# Mimetaur, or the Process of Learning to Draw

Mika Karhu
Aalto University
School of Arts, Design and Architecture
Department of Art
mika.karhu@aalto.fi

## Abstract

In this paper I shall deal with the development of human skills on the level of mimetic activity and its progression through systematic teaching to a specialized skill. Organized and premeditated teaching means that there is an understanding of the practical exercises required for the development of the skill, exercises that are logically connected to achieving the skill.

As an example I shall focus on the learning of the art and expression of drawing. The transmission of human knowledge and skills takes place through action. Action is always communal. As humans we mimic and imitate each other. This is one of the foundations of being a human. As a child we mirror the miens, reactions, and activity of our neighbors and adjust them to situations, where they are substantiated. This is also the basis for all other learning. Learning from other people is natural, hence education has to be an integral part of life rather than being distinct from it.

**Keywords:** mimetic activity, John Dewey, learning from experience, learning to draw

## Introduction

The American philosopher John Dewey (1867–1952) maintains that learning from one's own experience and teaching to learn from experience is the prerequisite of all learning of skills. This means that action produces experiences. Experiences are formed in relation to the continuum of activity, and understanding this process generates learning of skills (Dewey, 1983).

Art education is one of many essential ways to modify the capability of humans to develop and utilize their experience. Learning from experience grows in the immediate operational environment of human beings, in the environment where one meets challenges and difficulties, which initiate pondering that develops experience. If the connection between action and environment is broken, the experience of action is not sufficiently localized to the surrounding social culture (Dewey, 1983).

Dewey thought that the educational system should transmit cultural inheritance, but in a selective and critical way. Every culture collects many useless and adverse things. Examples of such are many obsolete and unjustified beliefs and traditions, and conventions that have lost their original purpose. By recognizing and removing such things from the students' environment, the educational system can prevent the transmission of adverse things to the next generation (Dewey, 1983).

This requires that one's own actions and the dominant sociocultural environment are made continuously proportional to one another. Only through this can art education work as a tool for social development. Education should not be guided by outside needs and goals that do not meet the requirements of the educational sector; requirements that could develop the individual and society.

In the teaching of drawing, one must consider the logic of the teaching in proportion to its necessity in the prevailing environment. This aspect can be used as the basis for the teaching of drawing. It must connect to the continuum of actions and meanings of the rest of society. It cannot be separated from other human action and attached meanings.

One possibility to understand the art of drawing is that it takes place partly through nonverbal meanings. These consist of actions. Man can create meanings without talking. Action and movement are meaningful in themselves. Something drives man to persistently move and act.

Drawing is part of the human action of man and human cultural evolution. Man has always drawn visual figures, metaphors and maps on sand, stone, paper and computer screen. In principle, one might think that everyone who can write by hand learns to draw. The ability to write is based on the evolution of the art of drawing in the human structure of embodied activity. It functions with the same hand-eye coordination structures as hand drawing. What is communicated through drawing is a different thing, just like with writing.

## Cognitive evolution and art

Next I shall discuss the relationship between art and human cognitive evolution. Art and art education are always a part of a wider context. Due to the dominant canon of modern art, which I will not unravel further, human cognitive development has often been ignored in the context of art theories and art education. The methods of art have often modified and are still modifying human cognitive structure.

> "Art is an activity that arises in the context of human cognitive and cultural evolution. Its sources include not only the most abstract integrative regions of the brain but also the communities of mind within which artists and audiences live. The interaction of these sources creates complex cultural-cognitive domains, which are reflected in art. Art and artists are active players in the co-evolution of culture and cognition." (Donald, 2001, p. 2)

Human intelligence and remembering is not only about spoken and written language. Recollection and thinking have also been actualized through non-verbal performance and activity by imitation of the actions of other people. Man learns, communicates and distributes knowledge and crafts by imitation, copying and duplicating. The processes of human consciousness are communal due to the properties referred to above. The operational metaphors are the basis of human learning (Damasio, 2001).

According to neuroscientist Merlin Donald, the first breakthrough in our cognitive evolution was the development of motor control of the body. Donald asserts that the prerequisite for human cultural activity has been the network of complicated social interactions. This has made it necessary to take into account the expectable activity of many members of society in a particular situation, sometimes based on the person's status in the social hierarchy (Donald, 2001).

Donald asserts that this requirement to take into account several individuals with different statuses while making one's own choices is the particular factor that forces us to think about several chains of events simultaneously. The concurrent thinking of actions increases the cognitive distance to the existing situation (Donald, 2001). The origin of consciousness is the anticipation of the acts of one's own and that of others (Määttänen, 2008). This pressure has forced us to develop ways of outsourcing memory, such as images and tales.

The anticipation of activity implies in practice that one needs the capability to maintain several chains of ideas simultaneously. It calls for the ability to interpret the intentions of others and to express one's own. Before the adoption of natural language, this happens by means of mimesis or simulation. According to Donald (2001), imitating other people is the *sine qua non* for the development of language. Communication is based on skills, gestures and facial expression and their imitation, or mimics.

According to Donald (ibid.) this is the basis of abstract thinking, which is founded on the integration of skills with human activity as a collective system.

Skills became a tool for thinking and knowing. Skills produced and are still producing meanings and knowledge. While acting skillfully, man simultaneously transmits meanings through actions. Whereas constructing a house is knowledge about house construction, drawing is knowledge about drawing and the transmitted meanings. In other words, the significance of skills and knowledge is to transform experience in a form that is expressed in action and creates new things: objects, performances, action and communication (Dewey 1980). The meanings of skills grow out of the background of experiences, the network of actions and habits, which are nonverbal but influence our activity as guidelines.

In connection with activity, the emotional layers are activated in relation to the meanings of activity. When an action feels collectively reasonable and it fits the environment, little by little it turns into a prevailing habit of action. If the emotional contradiction is overwhelming, it ends the action or isolates it from the continuity of the activity of the rest of society. This is why new and creative ways of action are often problematic: They evoke contradictory emotional reactions. Whether appropriate or not, the action contains a contradiction, which is always problematic to recognize and denominate. This might be the reason for the difficulty in changing old habits, and sometimes they are replaced naturally, as if unnoticed (Karhu, 2013).

Forced by the contradictions of activities and owing to them, the creativity, i.e. the testing and implementation of new models of means of action, gains its momentum. This has its foundation in the mimetic model of the structure of human activity in relation to practical and social problems. In other words, the skills are based on problem-solving and that is the way they are continuously renewed and developed.

## Mimetic activity

Next I will go through the basics of action-metaphor and its connection to human cognitive evolution and the construction of culture. *Homo erectus* brought "mimetic skill", which led to the use of the whole body as a communication device. I have already called this property mimesis and a talent for action-metaphor. This skill maintains a strong culture without language (Donald, 2001).

The prerequisite of the skills of imitation, mimetic activity, is the ability to relate events detected in the environment with each other and one's own activity. The physiological foundation of this activity has developed during the evolution.

It requires that the physiological properties needed for learning are similar to those of the target of imitation. The biological structure of the body and sense organs is the same in all humans. Eyes are the

result of brain development and are mainly located in the head. For example, the perception of colors is based on the properties of the reflecting surface, light conditions and then the structure of the eye. Actually the structure of the eye cannot be separated from other structures of the organism and the concrete interaction measuring the length of all evolution, which ultimately explains why our different organs have developed. Language and culture can have an influence on the manner the perception of colors, and forms are developed through learning and practice, but it does not change the biological foundation of perception in any way (Määttänen, 2009).

It is of course possible that language and culture have had time to influence the forms the human biological genome has taken. Nevertheless, the fact remains that basic biological characteristics form the foundation for the constituting of the world of experiences independently of the current use of symbols (Määttänen, 2009).

Perception is not only a sensual property of the eye. Perception is also an advanced social skill. The skill of perception is also an essential element for the emergence of complex skills. Perception is formed on the basis of functional experience, which is handled through conscious thinking.

A member of society has to be able to imagine, i.e. anticipate, his own actions, different operational possibilities and their possible consequences. This means that the target of observation is no longer the perceived reality and the operational possibilities it offers, but action itself. The target of attention is the form of action, as Donald puts it; that is the habit of action. The development of this before allows forms of public activity, which are more complex and more difficult to anticipate than previously. (Donald, 2001.)

Mimesis is a “supramodal skill”, which is unrestricted with regard to employing muscle groups.
In mimesis the movements can be rehearsed spontaneously and systematically. The motion can be interrupted, repeated and modified. Here the spontaneous recollection of the body memory is realized, resulting in the reformation of the activity on a conscious level. This process is the physiological foundation of all learning of skills. (Donald 2001, p. 35.)

Complex human motor actions and skills develop meaningful sequences that can be imagined in the mind, then modified and repeated. The operational imagination is still the basis of nonverbal imagination in modern humans. This basis is essential for actors, artists, artisans, and athletes, among others. Mimesis is connected with the continuity of action, hence it is a memory tool. Action recalls the meaningful connections of action. Thus it is also a semantic sign. It leads to meanings of action with social foundation.

Humans were capable of performing actions and events motorically with the development of mimetic skill, independently of the environment. This change was reflected in tool manufacturing and use. Advanced practical skills led to other changes in social culture (Donald 2001).

Hominids or early man could now repeat reality through activity that they were conscious of. They did not only practice existing motion patterns, they could also imagine and invent new ones. As a result of the development of mimetic capability, the hominids could also replay events as a kind of prototheater. The body became a tool of expression, like in acting.

People have subsisted on a "mimetic" culture for over a million years. It was based on voluntary motor skills, imitation, facial and vocal expressions. These properties were connected with public and social action-metaphor. (Donald 2001.)

In modern cultures there are several sectors that function with little language use, such as the teaching of certain artisan skills, child play, sports skills and many habits like expression of affection, respect, manhood and womanhood. These cultural features are independent of language; they are carried from generation to generation without language.

The teaching of drawing is based on the continuum of mimetic culture, the ability of man to imitate and follow the action of other people as an example. Language works as the clarifying tool of instructions. Learning to draw is still based on imitation and nonverbal activity. It is not sufficient for one to be capable of expressing the foundations of drawing verbally. One must be able to carry out drawing as an action, which again comes about through nonverbal meanings.

## Habit as a meaning and a tool of learning

The structure of meanings based on activity is the opposite to the traditional notion of meaning, which is commonly thought to have its foundation in language. Activity-based understanding widens the notion of meanings. To the various objects of perceived reality, one can apply the position of Peirce (1935), which states that their meanings are ways of actions associated with them (what a thing means is simply what habits it involves). Peirce (1958) continues that the meaning of any carrier of meaning to someone is constituted by one's reaction to it. Ultimately, meanings are therefore established habits of action (Pierce, 1935).

Through adopted habits we can think about our future activity and apply it in the future. Ways of activity exist as repeating actions or works. Repeatability, or to be more precise, potential repeatability (Määttänen, 2008) makes the habit a common thing, and consequently it can be a part of the chain of logical interpretation. A single act is neither a common nor a logical matter *per se*, but as an actualization

of habit it is however connected to common things and thinking. Thinking is defined in pragmatism as the anticipation of activity, which habits specifically are (Dewey, 1983).

Habit is the mechanism by means of which the perceived situation or object is associated with a future situation. The anticipated future is a likely consequence of an action, which is an occurrence of habit. Habit is thus a meaning connected with a situation or an object for the anticipation of the future. The construction of habits based on experience is the realization of the assignment of meaning. Thinking about habits is to think about meanings, and from this point of view, the habits are also mental contents of meanings in the sense that one can only think about them, but not see, hear or touch them. (Määttänen, 2008.)

Thinking about habits is to think about meanings, and they can appear like a flash to the introspection. However, it does not follow that meanings and understanding are timeless phenomena. Having defined meaning as the use (established habit or convention), there is no need to think that meanings also exist as timeless units independent of the use advancing through time. The evidence given by introspection is questionable and what looks like independence can be only a defining property of anticipation. Then again, talking about anticipation is not reasonable unless there is something to anticipate, and so the anticipation is not precisely independent of past, current or future actions. (Määttänen, 2008.)

The meaning of a linguistic expression is the way it is used in language. From Peirce's standpoint, the meanings are not purely linguistic. They can also be connected to non-verbal sign carriers like hammers or tables or buildings. The definition of meaning is the same: meaning is use, or more specifically use according to established habits.

There is a certain analogy between words and other utensils like tools, as stated by the Austrian philosopher Wittgenstein (1981): "Think of the tools in a toolbox: there is a hammer, pliers, a saw, a screwdriver, a ruler, a glue-pot, glue, nails and screws. – The functions of words are as diverse as the functions of these objects*"*(p. 29). Wittgenstein is often connected with the notion that meanings are basically linguistic, and it is all about analogy. From Peirce's standpoint it is not only a matter of analogy but the application of the same definition of meaning in all cases, associated with established ways of action (or meanings).

The repeatability of habits is essential to learning. By monitoring, imitating and applying the structures of customary habits in a supervised manner, man learns their meaning and use. This has a direct connection with human mimetic culture and the processes it generates. This way man learns the forms of culture of preceding generations and their implementation, and applies them to the requirements of one's own

environment, by revising and modifying it to suit the prevailing conditions. This process is monitored consciously, using common sense, so to speak.

That is why the strict separation of experience and reason is also unjustified. All human action, use of reason included, is bound to the body and is actualized inside the world of experiences. The use of reason is the use of a system of symbols, and is actualized by talking and writing, reading and listening. The thinking that is called internal is the anticipation of these actions, and talking about anticipation is only meaningful if there is something to anticipate. Separating the use of reason from perception and action, i.e. experience, has no solid ground. It is replaced by two levels of interaction between the individual and the environment, which are intertwined in many ways.

The assumption that meanings (idea contents, mental representations) are units located in a given position is strange in respect that meanings are relations. The parties of the sign relation, like strings of alphabets and occasionally also the targets of references, are units located in a particular position. However, it does not make sense to ask about the relation itself, or where it is precisely located. Relations are not immaterial units of thought, located in their own reality of immaterial units. This reasoning goes in a circle, typical of classical philosophy. Something is simply thought to exist, and after that it is convenient to say that one can only get to know this kind of being by thinking. The one thing that is interesting and puzzling in this reasoning is that so many people have difficulties abandoning it. It is connected to human religious cultural inheritance. So a realm exists that cannot be proven empirically, but only by thinking and believing, and by that it is empirically true. This cannot be denied, but it is based on a common tradition to believe and repeat it in action, speech, writing, and believing together. And when believing is done together, things start to look indisputable.

In art education this is also the foundation for the idea that human skills are secondary to thinking. This is a very essential argument in formalism, where forms are believed to be independent of the rest of the world, and in conceptual art, where thinking became the opposite of experience. But in this tradition no attention is given to the idea that thinking is also a property of physical man, who lives in human society, as a mortal and limited being. What seems logical from a certain point of view may not be that at all from another.

The distinction between internal and external can be maintained only in the relative sense, in that it is reasonable and necessary to talk about things external to the body. However, these things are not external in relation to the human mind, if the starting point is that human thinking is actualized by taking these external things as objects of perception and action (Määttänen, 2008).

When we look at a thing, an event, or a social structure, it must be seen from some location. The notion of perspective, standpoint, or viewpoint is based on this metaphor. From a certain location one sees only certain things. If the object is distant, small details may not stand out. Some things may be hidden from that standpoint. Therefore, one gets to know the object better by looking at it from many directions.

Metaphorically, if someone has only one perspective on the world, he can be unaware of things that remain hidden from that perspective. Distance can also be significant. To know something, one must be close enough to see the details, but not so close that one cannot see the common shape of things. After all, you do not want to be the one who cannot see the forest for the trees.

Visual arts and my example – the art of drawing – implies that students get acquainted as thoroughly with the meanings and structures of drawing as they do with the form and subject matter. Furthermore, they have to study the basics of drawing, which have an effect on the technical and contextual feasibility, and the basics of how the variability of visual structures of the image works with one another and gives a certain impression. The more one learns to know the structures of this activity, the better one can lead the end result of drawing in the desired direction. One must be able to consciously consider the meanings of one's own experiences in relation to the target to be accomplished. One must understand the meaning of tradition and its usability – that is the only way to change the tradition. These changes do not always take place consciously. In all activity there are unconscious effects, but without the knowledge of tradition there cannot be any changes.

This idea is valid to all skills. In this sense the skills involved in drawing, playing and discussion, for example, are dependent on the actor's finesse in relation to the tradition of prevailing habits and conventions. These skills are constructed on mimetic culture, which is basically nonverbal and practical, and they justify their existence in relation to the separability of the community. By imitating others and learning the practices of the prevailing social structure, a human being grows to be a member of a social community.

Skills and the customs of action exist only as interaction between the individual and the environment, and so a belief is the property of interaction and not the property of an individual. Skills make up the ability through which a human operates in his environment. Beliefs of the purposefulness and significance of action maintain established habits and conventions.

## Conclusion

Based on the previous investigation, I will conclude this article by discussing some personal and preliminary notions on art education and especially on learning to draw.

When learning skills, it is important to pay attention to the goals of learning. The student's interest in teaching awakens when education is successful in creating arrangements, where questions and challenges collected on one's own launch pondering and the will to research. This is the way that natural proclivities and stimuli based on them are developed into long-term forces guiding one's activity. As a result, these

objects of interest and results of research guide the student towards social coexistence and to the meaning of the skills they have learned in relation to the rest of the social world. (Dewey, 2001.)

Human cognitive evolution contains mimetic learning and the form of non-verbal meanings when the human action and its purpose is acquired through imitation and copying. The meaning of skills that have been learned mimetically is concretized in one's own activity, adapted to the environment.

Art and art education are always a part of a wider whole. The task of the teacher as a more experienced person is to guide the development of the inexperienced student. Education is the interaction between the undeveloped proclivities of the student and the goals, meanings and values of the teacher, digested from his culture. One such purpose of interaction is the development of the student into a member of society as someone who is understood by the environment, but can also use his own capabilities to reform it.

The teaching of art is based, like any education, on the transmission of prevailing skills and notions. This tradition with respect to art has been questioned among other things through individualistic art pedagogy. From this point of view, the traditional master–journeyman tradition is regarded as manipulation and a violation of the original and genuine expressiveness of the individual.

Learning from one's own experience is the most important tool in learning new skills. Education organized and maintained by society crucially modifies man's ability to utilize and develop his experience. From this standpoint, education has a significant role in modern society's opportunities to deal with and solve its problems and requirements. In order to understand the doctrines and ways of actions that are imparted during education, we must analyze the operational meaning of the experience of learning. Education must be an integral part of life, not separate from it. Education must strive for skillful students to be part of active social action and it must be an integral part of the surrounding sociocultural environment. Art education cannot be separated into its own artificial work area, where the things to be studied do not have an authentic connection to everyday life outside education.

Education must start from the phenomena that the students meet in everyday life outside education. It must proceed carefully to a more multidimensional treatment of the phenomena in the environment. According to Dewey, education is not a morally neutral operational environment, but it has the responsibility for the development of the society of the future and its values. In education, cultural inheritance is transmitted selectively and critically, because every culture gathers a lot of useless and harmful things, and especially many outdated and unjustified beliefs and traditions and conventions that have lost their original purpose.

Their definition helps to understand the dominating social environment, and at the same time education will work as a means of developing society. Education must aim to give every student the possibilities to overcome the limitations of the original growing environment and to achieve a connection with the larger

sociocultural environment. This task becomes especially important in a society where different social groups are in constant interaction with each other (Dewey, 2001).

In regard to learning to draw, this is a relevant view. Learning the "classical" art of drawing – where one can create a two-dimensional illusion out of the perceived and grasped target on the drawing surface – can be realized through consistent teaching. Drawing and art in general are languages through which communication takes place in human society. It helps to produce visual means of thinking and experience for a wider use of social culture than simply a means of individual expression. Art is a language of communication, and communication is based on prevailing conditions in the continuum of habits and conventions.

## References


» Damasio, A. (2001). *Descartesin virhe: Emootio, järki ja ihmisen aivot*. (Descartes' error) (Suom. K. Pietiläinen) Helsinki: Terra Cognita.

» Dewey, J. (1980). *Art as Experience*. New York: Penguin Group.

» Dewey, J. (2001). *Dewey's Complete Writings*. Southern Illinois University Press.

» Donald M. (2001). *A Mind So Rare: The Evolution of Human Consciousness*. New York: W.W. Norton & Company.

» Määttänen, P. (2008). *Toiminta ja kokemus: Pragmatistista terveen järjen filosofiaa*. Helsinki: Gaudeamus.

» Karhu, M. (2013). *Taide sosiaalisen kokemuksen ilmaisuna*. Helsinki: Aalto-yliopisto.

» Pierce, C. S. (1935). *Collected Papers of Charles Sanders Peirce. Volume 5, Pragmatism and Pragmaticism*. (Eds. C. Hartshorne & P. Weiss.) Cambridge, MA: Harvard University Press.

» Pierce, C. S. (1958). *Collected Papers of Charles Sanders Peirce. Reviews, Correspondence, and Bibliography.* (Ed. A. W. Burks.) Cambridge, MA: Harvard University Press.

» Wittgenstein, L. (1981). *Filosofisia tutkimuksia*. (Philosophical Investigations) (Suom. H. Nyman). Porvoo: WSOY.