

Denis Buehler

## Curriculum Vitae

University of Oxford  
Faculty of Philosophy  
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## Education

University of California at Los Angeles, Ph.D., Philosophy, December 2014

University of California at Los Angeles, M.A., Philosophy, June 2009

University of Göttingen, Germany, M.A., Philosophy and Ancient Greek (double), July 2006

Studies at Humboldt University Berlin, Germany 2003-2005; Theater Academy Hamburg (Directing for Theater) 2005; University of California, Los Angeles 2006-2007; University of Konstanz, Germany 2007-2008; Institut Jean Nicod Paris, France 2013

## Employment & Visiting Positions

Oxford University, Departmental Lecturer in Philosophy of Mind, October 2016 - present

New York University, Visiting Scholar, September/October 2016

Universidad Nacional Autónoma de México (UNAM), Postdoctoral Fellow, September 2015 – September 2016

University of California, Los Angeles, Lecturer, Winter & Spring 2015

Harvard University, Research Assistant to Prof. Charles Parsons, 2009  
Helped research and edit Prof. Parson's Book From Kant to Husserl.

## Dissertation

Psychological Agency: Guidance of Visual Attention

I present a novel account of individuals' guidance of their acts, based on a case study of the empirical psychology of visual attention shifts. (Please see attached abstract.)

Committee:

Tyler Burge (chair)  
Pamela Hieronymi  
Barbara Herman  
Michael Rescorla

## Areas of Specialization

Philosophy of Psychology and Mind, Philosophy of Action, Epistemology

## Areas of Competence

Kant, Greek Philosophy (especially Aristotle), Philosophy of Biology, Philosophy of Language

## Publications

“Incomplete Understanding of Complex Numbers. Girolamo Cardano – A Case Study in the Acquisition of Mathematical Concepts.” *Synthèse* Vol. 191 Issue 17 (2014): 4231-4252

“How is Epistemic Reasoning Possible?” *Abstracta* Special Issue IV (2009): 7-20

## Grants, Fellowships, and Awards

Alternate Candidate, NYU Bersoff Fellowship (2015)

UCLA Dissertation Year Fellowship (2014)

APA Graduate Student Travel Grant (2014)

Mellon Pre-Dissertation Year Fellowship (Spring 2013)

UCLA Dean's Fellowship (Summer 2011, Summer 2012, Winter 2013)

UCLA Philosophy Departmental Stipend (2008/9)

Graduate Stipend of the State of Baden-Württemberg (2007/8)

Auslandsstipendium nach dem Studium, German National Merit Foundation (2006/7)

University of California, EAP Exchange Grant (2006/7)

Fulbright Program, Travel Grant (2006/7)

Carlo-Schmid Program (2005, declined)

European Network for Ancient Greek Drama, Summer Course in Epidaurus, Greece (2003 & 2004)

Aula Romana, Summer Course Italian, Rome (2003)

German National Merit Foundation Summer University (2003)

German National Merit Foundation (2001-2007)

The Studienstiftung des Deutschen Volkes is the German state's non-political, non-denominational organization that awards full stipends for tuition and living expenses to 0.5% of German university students. The stipends are awarded on the basis of academic merit.

## **Presentations & Contributions to Colloquia**

“Guidance of Visual Attention,” Pacific APA, April 2017

TBA, Society for Philosophy of Agency, Eastern APA, January 2017

“Transsaccadic Vision,” Marist College, Poughkeepsie, September 2016

“Guidance of Visual Attention,” NYU Mind & Consciousness Group, New York, September 2016

“Guidance of Visual Attention,” Minds Online 2016; with replies to comments by Peter Fazekas, Mark Fortney, and Sebastian Watzl, September 2016

“Auditory Concepts,” Workshop with Saul Kripke, UNAM, Mexico City, August 2016

“The Central Executive System,” Workshop with Felipe Brigard, UNAM, Mexico City, Mexico, August 2016

“Animal Origins of Human Agency,” UNAM, Mexico City, Mexico, August 2016

“Animal Origins of Human Agency,” Persons as Animals, University of Leeds, UK, July 2016

“Warrant from Transsaccadic Vision,” Aristotelian Society, Cardiff, UK, July 2016

“Warrant from Transsaccadic Vision,” IV Alfán Congress, San Jose, Costa Rica, May 2016

“Warrant from Transsaccadic Vision,” Philológica IV, Bogotá, Colombia, February 2016

“Transsaccadic Vision,” Workshop Top-Down Influences on Vision, Antwerp, Belgium, February 2016

“Guidance of Visual Attention.” UCLA Mind & Language Workshop, Los Angeles, October 2015

“Core Agential Control.” First Brentano Lectures and Workshop with M.G.F. Martin, Tuebingen, Germany, July 2015

“Unsophisticated Human Agency.” Workshop Practical Reasoning and Motor Representation, Warwick, UK, June 2015

“Guidance of Visual Attention.” Center for Advanced Studies, Moscow, Russia, April 2015

“Guidance of Visual Attention.” Indiana University, Bloomington, January 2015

“Unsophisticated Human Agency.” Indiana University, Bloomington, January 2015

“Guidance of Visual Attention.” University of California, Los Angeles, January 2015

“Attention and Agential Control of Bodily Action.” Pacific APA, San Diego, April 2014

“Incomplete Understanding of Complex Numbers. Girolamo Cardano – A Case Study in the Acquisition of Mathematical Concepts.” MindGrad 2013, University of Warwick, UK, December 2013

“Incomplete Understanding of Complex Numbers. Girolamo Cardano – A Case Study in the Acquisition of Mathematical Concepts.” Concept Acquisition and the Role of Language, Workshop with Susan Carey, Durham University, UK, May 2013

“How is Epistemic Reasoning Possible?” Konstanzer Kant Kurs with Quassim Cassam, Konstanz, Germany, July 2007

“Understanding Understanding Reasoning.” Goettinger Philosophisches Kolloquium IX, Goettingen, Germany, July 2005

## Teaching Experience

As Instructor, Oxford

Duties include designing syllabi, writing and holding of lectures/seminars, office hours, and examinations.

Lecture: Philosophy of Mind	Fall 2016
Graduate Seminar: Topics in Philosophy of Perception	Winter 2017
Graduate Seminar: Topics in Philosophy of Action	Spring 2017

As Instructor, UNAM

Duties include designing syllabi, writing and holding of lectures, office hours, examinations, and the direction of teaching assistants.

Graduate Seminar: Visual Experience (with Miguel Ángel Sebastián)	Spring 2016
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As Instructor, UCLA

Duties include designing syllabi, writing and holding of lectures, office hours, examinations, and the direction of TAs.

Topics in Theory of Knowledge: Perceptual Warrant	Spring 2015
Philosophy of Action	Winter 2015
Philosophy of Psychology: Attention	Summer 2014
Topics in Aesthetic Theory: Conceptions of Art	Summer 2013

As Teaching Assistant, UCLA

Duties include designing and holding of weekly review sessions and office hours.

Historical Introduction to Philosophy (Brian Copenhaver)	Summer 2015
Philosophy of Psychology: Perception (Tyler Burge)	Winter 2014
Kant's Theoretical Philosophy (Tyler Burge)	Fall 2013
Greek Philosophy: Plato and Aristotle (Calvin Normore)	Fall 2012
Historical Introduction to Philosophy (Brian Copenhaver)	Summer 2012
Introduction to the Philosophy of Mind (Gabriel Greenberg)	Spring 2012
Philosophy of Psychology: Perception (Tyler Burge)	Winter 2012
Kant's Theoretical Philosophy (Tyler Burge)	Fall 2011
Historical Introduction to Philosophy (Brian Copenhaver)	Summer 2011
Topics in Ethical Theory: Lying and Deceiving (Seana Shiffrin)	Spring 2011
Introduction to Ethical Theory: Writing (Pamela Hieronymi)	Fall 2011
Philosophy of Space and Time (Sheldon Smith)	Fall 2010
Historical Introduction to Philosophy (Brian Copenhaver)	Summer 2010
Modern Philosophy 1650-1800 (Deborah Brown)	Spring 2010
Kant's Theoretical Philosophy (Tyler Burge)	Winter 2010
Introduction to the Philosophy of Mind (Joseph Almog)	Fall 2009

## **Languages**

German (Native)  
English (Bilingual)  
Italian (Fluent)  
French (Fluent)  
Ancient Greek (Reading and Translation)  
Latin (Reading and Translation)  
Spanish (Intermediate)  
Russian (Elementary)

## **Professional Service**

Referee for Mind, Journal of the APA  
Co-organizer workshop Perceptual Communication, UNAM, November 2016  
Referee UCLA/USC Graduate Conference 2008-2011; Co-Organizer 2010

## Letters of Reference

(Please contact Tanya Kim at [tkim@humnet.ucla.edu](mailto:tkim@humnet.ucla.edu) )

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## Dissertation Abstract

A monkey shifts visual attention from one branch to the next in his search for a berry. The monkey acts when he shifts attention in this way. The monkey guides his shifts. He does not guide his attention when a bright flash of light captures it.

The deepest challenge about agency, says Harry Frankfurt, is to explain what *individuals' guidance of their acts* consist in. In my dissertation I offer a novel answer to Frankfurt's challenge. I focus on a type of psychological agency – active shifts of visual attention. I propose that when an individual guides her attention shifts, her central executive system controls the activity of her attentional system. The central executive system is an amodal, non-modular psychological system that controls cognitive processes, both by allocating central resources to them and by organizing competencies and memory storage for these processes' completion. This system's control over the attentional system constitutes the individual's guidance.

In chapter 2 I introduce and explain the central executive system. Our best theories of this system characterize it as a system of executive functions, competencies for controlling cognitive processes. The system's signature competencies are the executive functions of switching mental set, maintaining task-relevant information in working memory, and inhibiting irrelevant stimuli and responses from interfering with an ongoing process. I counter two objections against the validity of this notion. The first objection contends that there is no central executive system, because no specific area in the brain realizes it. The second objection charges that appeal to the central executive system does not yield genuine explanation. I show how both objections ignore or misconstrue recent neuroscientific and psychological advances, and how the objections impose implausible constraints on 'proper' psychological explanation.

In chapter 3 I discuss psychological research on shifts of visual attention to develop my answer to Frankfurt's challenge. I focus on attention shifts during visual search. I explain the psychology of the visual attentional system. I show that whenever an individual guides her shift of visual attention, the individual's central executive system controls the activity of the visual attentional system. I distinguish executive control over attention shifts from the influence of the endogenous attentional system, as well as from endogenous influences on attention shifts from priming, long-term memory, and many other factors.

In chapter 4, I introduce another contributor to shifts of visual attention: the priority map, a map-like representation of the visual scene. I argue that the priority map has non-conceptual, geometric content. In many cases, central executive control directly activates the priority map for the guidance of an attention shift. In these cases, individuals' actions are not caused by conceptual intentions, as against what a major tradition in action theory claims. When individuals guide their attention shifts, the central executive system assigns priority to locations on the map. Exercises of individuals' guidance in these cases can be explicated by appeal to non-conceptual states and executive control alone.

The last chapter joins the threads of the preceding chapters. When individuals guide attention shifts, the central executive system controls these shifts. I reflect on our notions of guidance and individual to explain how central executive control helps us better understand the nature of individuals' guidance. I argue that appeals to central executive control help us understand conditions under which processes can be attributed to the whole individual, as opposed to her sub-subsystems alone. I explain how my proposal thus contributes to an answer to Frankfurt's challenge. I conclude by speculating about how central executive control can help us understand other types of psychological agency, such as judgment and reasoning, as well as the guidance of bodily action. The dissertation constitutes a first step toward explicating agency across species.

## Unpublished Papers

### "Occurrent Agential Control" (*Currently under review*)

In this paper I argue that we need to understand attentional control in order to fully understand agential control. To fully understand agential control we must understand its occurrent component. Three important accounts of agential control – *intentional, reflective, and goal-represented control* – do not provide resources for explaining this component. I argue that understanding it requires understanding how deployments of visual attention implement occurrent agential control. I close by reflecting on the connection between attentional control and non-negligent action.

### "Guidance of Visual Attention" (*Currently under review*)

In this paper I offer a novel way of addressing Harry Frankfurt's 'problem of action': From reflection on empirical psychological research, I develop an empirical explication of the notion guidance by the individual. I speculate on how this explication contributes to understanding the nature of agency.

### "Warrant From Transsaccadic Vision" (*Currently under review*)

In this paper I discuss the role of visual attention in scene, object, and motion perception. I show that an important subset of our visual perceptions integrates information across saccades and shifts of attention. And I argue that, therefore, explaining our warrant for an important subset of our basic visual perceptual beliefs requires appeals to visual attention. This role of visual attention in explaining our warrant for perceptual belief has been overlooked in recent work on the epistemic role of attention.

### "Unsophisticated Action"

Action theory has been narrowly focused on sophisticated human action – guided by reason or propositional states such as intentions. I provide a case study of unsophisticated human acts that are guided by map-like, geometrically structured states. On the basis of this case study, I argue that these acts do not require guidance by reason or a propositional state. Therefore, the most influential traditional views misconstrue the nature of action.

### "The Central Executive System"

In this paper I discuss the notion of a central executive system on the basis of current psychological research. I defend the notion against attacks by Alan Allport and Daniel Dennett, motivated by neuroscientific findings, connectionist considerations, and adherence to the thesis of massive modularity. And I explain the psychology of the central executive system and its connection to several traditional philosophical issues.

## Work in Progress

### "Studying Executive Functions"

In this paper I survey research on executive functions in humans and other mammals during the last 30 years. I propose a consensus-conception of the central executive system toward which this research points. I discuss different behavioral and neuroscientific methods for executive functions' study. I point out important ways in which this field has made progress, and how this progress bears on issues in cognitive psychology and in philosophy.

### “Attentional Effects on Vision”

In this paper I critically discuss recent work on the effect of visual attention on vision and visual experience. I discuss alternative ways of conceptualizing the effects of spatial and feature-based attention on vision.

### “What attention is not (and what it likely is)”

The paper offers an overview of recent work on the mechanisms of visual attention, and develops an explication of (visual) attention. On the basis of this explication I then argue that recent accounts of attention do not mesh well with recent results from vision science.

### “Animal Agency”

Here I develop ideas from Tyler Burge’s discussion of ‘primitive agency’ by scrutinizing cases of arthropod, cephalopod, and ciliate action and contrasting them with plant behavior. I develop an Aristotelian explication of animal action as flowing from an animal’s central structures.

### “The Individual/Sub-System Distinction”

Individuals carry out acts; they have perceptions. In virtue of what, at the level of psychological systems, can certain processes or states be ascribed to the individual as opposed to her sub-systems? A recent exchange between Ned Block and Ian Phillips partly revolved around this question. In the paper I develop a principled explication of the individual/sub-system distinction. I believe that we can distinguish between processes and states of individuals/sub-systems on the basis of their relation to a psychological system – the central executive system.

### “Our Entitlement from Epistemic Agency”

Both Mohan Matthen and Ernest Sosa have recently proposed two roles of epistemic *agency* in explaining epistemic warrant. I critically discuss both proposals, arguing that they overlook more primitive types of epistemic agency and – while plausibly capturing a role of certain forms of epistemic agency in explaining warrant – do not fully account for the role of agency in explaining such warrant. I then develop an alternative account from reflection on epistemic inquiry.

### “Paying Attention to What Matters”

I discuss recent attempts to understand the notion of moral negligence. I develop a notion of non-negligence in both epistemic and practical matters as essentially a duty to pay attention in certain ways.