

# IGNACIO CEA

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<https://scholar.google.com/citations?user=ShXQ7rcAAAAJ&hl=es&oi=sra>

## Academic Positions

1. Research Associate and Postdoctoral Fellow, Center for Research, Innovation and Creation, Temuco Catholic University, Temuco, Chile.
2. Research Associate and Postdoctoral Fellow, Faculty of Religious Sciences and Philosophy, Temuco Catholic University, Temuco, Chile.
3. Lecturer (part-time contractual), Faculty of Philosophy and Humanities, Alberto Hurtado University, Santiago, Chile.

## Areas of Specialization

Philosophy of Mind (especially Consciousness), Philosophy of Cognitive Science

## Areas of Competence

Philosophy of Science, Epistemology.

## Academic Degrees - Education

- 2015-2019    Ph.D. in Philosophy, *Magna Cum Laude*.  
Dissertation: 'Consciousness as an Ontologically Emergent Property. How Experience Can Be both Irreducible and Causally Powerful'.  
Supervisor: Francisco Pereira, Ph.D. President of the Latin American Association for Analytic Philosophy (ALFAN). External Examiner: Olimpia Lombardi, Ph.D. Director of the Philosophy of Science Group, Faculty of Exact and Natural Sciences, University of Buenos Aires-CONICET.  
Alberto Hurtado University, Santiago of Chile.
- 2013-2014    Master in Philosophy, *Magna Cum Laude*  
Dissertation: 'The Causal Efficacy of the Conscious Mind. A Criticism to the Causal Closure of the Physical Domain'  
Supervisor: Francisco Pereira, Ph.D. External Examiner: Manuel Rodriguez, Ph.D., Center for Cognitive Studies, University of Chile  
Alberto Hurtado University, Santiago of Chile.
- 2012           Certificate Diploma in Philosophy of Science (graduate level)  
Alberto Hurtado University, Chile.
- 2004-2009    Bachelor's Degree in Sciences of Engineering.  
Ranked 1<sup>st</sup> out of 30. Technological University of Chile-INACAP, Santiago of Chile.

## Research Visits

Australian National University, Centre for Consciousness, Canberra, Australia, Nov.-Dec. 2017.  
Supervisor: Daniel Stoljar, Ph.D. (daniel.stoljar@anu.edu.au)

Argentinean Society of Philosophical Analysis (SADAF), Buenos Aires, Argentina, Nov 2014. Supervisor: Diana Pérez, Ph.D. (dperez@filo.uba.ar)

## Scholarships - Awards

|           |  |
|-----------|--|
| 2021-2024 | ANID (Chilean Science Agency)-Fondecyt National Postdoctoral Grant (3 years)   |
| 2020      | Universidad Adolfo Ibanez. Internal Postdoctoral Grant (10-months).  |
| 2019      | Award (USD 2500) to participate in a 3-weeks full-time International Seminar "Metaphysics of Free Will". University of the Andes, Bogotá, Colombia. Funded by John Templeton Foundation, Grant ID 61255, with the support of University of California San Diego. |
| 2019      | CONICYT (National Commission for Research in Science and Technology) 6-months Scholarship Extension for Thesis Finalization  |
| 2018      | CONICYT Complementary Scholarship for Research Expenses  |
| 2017      | CONICYT Complementary Scholarship for International Research Internship (at ANU, Australia)  |
| 2016      | CONICYT Doctoral Student Scholarship for participation in international academic meeting (III International Symposium for Contemplative Studies, San Diego, CA, USA)   |
| 2016-2018 | CONICYT National Doctoral Scholarship  |
| 2015      | Alberto Hurtado University Internal Doctoral Scholarship   |
| 2014      | Alberto Hurtado University Master's Degree Scholarship for Brief International Research Internship (at SADAF, Argentina)   |
| 2014      | Alberto Hurtado University Master's Degree Half-Scholarship  |

## Research Projects

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|-----------|---|
| 2021-2024 | Principal Investigator. Project: Interoceptive Sentience, why life precludes machine- consciousness.<br>Center for Social and Cognitive Neuroscience, School of Psychology, Adolfo Ibañez University, Santiago of Chile. Funded by ANID-Fondecyt, National Postdoctoral Fellowship N°3210707. |
| 2021-2022 | Research Assistant. Project: Problems in the attribution of responsibility in the context of Neuroscience and Artificial Intelligence. Imputatio Research Center. Faculty of Law and Department of Philosophy, Alberto Hurtado University.  |

- 2020 Principal Investigator. Project: The Affective Ontology of Consciousness. A Dialogue between Integrated Information Theory and Enactivism.  
Center for Social and Cognitive Neuroscience, School of Psychology, Adolfo Ibañez University, Santiago of Chile.
- 2019-2021 Associated Researcher. Project: LATAM Free Will, Agency and Responsibility.  
University of the Andes, Bogotá, Colombia. Funded by John Templeton Foundation, Grant ID 61255, also with the support of University of California San Diego.

## Publications

- 11 - Cea, I.; Negro, N. & Signorelli, C.M. - 2023 - The Fundamental Tension in Integrated Information Theory 4.0's Realist Idealism, *Entropy*, 25 (10), 1453. <https://doi.org/10.3390/e25101453>. (WOS)
- 10 - Cea, I.; Lueje-Seeger, A; Watcher, T. - 2023 - Technological unemployment and meaning in life, a buen vivir critique of the Virtual Utopia, *Humana.Mente Journal of philosophical studies* (accepted). (WOS-ESCI)
- 9 - Cea, I. - 2023 - The somatic roots of affect. Towards a body-centered education. In P. Fossa & C. Cortés-Rivera (Eds.), *Affectivity and Learning: Bridging the Gap Between Neurosciences, Cultural and Cognitive Psychology*, Springer, pp. 555-583.
- 8 - Cea, I. - 2023 - On motivating irruptions: the need for a multilevel approach at the interface between life and mind, *Adaptive Behavior*, (Onlinefirst) DOI: 10.1177/10597123231184651 (WOS)
- 7 - Cea, I. - 2023 - Commentary: Not in the drug, not in the brain: Causality in psychedelic experiences from an enactive perspective, *Frontiers in Psychology* 14, 1217108, DOI: 10.3389/fpsyg.2023.1217108 (WOS)
- 6 - Cea, I. & Martínez-Pernía, D. - 2023 - Continuous Organismic Sentience as the integration of Core Affect and Vitality, *Journal of Consciousness Studies* 30 (3-4), 7-33, DOI: 10.53765/20512201.30.3.007 (WOS)
- 5 - Martínez-Pernía, D., Cea, I., Troncoso, A... Vergara, M. - 2023 - "I am feeling tension in my whole body": An experimental phenomenological study of empathy for pain, *Frontiers in Psychology*, 13 (999227). (WOS)
- 4 - Cea, I., Vergara, M., Calderón, J., Troncoso, A., Martínez-Pernía, D. - 2022 - "An experimental phenomenological approach to the study of inner speech in empathy: bodily sensations, emotions and felt knowledge as the experiential context of inner spoken voices". In P. Fossa (Ed.), *New Perspectives on Inner Speech*, Springer.
- 3 - Martínez-Pernía, D., Cea, I. & Kaltwasser, A. - 2021 - "Recovering the phenomenological and intersubjective nature of mindfulness through the enactive approach". In R. Aristegui & J. Garcia (Eds.), *Relational Mindfulness: Fundamentals and Applications*, pp. 65-89. Springer.
- 2 - Cea, I. - 2020 - "Integrated information theory of consciousness is a functionalist emergentism", *Synthese*. (WoS)

**1 - Cea, I. - 2019 - "Cierre Causal de lo Físico, Neurofisiología y Causas Mentales"** (Causal Closure of the Physical, Neurophysiology and Mental Causes), *Análisis Filosófico*. (WOS-ESCI)

## Under Review

Signorelli, C.M.; **Cea, I.**, Prentner, R.; We need to explain subjective experience, but its explanation may not be mechanistic (2nd Round) (WOS-ESCI)

Watcher, T.; Lueje-Seeger, A; **Cea, I.**; Automatización y el Futuro del Empleo en Chile: una Crítica a la Política Nacional de Inteligencia Artificial. (2nd round) (WOS)

## In preparation

**Cea, I.**, Continuous Organismic Sentience and Damasio's Primordial Feelings, a synthesis.

**Cea, I.**; Negro, N. & Signorelli, C.M., How to be an Integrated Information Theorist without losing your body.

Signorelli, C.M., Prentner, R., **Cea, I.** & Melloni, L., The science of consciousness beyond neuroscience.

**Cea, I.**; Rosas, F., & Timmermann, C., The centrality of the affective body in psychedelic therapy.

**Cea, I.**; The phenomenology of healing psychedelic experiences: the role of existential feelings of reconnecting to the world

## Teaching

*\*All teaching jobs have been part-time contractual.*

- 2023 **Guest Lecturer.** Lecture: Psychedelics and the Self, Online Course on the Science of Psychedelics and Psychedelics-Assisted Therapy Targeted at Mental Health Professionals. Adolfo Ibanez University, Chile. Nov 28.
- 2022-2023 **Lecturer.** Philosophy of Science (1<sup>st</sup> term) & Philosophy of Artificial Intelligence (2<sup>nd</sup> term) Certificate Diploma (graduate level) in Philosophy and Science, Alberto Hurtado University, Santiago, Chile.
- 2019-2021 **Lecturer.** Social Justice: Distribution, Recognition and Participation (1<sup>st</sup> term) & Philosophy of Artificial Intelligence (2<sup>nd</sup> term) (undergraduate level). University of Talca, Talca, Chile
- 2019 **Guest Lecturer.** Lectures: 'The Problem of Consciousness' and 'The Philosophy of Integrated Information Theory of Consciousness' (graduate level). Certificate Diploma in Philosophy of Science, Institute of Philosophy and Complexity Sciences (IFICC), Santiago of Chile.
- 2019 **Lecturer.** Contemporary Philosophy (undergraduate level). Alberto Hurtado University, Santiago of Chile. (2<sup>nd</sup> term)
- 2018 **High-School Teacher.** "Self-Consciousness for Good Living", Public School of Colbún, Colbún, Chile. (3-week course, 2<sup>nd</sup> Term)
- 2017 **Lecturer:** Philosophy of Science (undergraduate level) & Brain and Consciousness (graduate level); **Teaching Assistant:** Philosophy of Mind

- (graduate level) & Philosophy of Perception (undergraduate). Alberto Hurtado U. Chile.
- 2013-2017 **High-School Teacher:** Physics, Antuquenu Andino School, Santiago of Chile.
- 2016 **Lecturer:** Philosophy of Consciousness (undergraduate), and **Teaching Assistant:** Philosophy of Mind (graduate level). Alberto Hurtado U., Chile
- 2015 **Research Assistant:** "Mind, Language and Knowledge" Reading Group. Alberto Hurtado U.
- 2014 **Teaching Assistant:** Philosophy of Science (Undergraduate). Alberto Hurtado U.
- 2014 **High-School Teacher:** Philosophy, Antuquenu Andino School, Chile.
- 2013 **Teaching Assistant:** Philosophy of Science (Undergraduate), and Philosophy of Mind (Undergraduate). **Research Assistant:** "Mind, Language and Knowledge" Reading Group. Alberto Hurtado U.
- 2012 **High-School Teacher:** Physics, San Francisco del Alba School, Santiago of Chile.
- 2006 **Teaching Assistant:** Physics I: Mechanics, Technological University of Chile- INACAP, Stgo., Chile.

## Academic Presentations

- 2023 "The Fundamental Tension in Integrated Information Theory 4.0's Realist Idealism". **Refereed Talk.** 1<sup>st</sup> Online Conference of the International Society for the Philosophy of the Sciences of the Mind (ISPSM). Online, December 1.
- 2023 "The Fundamental Tension in Integrated Information Theory 4.0's Realist Idealism". **Refereed Poster.** Neuroscience & Philosophy Meeting on Sleep, Dreams and Consciousness research, Dream and Memory Lab, Instituto Tecnológico de Buenos Aires (ITBA), Buenos Aires, **Argentina**, November 10.
- 2023 "Desempleo tecnológico y el sentido de la vida: una crítica a la Utopía Virtual desde el buen vivir" (Technological unemployment and meaning in life, a buen vivir critique of the virtual utopia). **Refereed Talk.** Artificial Intelligence and Philosophy Workshop II, Agency and Values, IIF-SADAF-CONICET, Buenos Aires, **Argentina**, November 2.
- 2023 "The Fundamental Tension in Integrated Information Theory 4.0's Realist Idealism". **Refereed Talk.** XXIII Rolando Chuaqui Kettlun Colloquium in Philosophy and Science, Pontifical Catholic University of Chile, Santiago, **Chile**, October 25.
- 2023 "Continuous Organismic Sentience: A challenge for Artificial Consciousness". **Refereed Poster.** 26<sup>th</sup> Annual Conference of the Association for the Scientific Study of Consciousness (ASSC), New York University, NYC, **USA**, June 23.
- 2022 "Background organismic sentience, a key bridge between life and mind". **Refereed Talk.** 25<sup>th</sup> Annual Conference of the Association for the Scientific Study of Consciousness (ASSC), University of Amsterdam, Amsterdam, **The Netherlands**.
- 2021 "Interoceptive sentience as the affective, ubiquitous, homeostatic and most basic form of consciousness". **Refereed Talk.** 24<sup>th</sup> Annual Conference of the Association for the Scientific Study of Consciousness (ASSC), Tel Aviv University, **Israel (Online)**.

- 2021 "A vector model of how consciousness as integrated information makes a causal difference". **Refereed Talk**. Models of Consciousness 2 International Conference - Association for Mathematical Consciousness Science & University of Oxford, September 27 **(Online)**.  
[https://www.youtube.com/watch?v=6R\\_YcCAvcK0&ab\\_channel=ModelsofConsciousnessConferences](https://www.youtube.com/watch?v=6R_YcCAvcK0&ab_channel=ModelsofConsciousnessConferences)
- 2020 "Understanding Consciousness. A dialogue between Integrated Information Theory and Enactivism". **Invited talk**. Center for Social and Cognitive Neuroscience. Adolfo Ibañez University. Santiago of **Chile**, May 26.
- 2020 "The Problem of Phenomenal Consciousness". **Invited talk**. Doctoral Program in Developmental Science and Psychopathology. Universidad del Desarrollo. Santiago of **Chile**, April 6.
- 2019 "Integrated Information Theory is a Functionalist Emergentism". **Invited talk**. International Seminar and Workshop: Dynamics of Cognitive, Affective and Motor Development. Organized by the Cognitive Sciences Research Center, University of Talca. Santiago of **Chile**, November 27.
- 2019 "Integrated Information Theory, Functional Emergence and the Causal Powers of Consciousness". **Referred Talk**. Workshop on Philosophy of Mind and Cognitive Science. Organized by Santiago Mind and Cognition Research Group, Alberto Hurtado University. Valparaíso, **Chile**, August 23.
- 2019 "Integrated Information Theory of Consciousness, Emergence & Causal Exclusion". **Refereed Talk**. 23<sup>rd</sup> Annual Conference of the Association for the Scientific Study of Consciousness (ASSC), Western University, London, Ontario, **Canada**. June 27.
- 2019 "Integrated Information Theory of Consciousness, Emergence & Causal Exclusion", **Refereed poster**. Mind & Life Summer Research Institute, Mind & Life Institute. New York, **USA**, June 12.
- 2019 'Integrated Information Theory of Consciousness and the Causal Exclusion Problem'. **Refereed Talk**. VIII Colloquium in Language and Cognition, University of Concepción, Concepción, **Chile**, April 26.
- 2018 'Materialism & Dualism: The main answers to the Problem of Consciousness'. **Invited Talk**. Graduate-level Workshops for Professionals, Alberto Hurtado U., **Chile**. Nov. 24.
- 2018 'Experiential Subjectivity and Living Systems: Narrowing the Gap between Nature and Consciousness', **Refereed Talk**. International Spring School in Contemporary Phenomenology and Philosophy of Mind, Valparaíso, **Chile**, October 11.
- 2018 'Integrated Information Theory of Consciousness as Ontological Emergentism'. **Refereed Talk**. XIX Rolando Chuaqui Kettlun Colloquium in Philosophy and Science, University of Concepción, Concepción, **Chile**, August 30.
- 2016 'Is Consciousness an Epiphenomenon?'. **Refereed Talk**. III International Symposium for Contemplative Studies, San Diego, CA, **USA**, November 10.
- 2016 'Does Neurophysiology discard Mental Causes Qua Mental?'. **Refereed Talk**. XVII Rolando Chuaqui Kettlun Colloquium in Philosophy and Science, University of Chile, **Chile**, August 24.

## Service to the profession

Anonymous Reviewer for the following academic journals: Proaíresis (Chile), Límite (Chile, WOS), Daimon (Spain, WOS), Philosophia (Switzerland, WOS) and Philosophical Psychology (UK, WOS)

Anonymous Reviewer for ANID (Chilean science agency)-Fondecyt-Iniciación grant in Philosophy (2022).

Associate Editor for academic journal *Límite - Interdisciplinary Journal of Philosophy & Psychology* (Chile, WOS).

External Examiner for Master's Dissertation, Alberto Hurtado University, Chile (2023).

## Memberships

1. Association for the Scientific Study of Consciousness (ASSC; since 2017)
2. International Society for the Philosophy of the Sciences of the Mind (ISPSM; since 2023)
3. Fundación para el Estudio de la Consciencia Humana/Foundation for the Study of Human Consciousness (ECOH; since 2022)

## References

1. Francisco Pereira, Ph.D. Full Professor, Philosophy Department, Alberto Hurtado University, Chile. Former president (2018-2022) of the Latin American Association of Analytical Philosophy (ALFAn) (fpereira@uahurtado.cl; <https://orcid.org/0009-0008-9119-9487>)
2. Miguel Ángel Sebastián, Ph.D. Senior Researcher, Institute for Philosophical Research, National Autonomous University of Mexico (UNAM), Mexico. (msebastian@gmail.com; <https://www.scc-philab.com/sebastian>)
3. David Martínez-Pernía, Ph.D. Director of the Center for Social and Cognitive Neuroscience, School of Psychology, Adolfo Ibanez University, Chile. (david.martinez@uai.cl; <https://orcid.org/0000-0003-2830-7920>)
4. Olimpia Lombardi, Ph.D. Director of the Philosophy of Science Group, Faculty of Exact and Natural Sciences, University of Buenos Aires-CONICET, Argentina. (olimpiafilo@gmail.com; [https://scholar.google.com/citations?hl=es&user=iUrKaAMAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=es&user=iUrKaAMAAAJ&view_op=list_works&sortby=pubdate))
5. Diana Perez, Ph.D. Director of the Institute for Philosophical Research, SDAF-CONICET, Argentina. (dianazerep@gmail.com; <https://iif.conicet.gov.ar/investigadores/investigadores-conicet/diana-perez/>)

December 2023