# Entrepreneurship didactics – the push method

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**Summary**

Entrepreneurship didactics is the learning and teaching culture that promotes the ability to act on knowledge of value to others. Entrepreneurship didactics describes how academic knowledge and skills can be converted into personal competences, including enterprising behaviour (Kirketerp, 2010).

This article introduces the push method, which describes the importance of pushing theory to become action so that the enterprising behaviour becomes internalised – and vice versa – that action is pushed by *reflection so that the action becomes conscious, and therefore capable of being improved.

Entrepreneurship didactics is described by seven empirically and theoretically based strategies:

Mastery experiences
Start with your means
Personal insight and reflection
Courage to fail
Change of habits
Role models
Reward for action (enterprising behaviour as a learning goal)

The seven strategies of entrepreneurship didactics are based on positive psychology, entrepreneurship theory and learning theory. The empirical basis consists of observations of entrepreneurship courses in Denmark, the UK and the USA.

The article expands on the part of the entrepreneurship teaching that focuses on personal attributes as a basis for enterprising behaviour. This is not to say that theoretical academic skills are not equally important – it is, of course, a matter of training both types of skills. Problems arise if you focus exclusively on academic skills based on the view that as long as the students have sufficient academic knowledge, they will probably act on it. This view is challenged in the present article, which argues that enterprising behaviour can be taught by planning how knowledge can be converted into value for others. This is a viable approach if both personal and academic skills are to contribute to the desire for more entrepreneurial students..

## Introduction

By now, there is a general consensus that education should focus on students transforming their knowledge into value for others (Kirketerp, 2010). However, there is almost next to nothing in writing about how to ensure that this happens. It is implicit that if students are taught entrepreneurship, they will automatically become entrepreneurial. But what should such teaching involve? Competences like enterprising behaviour and ability to be innovative are not academic skills but aim at a change in behaviour that cannot directly be the subject of education within the current learning environment. If learning objectives such as 'enterprising behaviour' and 'ability to innovate' should indeed be learning objectives, it certainly requires a different form of pedagogy and didactics.

Entrepreneurship teaching has a special potential for making the teaching engaging and meaningful because it aims to convert academic skills to relevant value-adding improvements in society. Modern universities face the huge challenge of preventing that the infinite amounts of knowledge available today cause us to become paralysed and helpless because there is always something else we need to read, learn and investigate. In this article, I will argue that entrepreneurship is the skill that enables us to navigate competently in a world that is changing at an ever increasing speed (Kurzweil, 2006).

My basic argument is that it is not enough to get people to see possibilities, but that higher education should also create the will and confidence to act on them, if we are to achieve the transformation that is behind the idea of the entrepreneurial university.

## Entrepreneurship pedagogy and didactics

Entrepreneurship pedagogy is not very different from other forms of pedagogy. Pedagogy generally deals with how and why we learn. Within entrepreneurship teaching, these considerations are no different from similar considerations in other subject areas. The question is always: "How do you learn at all?"

It is more the didactics and the methods used that are different in entrepreneurship teaching. Didactics involves the question "*what* is most important to learn?" and the thoughts you have about *how* the content of the subject matter can be conveyed to the students. Entrepreneurship teaching that supports the enterprising behaviour of the students must be action-oriented. If the aim is that the teaching should stimulate enterprising behaviour in general, one of the means must be to ensure that the students repeatedly experience success with their conversion of knowledge to value.

I have come across an inspiring way of expressing what enterprise is in a different context.

*"Enterprise is a necessity – an unending commitment to create the very best – to constantly find new ways to improve."*

This quotation is said to stem from one of the founders of Bang & Olufsen, Peter Bang (Bang, 2000).

In this article, 'enterprising behaviour' means: a person's ability to convert thoughts into change-provoking actions of value to others. Action refers to a dynamic movement in which thoughts are transformed into an idea through conversation with others or transformed in writing into visible change-provoking actions of value to an object outside oneself (Weick, 2005). In the following, action is discussed in the context of enterprising behaviour.

### The action concept in the context of enterprising behaviour

To 'act' has many meanings in everyday speech. To act can mean anything from performing in a play to something more abstract, just 'doing something'. When we say "we need to act!" we mean that something physical and visible has to be done as opposed to merely talking or writing about it.

According to Weick's theory on sensemaking (Weick, 1987), we understand the world through sensemaking. Weick describes that we start by reasoning – i.e. a cognitive discipline. Simultaneously with this cognitive reasoning, we talk to others, and this eventually triggers action. The action therefore begins with internal cognitive reasoning, which in a simultaneous and dynamic process results in a specific action. With his concept about sensemaking, Weick provides a description of how we experience and react to changes that are difficult to describe in any other way than that "something is different and requires action".

"*Sensemaking involves the ongoing retrospective development of plausible images that rationalize what people are doing*."(Weick, Sutcliffe & Obstfeld, 2005:409).

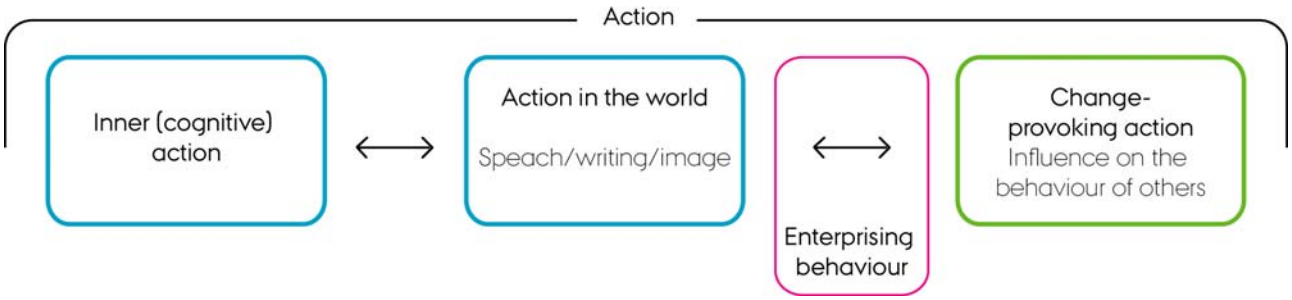


*Figure 1. Action in the context of enterprising behaviour*

The figure shows how the concept of enterprising behaviour is associated with the action concept. Enterprising behaviour occurs in the transition from "action in a world that does not involve another player" to "actions that affect another person".

In other words, sensemaking helps clarify what happens *prior to* an enterprising act. Sensemaking as a theory describes the dynamic movement in which actions change from consisting of speech and influence on the actions of others into own actions based on reflection and choice.

The above is the reason for defining enterprising behaviour as: *an intentional change-provoking action by a person who has a change-provoking influence on someone else.* Or more briefly expressed:

*The ability to convert thoughts into change-provoking actions of value to others (Kirketerp, 2010).*

Although the enterprising behaviour concept has not been used in teaching contexts in the last 30 years, it is not a concept invented for the occasion. Entrepreneurship researchers at Aarhus University, in particular, have worked with this concept (Blenker et al., 2004).

Different learning methods that trigger action have been described in recent decades, for example 'problem based learning (Sørensen & Laursen, 2009) But it has not been described why precisely these methods help promote enterprising behaviour. They describe that the students experience more meaning and ownership when learning methods are based on action-oriented teaching. But what is it about this teaching that produces this result? It is almost like saying that you put on weight by eating food. Is it always true or are there aspects about food that mean that not all food makes you put on weight? By knowing about proteins and carbohydrates, nutritional researchers can design more specific diets to avoid obesity. An analogy to enterprising behaviour is: we know more about which didactics are 'proteins' and 'carbohydrates' in teaching and are therefore able to better prepare a didactic method that supports enterprising behaviour.

## The push method

During more than 1000 hours of observation at four different entrepreneurship programmes in Denmark, the UK and USA, I have studied how teachers [1] taught so the students actually *became* entrepreneurial. I wanted to identify the 'proteins' and 'carbohydrates' of entrepreneurship didactics so it became possible to describe how to stimulate enterprising behaviour. There have been dead-end streets such as holographic learning, rituals and the use of facilitators, all of which were important but not robust enough to explain the DNA of enterprising behaviour. Everything turns out to be centred on activity, i.e. without a requirement for action the student does not transcend what is experienced as difficult – the enterprising behaviour. The programmes that succeeded in getting the students to internalise enterprising behaviour as a personal skill all made it a requirement that theories were translated into action. Example: "When we meet next Friday, you must have phoned four people who will be your first potential customers".

You might wonder why it is necessary to push the students to act; why they do not do it of their own accord? Man is born with a desire to live, learn, create and be social. Our education

[1] I chose these degree programmes because it had been demonstrated that they produced entrepreneurial students (see Kirketerp, 2010).

system causes us to unlearn many of these forms of expression. We are rewarded for sitting still and being bored for a long time. We are rewarded for learning abstract theories that cannot or are not necessarily meant to be used for anything concrete. All this has an unintentional side-effect, which is that we unlearn our innate inclination to act on any opportunities that arise. We learn that it is enough to describe what we would do if we had to act. We therefore see students in higher education, who have no problems meeting the learning requirements for getting top mark, but this is NOT the same as being entrepreneurial – this is being critical, reflective and analytical. There is definitely nothing wrong with that, but it often gets in the way of the enterprising behaviour.

This unintentional side-effect of our education system has made it necessary to require action and incorporate a necessary push to ensure that the students progress from knowledge and intentions about 'what they would do if they had to act' to a change-provoking actions of value to others.

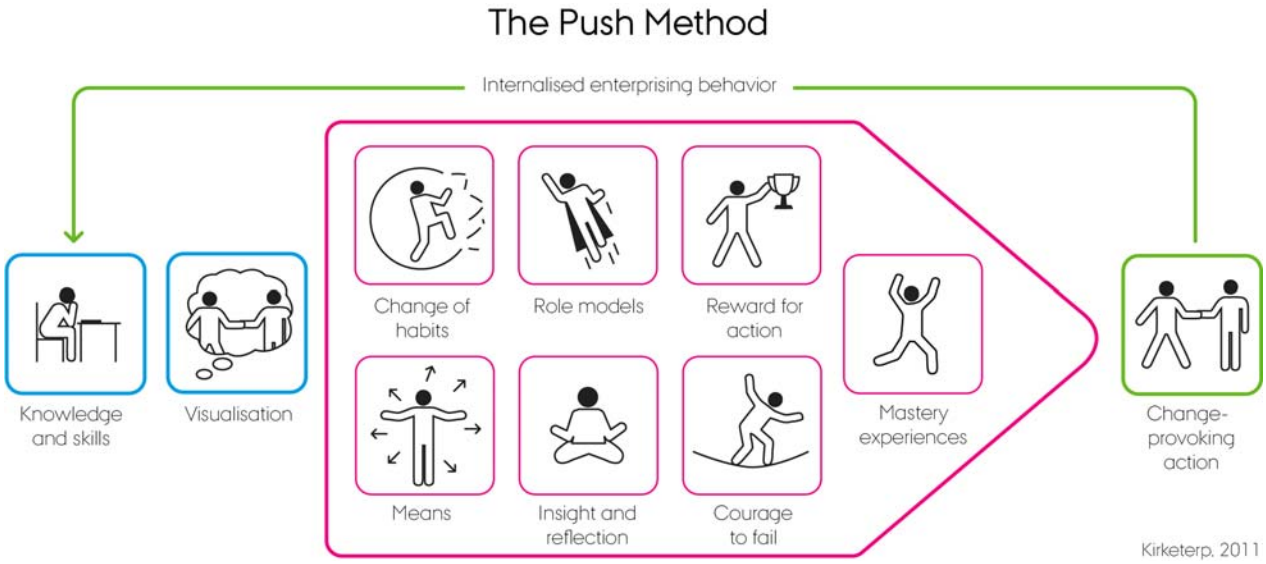


*Figure 2: The push method – transforming thoughts into action*

The model describes the process from *thinking* about something to visualising *action* based on thoughts and finally to carrying out a *change-provoking action* as the result of a demand for action – a push. The change-provoking action starts a process of reflection on how the action can be improved and changed, which in turn creates new thoughts and visualisations about actions that have to be pushed to become change-provoking actions, and so on.

It is important that *theory is pushed to become action* and that *action is pushed to become reflection* so that the action becomes conscious and therefore capable of being improved.

A *push* is the activity that causes theories and thoughts to be converted into action.

The push consists of a number of strategies that can be summed up as entrepreneurship didactics.

## The seven strategies of entrepreneurship didactics

Entrepreneurship didactics is my term for a teaching method that stimulates enterprising behaviour. It describes a conscious process of planning the transition from academic competences to personal competences so as to support enterprising behaviour. To describe this field, I have prepared a literature review of a number of articles and theories (see Kirketerp, 2010 for a more detailed insight into the theories behind the strategies).

Entrepreneurship didactics describes seven strategies that support enterprising behaviour in a teaching context:

Mastery experiences
Start with your means
Personal insight and reflection
Courage to fail
Change of habits
Role models
Reward for action (enterprising behaviour as a learning goal)

## 1.Mastery experiences in the zone of proximal development

To succeed with something new is a self-reinforcing process that strengthens the ability to act

To experience life as good and meaningful a person generally has to have three times as many positive experiences as bad experiences (Fredrickson, 2010). Paradoxically, the reason for this is that our negativity bias evolved to ensure the survival of our species. It was once important, for example, to be highly alert to whether the sabre-toothed tiger would attack, and we are therefore designed to be highly alert to danger. As a result, we pay three times as much attention to negative experiences as to positive experiences. We have all experienced it: we remember the one negative remark at a meeting and not all the positive remarks. The art is to discover the positive experiences, design them, pursue them and record them effectively.

Successful experiences of converting knowledge to value are one of the most important elements in internalising enterprising behaviour. According to Bandura's theory about self-efficacy, the reason is that we need many experiences of success with a given action before it becomes a predominant pattern of behaviour (Bandura, 1997) Self-efficacy is the term used to describe our experienced belief that future actions will succeed.

*"Beliefs of personal efficacy constitute the key factor of human agency. If people believe they have no power to produce results, they will not attempt to make things happen*" (Bandura, 1997).

When the efficacy belief is present, it controls our motivation, choice of actions, mobilisation and the maintenance of efforts and emotional reactions. Bandura describes the cognitive mechanisms in the brain that enable us to imagine a successful action not yet performed. We can therefore imagine the outcome of a given action that has never happened because we have a cognitive ability to imagine completely new action scenarios. We are capable, for example, of imagining a hippopotamus in striped leotards gliding over a volcanic crater in a parachute, something we have never seen in real life. We are able to visualise it, because our ability to imagine many individual components and combine them in new ways is the very foundation of our neutral approach to association (Bandura, 1997:4).

Teaching is about ensuring that the gradual practice of a skill results in an experience of success. This experience must be sufficiently hard to achieve in order to be experienced as a success. It therefore does not count to ask a student to complete a task that is below the student's level of capability or too far into the zone of proximal development (Vygotsky, 1974). It has to be something difficult that is achieved. It could be, for example, to call a potential customer and conquer the fear of contacting a stranger. Or it could be to carry out a specific act which has the potential to fail. If the act is successful, it will result in self-confidence and count as a successful experience.

### 2. Start with your means – short-term realistic goals

Our knowledge increases when we act; when we take the plunge and 'take it from there'. When the next goal is in sight and seems specific and achievable, the belief in success increases and thereby the ability to act.

It is well known that long-term goals can kill any initiative. When it comes to health, education and staff development, we therefore believe in making achievable demands on ourselves. We call all minor achievements a success. We try to believe in the tiny bit of the process we can manage. We are aware that high ambitions will cause us to be discouraged and lose focus. In other words, long-term goals are best achieved in small, manageable steps.

It is therefore important to act on our knowledge when we know just enough to take the next step in a process. All change processes are best conquered in small bites. Along the way, we solve problems that seemed impossible to begin with. We learn from the process, get a better perspective and see how things relate. It is therefore just a matter of getting started.

If, for example, the fear of rejection or of making a fool of oneself gets in the way of the desire to call IKEA's managing director with a proposal for a mutually beneficial collaboration, it is therefore important to make the step as manageable to oneself as possible; to write down the first four sentences and 'take it from there' – be open and present – rather than try to guard against anything that could go wrong.

Recent entrepreneurship research uses the concepts of causation and effectuation logics to describe the different approaches to the use of knowledge in connection with entrepreneurship (Sarasvathy, 2001a, 2008)

**Causation logic** closely follows the traditional way of reasoning as we see it in MBA courses, business plans and classical textbooks (Sarasvathy, 2001a, 2001b). It takes the goal for granted and makes plans for how best to achieve it. You begin by identifying a problem and describing the cure. In that way, we have a goal we can work towards. To teach in accordance with causation logic presents the advantage that you know what you get, and as a future entrepreneur you can convince investors about the viability of the business. The disadvantage is that goals that are too rigid can hamper what might be a necessary change of course. The underlying thought is that the market and the opportunity already exist, and the challenge in this type of teaching is to combine new knowledge with known problems. The purpose of causation logic is to help the entrepreneurs make their ideas explicit – to consider in advance as many aspects as possible about the business they are about to launch. This is done to anticipate any problems and to see if the individual components of the business plan tie up (Kirby, 2003).

**Effectuation logic**, on the other hand, is the opposite of causation logic. It starts with three questions ('means'): "Who am I?", "What can I do?" and "Who do I know?". The goal is therefore largely determined by the means and can therefore change throughout the process, as and when available means change. It goes without saying that after three years an entrepreneur may have other and perhaps better means and resources than he or she did during the first couple of months.

Paradoxically, effectuation logic is based on the potential for complete control, since we personally create our future every single day. The future is not a result of unavoidable trends but is created by people who cross each other's paths while taking their first steps into a future that is new every day. No matter how much we would like to, we cannot predict how the process will end, because the future is dynamic. We can only see partial goals. Therefore, it does not make any sense to plan several consecutive actions. We have had to realise time after time, crisis after crisis, that there is no causation logic in the development of society, and that our thoroughly analysed objectives can be destroyed by reality. To use means instead of goals as a starting point therefore makes it possible to take small steps with full control.

It is through action that the students gain experience that positively supports the desire for more action and overcomes the fear of translating ideas into action. It is a fundamental precept that a business opportunity grows (emerges) small step by small step, and that the students do not necessarily know all the consequences of their actions. In other words, the reality is only predictable until the next action (Sarasvathy, 2008). The students therefore do not follow a fully developed plan but let the possibilities emerge and act on them as and when

they do. The purpose is to give the students experience with handling these unpredictable processes by trying and learning.

According to the effectuation logic, the focus shifts all the time towards the point where motivation is the strongest, and where there is an immediate business opportunity. This logic is based on the view that the individual has certain specific resources but no specific goal. Of course, the students have certain bearings but no pre-determined goal. Businesses or projects come in the form of partnerships in which the risk is distributed between the different players. Consequently, the participants have to analyse their personal competences and know their own strengths and weaknesses. In that way, you can put together a team that supports the available competences in the group. The underlying thoughts are of a philosophical nature: "How do ideas arise that do not already exist", and "How do you create a market you cannot yet imagine?" (Sarasvathy, 2001a, 2001b, 2008)

The effectuation logic immediately and directly supports the perception of entrepreneurship as enterprising behaviour. It is by using the competences and possibilities of the individual entrepreneur as the starting point that the transformation from idea to action is facilitated to the greatest possible extent. It is the very core of effectuation logic that the shortest distance is the most interesting – not to a pre-defined goal but to action. Entrepreneurship teaching should therefore change focus according to Sarasvathy (2001a):

"*The focus in our classrooms, for example, would shift from "how to build a successful firm" or "how to become a successful entrepreneur" to "what types of ideas and opportunities should YOU pursue?" or "given who you are, what you know, and whom you know, what types of economic and/or social artefacts' can you, would you want to, and should you create?*" (ibid: 258)

If we constantly focus on "the next best possible action" through small, fully controlled, steps, the enterprising action becomes manageable and possible.

### 3. Self-insight and reflection

If we know ourselves, we know how to avoid being hampered by our mistakes.

Successful entrepreneurs have only to a limited extent created their opportunities by analysing markets, predicting the future and making plans with fixed goals. On the contrary, Sarasvathy's research shows that successful entrepreneurs start with themselves and the means available to them. Success has to be created – not planned. The first prerequisite for creating success is therefore to know and understand your starting point. Sarasvathy calls this knowledge of own resources the 'Bird-in-the-hand principle' (Sarasvathy 2008).
A number of psychological test tools are already available to increase the knowledge of own competences, which in minutes can provide a picture of what drives the individual, the challenges that will make the person thrive, optimum working relationships, inner resistance that can delay or completely stop the process, and the possibilities for utilising own potential. Higher education nevertheless does not give high priority to teaching students what birds

they already have in their hands that they can use the day they have to go out and conquer the world.

'Knowing yourself' is not a subject you often see in a school curriculum. Bandura describes awareness of own bodily reactions in different situations as extremely important (Bandura, 1994, 1997; Hoch, 2006). It is important to know, for example, how and why you react with resistance to contacting a new customer. Many mistakenly categorise themselves by saying "I'm not good at selling" or "I'm not good at contacting strangers". These presumptions about ourselves are based on our lack of training in handling these action-oriented behaviours, and we therefore describe them as something we are not good at. Not having the necessary training is not the same as not potentially being able to master something. Many teachers are of the view that you cannot change inner psychological characteristics, whereas we can acquire theoretical knowledge, and, for example, learn difficult mathematical formula. This corresponds to refraining from learning Chinese because we do not master it the first time we try to speak it. Most people would probably say that intensive practice would improve our chances of learning the language. The same applies to personal competences.

Stern (2000) calls this training in action-oriented behaviour 'emotional attunement'. Emotional attunement describes the way in which a person reinforces or supports an emotional state in another person. What is being matched is not the other person's behaviour as such but rather an aspect of the behaviour that reflects the person's emotional state (Stern, 2000: 198). Emotion refers to: *The condition in the autonomous nervous system associated with an experienced emotion* (Gade, 1997). Emotions are the system that supports our perception of how our body is feeling at a given point in time. According to Damasio, emotions cannot be completely distinguished from the cognitive, as the brain stores different representations of acquired knowledge in many different sensory modalities (Damasio, 1999).

For example, we can see when someone is sad or happy. We can therefore help that person express this by saying: "You look sad – are you?" In that way, we give the person the right to express inner tension. You will often find that by creating emotional attunement, the current emotion is very quickly released. Parents often train children to be bad at feeling emotions, for example by saying – when a child has been hurt: "It doesn't hurt – look, I'll give you an ice cream; that'll make it go away". What the adult is doing is distracting attention from what hurts, but the resulting metalearning is that you get a wrong idea of what pain is. If you want to teach your children to record their emotions correctly, you have to create an emotional attunement that fits the emotion, and for example say to the child that has been hurt: "Ouch, that hurts". When teaching something that provokes strong emotion, it is therefore best to create a correct emotional attunement, as it enables the person to change the mood more rapidly. People who are used to poor emotional attunement find it hard to change behaviour, as they have difficulties associating their actions with the right emotions. They evaluate their experiences incorrectly and categorise them in such a way that, for example, resistance and

fear becomes “I can’t be bothered”. That makes it difficult to change the behaviour. There are therefore very good reasons to practise the skills of basic emotional attunement – also within higher education.

A person who has become ‘sufficiently’ emotionally attuned will think “my ideas are okay – my thoughts are okay”. This helps build a person with good self-esteem and is important because the thoughts that spontaneously pop up around a possible solution to a problem will then not be censured by a negative marker.

It does not require therapy to describe the emotional blockages that prevent us from carrying out different actions. It is not dangerous to look at these blockages, and it does not take a psychologist to change them. You can start by asking: “Are you sure it’s completely true that you aren’t good at contacting customers? Are there situations in which you are good at contacting other people? How can you use your experience from a situation in which you saw yourself as confident, in a new situation?”.

Damasio studies the connection between sense and emotions (Bechara & Damasio, 2005; Damasio, 2003; Damasio, 1998a). According to Damasio, our decisions are always coloured by our feelings. We do not make a choice without that choice being coloured by an emotion that is motivated by a preference for one thing or another. We constantly make decisions about anything from whether we should put our hand up in class to important choices about our future. If we look at the example of deciding whether to put our hand up in class, it is not merely a question of whether we know the answer (or have a suggestion for one). It is also a question of whether we have the courage to put our hand up and risk ridicule. Putting one’s hand up is therefore also very much an emotional decision. An intelligent student only comes across as intelligent if able to communicate and sell his or her knowledge to the surrounding world. It is therefore very important that students have the emotional courage to expose their knowledge. Through increased self-insight and ability to reflect on our own actions, we make it possible for our potential to be exposed and become of value.

### 4. Courage to fail – fail forward

“Learn to fail or you will fail to learn.” Professor William B. Gartner, University of Clemson.

Man’s reaction patterns have fundamentally remained unchanged since the Iron Age. In the wilderness, mistakes could be fatal. Spearing a bear in the shoulder instead of the heart could mean death. When we make mistakes, we therefore react as if our entire existence is at stake, and several successive failures can have such a profound impact on us that we lose faith in our own ability to succeed. The fear that something goes wrong is self-reinforcing to the extent that it is sufficient to paralyse our ability to act.

One of the American criteria for successful entrepreneurs, used by Sarasvathy to select his 27 cases, is, in fact, that the person must have been bankrupt at least once. To be successful, you

have to know what financial failure means in real life, learn from it and then avoid making exactly the same mistake again.

There are therefore several obvious reasons to look at mistakes as the unavoidable steps in human development they really are; to look at them with open eyes and learn from them; to tone down perfectionism and the culture of looking for mistakes that paralyse the ability to act and refrain from focusing on or mobbing those who fail. The courage to fail should instead be rewarded, as consistently pretending that the risk is less than it is will achieve very little.

In fact, the risk of making mistakes makes the final success much more valuable.

In entrepreneurship teaching, where you typically work with complex situations based on unpredictable futures (see effectuation logic), it is extremely liberating to accept that mistakes will always occur but that what matters it to make them quickly and quickly learn from them. If you focus on the learning process immediately after making a mistake, you can succeed in creating an acceptance in your teaching of "Learn to fail or you will fail to learn". In singing lessons, this corresponds to focusing on a slightly higher note when having to sing a very high note – in that way you avoid being paralysed by the uncertainty of whether you will hit the right note.

### 5. Change of habits

A student should have as many mastery experiences as possible of translating knowledge into value, as this creates strong and robust positive markers for enterprising behaviour.

"Watch out! You'll hurt yourself if you fall out of that tree!"

We are all inclined to tell others about our own experiences, and we are familiar with the paradox that you cannot learn from someone else's experience – you have to make your own. It is therefore not particularly useful to know what we should or should not do, unless we have personally experienced it. It is only once we have been burnt that we know it hurts. The first time we get close to something hot results in a somatic marker about the danger of getting near heat. The same is the case with other phenomena for which we create somatic markers through experience. Experiencing something good results in a positive marker (a 'guiding star' Damasio, 1999) for the experience, and in the future we will be likely to repeat the actions that resulted in this positive experience. Markers are created gradually, and the more times they are repeated with the same result, the stronger the somatic marker becomes. This applies to both positive and negative markers.

When we need to change behaviour, it is therefore important to remember that the change from negative to positive markers takes place gradually. Negative markers are described as black holes (Damasio, 1999). We therefore cannot change a negative marker by a single successful experience, but one successful experience constitutes the beginning of a positive marker. The number of successful experiences required to cancel out a negative marker

depends on the person's general personality structure and the strength of the negative marker. As previously mentioned, it takes three times as many positive as negative experiences before we experience balance (Fredricson, 2010).

When we repeatedly experience that an action results in negative feedback, we learn to avoid it to avoid re-experiencing the negative emotion produced by the situation (Damasio 1999; Mauer, Neergaard & Kirketerp 2009). Call centres are very conscious of the fact that failure can result in a feeling of powerlessness and action paralysis, and telephone sales people are not allowed to take a break until they have made a sale. Not in order to motivate them to sell, which you might easily think, but to avoid that the brain has time to associate the telephone with failure.

Telephone phobia is therefore treated by calling someone you feel confident talking to. This produces new pathways in the brain that associate the telephone with positive feelings. Initially, this could be a good friend, a member of the family, or a person in the same room. What is essential is that the action establishes a new marker in the brain that tells the centre of emotions, the limbic system, that in this situation the dangerous action does not have to provoke fear. By exposing yourself to the fear-producing object, the telephone, you gradually experience more and more situations in which the telephone is neutral – perhaps even attractive. Eventually, you might in some cases be able to establish a completely new rule in the brain. "I can do it – I have the skills it takes to make a successful call".

For theory-based teaching to ensure a greater degree of enterprising behaviour, a gradual experience of success by acting on learned theory must take place, according to the theories about somatic markers (Damasio, 1996, 1999) and self-efficacy (Bandura, 1994). It is a requirement that there are many possibilities for successful enterprising actions within the zone of proximal development (Vygotsky, 1978). If the requirement for action is too much of a challenge, it will not be an experience of success but instead an experience of failure, as the person will create a negative somatic marker in connection with the experience of acting on the knowledge, as requested. In other words, the requirement for action has been associated with a negative marker (a black hole), and in other cases that look similar to the 'too large challenge' the person will try to avoid repeating a negative experience and find ways to avoid experiencing what triggered the negative marker. The student has therefore become less enterprising and more cautious about converting knowledge into value for others. The knowledge of entrepreneurship didactics enables you to avoid the negative confirmation of unenterprising behaviour. A student should have as many successful experiences as possible of translating knowledge into value, as this creates strong and robust positive markers for enterprising behaviour.

Fundamentally, the most important forms of positive markers are experiences that begin with "I can".

## 6. Role models that indicate the next stepping stone

We need one or more present role models. Someone who has achieved results worth striving for. Someone who can indicate the next stepping stone because that person has tackled something similar at some stage and makes us think "Oh, is that all I have to do ..." Someone who looks like a realistic version of ourselves in a not too distant future.

When we have to choose something new and apparently difficult, we need a guiding star who makes sure that we can take the first uncertain steps without feeling that we have no direction. A role model can be that guiding star.
Unachievable role models have the opposite effect. The lofty idol that we think we can never match ignites the feeling of powerlessness and dampens the belief in success.
Role models are people we can mirror ourselves in. They are not just any person we see doing something difficult. It must be a person we would like to be like at an inner psychological level. We must experience that the person shows a direction through something that is foggy and uncertain. It could, for example, be the person who tells what it was like to start as an entrepreneur; where you can imagine yourself in that person's place and experience exactly what personal qualities it takes to overcome the initial fear of calling and the fear of failure. It is not a good role model who recounts how he sold his business for 40 million dollars without describing how he got his first customer, because then the distance between him and the student's reality is likely to be too big.

According to Bandura (Bandura, 1997), the concept of 'role models' also includes the meaning 'role learning'. This means that we learn the way children learn languages *through* role models, acquisition, imitation and repetition. It is therefore not essential for learning that the subject matter has been planned according to well-defined pedagogy and didactics (Nielsen & Kvale, 2003).

During one of my observations, the PR Manager for Mungo Park (a Danish theatre group) made a presentation on marketing. He told the students about Guerrilla Marketing and a case where a number of naked actors from Mungo Park distributed leaflets advertising a play. Such examples of experts who are pulled in to talk about how they acted in a specific situation are typical for the use of role models. The person talked about the way in which *he* planned guerrilla marketing and did not explain any marketing theories. The main thing about this type of presentation by role models is that they recount their personal stories, and the students thereby relate both to the *person* talking and the *event* he is talking about. It is by allowing the person and the event to merge that the presenters transform themselves into role models.

A good role model indicates the first stepping stone so moving into new and unknown territory becomes manageable. They tell the story about their first customer and their first phone call. In that way, it becomes possible for students to mirror themselves in them and to

want to be like them. Role models are able to present what is difficult at eye level so the way forward looks manageable.

### 7. Reward for action – enterprising behaviour as a learning goal: washback

Students study based on how they are evaluated at the exam – therefore, enterprising behaviour must be incorporated as a learning goal.

"Washback" (Caudery, 2002; Alderson & Wall, 1993) is the description of how students study based on how they are evaluated at the exam.

If a teacher tries to teach enterprising behaviour but at the same time sets exams that maintain that there is a right and a wrong answer, the students will quickly refrain from testing methods that might result in low marks. Many entrepreneurship courses focusing on teaching enterprising behaviour may fail if they do not take the exam into account from the beginning by incorporating enterprising behaviour as a learning goal. A lack of learning goals for enterprising behaviour backfires because it becomes difficult to measure enterprising behaviour.

Another parameter for supporting enterprising behaviour based on theoretical teaching is to ensure social persuasion, which, according to Bandura, means the culture or linguistic discourse surrounding the teaching (Bandura, 1994, 1997). The social persuasion can contribute to the learning goal described by the teacher, which means that both the teacher and the students must speak and act in a way that agrees with the goal of enterprising behaviour. In his book "Quality Teaching at the University", Biggs describes that student's study what pays off (Biggs, 2003).

Social persuasion also plays an important role in increasing self-efficacy, because, as humans, we act in accordance with the norms of our surroundings (Bandura, 1994). If we always experience a discourse in which the question is: "What job will you apply for when you graduate?", the social persuasion becomes that it is normal to become a salaried worker. Several studies indicate that children of entrepreneurs are more likely to become entrepreneurs themselves (Kirby, 2003).
At Kaospilots, one of my cases in connection with the research into entrepreneurship didactics, there is a clear and consistent discourse about starting your own business. It is implied that is the right thing to do. During their presentation, all the students explained the new projects they had taken part in – not where they had worked.
Enterprising behaviour can be stimulated if the students become motivated; if they see the relevance. In other words, there is a need for the educational institutions to officially reward initiative, the courage to fail and the belief that things can be done. In a broader perspective, you can argue that enterprising behaviour should be a learning goal throughout elementary, lower and upper secondary school, not to mention higher education.

## Conclusion

Enterprising behaviour can be identified by a transformation of thoughts into action (intention) via change-provoking actions that influence others. The teacher can support this transformation by ensuring that theory is translated into action. This is described as the push method. Entrepreneurship didactics involves all the individual instances of pushing that together result in internalised enterprising behaviour. Entrepreneurship didactics describes this process as seven concurrent strategies.

When these seven strategies are summed up, they describe the importance of the student having many *mastery experiences* of converting highly academic knowledge to a value experienced as meaningful and relevant. The way to have many success experiences is to break down what appears unmanageable and dangerous into *short-term, realistic goals* where you take many small steps knowing that control only exists within very short time spans. To make the best possible use of available means, we must know our strengths and weaknesses and know who we are, who we know, and what we know – in other words we need a large degree of *self-insight and ability to reflect* on the actions we undertake. In that way we can *avoid allowing mistakes that hamper our desire* to try new opportunities. If we experience being paralysed by fear and unable to act, it is because certain actions have resulted in the coding of negative markers. These *habits/markers can be changed* if we are consciously and gradually exposed to positive experiences. One way to engage a person and create a basis for the desire to act is to use *role models* who are able to present what is difficult as something manageable, and who are also good role models. Last, but not least, the surroundings must support a discourse that makes it attractive to be entrepreneurial – which implies that exams must *reward enterprising behaviour.*

Theoretical and empirical studies have shown that it is possible for teaching to achieve a greater degree of enterprising behaviour if these seven strategies are incorporated (Kirketerp 2010).

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