

Dr. Pablo Fernandez Velasco  
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Philosophy  
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## Research interests

I am particularly interested in spatial cognition, environmental experience, and the role that affective processes play in evaluating and regulating cognition. I explore all of these themes in collaboration with researchers across neuroscience, computer science, psychology, geography, anthropology and architecture. This interdisciplinary ethos is reflected in the diverse methodologies involved in my work, which span phenomenology, cognitive ethnography, brain imaging, gamified experiments, survey instruments and thematic analysis. For my British Academy project, I will be exploring ecological grief, the sense of loss that arises from experiencing environmental destruction. The plan is to combine phenomenological methods with recent advances in the cognitive sciences to develop an integrative theory of ecological grief that serves as the basis of future interdisciplinary research into the psychological effects of environmental destruction.

## Employment

### Research Fellow

Senior researcher  
Philosophy  
University of York  
Sally Baldwin Buildings Block A, York  
1 Sept 2023 → 31 Aug 2026

## Research outputs

### London taxi drivers exploit neighbourhood boundaries for hierarchical route planning

Griesbauer, E.-M., Fernandez Velasco, P., Coutrot, A., Wiener, J. M., Morley, J. G., McNamee, D., Manley, E. & Spiers, H. J., 1 Mar 2025, In: *Cognition*. 256, 14 p., 106014.

### Predicting real-world navigation performance from a virtual navigation task in older adults

Goodroe, S., Fernandez Velasco, P., Gahnstrom, C. J., Wiener, J., Coutrot, A., Hornberger, M. & Spiers, H. J., 27 Jan 2025, In: *PLOS ONE*. 20, 1, 15 p., e0317026.

### Expert navigators deploy rational complexity-based decision precaching for large-scale real-world planning

Fernandez Velasco, P., Griesbauer, E.-M., Brunec, I. K., Morley, J., Manley, E., McNamee, D. C. & Spiers, H. J., 23 Jan 2025, In: *Proceedings of the National Academy of Sciences of the United States of America*. 122, 4, e2407814122.

### The Nature of Grief: Implications for the Neurobiology of Emotion

Ratcliffe, M. J. & Fernandez Velasco, P., 17 Dec 2024, In: *Neuroscience of consciousness*. 2024, 1, 9 p., niae041.

### Social and temporal disorientation during the Covid-19 pandemic: An analysis of 3306 responses to a quantitative questionnaire

Fernandez Velasco, P., Perroy, B., Gurchani, U. & Casati, R., 1 Nov 2024, In: *British journal of psychology*. 115, 4, p. 577-598 22 p.

### Self-location in perceptual experience: A top-down account

Fernandez Velasco, P., 5 Aug 2024, In: *Mind and Language*. 17 p.

### Ecological grief as a crisis in dwelling

Fernandez Velasco, P., 21 May 2024, (E-pub ahead of print) In: *European Journal of Philosophy*. ejop.12962.

### The relationship between object-based spatial ability and virtual navigation performance

Garg, T., Velasco, P. F., Patai, E. Z., Malcolm, C. P., Kovalets, V., Bohbot, V. D., Coutrot, A., Hegarty, M., Hornberger, M. & Spiers, H. J., 9 May 2024, In: *PLOS ONE*. 19, 5, e0298116.

**Expert Navigators Deploy Rational Hierarchical Priorization Over Predictive Maps For Large-Scale Real-World Planning**  
Fernandez Velasco, P., Griesbauer, E.-M., Brunec, I., Morley, J., Manley, E., McNamee, D. & Spiers, H., 29 Mar 2024, biorxiv, (bioRxiv).

**London taxi drivers exploit neighbourhood boundaries for hierarchical route planning**

Griesbauer, E.-M., Fernandez Velasco, P., Coutrot, A., Wiener, J. M., Morley, J. G., McNamee, D., Manley, E. & Spiers, H. J., 22 Feb 2024, biorxiv.

**Metacognitive Feelings: A Predictive-Processing Perspective**

Fernández Velasco, P. & Loev, S., 29 Jan 2024, (E-pub ahead of print) In: Perspectives on Psychological Science. 23 p., 17456916231221976.

**Mental maps, practical mastery and environmental experience: an analysis of the wayfinding culture of Evenki reindeer herders and hunters**

Velasco, P. F. & Gleizer, A., 26 Jan 2024, In: The Journal of Navigation. 76, 4-5, p. 590-601 12 p.

**Wayfinding across ocean and tundra: what traditional cultures teach us about navigation**

Fernandez-Velasco, P. & Spiers, H. J., 2 Jan 2024, In: Trends in Cognitive Sciences. 28, 1, p. 56-71 16 p.

**Group navigation and procedural metacognition**

Fernandez Velasco, P., 2024, In: Philosophical Psychology. 37, 5, p. 1058-1076 19 p.

**Lost in pandemic time: A phenomenological analysis of temporal disorientation during the Covid-19 crisis**

Velasco, P. F., Perroy, B., Gurchani, U. & Casati, R., Dec 2023, In: Phenomenology and the Cognitive Sciences. 22, 5, p. 1121-1144 24 p.

**No link between handedness and spatial navigation: evidence from over 400 000 participants in 41 countries**

Fernandez-Velasco, P., Coutrot, A., Oloye, H., Wiener, J. M., Dalton, R., Holscher, C., Manley, E., Hornberger, M. & Spiers, H., 11 Oct 2023, In: Proceedings of the Royal Society B. 290, 2008, 11 p., 20231514.

**Entropy and a sub-group of geometric measures of paths predict the navigability of an environment**

Yesiltepe, D., Fernández Velasco, P., Coutrot, A., Ozbil Torun, A., Wiener, J. M., Holscher, C., Hornberger, M., Conroy Dalton, R. & Spiers, H. J., Jul 2023, In: Cognition. 236, 12 p., 105443.

**The cognitive advantages of the notebook**

Fernandez-Velasco, P., Nijman, J. & Casati, R., 5 Jun 2023, In: Cognitive Semiotics. 16, 1, p. 3-21 19 p.

**Social Reality Without Language: Enacted Representations, Not Declarations, Create Status Functions**

Velasco, P. F., 25 Apr 2023, In: Journal of Social Ontology. 9, 1, p. 26-52 27 p.

**Entropy, prediction and the cultural ecosystem of human cognition: A challenge to the union of distributed cognition and predictive processing**

Fernandez Velasco, P., 1 Mar 2023, In: Synthese. 201, 3, 94.

**Experiencing a slow passage of time was an indicator of social and temporal disorientation during the Covid-19 pandemic**

Fernandez Velasco, P., Perroy, B., Gurchani, U. & Casati, R., 26 Dec 2022, In: Scientific reports. 12, 1, 22338.

**What is it (like) to imagine an emotion?**

Loev, S., Inchingolo, M. & Velasco, P. F., 8 Dec 2022, In: Humanities and Social Sciences Communications. 9, 1, 9 p., 440.

**Development and validation of a quantitative instrument for measuring temporal and social disorientation in the Covid-19 crisis**

Fernandez Velasco, P., Gurchani, U., Perroy, B., Pelletreau-Duris, T. & Casati, R., 17 Nov 2022, In: PLOS ONE. 17, 11, e0264604.

**Architectural experience: clarifying its central components and their relation to core affect with a set of first-person-view videos**

Gregorians, L., Velasco, P. F., Zisch, F. & Spiers, H. J., Aug 2022, In: Journal of Environmental Psychology. 82, 20 p., 101841.

**Disorientation and self-consciousness: a phenomenological inquiry**

Fernández Velasco, P., Feb 2022, In: Phenomenology and the Cognitive Sciences. 21, 1, p. 203-222 20 p.

**Come Closer, Famous Odysseus**

Velasco, P. F., 2022, In: Teorema: Revista Internacional de Filosofia. 41, 1, p. 71-92 22 p.

**Affective experience in the predictive mind: a review and new integrative account**

Fernandez Velasco, P. & Loev, S., Nov 2021, In: Synthese. 198, 11, p. 10847-10882 36 p.

**The collective disorientation of the COVID-19 crisis**

Velasco, P. F., Perroy, B. & Casati, R., 1 May 2021, In: Global Discourse. 11, 3, p. 441-462 22 p.

**Making and breaking our shared world: a phenomenological analysis of disorientation as a way of understanding collective emotions in distributed cognition**

Fernández Velasco, P. & Casati, R., 8 Feb 2021, *The Politics of Emotional Shockwaves*. Springer, p. 203-219 17 p.

**A Unified Theory of Disorientation**

Velasco, P. F., 2021

**The many faces of disorientation: a response to Daniel R. Montello**

Fernandez Velasco, P. & Casati, R., 10 Jun 2020, In: Spatial cognition computation. 20, 4, p. 314-327 14 p.

**Subjective disorientation as a metacognitive feeling**

Fernández Velasco, P. & Casati, R., 31 May 2020, In: Spatial cognition computation. 20, 4, p. 281-305 25 p.

**Disorientation and gis-informed wilderness search and rescue**

Fernandez Velasco, P. & Casati, R., 2019, In: The philosophy of GIS. p. 241-251 11 p.

**Attention in the Predictive Processing Framework and the Phenomenology of Zen Meditation**

Velasco, P. F., 2017, In: Journal of Consciousness Studies. 24, 11-12, p. 71-93 23 p.