Kolleg-Forschergruppe
Bildakt und Verkörperung
Humboldt-Universität zu Berlin
www.bildakt-verkoerperung.de/
Conference website: http://goo.gl/xcHSJ

Conference march 15–17, 2012

Mind in Motion and the Body of the Sign
Peirce's Semiotical Pragmatism

Abstracts

Keynote lecture

Vincent Colapietro (Penn State University)
Being Out of Our Minds: Embodied Agents and Eccentric Bodies

The locus of thought is the world or, more precisely, the world insofar as it is inclusive of agents who possess the capacity to utter and interpret signs, moreover, insofar as it is implicated in their utterances, interpretations, and other actions. The main force of this thesis is derived from what this claim implicitly denies: the locus of thought is decidedly not consciousness or mind – also not the brain or the central nervous system – taken apart from embodied agents and the historical circumstances (hence, also the natural settings) in which they are entangled.
After sketching a Peircean account of human cognition, I will draw upon several contemporary theorists (Michael Polanyi, Alva Noë, and Terrence Deacon) to articulate in somewhat greater detail what arguably deserves to be called a pragmatist (at least, Peircean) account of human cognition. For the drama of thought, agents-in-the-world are the most prominent figures in the dramatis personae. Their bodies are paradoxical in a number of respects, not least of all because in each instance the "body is," as William James notes, "the storm centre, the origin of co-ordination, the constant place of stress" ("Where the body is is 'here'; when the body acts is 'now'; what the body touches is 'this' ..."). At the same time, the body in question is eccentric: it is in effect thrown beyond itself, its attention innately attentive to what is taking place around it, in the world. To possess an embodied mind is to be out one of one's mind. Stated positively, it means to be in the world, in a sense we are still struggling to specify in an adequately clear, persuasive, and otherwise adequate manner.

Introduction

Helmut Pape
Moving Minds, Moving Reality and the Continuity of Semiotical Bodies
To understand movement, embodiment and contingent change as a feature of being, as an irreducible reality, is what philosophers from Plato onwards, have denounced as an impossible, if not or nonsensical task. If the goal of philosophy is a theory of the eternal, the universal and necessary, how could we possible succeed with an account that understands contingent motion as an irreducible element of reality? In Peirce's philosophical account of motion and contingency reality and motion go together. In fact, the overall character of processes, the logic of motion and change, constitutes the connection between mind and everything else which is real. And this is what enables the continuity of bodies that can be grasped logically or semiotically.
In this talk I will argue that in Peirce's pragmatism, his logic of relations, semiotics and metaphysics are tightly linked by the implicit thesis that contingent events, motions and changes are irreducible parts of reality. In Peirce's semiotics the concept of Token and Sin- sign for the first time in the history of human thought elevates the event character of the actual use of a sign into a systematic concept. This is crucial for understanding the body of the individual sign and for stressing the continuity between the bodies of different signs while recognizing the cognitive force of the existence of semiotical bodies. Obviously, pragmatism assumes that the relation of the motion of our minds to real events, changes and motions is crucial for our understanding of reality. This reality, Peirce's evolutionary metaphysics understands in terms of the most comprehensive process of change as products of evolution. Peirce stated this striking thesis in his 3. Lowell Lecture of 1898: "What is reality? [...] so far as there is any reality, what that reality consists in is this: that there is in the being of things something which corresponds to the process of reasoning, that the world lives, and moves and HAS ITS BEING in a logic of events."

Section I – The Materiality of Signs
On the Philosophical Relevance of Peirce's Drawings

Franz Engel (Berlin)
Peirce draws
In this introduction a short overview of the vast variety of the Peirce drawings (conserved in the Houghton Library at Harvard University) will be given.

Jack Greenstein (San Diego)
Leonardo's Linear Tones: Peirce's Semeiotic and Renaissance Drawing
There are certain homologies between the theory of vision in Leon Battista Alberti's commentary On Painting and C. S. Peirce's theory of cognition, including perception, as a triadic semeiotic process. For Alberti, the visible world consisted of optical signs for surfaces which painters rendered according to a three-stage model for visual cognition. Although he granted that the lines of painters and mathematicians were not the same, he held that painters designated with their lines the surface geometry of the bodies that they represented. My paper proposes that lines in Alberti's theory of art and in the writings and drawings of Leonardo da Vinci may be may be understood through Peirce's discussions of different orders of icons, indices, and symbols, as well as the kinds of objects that they signify. In Renaissance drawings, the subalternate geometry that gives the represented bodies their seeming reality is often rendered as much by analogy as by trace and resemblance. In Leonardo's "brainstorming" drawings, the functions of the lines are even more attenuated. Because the outlines and contours are repeatedly revised, moved and changed, they lose their function as indices of secondness and indicate instead possible placements and forms hovering between the seeming actuality of perception and the imaginary reality of embodied symbols.

Mirjam Wittmann (Berlin)
The Image Behind the Scene
How did photography in particular had an impact on Peirce's philosophy? In my paper I will analyze his practices, uses and functions of photographic images which will on the one hand shed light on objectivity in the mid-nineteenth-century sciences, and will on the other hand show the metaphorical character that photography has for the philosophical question of imagination. By using a sun eclipse and Peirce's handling of the photographs of Francis Galton and Etienne-Jules Marey as an example, I will illustrate how the rise of photography reflects the relation between image and idea.

Michael Hoffmann (Atlanta)
Learning through struggling with diagrams
Kathleen Hull argued some time ago that the central idea of what she calls "Peirce's logic of creativity" can be studied in "his understanding of mathematical imagination as diagrammatic" (1994). Creativity, according to her interpretation of diagrammatic reasoning as the essence of mathematical reasoning, can be explained if we assume that the diagram that is so important for the mathematician's work "introduces an essential duality into mathematical reasoning.
The diagram becomes the something (non-ego) that stands up against our consciousness." This "standing up against our consciousness," be it in solipsistic or in inter-personal diagrammatic reasoning, is what I want to discuss as the foundation of the dialogical process that happens in diagrammatic reasoning. In my talk, I will focus on the three points: (1.) a reconstruction of diagrammatic reasoning as a process in which at least three "parties" are involved: a problem; someone who wants to resolve this problem; and a series of diagrammatic representations through which the problem solver tries to represent the structure of the problem for himself in order to organize his or her reasoning about the problem; (2.) a clarification of the cognitive and conceptual conditions that are necessary for diagrammatic reasoning as a dialogical process; and (3.) on a web-based argument visualization software— called AGORA- net: Participate – Deliberate! (see http://agora.gatech.edu/)—that I designed to support learning through a specific form of diagrammatic reasoning. Based on these three points I will argue that diagrammatic reasoning tools are the more powerful from a cognitive point of view the stronger they "stand up" against our consciousness.

Section II – "Moving Pictures of Thought"
Mind as Dialogical Process and Visual Action in Peirce's Existential Graphs

Dale Jacquette (Bern)
Picturing Logical Relations in Peirce's Existential Graphs
Charles S. Peirce's three-part formal system of Existential Graphs was designed as a logical notation for representing predicational logical relations. As such, and as Peirce understands the metaphysics of logical relations and the semiotics of iconic signs, Existential Graphs depict abstract set theoretical inclusions and exclusions of general concepts extensionally in and from one another. However, since Peirce properly regards logic as a formal science of reasoning, his Existential Graphs are equally capable of representing the abstract form and logical progression of living thoughts in their dynamic real time occurrence in the minds of particular thinkers. Peirce nevertheless avoids psychologism in his philosophy of logic insofar as his semiotic of iconic signs applies to his formal notation of Existential Graphs. The present inquiry investigates Perice's semiotic of formal logical relations, their graphic representation, and the thoughts and

associated psychological episodes by which both logical objects and their properties as depicted by graphic imagery are understood. I argue ultimately, in light of Peirce's commitment to a 'phenomenological' distinction between a sign vehicle,
such as an Existential Graph, in the case at issue, its sense, insofar as an object is taken and interpreted as a sign, a characteristic mental or psychological grasping of the meaning assigned to the sign, effected, as Peirce says 'by an association of general ideas' (Collected Papers 1931-1958, 2:249), and its referent, the logical relations graphically represented to thought in Peirce's formal sign system. I offer comparisons between Peirce's graphic semiotic and Ludwig Wittgenstein's account of the identical logical form or mathematical multiplicity required for the Tractatus Logico-Philosophicus account of the relation between thought, language and world in any tableaux vivant by which determinate meaning is expressed.

Ahti-Veikko Pietarinen (Helsinki)

Expressibility and Higher-Order Logic of Existential Graphs

According to Peirce, "ideas too lofty to be expressed in diagrams are mere rubbish for the purposes of philosophy" (W8: 24, 1890, [On Framing Philosophical Theories]). Now, what can be expressed in diagrams? What can be expressed in logic? Peirce's diagrammatic logic of potentials has remained seriously understudied. Besides expressing abstraction, this system of diagrammatic logic is the true logic of generalities: its second-order part can accommodate all mathematics. But what are we quantifying with second-order diagram logic? The lines of identities that attach to the hooks on the peripheries of spots do not express the existence of the values attached to them but "qualitative possibilities". Moreover, the potentials assert "substantive" and "objective possibilities" and need to be taken to precede existence (MS 508: Syllabus B.6). These modal features of second-order graphs are remarkable. But how can higher-order quantification be about such qualitative possibilities? Normally, second-order variables range over properties, classes, relations or functions of what there are in the domain of discourse. The language that has first and second-order variables and a well-defined language and logic (that is, a logical consequence relation) is commonly taken to give birth to the second-order logic. But properties and attributes are intensional entities. Quine famously asked which properties are there. The rub for Quine and other die-hard extensionalists was that there is no determinate criterion of identity by which elements in the domain of second- order languages could be determined. Second-order logic devotees typically sweep this problem under the carpet of set theory, making the whole issue seem part of mathematics proper. Since Peirce is an extreme anti-nominalist and since he disapproved Cantor's set theory in which members of sets are first-order elements, this answer is unsatisfactory. Higher-order variables must have the range that is distinctive from individuals referred to by propositions de inesse. So what can he do? The answer is surprising. By having the quantification in the higher-order graphs of logic to consist in assertions of substantive,
objective possibilities Peirce can keep with the genuinely second- order range of the values of quantification while incorporating the criterion of identity into the notation of identity lines which quantify qualitative possibilities. This criterion guarantees the feasibility of asserting not the identities of existing individuals but those of substantive possibilities. By the iconicity of second-order diagrams we avoid the worry of the meaning of the existence of higher-order elements. No separate sign for identity is needed to supply the identity conditions: identities are denoted by exactly the same signs that denote quantification, predication and substantive possibilities of second-order entities. As a consequence, the empirical distinction – the fourth dogma of empiricism – of what is a logical and what an extra-logical diagram cannot be maintained.

Frederik Stjernfelt (Aarhus)
Existential Graphs, Iconicity and Movement
Based on the observation of competing iconicity criteria in Peirce (operational vs. optimal iconicity), this paper investigates the different aspects of iconicity as they appear within the confines of the Existential Graphs.

Francesco Bellucci (Piombino)
Peirce's Continuous Graphs as Representations of the Continuity of Mind
In Existential Graphs, a key role is played by two continuous graphs. In Peirce's mind, they were supposed to capture a basic feature of mental processes of which he had long been trying to provide a description: continuity. While topology is, in Peirce's mind, the mathematics of continua, Existential Graphs are the logic of continua. Peirce first discussed the continuity of mind in the anti-Cartesian essays of 1868-69, where all mental phenomena were thought-signs developing according to the laws of valid inference. A second step towards a synechistic account of mind was taken in 1892 in "The Law of Mind," in which Peirce argued for the principle that ideas tend to spread and to affect certain others which stand to them in a relation of "continuous affectability." Around the years 1906-1908, he came to the notion of pure continuous relations (which he called continuous conceptions in March 1906, continuous relations and continuant signs in December 1908): a continuous relation is an irreducible relation every part of which is a relation of the same kind. "To represent," "to be," "to be identical with," "to be in relation to," "to coexist with," "to imply," are all continuous relations, for they correspond to what is simple and irreducible in reasoning. In a sense still to be cleared up, they are Peirce's mature version of his early account of logical leading principles. In Existential Graphs, two continuous graphs are to correspond to continuous relations: the sheet of assertion (SA) and the line of identity (LI), for any part of a SA is itself
a SA, as any part of a LI is itself a LI. While the SA represents that any given graph scribed thereupon is a partial determination of the universe of discourse, the LI represents that the graphs that it conjoins are diverse representations of the same object. Just as the SA is a perfect icon of the mind, graphs joined by LIs are perfect moving pictures of thought. Peirce claimed that the SA and the LI provide an analysis of the mind. In which way do they afford such analysis? One possible answer might be that they do that thanks to their material continuity: the formal continuity of the mental process is embodied into the material continuity of the graphs. Other systems of logical representation (selectives, logical algebras, symbolical notations, etc.), not possessing a material continuity, appear not able to give a satisfactory description of the continuity of the mind. Peirce's concepts of thought-sign, law of mind, principle of reasoning and triadic combination are all at once perfectly iconized by continuous graphs, for these latter capture an irreducible feature of thought (logical continuity) by means of an irreducible simple quality (material continuity).

Mats Bergmann (Helsinki)
Subjective Generality and Communicative Vagueness in Peirce's Existential Graphs
In presenting his system of existential graphs, C. S. Peirce regularly asks his reader to envisage a communicative setting where one person, typically identified as the utterer or the graphist, asserts something about an arbitrarily hypothetical universe or "creation of mind", while a second party, usually called interpreter, proceeds to provide an interpretation of the scribed signs. Occasionally, Peirce identifies a third role, that of the grapheus, the creator of the imaginary universe. As the game-theoretical elucidations of Peirce's logic have shown, the introduction of such communicative functions at the very heart of formal logic are not superfluous additions or mere stylistic embellishments; they are closely connected to his oft-cited claim that it is "a necessity of Logic [...] that every logical evolution of thought should be dialogic". Indeed, Peirce even suggests that it is necessary to imagine such personas on the grounds that logic requires "perfectly clear ideas". What does this purported clarification entail?

As Peirce repeatedly avers that the graphs are intended toprovide "moving pictures of thought", it seems reasonable to maintain that the basic communicativesetting of the graph- situation is closely connected to what Jarrett Brock has called the "Peirce-Plato thesis" of the dialogical nature of semiosis. Peirce indicates that the graphs are not only bona fide tools for theanalysis of thought; they render "literally visible before one's very eyes the operation of thinking in actu". This, in turn, raises questions concerning the constitution and scope of the graph-signs; as Peirce notes, their being, like that of all signs founded on conventions, depends on the way they are interpretable. Put differently, a graph inheres in the convention
that created it. Such perspectives might be taken to invalidate any claims to real generality in the context of the existential graphs. After all, we seem to be dealing with nominal constructions by parties involved in an arbitrary symbolic game. However, Peirce emphatically argues that the graphs possess not only objective generality (i.e., the kind of generality equivalent to certain latitudes of interpretation) but also what he denotes as subjective generality, which is to be distinguished from indefiniteness or vagueness. This turns out to be the very heart of Peircean "scholastic" realism, for the matter concerns the question of whether conventions (necessarily embodied in signs) are construed as the mere sum of distinct acts or agreement is taken to be a real third in the intercommunicative relation. Such conventions constitute a virtual common ground that is pragmatically effective; it consists in the habitual fact that the conventions would have mental and bodily effects on the conduct of their interpreters. These reflections indicate a close connection between Peirce's logical graphs and the incipient theory of indeterminacy he calls the "logic of vagueness". In conclusion, some open questions concerning indefiniteness in the context of the graphs will therefore be addressed. For, on the one hand, Peirce argues that the graphs ought to be perfectly clear and definite; while, on the other hand, he unequivocally asserts that no communication (even of the "internal" kind) can be perfectly definite and proclaims that "vagueness [...] is no more to be done away with in the world of logic than friction in mechanics".

Section III – Peirce's Embodiment
Historical Roots and Philosophical Significance

Tullio Viola (Berlin)
Two Aristotelians: Peirce and Ravaisson
Since the times of Bergson's personal acquaintance with William James, the study of the relation between American Pragmatism and so-called French "Spiritualism" has been a significant and fruitful field of inquiry, which broaches seminal philosophical questions such as the possibility of intuition, free will, and the temporal dimension of human nature. My talk aims at offering a new look at the issue through an hitherto rather neglected path: a comparison between the fathers of these two lines of thought, namely Charles S. Peirce and Félix Ravaisson. Famously two of the most important Aristotelian thinkers of the Nineteenth century, Peirce and Ravaisson seem to have striking philosophical similarities and at least one, deep difference. I will try to make sense of both also with an eye to the two authors' observations on the philosophical significance of visual experience and the practice of drawing. An interestingly broad and complex spectrum of "Aristotelian" answers to the problems of embodiment, human perception and the status of images will hopefully come to light.

Robert Stern (Sheffield)
Hegel and Peirce on Embodiment
This paper considers the relation between Hegel and Peirce on embodiment in relation to three main themes: (1) The similarities between Peirce's conception of Thirdness and Hegel's

conception of universality, as both involving realism about 'generals', and so the embodiment of conceptual structures in reality (2) The similarities between Peirce's anti-Cartesian epistemology of the embodied inquirer faced by real doubts, and Hegel's own epistemology (3) The Peircean claim that the sign is an embodiment of thought, and the way that this compares to aspects of Hegel's philosophy of language, which treats linguistic signs as required for thinking.

Claudine Tiercelin (Paris)
The importance of Peirce's views on dispositions and their philosophical significance for some contemporary issues in the philosophy of mind.
The aim of the talk will be (1) to focus on Peirce's concept of disposition and to present its main characteristics (its relation to habit, belief, its place within the general logical, semiotic, metaphysical framework; etc.); (2) to show the extent of the influence of Aristotle, Scotus and evolutionary theories in particular, on Peirce's own formulation and the way he finds an ingenuous way between various "idealistic" but also what may already be called "emergentist" strategies; (3) to suggest some contemporary clues in Peirce's analysis as far as such issues as mental causation, embodiment and more widely, the place of mind in nature are concerned and still very much debated.

Alessandro Topa (Kairo)
"Since thought needs a body" – Prefigurations of Peircean Themes in Schiller's Aesthetic Letters
The appraisal of the importance of Schiller's *Letters on the Aesthetic Education of Man* for the development of Peirce's philosophizing has significantly changed in the past fifty years. While earlier developmental studies like Murphey (1961) or Esposito (1980) hardly mentioned Peirce's reading of the *Aesthetic Letters,* recent works like A. De Tienne's *L'analytique de la représentation chez Peirce* (1996) devote entire sections to a better understanding of the precise nature of Schiller's impact on Peirce's thought. Sure enough, in particular Jeffrey Barnouw (1988 u. 1994) has shown that Schiller's concept of aesthetics is fundamental for the architectonic design that Peirce – around 1902 – starts to reflect in the foundational relationships between the three normative sciences.
Studying Peirce's *juvenilia* alongside with his mature texts on the normative sciences confirms the outstanding importance of Friedrich Schiller for Peirce's thought and allows to comprehend the influence of the *Aesthetic Letters* as a prefiguration of Peirce's horizon of thought. Or rather: it allows to understand philosophizing as the systematic, categorially guided striving for a conceptual cognition of the unity and unfolding of human Feeling, Acting and Thinking.
It seems to be exactly in this sense that Schiller observes – in a footnote to the 25th letter, which elaborates on the physical, aesthetic and moral state *as* stages – that these are considered to be not only „the necessary conditions of all knowledge which comes to us through the senses", but also „may well be considered as three different epochs": both for „the development of mankind as a whole" and „the whole development of a single individual".