

# Curso: Philosophy of Human Technology I “Philosophical Investigations of Attention”



Docente: Alexander Gerner (CFCUL)

Segundas-feiras 17-19h

Local: Faculdade de Ciências da Universidade de Lisboa// Faculty of Science of the University of Lisbon

16 of March to 06th of abril SALA: 3.1.06

13 of April SALA: 3.1.09

20 of April to 11th of May SALA: 3.1.06

18 of May (17-18h30) SALA: 3.2.14

1st of June SALA: 3.1.09

Free Course /Curso livre

Lingua: Português (e Inglês)

the 16th of March 2015

Location: Faculty of Science of the University of Lisbon

Campo Grande

Inscribe via email/Inscrição via email:

amgernerATfc.ul.pt or alexandergernerATgmail.com

Actualmente, a atenção é o objecto de estudo de várias disciplinas científicas empíricas e técnicas - como a psicologia cognitiva, as Neurociências, as Neurotecnologias ou a robótica - , especialmente nos domínios da percepção e da motricidade, mas também, mais recentemente, da cognição central executiva, da memória de trabalho, “mental imagery”, da consciência e da partilha da atenção (joint attention), entre outros. Uma abordagem da atenção no âmbito da filosofia das ciências e, em específico, da Filosofia da Tecnologia do Humano, ganha importância à medida que se conceptualiza a atenção humana, não como só um efeito secundário da análise da percepção visual ou da motricidade ocular, da sua fixação e dinâmica objectual ou de reconhecimento de objectos já preexistentes, mas sim como um fenómeno que participa na constituição spatio-temporal do objecto, na lógica diagramática, no horizonte subjetivo (temporal, incorporado e habitual) na aprendizagem e no desenvolvimento de uma

epistemologia dinâmica (Peirce) e da experiência em geral como técnica do humano (individual, social e cultural).

*Este curso não aborda a criação de novos modelos de implantação da atenção em agentes artificiais. Baseia-se antes nas questões teóricas da atenção: "como é que através da atenção o novo entra na nossa experiência, no nosso conhecimento, raciocínio, experiência e imaginação?". Para lhe responder, propõe-se um curso de investigações filosóficas multifacetada sobre a atenção em 10 sessões.*

Program: 16/3/2015

**1 Introduction** -historical contextualization - the actuality of the scientific study object of attention inside History and Philosophy of Science and Philosophy of Human Technology - first introductory problematisation of attention in the era of brainhood and attention economy - general information

*Sessão I*

- Allport, A. (2011). "Attention and Integration". In: C. Mole, D. Smithies, In: W.Wu (eds). Attention. Philosophical and Psychological Essays. Oxford: OUP, 24-59
- Assmann, A. (2001). "Einleitung". In: Aleida Assmann, Jan Assmann (eds). Aufmerksamkeiten. Archäologie der literarischen Kommunikation VIII, Fink: München, 11-24
- Crary, J. (2001 {1999}). "Modernity and the Problem of Attention". In. Jonathan Crary. Suspension of Perception. Attention, Spectacle, and Modern Culture. Cambridge Mass: MIT Press, 11-80
- Daston, L. (2001). Eine kurze Geschichte der wissenschaftlichen Aufmerksamkeit. (=Reihe Themen; Bd 71) München: Carl Friedrich von Siemens Stiftung (51pp)
- Hagner, M. (1998). "Aufmerksamkeit als Ausnahmezustand." In: Werner Haas, Rainer Nögele, Hans-Jörg Rheinberger (eds.) Lichtensteiner Diskurse III: Aufmerksamkeit. Eggingen: Edition Isele, 273-294
- Gil, F. (1992). Tratado da Evidência. Tradução Dr. Maria Bragança. Lisboa: Imprensa Nacional-Casa da Moeda
- Mole, Christopher, "Attention", *The Stanford Encyclopedia of Philosophy* (Fall 2013 Edition), Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/fall2013/entries/attention/>>.
- Rheinberger, H.-J. (2005). "Augenmerk". H.-J. Rheinberger. Iterationen. Berlin: Merve Verlag Berlin, 51-73
- Waldenfels, B. (2004). "Auf der Suche nach der Aufmerksamkeit." In: Bernhard Waldenfels. Phänomenologie der Aufmerksamkeit. Frankfurt: Suhrkamp, 13-31
- Stiegler, B (2012). "Relational ecology and the digital *pharmakon*." *Culture Machine, Vol. 13*, 1-19
- Wehrle, M. (2013). "Einleitung". In: Maren Wehrle. Horizonte der Aufmerksamkeit. Entwurf einer dynamischen Konzeption der Aufmerksamkeit aus phänomenologischer und kognitionspsychologischer Sicht. München: Fink, 13-28
- Vidal, F. (2008). "Historical Considerations on Brain and the Self." In: Battro, A. et al. The Educated Brain. Essays in Neuroeducation. Cambridge: Cambridge University Press, 20-43
- Wu, W. (2014). "Introduction. The puzzle and challenge of attention." In: Wayne Wu, Attention. (= New Problems of Philosophy) Abingdon/New York: Routledge 1-11
- Uttal, W. (2011). "Attention." In: William Uttal. Mind and Brain. A Critical Appraisal of Cognitive Neuroscience, 229-265

## ***I Phenomenological Investigations of Attention***

### **2 The unfinished project of a phenomenology of attention: the problem of attention in early Husserl**

23/3/2015

17-19h

Sala 3.1.06

Attention is in Husserl a theme of a long preoccupation, but fundamentally seen here as unresolved or unfinished. That is the reason why I will not expose Husserl's different phases of

developing attention at length and in exhaustion in relation to Husserl's topics of preoccupation, but will rather look at the initial early phase of Husserl's problematic between static and genetic approach of attention in between psychological "interest" and intentional "Meinen" (Hua 38) and his explicit preoccupation with the theme of attention in the time of Göttingen in between the Logical Investigations(1900/1) and the Ideas (1913).

30/3/2015

17-19h

Sala 3.1.06

**3 Waldenfels dynamic account of a phenomenology of attention** Waldenfels is localizing attention before a conceptually or cognitively interpenetrated act of recognition or perception or a modification of conscious acts. Already in Waldenfels introduction of his book on "Phänomenologie der Aufmerksamkeit"(2004) therefore programmatically announces that attention is in need of a proper language to give it the importance it deserves as being a primary or originary phenomenon by describing the characteristics of *attentional double events*, *attentional movements* that a dynamic account of attention presents.

## ***II From aesthetic to heautosopic attention***

17-19h

13 of April SALA: 3.1.09

**4 Conceptual Personae of (Impossible) attention- notes on the attentional self** The vertical and horizontal extension of attention and attentionality (Wehrle 2013) will be discussed. I will take another dimension into account: *attention* as a constitutive ground of the *embodied self*.

This part develops on the question why attention- a phenomenon long handed over to the experimental empirical mind sciences- recently became again a highly debated phenomenon in philosophy especially in phenomenology (and metaphysical and empirially informed philosophy of mind). A shift in focus will be pursued from aesthetic attention in the topic of perception towards the attentional self that has to be considered in different modes for example in autoscopic experiences in which the attentional location might be experienced "outside" the somatic body.

17-19h

20/4/2015

Sala 3.1.06

**5 Attention as a key concept to understand two reductionist shortcomings of aesthetic experience** The initial question that will be dealt with is: why neither a strong naturalistic positioning (empirical neurobiology of attention) without a personalistic attentional self is sufficient to explain attention phenomena nor a orthodox strong philosophical transcendental concept of attention is sufficient and thus both a bottom-up and a top-down, transcendental empiricist approach towards attention and the attentional self in a joint venture of arm-chair

philosophy and laboratory mindscience of attention should be pursued.

### ***III Metaphorology of Attention***

27/4/2015

17-19h

Sala 3.1.06

**6 Metaphorological Variation of Attention** While traditionally lacking a satisfying unified theory, Attention research in the cognitive sciences is in the grip of a multitude of incoherent heuristic and pre-theoretical metaphors and in the grip of reductive models (attention is only x (>information reduction< etc.). metaphor use in cognitive-scientific attention research can be seen as a symptom of the confusion of a scientific practical technical method- working with metaphors- with the phenomenon of attention itself. The existence of multiple attention metaphors could be also a signal for the preliminary heuristic status of the concept of attention itself in attention research in the interdisciplinary field of cognitive sciences. This then taken in a more radical fashion could lead to the next claim: Attention is a metaphor. This part will first introduce Blumenbergs methodological metaphorology as a pragmatics of metaphysics, a strategy in relation to foundational metaphors of science, in our case used in cognitive science research of attention.

4/5/2015

17-19h

Sala: 3.1.06

**7 On Attention Metaphors** In this investigation concrete conceptual metaphors of attention used in cognitive sciences are analysed and discussed. We will analyse the relation of the phenomenon of attention and its metaphors (Filter, Spotlight, Spotlight in the brain; FINST; Peeking Chicken; Sphere; etc.). The aim of reflecting on conceptual metaphor is being (in a diagrammatic reasoning manner) open to correction, transformation and innovation of the types and categories that will be introduced here. This means being able to include the observation of new empirical findings and better theoretical argumentation/conceptualization of the (attention) phenomena in later stages of research. Can therefore a metaphorology become also a praxis of abduction (Peirce), introducing new ideas in attention research?

### ***IV Epistemological Issues of Attention***

11/5/2015

17-19h

Sala: 3.1.06

**8 The relation of Attention Abduction, diagrammatic reasoning and distractive abstraction** Can the analysis of attention contribute to clarify the intrinsic dilemma of

abduction that Peirce researched on all his life? The concept of attention in Peirce and inside his idea of abstraction and diagrammatic reasoning will be exposed. Attention is conceptualized hereby in the classical double role of being an embodied natural capacity of living beings that is directed by attentional stimulus of the environment or out of inner-auto organizational necessity on the one hand and on the other in a second-order perspective is actively influencible by control, reasoning, conception, planning, social interaction. Could attention play also a role in >hypostatic abstraction< and highly abstract creative abduction in diagram experimentation?

Attention is seen hereby as well as a epistemic dynamic between focus and distraction, thus a distraction that abstracts: Becoming attentive seems impossible without a constitutive *abstractive distraction*.

## ***V (Neuro-) ethical Issues of Attention. Attention and Cognitive Enhancement***

18/5/2015

**17-18h30**

### **Auditorium 3.2.14**

**9 Can we enhance attention?** The enhancement of cognitive functions such as attention that is proposed in recent (neuro-) pharmacological (neuroenhancement) approaches -towards human beings, is often flawed with reductive concepts of the cognitive entity that is said to be “enhanced” such as equating cognition with a human’s or a “brains” internal “capacity” of “information organization” and respectively reducing attention to mechanical “information selecting” (see for example Sandberg 2011). A theoretical Neuroethical approach (Northoff 2013) applied to attention will be pursued problematizing the difficulties between neurobiological facts and norms in pharmacological Neuroenhancement of attention. How are neuroenhancement of attention related to medical praxis, and how may one shift or expand the borders between treatment and enhancement in multiple domains, including for example pain treatment, schizophrenia, depression or Alzheimer disease in relation to “cosmetic neurology” (Chatterjee 2004; Chatterjee & Farah 2013), in off label use of (social) “attention” drugs, and “non-invasive” attentional virtual reality “interventions in the brain” (see: Blank 2013). Such performance/communication/channel “enhancements” of reductive cognitive functions on a shop floor level of information or brain functions (I) should be critically scrutinized from a perspective of a complex cognitive system approach of attention that we will look upon from the level of shared/joint attention in social interaction and cognition (level II). Epistemic questions are even more virulent: Our experience guided by attention is not merely a construction or product of internal bottom-up processes of neuronal information processing but may be achieved and modulated through the processes of attention-praxis and attention-techniques (e.g. change and alternation of perspective-taking): thus through natural symbolic ‘technical prostheses’ through which multimodal attention modes in relation towards an ecology of the brain (Thomas Fuchs) are formed and which is never limited to individual minds and an internalist representational approaches to the nervous-system alone.

”

1/6/2015 | 17h-19h00 | Sessão Dupla

**Auditório 3.1.09**

**10 *Enhancement and Self-Formation in Enhanced distraction techniques of attention (EdtA). Notes on the relation of attention, pain, perspective-taking and virtuality immersion in integrative medicine***

In this part we will explore several examples of *non-invasive* Enhanced distraction techniques of attention (EdTA) specifically in relation to pain. Suffering from pain is an attention grabber. A person might dissolve herself in a life focused on her body in pain. As a foundational pathos form pain is a basic symptom not able to be conceived in any kind of simple measure- bio-statistical or whatsoever- and thus reminds us that suffering from pain is not possible to be eliminated from any individual's life world. However, pain can be temporarily modulated, altered and distracted by attention guidance. One fundamental relation of attending to pain or not, is the cognitive component of pain, typically attention, beliefs about pain, (mis-)identification, expectations and attributions that modulate nociceptive signals in pain experience and lie at the foundation of the proposed *Enhanced distraction techniques of attention* (EdTA). We will look at two distraction techniques I) In Virtual Reality games in integrative medicine so called "*Virtual Reality Analgesia*" (for an overview see: Scozzari, Gamberini 2011) can be applied to diminish strong pain in medical (behavioral) treatment avoiding or attenuating for instance pharmaceutical interventions. Reduced pain experience during mental distraction involves a substantial contribution of *endogenous* opioid neurotransmission to this mechanism. By immediate "Virtual Reality Analgesia" not the patients impossibility of having visual access to the pain source, but the active virtual reality immersion of the somatic self in fictional bodies and scenes becomes important. Thus the relation of attention and virtuality immersion will be debated. Attention can be altered in relation to 1) attribution of mineness of the body and 2) feeling of pain. Altered self-other experiences as induced by Out-of Body experiences in which in a VR ambient the perspective of one's own body is fundamentally altered will be explored in which we focus on social perspective taking to understand the scope of altered attention modes in different perspectives and body identification within virtual environments related to distraction of attention from the proper body in pain. II) The technique of self-formation (Kipke 2011) in Training (Sloterdijk 2009) of relaxation and mindfulness meditation (Zeidan 2011;2012) in Open monitoring and focused attention is a mid to long term training technique of vigilance, attention and an enhanced distraction technique that will be look upon in contrast to "Neuroenhancement" of Attention.

Bibliography of each session TBA Fridays before each session via email to inscribed Course members

\*