Analog magnitude representations allow organisms to respond to important aspects of their environment such as duration, mass, spatial extent, brightness, length, etc. Despite their crucial role in allowing us to represent temporal, spatial, and numerical features of the world, analog magnitude representations have received little philosophical attention. The Numbers, Minds, and Magnitudes conference taking place at New College of the Humanities on June 1st will focus on questions related to this important but neglected topic. The aim of this conference is to bring together philosophers and psychologists from the UK and beyond to investigate what sort of things magnitudes are and to which extent the psychological study of magnitude representations can shed light on the metaphysics of magnitudes like space, time and number.

The conference is open to all. Registration is free. To register, please send an email to jean-charles.pelland@mail.mcgill.ca
Schedule

9:15  Coffee ready

9:30 - 10:40 Christopher Peacocke (Columbia, NCH) - "Analog Representation and the Conceptual/Nonconceptual Distinction"

10 min break

10:50 - 11:40 Oliver Marshall (CUNY) - “What do analog magnitude representations represent?"

10 min break

11:50- 13:00 Zee R. Perry (Colorado) - "Against Quantitative Primitivism : On Mereology and Metricality"

13 - 14:15 Lunch

14:15 - 15:05 Angelica Kaufmann (Bar Ilan) - "The Representation of Temporal Magnitudes in Nonhuman Animals"

10 min break

15:15 - 16:25 Jacob S. Beck (York) - “Introspection, Epiphenomenalism, and Sensory Magnitudes"

15 min break

16:40 -17:50 Ophelia Deroy (Munich) - “Touch as a special spatial sense"
Speakers

The conference brings together established philosophers as well as young scholars working on different aspects of magnitudes and their representations.

**Jacob Beck** Jacob Beck is York Research Chair in the Philosophy of Visual Perception and Associate Professor in the Department of Philosophy at York University in Toronto, Canada. Beck's research makes progress on longstanding philosophical puzzles about mental representation and consciousness by reconceptualizing them in light of contemporary cognitive science. He is the co-editor (with Kristin Andrews) of the Routledge Handbook of Philosophy of Animal Minds, and his articles have appeared in such venues as The Journal of Philosophy, Mind, Cognition, and The Atlantic. http://www.jacobbeck.org

**Ophelia Deroy** is former director of the Institute of Philosophy (London) and now Chair of Philosophy of Mind and cognitive Neuroscience at the Munich center for neurosciences. Professor Deroy is also a member of the Graduate School in Systemic Neuroscience (GSN) in Munich. https://www.philosophie.uni-muenchen.de/lehreinheiten/phil_of_mind/personen/ophelia_deroy/index.html

**Angelica Kaufmann** (Bar-Ilan University, Tel Aviv) has extensively studied cognition and intention in nonhuman primates. She recently was Visiting Professor at Boğaziçi University, in Istanbul. Her previous work was sponsored by the Hebrew University of Jerusalem, the Lichtenberg-kolleg and Leibniz Institute for Primate Research of Göttingen, and the Italian Academy at Columbia University in NYC. https://biu.academia.edu/AngelicaKaufmann

**Oliver Marshall** is an Affiliated Research Scholar at the Saul Kripke Center at the Graduate Center, CUNY. His work on numbers and magnitudes is in the intersection of the Philosophies of Language, Math, Mind and Cognitive Science. https://olivermarshall.commons.gc.cuny.edu
Abstracts

**Jacob S. Beck (York) - Introspection, Epiphenomenalism, and Sensory Magnitudes**
According to a common view of perceptual discrimination, perceivers discriminate objective magnitudes by introspectively comparing sensory magnitudes. For example, perceivers determine which drink has a greater sucrose concentration by introspectively comparing their phenomenal sweetness. Similarly, perceivers determine which paint sample reflects more light by introspectively comparing their phenomenal brightness. I will argue that this view conflicts with secure findings in psychophysics. Thus, some aspect of the view needs to go.

**Angelica Kaufmann (Bar Ilan) - The Representation of Temporal Magnitudes in Nonhuman Animals**
Drawing on Chris Peacocke (2017)’s view about magnitudes, Hoerl and McCormack (forthcoming) argue that comparative and developmental psychology teaches us that neither animals nor infants can think and reason about time. We argue that the authors neglect to take into account pivotal evidence from ethology that suggests that non-human animals do possess a capacity to represent and reason about time, namely, work done on Sumatran orangutans’ long travel calls.
Christopher Peacocke (Columbia, NCH) - Analog Representation and the Conceptual/Nonconceptual Distinction
We should replace the distinction between conceptual and nonconceptual content with a distinction between two kinds of operation on a uniform kind of content. After specifying the kinds of operation in question, I argue for the view, and then address the question of where it leaves previous arguments about the distinction between the two kinds of content. I also discuss the relations of the resultant view to the positions of Tyler Burge and John McDowell.

Zee R. Perry (Colorado) - Against Quantitative Primitivism: On Mereology and Metricality
This talk motivates and develops a fully reductive account of the structure of certain physical quantities in terms of their mereology. I argue, that is, that quantitative relations like "longer than" or "3.6-times the volume of" can be analyzed in terms of necessary constraints those quantities put on the mereological structure of their instances. The resulting account, I argue, is able to capture the intuition that these quantitative relations are intrinsic to the physical systems they're called upon to describe and explain.

Ophelia Deroy (Munich) - Touch as a special spatial sense
Is touch special when it comes to our perception of spatially extended objects? Certainly, the claim that touching an object, or estimating its length by touch is more reliable or objective that seeing the same object or estimating its length by vision, is difficult to support in the light of our scientific understanding of perception. Both senses can be misleading, or accurate, depending on contexts. In this talk, I suggest that the distinctive character of touch still shows at a subjective level, as we are more certain of what we touch than what we see. I will argue also that this distinction regards spatial estimates, and not temporal ones.

How to get here
The Conference will be held on Saturday June 1st at New College of the Humanities, 19 Bedford Square, London WC1B 3HH.

Situated around the quiet Bedford Square Garden, the College is a quiet and relaxed environment in Central London's historic Bloomsbury area. It is less than ten minutes' walk from UCL and Birkbeck College.

The college is within walking distance of Tottenham Court Road, Goodge Street, Euston Square and Russell Square tube stations. The following buses stop within 200m of the College: 1, 7, 8, 10, 14, 25, 29, 55, 73, 98, 134, 176 and 390. Consult Transport for London for up-to-date service announcements and journey planning.
Conference Organizers
Jean-Charles Pelland (New College of the Humanities, McGill University)
Brian Ball (New College of the Humanities)

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Please address queries and correspondence to jean-charles.pelland@mail.mcgill.ca

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