EMBODIED KNOWLEDGE AND SKETCH DRAWING WITH A MODEL: A PHENOMENOLOGICAL APPROACH

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ABSTRACT:

What happens when experiential knowledge related to the deeper layers of the body springs to mind in a fraction of a second while sketching a live model? To answer this fascinating question, I chose a phenomenological approach to investigate the drawing process and the act of tracing lines. I will explore the concept of ‘schemata’ in the field of drawing in relation with the meaning of this notion in light of recent developments in the neurosciences. Especially how kinaesthetic knowledge stored in body schemata is used to identify the model’s position, and how the metaphorical process transfers meaning from one state of mind to another by creating new meaning in a drawing. Furthermore, I will examine how the interplay between being at one with the drawing and evaluating it from a distance can lead to the experience of being fully present in the situation on the one hand, and at the same time entirely devoid of ego on the other. In other words, I will investigate how the artist, by virtue of the act of drawing, can deal with what Merleau-Ponty called the paradox of having and at the same time being a body.

Keywords: schemata, embodied cognition, sketch drawing, flow, mindfulness, distributed attention, ego-centred control.
INTRODUCTION

The concept of embodied mind has been described by different schools of thought that have developed the concept throughout its relatively short history (Wilson and Foglia 2011). One definition of embodied cognition, the theory of how the mind-body system functions, is that the body manages and provides the basis for thought. This definition refers to a newer understanding of the concept of cognition, maintaining that preverbal knowledge is part of the cognitive process. It is an excellent model for understanding the thought process in the area of freehand drawing.

Formerly, cognition was regarded exclusively as a processing of symbols at a ‘higher mental level’. These symbols, with built-in and predefined meanings, are related to an external and symbolically ‘represented’ referent. As Varela argued, the relationship to this external referent, representing a mere 20% of perceived stimuli, is now primarily associated with the body’s history and memory, i.e. experienced knowledge that accounts for 80% of the internal conditions that govern the creation of meaning in the cognitive process (Varela 1989).

This calls into question established truths, such as the fact that we perceive the world as an independent and separate entity in relation to ourselves, focusing instead on the phenomenological idea that we are able to experience ourselves as an integral part of our environment in an ideal creative state. The notion of how meaning is created varies, depending on whether one regards the process as conscious ego driven by the individual’s processing of linguistic symbols, or whether it occurs as explained by Varela’s theory about ‘enaction and emergence’ – autonomously and in a state of mindfulness by means of a ‘self-producing network of schemata’ (Varela 1993). The interaction of schemata (stored body knowledge) synthesises the flow of information based on structural similarities, regardless of the ego’s conscious control, which among other things must be mitigated by ‘clearing the mind of thoughts’ as much as possible.

SCHEMATA AND FREEHAND DRAWING

What does all this have to do with freehand drawing? How is the concept of schemata used in teaching drawing? Most drawing teachers would agree that their goal is to help students learn to see, something that necessitates the development of specific perceptual schemata. In line with the above, we can distinguish between different applications and understandings of the concept of schemata in connection with a motif.
FIG. 1. L. LANGRY, SHAPE DIAGRAM USED IN PRIMARY SCHOOLS (1930).
The first example provides a ‘schematic’ and practical depiction of the motif using simple geometric shapes positioned in relation to each other. The diagram illustrates a linguistic approach, a general representation of the properties of an object, such as an animal detached
from any context (see figs. 1 and 2). This naturalistic approach to the motif employs a pattern that is easy to recognize and thus to communicate with, but locks the artist in the role of an analytical and distanced spectator, since the meaning of the motif is defined in advance. The use of this type of descriptive framework precludes a personal emotional identification with the motif by providing an ideal visual model that defines shape and proportion from the outset.

In contrast to this, let us consider a ‘phenomenological approach’ intended to free itself as much as possible from a general linguistic interpretation of the motif in order to relate to it on the basis of a purely subjective point of view. Here, the artist’s objective is not to draw what he or she knows about the motif, but to interact with it in a particular context. This in order to understand how it emerges as a phenomenon when viewed and drawn with the eyes of an artist – connected to the brain and at the same time coordinated with the drawing hand. This entails registering how the process of exploring lines, surfaces and proportions is experienced in relation to past experiences, emotions and memories, before any meaning at all arises in the final interpretation of a specific motif. An intuitive approach to the task at hand is called for, involving the artist’s body and entire personality via the spontaneous use of rapid gestural movements, and with full concentration during the act of drawing. The difference between these two approaches, beyond what has already been mentioned, is that the final structure of the drawing rests on predetermined rules and symbols governed by the ego in the first case, whereas the second approach reveals structure as a result of improvisation throughout the process, suggesting less control by the ego and more room for improvisation based on stored body experiences.

What happens when experiential knowledge related to the deeper layers of the body springs to mind in a fraction of second while sketching a live model?

GESTURE DRAWING AND ‘EMBODIED COGNITION’

Lightning fast sketching of moving objects has a long tradition in the field of drawing, going all the way back to the Renaissance (see below). It is, in fact, the first step in the realisation of disegno interno, the very idea behind a work of art – the rapid sketch. This phase is characterised by a special state of concentration in which intuition allows the artist to become one with the motif, while fully present in the situation. The remaining four stages of the process of finishing the picture could entail a number of different techniques and approaches, including preparatory series of drawings, enlargement using a grid, miniature models of the prospective image, and finally full-scale magnification on cardboard. All these techniques
aided the artist in espousing a more distanced and evaluative view that would lead to the finished product (Monnier 1979).

As a consequence of the time pressure involved in capturing the movement of a motif, gestural rapidity helps the draughtsman remain fully concentrated on the act of drawing and leads to the loss of any sense of time. In other words, the artist is ‘at one with his actions’, disconnected for an instant from the perception of past, present and future. The duality between body and mind that lies at the heart of the drawing process has been temporarily suspended. This state of mind inhibits the brain’s stereotypical focus on the motif, facilitating an interpretation of the motif that provides an opening for different levels of consciousness to combine and produce new insight. Any artist who has worked with lightning fast sketches will have noticed that the process reveals so-called tacit knowledge (unarticulated body experiences) in a surprising way. There is much we know that we are not aware of knowing, a phenomenon referred to as the ‘cognitive unconscious’ by neuroscience. Our specific physical shape and structure is the basis for our interactive experience of the world (walking upright, front and back, head on top, legs below, two eyes facing forward, the ability to move). The myriad experiences of the human body in space form the basis for the formation of ‘body schemata’, the result of the cumulative effect of all the senses. Experiences such as up–down, front–back, horizontal–vertical or left–right constitute the basic source of knowledge that allows us to identify a motif and position shapes and lines in visual space.

FIG. 3. EXPRESSION EXPRESSES SOMETHING TOWARDS OTHERS AS WELL AS INWARDS TOWARDS ONESELF. TOM ANDERSEN, 2012
Embodied schemata are unconsciously stored body experiences, abstract mental structures that organise perceived sensory and sensory-motor stimuli. As such, they constitute an unarticulated core of knowledge that can be adapted to any number of situations. The basic elements of intellectual activity are not sensations, perceptions or actions, but schemata.

“In order for us to have meaningful, connected experiences that we can comprehend and reason about, there must be pattern and order to our actions, perceptions, and conceptions. A schema is a recurrent pattern, shape, and regularity in, or of, these ongoing ordering activities. These patterns emerge as meaningful structures for us chiefly at the level of our bodily movement through space, our manipulation of objects, and our perceptual interactions. It is important to recognise the dynamic character of “embodied schemata” as structures for organizing our experience and comprehension. In this sense, the body becomes something more than a mere physiological entity: a cognitive body capable of generating meaning.” (Johnson 1990: 29)

GOMBRICH’S NOTION OF SCHEMATA

Art theorist Ernst Gombrich demonstrated the importance of recognition schemata in the representation of a motif. His reflections on, among other things, mediaeval depictions of animals demonstrate how vision, identification and representation interact and reveal the presence of identification models (Gombrich 1987).

Furthermore, Gombrich traces the concept of schemata all the way back to the Renaissance and the birth of drawing as an artistic genre in its own right, incorporating scientific discoveries such as perspective, anatomy and Euclidian geometry (Monnier 1979). The tradition of figurative art that was linked to a positivistic observation of nature had to free itself from the often ‘codex-bound’ thinking of the Middle Ages. This is evinced by booklets consisting of hundreds of drawings drawn from memory or based directly on natural motifs, including people, animals, art, and architecture. These drawings, often created by monks, were arbitrarily distributed on the sheet of drawing paper without respect to proportion or a common background, and served as a repository of models for a direct representation of reality (see fig. 4). As a result of the liberation of the individual that took place during the Renaissance, schemata were no longer used as slavish copies in the representation of a subject. The artist stood free to interpret and use them as a mere starting point for representations based on natural observation, leading to a large number of attempts at
matching and adjusting what the artist had observed (see fig. 5). As the study of nature and subjects in motion progressed, the idea of a ‘codex’ as a template for visual representations disappeared. The role of the individual in the creative act became recognised, and artists began to sign their drawings, which now were considered to be independent works of art and sought out by collectors.
Gombrich’s concept of ‘picture schemes’ discussed above has been extended to apply to both perception (seeing and recognising) and representation (drawing a motif) as ‘experiential schemata’ and ‘depiction schemata’ (Kjørup 1995). The former help us to interpret experiences so that they become meaningful, while the latter help us to translate our experience of reality into graphic depictions such as drawings.
MOVEMENT AND EMBODIED SCHEMATA

The brain cannot think by itself without the body, let alone the opposite. The psycho-somatic identification that occurs in the act of drawing a model uses movement to transform impression into expression. The artist constructs meaning from sensory-motor experiences and the visual effect of the marks resulting from the process of drawing on paper. The direction or curvature of lines, pressure of the charcoal, thickness or speed of a stroke all contribute to the development of graphical depiction schemata (see fig. 6). Interpreting the drawing and the model via kinaesthetic knowledge stored in the body, the artist searches to identify the feeling that most closely resembles the emotion experienced with the model. This is brought about by a continuous and repeated drawing action that establishes similarities between the traces left by the draughtsman’s hand movements and the motif. Students learn to trust their hands and discover that intuition frequently – but not always – can be counted on, and that emotional investment, hard work and diligence are indispensible.

The constant movement of the drawing hand capturing the position of the model creates new analogue schemata that are registered in short-term memory. In its interaction with the movement of the hand, the mind chooses among many different attempts and transfers the most appropriate model schema created by the hand gesture from one domain to another. Here, the artist must combine both what he or she sees on paper and registers by studying the model with what is invisible, but registered nonetheless. It is during this timeless instant that embodied experiences from long and short-term memory overlap to find the right identification with the model.
Sketch drawing requires an eye for and an ability to identify with the rhythm and dynamics of the model’s body movement. Put another way, a host of body schemata is activated inside of us as we perceive the various poses of a model. Our own body experience recognises the model’s movements through identification with a hybrid version of these schemata.

The transition from impression to expression depends upon the ability to react spontaneously, facilitated by experimentation and the anticipation of finding similarities between three different domains: our own body experience, the model’s pose, and the particular drawing tools and techniques used. Impressions are processed unconsciously, before they suddenly and without warning emerge as a response to the challenge of producing a sketch drawing. It all happens within the blink of an eye. Eureka! A sketch drawing can capture the power and dynamics of the pose, the body’s rhythmic movement, its proportion and balance. Partly unconsciously, the artist creates a Gestalt that incorporates experiences from three separate areas.

**DISTANCE AND PROXIMITY**

Accessing body knowledge requires the ability to enter into a state of mindfulness that breaks down analytical and rational routines in favour of a ‘head over heels’ process. Authors Nobo and Sachiko Komagata define mindfulness as ‘a mental state of being aware of the outside and inside of oneself at present without judgment, i.e., with full acceptance’ (Komagata 2010). During the drawing process, the continuous interaction between seeing (evaluating from a distance) and drawing (being at one with the drawing) creates a rhythmic shift in the artist’s focus of attention, alternating between proximity – his or her inner world – and distance – the outer world.

The constant repetition of identical patterns, together with the continuous movement of the drawing hand that captures the position of the model on paper, creates a pulsating ritual in which the artist becomes one with the action. Body and mind work together, almost automatically but by no means in a mindless manner. Thanks to this automaticity, the rhythm of these actions is partially integrated into the body, and control is no longer needed to the same extent as before. This stage blots out the consciousness of the ego similar to falling asleep, and another form of concentration known as ‘distributed attention’ (thinking without a thinker) is used to simultaneously process different sources of information by according each of them the same level of attention. This involves alternating between conscious and unconscious scanning of the flow of outer and inner stimuli. As a transitional release, other
parts of consciousness take over more complicated tasks, combining fragments of information from both past and present.

Creating a sketch drawing of a model involves capturing and processing perceptual schemata of the live model by combining graphic schemata on the drawing paper with embodied schemata from earlier experiences. A state of mindfulness represents the highest level of awareness of the present moment – the artist is no longer separated from the ‘outside world’, but at one with the surrounding environment by osmosis. This means that body cognition in sketch drawing with a model is localised in time and space.

![Sketch drawings of a model.](image)


The identification of the model’s position in space takes place there and then, as the artist compares and adapts it to his or her own storeroom of body cognition schemata. These are continuously stimulated by new suggestions regarding the model’s pose, inspired by and gathered from the artist’s personal repertoire of spatial experiences. The interaction between the model and the artist happens in real time in the sense that the artist continually receives new input during the drawing process, affecting the synthesis of external and internal stimuli in the final product – the drawing itself. Since immediate intuitive gestures do not always respond accurately at first, body schemata provide the basis for perceiving the motif and
facilitating the action of the drawing tools on the sheet of paper. This promotes a proficient and rapid output under time pressure.

As suggested by Varela in other contexts, when sketch drawing a model, the drawing emerges autonomously and in a state of mindfulness by means of a ‘self-producing network of schemata’ (Varela 1993). The interaction of schemata from different sources of knowledge synthesises the flow of information created by the state of mindfulness. This synthesis is based on structural similarities, regardless of the ego’s conscious control, which among other things must be mitigated by ‘clearing the mind of thoughts’ as much as possible.

Paradoxically, this also leads to a weakened awareness of one’s own body, which is experienced as being absent because the distance to the surrounding environment is partially erased. The result is a temporary experience of timelessness that breaks the flow of time and allows the artist to enter into an imaginary space in which the border between subject and object dissolves to allow access to an indivisible and infinite field of ever new energy. The artist has the paradoxical and concurrent experience of ‘being’ (by means of mindfulness) and ‘nothingness’ (devoid of ego, mind free of thoughts). In this state, and through the act of drawing, the artist can deal with what Merleau-Ponty called the paradox of having and at the same time being a body.

Being so intimately ‘at one with’ something that spatial awareness has yet to be established brings to mind the relationship between the baby and its mother’s body during the earliest phase, where one is an extension of the other, in a state of total immersion or flow. It is at this preverbal stage that the body’s archaic memory is created in the form of body schemata. Recent research in the field of embodiment theory, examining brain development in new-born children (Lagercrantz 2010), confirms that the thalamus is connected to the sense organs as early as three months prior to birth, resulting in the first conscious experiences. From its protected place in the uterus, the foetus registers rhythm, time, temperature and repetition in an unconscious form of memory.

It is within this symbiotic continuum of perceptual and body experience that the development of language creates something new, namely a distinction between subject and object: the first distance between mother and child.

The term ‘flow’ suitably describes the complete and symbiotic immersion between mother and child, but has little to do with mindfulness. Flow and mindfulness are often used interchangeably, probably because they describe transitions between related psychological states of mind in adults. However, the difference between the two states lies in their relationship to concentration and to the field – or ‘bandwidth’ – of awareness. In a state of flow, this bandwidth is narrower and more present than in a state of mindfulness, where it is
enhanced to include awareness of both external and internal factors (Komagata 2010). Both states of mind are unstable in that it takes very little to come out of them and experience a return from a sense of timeless presence back to an awareness of chronological time.

CONCLUSION

Our visual culture has been permeated by a dualistic understanding of the relationship between body and mind by ascribing a superior perceptual role to the visual sense than the body. Body cognition as a record of the body’s movements in space represents an alternative that regards perception to be something more than the mere interpretation and processing of a retinal image. This understanding is consistent with the phenomenological viewpoint that body schemata are more basic to cognition than visual perception.

For the artist at work, the pencil does not exist apart from the hand. With her gaze as an extension of her body, she is at one with the subject.
REFERENCES


