Notes on epistemic enhancements by „moving (~~pictures~~) *gestures* of thought“

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[I] Diagrams are not only as Peirce put it- „moving pictures of thought“ (Peirce, CP 4.8) but could as well be described as moving *gestures* of thought in which a new emphasis is laid on bodily movements in action(manipulation)-perception cycles that take part in reasoning and lead to epistemic enhancements.

How do gestures partake in diagrammatic reasoning? How do finely (self)-controlled and manipulated movements of body parts (e.g. hands and fingers) and coordinated body postures *together* with abstractive movements enhance our schematic thoughts, transform abstractions and develop knowledge and understanding? (Gerner upcoming)

We will follow these questions within the framework of a Peircean (CP 2.242) wide operational iconicity notion (Stjernfelt 2006; 2007; 2014) of the diagram. In diagrammatic reasoning more truth can be derived by diagram observation *and (enactive) manipulation* then that what sufficed the diagram construction.

With Peirce I will think *movement* and *abstraction* as coupled together in the development of mathematical knowlege by diagrams in their (a) construction, (b) observation and specifically in their (c) manipulation of *abstractive kinetics* (see: CP 4. 259). Peirce expresses the coupling of visual and spatiomotor schemata in diagrammatic reasoning as a link between visual and “muscular” (CP 2.277) image. I will develop Peirces idea further by relating not only two seperated concepts of „gesture“ and „diagram“ but develop a joint *kinetic notion of diagram* to explore knowledge development in (A) habit change, (B) hypostatic abstractions (C) theoric/theorematic shifts or transformation (Hoffmann 2005, Stjernfelt 2011) and (D) diagrammatic reasoning and (F) abduction

[II] A realist account of thinking, reasoning and natural propositions (Stjernfelt 2014) includes multimodal action-perception cycles to achieve epistemic enhancements between perveiving, (en-) acting and knowing. In order to achieve this, „fine sensibility" and „intelligent motorics"(Leroi-Gourhan [1964] 1988) have to be coordinated as in the systematic movement of hand and mouth (de Vriess, Visser Prechtl 1984) and general social primary synrhythmic regulations (Threvarthen 1979; 2011) e.g. between mother and child and their interbodily co-rythmic musicality (Threvarthen 2011) as well as by joint attention/ joint intentionality (Tomasello 2014). The question to be answered is: How do developmental facts foster the importance of the role of gestures, touch and joint movement in enhancing knowledge and understanding oneself, and interacting with the world and others?

[III] Diagrams in the realm of visual art/ dance often show themselves as "projective vectors" (Leeb 2011) that function exploratively in which tentative movements and coupelings of still unclear multimodal action-perception cycles and conceptual/semiotic structures are rehearsed, a world is unfolding in front of us. These gestures can be interpreted as *self-retrieved,* sometimes *contourless* and *non-functional* "danced gestures" (Gil 2002).

[III] Finally I will make remarks on the relation of understanding hand- gestures and cinema as spatially coordinated and rythmic movement images. As Ernst and Farocki note: "The first close-ups in film history were focused on the human face, but the second ones showed hands." (Ernst & Farocki 2004). Starting with this visual-manual relation I will „close-up" on Harun Farocki's visual thesaurus "Expressions of Hands" (1997), where one question will interest us most: Given the effect of narrative for enhancing understanding of action and intention in cinema can only be derived from *montage* of sequences of shots, how would this thought relate to enhancing understanding of oneself/the world/ others by gestures? What could be „montage principles" for enhancing understanding of moving gestures of thought?

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