Daniel S. Margulies

Guest lecture on 3th July 2009
Center for Art and Media (ZKM) Karlsruhe

On the occasion of the opening of the solo exhibition
„MicroSonical Shining Biospheres No.1"
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(Extract)

[Paul Klee: "Art does not convey the visible, but it makes visible."]
"… I know that Sabine Schäfer and Joachim Krebs are fond of Paul Klee's statement that art does not reproduce the visible but makes visible, and this is a sentiment that could easily be applied to science as well.

So that their procedure of space-sono-microscopy renders a valuable service to make that audible this is previously non-audible, but already existing. The process of what they term molecularization coming from Deleuze to go in and try to pull out the elements, the foundational elements of sound, to desubjectivize sound, but at the same time not to draw a final abstraction or theory, as they say the concrete content matter is increasingly dissolved and transformed into an abstract expression matter.

However, this process is not completed, so this it is possible for each listener's imagination beyond meaning and contents, to develop individual audio-inspired imaginations in permanent fluctuation between pure naturalness and sheer abstraction.

And I believe that this is a beautiful instance and possibility for a direction that neuroscience could think about and address in questions of perception, in foreseeing a way the material presented to not be static either as just a set of data to be looked at nor as an overarching theory, but to force the viewer to engage in this back and forth, in this dialogue between the two. …"

Abstract of the guest lecture
"Precedents and possibilities for the interchange between art and neuroscience"

Over the past decade, various interactions between neuroscience and art have fallen under the term *neuroesthetics*. In this presentation, I will give a brief review of two of the most prominent formulations: *neurobiology of esthetics* and *neuro-art*, and I will propose a third union: *esthetic neuroscience*. In general terms, the neurobiology of esthetics is the investigation of the neural underpinnings of artistic experience. Prominent examples include a mirror neuron theory of a pre-cognitive motoric response to art, and neuroimaging of esthetic judgment. Neuro-art engages neuroscience, either through making use of the techniques and methodologies, or by addressing its knowledge production or cultural prominence.

While a portion of this work makes use of insights derived from neuroscience, another large portion offers conceptual criticism of various aspects of neuroscience. Other works attempt to expand the possibilities of perception through understandings of brain function.

I then propose a third branch, which I term for the time being *esthetic neuroscience*, whose aim is to integrate theories from artistic practice, which deals with notions of subjectivity and individual identity, into neuroscientific approaches to similar topics.

Examples include: "avoiding closure" and "presenting the unpresentable". The work of <SA/JO>, Sabine Schäfer and Joachim Krebs suggests a concrete possibility for extending these theoretical approaches into the methodologies of neuroscience.

Video clip of the guest lecture (extract)

Daniel S. Margulies is currently a researcher at the Berlin School of Mind and Brain and the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig. His neuroscientific research explores the impact of spontaneous intrinsic brain activity on perception and behavior. His art works, created using neuroimaging tools, aim to interrogate the epistemic assumptions of cognitive neuroscience and the objectification of individual experience. Having previously studied literature and philosophy in Paris and New York, he currently lives in Berlin.
He is a member of the "Association of Neuroesthetics" www.association-of-neuroesthetics.org