

Projects

**cinapses: thinking|film –
Film, Philosophy and Neuroscience**

The project *cinapses: thinking|film* wants to test possible encounters of film, philosophy, and neuroscience, not in the hope of a “unified project,” but of showing the different colors of this spectrum that finally might engage in a “cinaptic” neuro-film-philosophy that grants “thinking power” to the medium itself: film|thinking – thinking|film. *cinapses* is “homebased” at the Goethe-Universität in Frankfurt am Main, Germany, and established by Bernd Herzogenrath. The group consists of film scholars (a.o. Raymond Bellour, Patricia Pisters), neuroscientists (a.o. Antonio Damasio, Uri Hasson), and philosophers (a.o. Alva Noë), and will hopefully commence its work in 2012. All the involved members of the *cinapses*-groups will work on individual projects that relate to the general concept laid out in the following brief sketch.

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In the 1980s, Cognitive Film Studies discovered the brain for the analysis of film. Against the “Grand Theories” of psychoanalytic and (post)structuralist theory they employed the findings of cognitive psychology for explaining the processes in the spectator’s mind to “make meaning,” seeing the understanding of film as a rational cognitive endeavor that applies scientific “theories of perception, information processing, hypothesis-building, and interpretation.”¹⁾ At that time, the dominant strand in neuroscience was the field of “computation,” which took the computer as its model: the brain here was essentially seen as an input-output machine of representation.

Approximately at the same time, Gilles Deleuze, in the “new image of thought” he developed (among others) in his two *Cinema* books, also utilizes the concept of the brain, with implicit and explicit references to on the one hand Henri Bergson, and on the other hand to a more constructivist brand of neurosciences in the wake of Maturana, Varela and Changeux, seeing both film and brain as agencies of the “creation of worlds” – “the Brain is the Screen.” Certainly, the brain that Cognitive Film Studies, Neuroscience, and Deleuze talk about is not the same “object-concept” in these discourses. Recent developments in cognitive neuroscience into the so called 4EA-cognitivism that considers the brain as embodied, enacted, extended, embedded and affective might however create new insights into the encounters of brains and screens. Here, in contrast to classical computation, and even in contrast to “connectionism,” which is more advanced than computation in so far that it involves a far more complex (and acentered) dynamics, thinking finally does not take place inside our skull (only) anymore, but “out of our heads” (to quote the title of Alva Noë’s book).

1) Gregory Currie, Cognitivism. In: Toby Miller – Robert Stam (eds.), *A Companion to Film Theory*. Malden, Mass. – London: Blackwell 2004, s. 106.

One of the main difficulties that stand in the way of a smooth and simple marriage of Film Studies, Deleuzian philosophy, and the neurosciences is the fact that the brain in question is in fact many brains. Not only do the concepts of the brain between these various disciplines differ, Deleuze himself uses the brain in different guises. First, on a very general level, he traces the motif or metaphor of the brain in movies by Alain Resnais and Stanley Kubrick. Far more important in the context of our interest are Deleuze's references to the philosophy of Henri Bergson, and his "new conception" of the brain – Bergson "introduced a profound element of transformation: the brain was now only an interval [*écart*], a void, nothing but a void, between a stimulation and a response."²⁾ In a universe that consists, as Bergson has it, of images in motion that all react on one another, the subject (and the brain) functions as "centers of indetermination,"³⁾ in which the direct cause-effect or stimulus-response reaction is slowed down. This idea of the brain as a center of indetermination is supported by findings in neurosciences that focus on the brain as "an uncertain system,"⁴⁾ as rhizomatic neural networks. Deleuze is here referring to Jean-Pierre Changeux' *Neuronal Man. The Biology of Mind*, and Steven Rose's *The Conscious Brain* (which also refers to Delisle Burns' *The Uncertain Nervous System*): what it boils down to for Deleuze is that

[w]e can consider the brain as a relatively undifferentiated mass and ask what circuits, what kinds of circuit, the movement-image or time-image traces out, or invent, because the circuits aren't there to begin with [...] the brain's the hidden side of all circuits, and these can allow the most basic conditioned reflexes to prevail, as well as leaving room for more creative tracings, less "probable" links. The brain's a spatio-temporal volume: it's up to art to trace through it the new paths open to us today. You might see continuities and false continuities as cinematic synapses – you get different links, and different circuits, in Godard and Resnais, for example. The overall importance or significance of cinema seems to me to depend on this sort of problem.⁵⁾

Even though Bergson was critical of the cinema, basically rejecting it as an improper mode to "think movement," he himself admitted:

The philosopher must account for events in external life and whatever novelty I have been able to bring to philosophy has always been based on experience. ... Several years ago, I went to the cinema. I saw it at its origins. Obviously, this invention, a complement to instant photography, can suggest new ideas to a philosopher. It could be an aid to the synthesis of memory, or even of thought.⁶⁾

2) Gilles Deleuze, *Cinema 2. The Time-Image*. London: Athlone 2000 Press 1986, p. 211.

3) Henri Bergson, *Matter and Memory*. New York: Zone Books 1991, p. 36.

4) G. Deleuze, *Cinema 2*, p. 211.

5) G. Deleuze, *Negotiations 1972–1990*. New York: Columbia University Press 1995, pp. 60–61.

6) "Henri Bergson Talks to Us About Cinema," by Michel Georges-Michel from *Le Journal*, February 20, 1914. Translated and introduced by Louis-Georges Schwartz. *Cinema Journal* 50, 2011, nr. 3 (Spring), p. 81.

Deleuze also refers to Eisenstein's notion that movies can present a "shock to thought,"⁷⁾ that is, cinema's capacity to "shock" the brain into thinking, "communicating vibrations to the cortex, touching the nervous and cerebral system directly."⁸⁾ However, "thinking" here does not follow the pre-established path of already acquired knowledge. Thinking, for Deleuze, is first of all an encounter: "Something in the world forces us to think. This something is not an object of recognition, but a fundamental encounter,"⁹⁾ a contingent encounter "with that which forces thought to rise up and educate the absolute necessity of an act of thought or a passion to think."¹⁰⁾ Movies can provide such encounters, such shocks (in)to thought, and it is here that Deleuze builds up a parallel between the screen and the brain – epitomized in his famous motto "the brain is the screen." "Thought is molecular. Molecular speeds make up the slow beings that we are. [...] The circuits and linkages of the brain don't preexist the stimuli, corpuscles, and particles [*grains*] that trace them."¹¹⁾ Referring to the biology of the brain as an important reference point, Deleuze here shares a similar contempt for the "Grand Theories" with the Cognitive Film Studies of the Bordwell-Carroll brand – even though *they* would file Deleuze under "Grand Theory:"

on what basis can we assess films? I think one particularly important principle is the biology of the brain, a micro-biology. [...] It's not to psychoanalysis or linguistics but to the biology of the brain that we should look for principles, because it doesn't have the drawback, like the other two disciplines, of applying ready-made concepts.¹²⁾

Thus, new developments in the 4EA-brand of cognitive science, the kind of neurophenomenology as developed by and in the wake of Francisco Varela, and the anti-Cartesian and pro-Spinozist thrust of Antonio Damasio's work (not to mention the references to film that he makes throughout his work to explain the nature of consciousness) promise a fruitful encounter with Deleuzian Film | Philosophy. However, one word of caution: the main paradox that has to be accounted for is the fact that Deleuze's philosophy by definition is a thoroughly non-cognitivist philosophy – Brian Massumi has rightly hinted at this point in his recent book *Semblance and Event*. Deleuze does not, as neuroscience (and Cognitive Film Studies) does, work with (or even start from) the concept of "subject" as the "default concept" of thought. To speak with Whitehead – with Bergson another "philosopher of becoming" that can be considered one of Deleuze's influences – to start from the assumption that "the object-subject relation is the known-knower relation"¹³⁾ is to get up on the wrong side of the bed. And because of the "uncertain systematicity" of the brain, knowledge is not a cognitive function that is related to a fixed pattern of neural activity or a "conscious state:"

7) G. Deleuze, *Cinema 2*, p. 156.

8) Ibid., p. 156.

9) G. Deleuze, *Difference and Repetition*. New York: Columbia University Press 1994, p. 139.

10) Ibid., p. 139.

11) The Brain Is the Screen: An Interview with Gilles Deleuze. In: Gregory Flaxman (ed.), *The Brain Is the Screen: Deleuze and the Philosophy of Cinema*. Minneapolis: University of Minnesota Press 2000, pp. 366–367.

12) G. Deleuze, *Negotiations 1972–1990*, p. 60.

13) Alfred North Whitehead, *Adventures of Ideas*. New York: The Free Press 1967, p. 175.

we cannot determine with what molecules the brain begins and the rest of the body ends. Further, we cannot tell with what molecules the body ends and the external world begins. The truth is that the brain is continuous with the body and the body is continuous with the rest of the world. Human experience is an act of self-origination including the whole of nature, limited to the perspective of a focal region located within the body, but not necessarily persisting in any fixed coordination with a definitive part of the brain.¹⁴⁾

All this should point at the fact that neuroscience should not have the last word here, that science is not the referee that has the definitive say in philosophical questions. Deleuze (and Guattari) is quite clear on this, as the discussion of the relation between philosophy, art, and science in *What Is Philosophy?* shows. First of all “[t]here is no order of priority among those disciplines.”¹⁵⁾ Neither is their relation a simple one-sided affair. Whereas science involves the creation of functions, of a propositional mapping of the world, and art involves the creation of blocs of sensation (or affects and percepts), philosophy involves the invention of concepts. According to Deleuze and Guattari, philosophy, art, and science are defined by their relation to chaos. Whereas science “relinquishes the infinite in order to gain reference”,¹⁶⁾ by creating definitions, functions and propositions, art, on the other hand, “wants to create the finite that restores the infinite”¹⁷⁾ – in contrast, “philosophy wants to save the infinite by giving it consistency.”¹⁸⁾ Yet, since “sciences, arts, and philosophies are equally creative,”¹⁹⁾ it might be fruitful, as Deleuze proposes, “to pose the question of echoes and resonances between them.”²⁰⁾ These echoes and interdisciplinary references between those three approaches to chaos is what Deleuze and Guattari in *What is Philosophy?* call “brain.”²¹⁾

As Deleuze specified in one of his seminars, “between a philosophical concept, a painted line and a musical sonorous bloc, resonances emerge, very, very strange correspondences that one shouldn’t even theorize, I think, and which I would prefer to call ‘affective’ [...] these are privileged moments.”²²⁾ These moments privilege an affect where thought and sensation merge into a very specific way of “doing thinking” *beyond* representation and categorization, *beyond* Cognitive Film Studies’ rational “cue processing,” a moment that might be called “contemplation,” or even “hyp-

14) Ibid., p. 225.

15) G. Deleuze, *Negotiations 1972–1990*, p. 123.

16) Gilles Deleuze – Félix Guattari, *What is Philosophy?* New York: Columbia University Press 1994, p. 197.

17) Ibid., p. 197.

18) Ibid., p. 197.

19) Ibid., p. 5.

20) G. Deleuze, *Negotiations 1972–1990*, p. 123.

21) G. Deleuze – F. Guattari, *What is Philosophy?*, p. 208.

22) G. Deleuze, *Image Mouvement Image Temps*. Cours Vincennes – St Denis: 2 November 1983. Online: <www.webdeleuze.com/php/texte.php?cle=69&groupe=Image%20Mouvement%20Image%20Temps&langue=1> (last accessed on 28 October, 2011). My translation of: “Alors je dirais que le concept philosophique n’est pas seulement source d’opinion quelconque, il est source de transmission très particulière, ou entre un concept philosophique, une ligne picturale, un bloc sonore musical, s’établissent des correspondances, des correspondances très très curieuses, que à mon avis il ne faut même pas théoriser, que je préférerais appeler l’affectif en général [...]. Là c’est des moments privilégiés.”

nosis,” something akin to the process of spectator (“subject”) formation that takes place in the complex interplay between screen, film, and mind – “the brain is the screen.”²³⁾

What is needed, then, is the development of a common vocabulary that facilitates resonances between Deleuze’s (cine)philosophy and the neurosciences. Two examples: maybe what Damasio calls “proto-self,”²⁴⁾ which is the “nonconscious forerunner for [...] the [...] core self and autobiographical self”²⁵⁾ can be brought into resonance with the Deleuzian concepts of the “larval subject,”²⁶⁾ or of “pre-individual singularities.”²⁷⁾ Similarly, when Damasio in *Looking for Spinoza* distinguishes between emotion (“enabl[ing] organisms to respond effectively but not creatively to a number of circumstances conducive or threatening to life”)²⁸⁾ and feeling (“introduc[ing] a mental alert for the good or bad circumstances and prolonged the impact of emotions by affecting attention and memory lastingly”),²⁹⁾ this differentiation echoes the Deleuzian watershed between affect and emotion (with Damasio’s “emotion” closer to Deleuze’s “affect”).³⁰⁾ A careful resonating between such concepts might eventually result in a toolbox and a terminology with which to work and communicate, with which to create fruitful resonances, “[a] *junction* – not [a] *unity* – of the three planes”:³¹⁾ art (film), science (neuroscience), and philosophy.

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23) Richard Rushton has made a similar point in his essay “Deleuzian Spectatorship,” where he draws parallels to Michael Fried’s concept of “absorption.” Richard Rushton, *Deleuzian Spectatorship*. *Screen* 50, 2009, nr. 1 (Spring), pp. 45–53.

24) Antonio Damasio, *The Feeling of What Happens. Body and Emotion in the Making of Consciousness*. New York: Hartcourt 1999, p. 22.

25) *Ibid.*, p. 22.

26) G. Deleuze, *Difference and Repetition*, p. 215.

27) G. Deleuze, *Two Regimes of Madness. Texts and Interviews 1975–1995*. Ed. David Lapoujade. New York: Semiotexte 2006, p. 351.

28) A. Damasio, *Looking for Spinoza. Joy, Sorrow and the Feeling Brain*. New York: Hartcourt 2003, p. 80.

29) *Ibid.*, p. 80.

30) See Patricia Pister’s forthcoming book *The Neuro-Image* (Stanford UP, forthcoming), in particular Chapter 03, “Surveillance Screens and Powers of Affect,” where she comes to a similar conclusion.

31) G. Deleuze – F. Guattari, *What is Philosophy?*, p. 208.