key qualitative indicators for entrepreneurship education. (European Commission 2002). At that time only Finland had done so. However, only five years later, the 2007 assessment of the current situation in compliance with the entrepreneurship education objective indicated that entrepreneurship is a recognised objective of the educational systems and is embedded explicitly in the national framework curricula of six countries; Cyprus, Finland, Ireland, Poland, Spain and the United Kingdom. Additionally seven countries planned or had partially implemented it: Czech Republic, Estonia, Germany, Greece, Latvia, Slovenia and Sweden (European Commission 2007). Thus Finland has been a pioneer in this respect.

A curriculum also defines subject contents, pedagogical development and assessment thus guiding what and how to teach and learn. (Flouris & Pasias 2003). In this respect the objectives of entrepreneurship education vary between countries. For example, when Austria and Norway have a strong business focus, in Finland there is a strong non-business focus while, for example, Ireland and the UK seem to have a mixed approach. (Hytti 2002.) As for example Seikkula-Leino's (2007) research results indicate entrepreneurship education development through curriculum reform in

Finland during the years 2005 - 2007 show an extremely positive development in the atmosphere towards the implementation of entrepreneurship education.

Arab culture- Egypt	Western culture- Finland	
Pyramidal social class structure	Diamond-shaped structure (large middle class)	
Disparities between society classes	Equality	
Religion is the central issue affecting all aspects of	Religion is spiritual, private and intimate issue	
life, strong Islamic traditions		
Collectivist culture	Individualism culture	
High power distance culture - superior and	Low power distance culture	
subordinates consider each other as unequal		
High uncertainty avoiding society	Low uncertainty avoiding society	
Past oriented values matter	Future oriented values matter	
Family ties are important. Family is patriarchal and	Family is less important and smaller	
large		
Patriarchal and authoritarian relationships in family	Partnership and equality relationship in family	
Dependency on society -	Individuals are important in society	
Individuals are not so important		
Network of interdependent kinship relations continues	Non-family networks	
Sense of belonging is important	Individual achievement is important	
Education has its roots in religion (Islam)	Egalitarian system	
Educational dualism - religious training is offered	Secularism	
besides formal secular education		
Education was a conflict field between Islam and	Secularism	
secularism		

Table 1. Basic socio-cultural differences between Arab and Western culture.

#### **Derived etic**

From emic findings on entrepreneurship education through the lenses of the interplay between history, tradition and education system, separately for Egypt and Finland, we may move to derived etic, that determines what is shared about entrepreneurship education.

Entrepreneurship is recognized as the key phenomena for economic growth and social development in both countries. The level of advancement of entrepreneurship education is the result of country's socio-economic situation and its cultural background. The need for entrepreneurship as a part of curricula can be drawn from current situation of both countries despite their differences. Although Finland is a highly developed country where entrepreneurship education has been explicitly embedded in the national curriculum and Egypt is an example of a country that has only just started to adopt entrepreneurship education in its degree studies, both countries share the need to develop their curricula in entrepreneurship according to their current socio-political situation.

Entrepreneurship education corresponds to the structure of society. Thus, it might be an answer to social needs or problems, whether it is to manage a youth bulge (Egypt) or activate citizenship entrepreneurship (Finland). The role of education in both cases is to renew the society and ensure social development and facilitate social processes. It is particularly important for Egypt as entrepreneurship provides a chance to be part of the elites of the society.

In both countries entrepreneurship education is on the economic and political agenda of governments. Entrepreneurship education is tightly related to social and economic objectives, including the achievement of economic progress and democracy. The focus of Finnish system is to strengthen existing structures of entrepreneurship education whereas in Egypt it is more related to building the capacity for entrepreneurship education model. We may assume that entrepreneurship in Finland derives more from opportunities, whereas in Egypt it is a result of necessity.

New political situation in Egypt creates an opportunity to promote entrepreneurship concept as a part of political reforms and entrepreneurship education as a part of university curricula. Arab Spring was initiated and led by young educated people. These people together with more freedom demand new workplaces. Entrepreneurship, especially due to its mediatory function between society and its problems, might offer an opportunity for them. The growing group of young professionals may realize their potential through creating own ventures. The need for entrepreneurship and entrepreneurship education is bottom-up directed. Thus, if met with governmental education reform, it might bring sustainable solutions in entrepreneurship education.

# 4. Socio-cultural interaction - Agency Analysis

To find what are the agents own configurations of concern regarding entrepreneurship education and their venture creations we followed students' descriptions of themselves as a venture creator and the way they were going to develop themselves as one, through the open question in the survey.

In total we received 147 responses from students in University of Cairo and 151 responses from students in Aalto University. Thus the response rate reached 25%. Demographic description of both groups of surveyed students are displayed in table 2.

While there is no difference between the number of participants from Aalto University and Cairo University (151 and 147 respectively), there is an equal gender representation in Aalto (51% male, 49% Female), while most of the respondents from Cairo are Male (78 %) with technology background (96%). Most of the respondents from Aalto (64%) have been exposed to entrepreneurship education whether as a part of degree, extra credits or training courses. Almost all of the participants from Aalto (98%) have work experiences, 78% of them gain their experiences from work for other, and 70% of Cairo participants have work experiences. However, there is no difference between participants from Aalto and Cairo about their previous experiences in business ownership (10% and 11% respectively). Most of Cairo's respondents have intention to start their own business (71%) in comparison with 43% of Aalto's respondents.

Demographic description	Aalto University	Cairo University
No. of respondents	151 (51% Male)	147 (78% Male)
Field of master degree to be obtained:		
- business	39%	4%
- technology	49%	96%
- art	12%	-
Have training/courses in entrepreneurship	56%	41%
Potential to study entrepreneurship in their degree program	44%	69%
Work experiences	98%	70%
Previous experiences in business ownership	10%	11%
Intention to future business ownership	43%	71%

Table 2. Demographic background of surveyed students of Aalto University and University of Cairo.

It is important to note that in case of Egyptian students we approached with the survey aspire to belong to the elite class, so they are not representation of whole society structure. After completing the studies they form urban professional elite which can be regarded in Egypt to belong to a bourgeoisie class (Barakat 1993). This is not the case of Finland, where social class division is not existent, students feel equal and they do not feel that they represent any particular social group.

The received answers could be thematically summarized into two broad themes: moderators of venture creation process and the role of education in the process of becoming a venture creator.

# Egyptian students' understanding of venture creation

In general, Egyptian students are positive and enthusiastic about venture creation. However, they rarely refer to entrepreneurship concept as such. They mention it in a very broad sense and write mainly about their needs for entrepreneurial education. Egyptian students are career-oriented and see higher education as a pass to better future life.

Egyptian students seem to have strong identity of university students. In their writings they often introduce themselves as graduates of particular fields (*I have graduated from The Faculty if Engineering* E89, *As an electrical engineer* E26). Obtaining diploma is the most important issue for them as in their views it opens new perspectives in life and possibly leads to better position in society. Also grades seem to be important for Egyptian students. They often place themselves in university rankings or present their grades in order to show their excellency (*My average grade for the four academic years is %71.306 and stood me the 4th out thirty seven graduates* E82). Thus, Egyptian students regard joining university as a career start. They stress the fact of completing the studies and obtaining the diploma as important for them and often as a start point of their business venturing (*I am completing important studies in this phase of my life, and the following step will be in my own business* E140, *I can develop myself when I complete my masters* E104). The degree is conditioning factor for them to start better life. Graduation gives them necessary professionalism and power but also the position in the class they assume to represent. Consequently, Egyptians stress specialized and expert knowledge, rather than general knowledge. They also mention hard work as requirement to create venture and be successful.

The analysis of Egyptian female and male writings does not show evident differences between genders. Comparing to Egyptian males Egyptian females are more focused on social problems they want to solve (like slums, care of homeless children or recycling of the solid waste). They also stronger accentuate their professional background. Both genders use similar language and rather regard themselves through professional, gender-less lenses.

Egyptians value team working but they put attention on cooperating and working in teams, rather than the process of creating the team per se. They write about networks in the context of their widening, using, and learning from people in networks. Network are natural environment for Egyptians due to their class structure and tribal nature of society. They focus rather on ways of maximizing profits from being part of it.

Egyptian students express in very direct and self-confident way their competences. They write: *I am perfect in engineering principles* E26, *I am smart, autonomous and highly ambitious petroleum engineering graduate* E23, or *I have excellent organization skills and really good attention to detail* E105. They frequently use verbs like "hope", "intend", "wish". Egyptian students seem to be future oriented. They more write about what they will do, what they want in future, what they would like to achieve.

Egyptian students are very eager to learn about entrepreneurship. In question about intentions to study entrepreneurship, the negative answers are marginal (10 males and 3 females) and relate to students who are already in business or have concrete plans to do it, or who are more interested infield knowledge or research career in future. Among Egyptian students, lack of interest in entrepreneurship education does not go together with lack of intentions to become business owner. Surprisingly, students not interested in studying entrepreneurship show high interest in setting up a firm. Only one student does not want either to take courses in entrepreneurship or has plans to start up a business. Similarly, students who do not plan to become entrepreneurs (8 males and 6 females)

in future are still interested in entrepreneurship education. The declared interest in entrepreneurship concept, either in education or practice, is though very high among Egyptian students regardless the education background.

# Finnish students' understanding of venture creation

In general, Finnish students present average interest in entrepreneurship and venture creation. They regard education as granted and free, so during studies they more concentrate on self-development than focus on professional career. They do not show future-profession related identity as they often have not decided what they do after studies. They look more for self-development and realisation of their passions and desires.

In consequence, Finnish students call for more general, diverse and holistic knowledge (*It would be great to attend some multidisciplinary courses* F64, *In order to grow as a new venture creator, I have built my study plan in Aalto University School of Economics to offer me a very holistic view on the fundamentals of running a business* F127). Broad knowledge enable them to be more flexible in their future career choices.

Finnish students value team work. However, they put attention on finding, gathering or creating an appropriate team. For Finnish students team is the source of motivation and feedback. Finnish students tend to treat networks as a source of people who they can meet, talk to, and they can lately think about their ventures. So for Finnish students networks are important to become inspired. Also they seem to look for inspiration outside the classroom. Another source of inspiration is provided by role models, which Finnish student appreciate and look for. Finnish students value also practice and experience. They see university as a place where not only they can gain knowledge or competences but also to be inspired and enhance networking. They appreciate more university's infrastructure like Aalto Garage.

Finnish students value experience. For them professional and life experience is fuel for venture creation. Creativeness and imagination, as well as passion, is stressed by Finnish students. They demand for the space for self-development. Also risk taking is considered. However, it is seen as both an obstacle to start a venture (*My biggest reason to avoid being an entrepreneur is avoiding taking the risk of losing my venture*, F 111) and challenge (*It is a risky job. I will be happy to take these risks in my life. I like playing with these risks*. F 118).

Finnish students are not overconfident in their capabilities. In their writing the motif of hesitation in owns strengths or lacking self-confidence appears and is associated with risk and uncertainty they perceive in their environment. They represent only their personal views so they are free and honest in their opinions.

There is more understanding of entrepreneurship concept among students studying in Finland, but they show rather interests than needs to follow entrepreneurship education. There is a group of Finnish students for whom entrepreneurship is a concept they are not particularly interested in or they see it as not related to their lives (*I don't see myself as a venture creator* F102, *I don't have the drive for it* F27). They explicitly write: *I 'm not a venture creator, and I am never going to be one* F2. This group of students is composed mainly by Finnish females with no previous experiences of being entrepreneur and not having intentions to become one.

Finnish students often use the expressions like "I will" or "try". They show more reserve towards their competences and are more moderate in self-evaluation (I have quite good sense of

business F66, I have some understanding of business F77). Finnish students are more presence than future oriented. They treat university as a space for development of their competences and interests.

Finnish female present less interest in venture creation and being entrepreneur than their male colleagues. They do not know whether they want to become venture creators or have not thought about it much. They write for example: *I am not that much of a venture creator*. *I have no intention to be an entrepreneur*. F42, *I do not see myself so much as a venture creator*. Entrepreneurship is something I've never really considered as my thing. F95, To be honest I don't really consider myself as a venture creator. F137

Among Finnish students the willingness to study entrepreneurship is not high. In question about intentions to study entrepreneurship, 64 students (24 males and 40 females) indicated negative answers. Among them 15 students (14 females and 1 male) also do not have any interest in becoming business owner and 31 students (20 females and 11 males) still do not know whether they intend to be one or not. It means that, in general, Finnish females are less interested in entrepreneurship than Finnish males. Finnish females showing no interest in entrepreneurship education and entrepreneur career are, except three, students of the school of economics.

#### **Derived** etic

Both groups of students believe that it is possible to develop as a venture creator. In both Egyptian and Finnish students' understanding, the venture creation process is facilitated with the same set of moderators which may be categorized into broad groups: education, people, information, skills and personality traits. In "people" category we can identify team working, networking and drawing from role models as key drivers of the process. However, Finish students look for creating networks, whereas Egyptians for cooperation. "Information" is provided through knowledge and experience. When it concerns "skills", the most desirable for entrepreneurs are leadership, planning, and risk management. Both groups of students distinguish also personal characteristics of a person who is creating a venture, for example for Finish person it is a more a person being creative and innovative, whereas in Egypt a person who works hard.

When it comes to "education", both Egyptian and Finnish students perceive it as tunnel leading to venture creation. University's role is to enable learning. They see it as a place where they can meet people, receive access to information, where they can gain or improve important skills and competences to proceed with their ventures and learn entrepreneurial thinking. Thus, education is perceived as direct empowering factor of venture creation process but also as one that enhances other moderators. Both group of students strongly express the need of continuous process of strengthening their knowledge. However, for Egyptians education is also way for better future whereas for Finnish university is more a place or landscape to create their own ideas, network and meet their own desires.

Gender equality is to be important issue that differs between societies in question. The primary assumption was that in Finland, even with high rate of international students, the gender does not influence the understanding of venture creation process. However, it is the cause of some differences in understanding venture creation process in Egyptian society. The results of the study show that it is not so obviously true. Comparing the answers of Finnish and Egyptian females, Finnish ones show less enthusiasm and will towards venture creation. Egyptian females' answers suggest that they have more challenge oriented approach to what they do or plan to do and are more determined to grasp opportunities. We could interpret that they perceive sound education and own business as a solution to be equally treated in a society. Own business creates more opportunities for them as they less rely on others.

# 5. Conclusions and implications

Our aim was to deepen comprehension on how students' understanding of entrepreneurship education varies in two different cultural settings, of Egypt and Finland. In order to study the interplay between society, educational system and individual students' understanding of entrepreneurship we adopted morphogenetic theory of Archer (1995, 2003). Structure and agency helped us to reflect to what extent the humans (agency) have the ability to shape their destiny against the extent to which their fate are determined by external forces (McAnulla, 2002). Following Archer we regarded structure and agency as independent and analysed the interrelations between the two sides. We combined etic-emic approach of Brislin (1976) and Berry (1989), and conducted comparative study on two societies and their educational systems.

By studying structural conditioning of entrepreneurship education (structure analysis) and sociocultural interaction (agency analysis) we found that the level and character of entrepreneurship education is the result of the country's socio-economic situation and its cultural background. Entrepreneurship education is related to the structure of society thus its role might be of particular significance in helping developing countries to encounter social problems.

Education has other meaning in Egypt and Finland and students experience it differently in these two countries, although they all admit to value education. For Egyptian students university is foremost the place where they can gain competences for future work career and become professionals. By obtaining the degree, they achieve certain class in society. Finnish students regard university more as a space for developing their individual passions and interests. In Finland the security that society provides and the freedom to express own thoughts enable doubts and still relying on the choice between own future creation or relying on social networks created for employee position. Education as valued asset and a tunnel for the future is taken for granted in Finland but in Egypt it is more valued privilege that opens new perspectives and builds social position.

Despite differences in culture, students of both countries look for security and safety in their lives. In Egypt students strive for harmony which is the result of traditional tribal nature of Egyptian society and its hierarchical structure but also result of deep need for sense of belonging. Belonging provides safety, as it is given by networks and family ties. In Finland, it is the society that creates support, equally for everybody, which allows more space to develop individuality and follow personal goals. Egyptian and Finnish students have also different needs regarding networks. In Finland students stress the need to create networks. In Egypt they already exist in networks, that are often connected with family ties. The ties in the network are the strongest that they are obliged to follow. Strong ties and networks in Egypt influence also the way Egyptians express themselves. They always represent the class they belong to. Thus saving face in front of group is crucial issue. They do not speak off themselves but always have to represent a group. This influences also the language they use.

The analysis enables to assess the current inadequacies between education and the requirements of the society in Egypt. Implementing entrepreneurship education might the way for Egypt to develop and overcome social problems. By becoming entrepreneurs educated Egyptians reproduce existing class. There is no social degradation in setting up a firm after studies and it is natural opportunity for young people to consider, not provoking social opposition but rather creating new opportunities. The current socio-economic problem is that university graduates cannot find appropriate job and feel that their social status decreases. By providing entrepreneurship education we can expand elite class in Egypt and thus suppress to some extent social dissatisfaction. Entrepreneurship in this case plays the role of medium to cross the boundaries between classes. Entrepreneurial competences

might be taught, so the elite class might be broaden and thus many current social problems be circumscribed. By suggesting more enhanced entrepreneurship education in Egypt we suggest solutions to the complex and sometimes conflicting socio-economic challenges in the interface between social, cultural and educational policies. Entrepreneurship education might have strong contribution to social development of the country.

The last stage of the morphogenetic system is concerned with how agential interaction has preserved (morphostasis) or transformed (morphogenesis) the initial structural conditions. By following the findings form agency and structure analysis we can anticipate that morphogenesis takes place in future, thus structure of society in Egypt will be transformed. Entrepreneurship education might be the mediator for incoming social and economic changes, and contributes to the creation of renewed society.

The study has its limitations. Agency structure analysis is limited to students of top universities in Egypt and Finland, so the finding cannot be generalized into the broader group of Egyptian or Finnish students. Also composition of Egyptian sample, with engineering school male students dominating, might have influence on the results and findings.

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