

## Michał W. Klincewicz

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<https://sites.google.com/site/michalklincewicz/>

### Current Employment

Assistant Professor, Cognitive Science and Artificial Intelligence, Tilburg University

Assistant Professor, Cognitive Science, Jagiellonian University, Institute of Philosophy

### Past Employment

Post-doctoral researcher, Berlin School of Mind and Brain, Humboldt-Universität zu Berlin.

### Education

Ph.D., Graduate Center, City University of New York, Philosophy

Granted: May 2013

Title: "Time, Unity, and Conscious Experience"

Committee: David Rosenthal (adviser)

Tony Ro, Barbara Montero, Jesse Prinz, Pete Mandik

M.Phil., Philosophy, Graduate Center, City University of New York: May 2007

B.Sc., Computer Science, Pace University: May 2002

B.A., Philosophy, Pace University: May 2002

Areas of Specialization: Cognitive Science, Ethics of AI, Philosophy of Cognitive Science

Areas of Competence: Behavioral Science, Philosophy of Artificial Intelligence, Data Science

### Papers

1. Arthur Herbener, **Michał Klincewicz**, Malene Flensburg Damholdt (forthcoming) "A Narrative Review of the Active Ingredients in Psychotherapy Delivered by Conversational Agents" *Computers in Human Behavior Reports*.
2. Gianluca Guglielmo, **Michał Klincewicz**, Elisabeth Huis in 't Veld, Pieter Spronck (forthcoming) "Introducing "Sustainable Port": A Serious Game to Study Decision-Making in Port-Related Environments", 2024 IEEE Gaming, Entertainment, and Media Conference (GEM).
3. Gianluca Guglielmo, **Michał Klincewicz**, Elisabeth Huis in 't Veld, Pieter Spronck (2023). "Tracking Early Differences in Tetris Performance using Eye Aspect Ratio Extracted Blinks." *IEEE Transactions on Games*: 1–8.
4. Gianluca Guglielmo, **Michał Klincewicz**, Elisabeth Huis in 't. Veld & Pieter Spronck. (2023). "Predicting Tetris Performance Using Early Keystrokes." *FDG '23: Proceedings of the 18Th International Conference on the Foundations of Digital Games* 46: 1-4.
5. Magdalena Sabat, Bartosz Haładus, **Michał Klincewicz** & Grzegorz J. Nalepa (2022). "Cognitive load, fatigue and aversive simulator symptoms but not manipulated zeitgebers affect duration perception in virtual reality." *Scientific Reports* 12.
6. Gianluca Guglielmo, Paris Mavromoustakos Blom, **Michał Klincewicz**, Boris Čule & Pieter Spronck (2022). "Face in the Game: Using Facial Action Units to Track Expertise in Competitive Video Game Play." In *IEEE Transactions on Games (Conference on Games 2022, Beijing, China)*.
7. Gianluca Guglielmo, Paris Mavromoustakos Blom, **Michał Klincewicz**, Elisabeth Huis in 't. Veld & Spronck, Pieter (2022). "Blink To Win: Blink Patterns of Video Game Players Are Connected to Expertise." *ACM 17th International Conference on the Foundations of Digital Games (FDG)* 12.
8. Gianluca Guglielmo, Elisabeth Huis in 't. Veld, **Michał Klincewicz** & Pieter Spronck (2022). "Out of the Maze: Investigating Fluid Intelligence and Numeracy as Predictive Factors of Planning Skills Using Video Games." In Kristian Kiili, Koskinen Antti, Francesca de Rosa, Muhterem Dindar, Michael Kickmeier-Rust & Francesco Bellotti (eds.), *Games and Learning Alliance. GALA 2022. Lecture Notes in Computer Science*, vol 13647. Springer International Publishing. pp. 202-211.
9. Lily Frank and **Michał Klincewicz**. (2022) "Vertrouwen in de geneeskunde en kunstmatige intelligente." *Podium voor Bio-ethiek* 28(3), 34-42.

10. Gianluca Guglielmo, Irene Font Peradejordi, and **Michał Klincewicz**. (2022) "Using Deep Learning to Detect Facial Markers of Complex Decision Making." *Lecture Notes in Computer Science (Advances in Computer Games 2021)*.
11. Gianluca Guglielmo and **Michał Klincewicz**. (2021) "The Temperature of Morality: A Behavioral Study Concerning the Effect of Moral Decisions on Facial Thermal Variations in Video Games." *Foundations of Digital Games*. Association for Computing Machinery (ACM).
12. Justyna Hobot, **Michał Klincewicz**, Kristian Sandberg and Michał Wierchoń, (2021). "Causal Inferences in Repetitive Transcranial Magnetic Stimulation Research: Challenges and Perspectives." *Frontiers in Human Neuroscience* 14:574.
13. **Michał Klincewicz** and Lily Frank (2020). "Consequences of unexplainable machine learning for the notions of a trusted doctor and patient autonomy." *Proceedings of the 2nd EXplainable AI in Law Workshop (XAILA 2019) Co-Located with 32nd International Conference on Legal Knowledge and Information Systems (JURIX 2019)*.
14. **Michał Klincewicz**, (2019) "Robotic Nudges for Moral Improvement through Stoic Practice," *Techné: Research in Philosophy and Technology* 23 (3), pp. 425-455.
15. **Michał Klincewicz** and Lily Frank, (2019) "Genomic obsolescence: what constitutes an ontological threat to human nature?" *American Journal of Bioethics*, 19(7), pp. 39-40.
16. **Michał Klincewicz**, (2018) "Autonomous Weapons Systems, Asymmetrical Warfare, and Myth," *Civitas* 23, pp. 179-195.
17. **Michał Klincewicz** and Lily Frank, (2018) "Making Metaethics Work for AI: Realism and Anti-realism," in M. Coeckelbergh J. Loh, M. Funk, J. Seibt, M. Nørskov (eds.). *Envisioning Robots in Society –Power, Politics, and Public Space, Proceedings of Robophilosophy 2018 / TRANSOR 2018*, Series; Frontiers in Artificial Intelligence and Applications, IOS Press, Amsterdam.
18. **Michał Klincewicz**, Lily Frank, and Marta Sokólska, (2018), "Drugs and Hugs: Stimulating Moral Dispositions as a Means of Moral Enhancement" *Royal Institute of Philosophy Supplement* (83), edited by Michael Hauskeller and Lewis Coyne.
19. Lily Frank and **Michał Klincewicz**, (2018) "Swiping Left on the Quantified Relationship: Exploring the Potential Soft Impacts," *American Journal of Bioethics* 18(2), pp. 27-28
20. **Michał Klincewicz**, (2017) "Artificial Intelligence as a Means to Moral Enhancement," *Studies in Logic, Grammar, and Rhetoric* 48(61), pp. 171-187.
21. **Michał Klincewicz**, (2016) "Temporal Mental Qualities and Selective Attention" *Avant: Trends in Interdisciplinary Studies* 7(2), pp. 11-24.
22. Lily Frank and **Michał Klincewicz**, (2016) "What Does Consciousness Have to Do with It? Quality of Life in Patients with Disorders of Consciousness," *AJOB Neuroscience* 7(1), pp. 50-52.
23. **Michał Klincewicz** and Lily Frank, (2016) "Metaethics in Context of Engineering Ethical and Moral Systems," *AAAI Spring Workshops Technical Reports* (2016), pp. 208-213.
24. **Michał Klincewicz** and Sophie Herbst, (2015) "Conscious Experience of Time: its Significance and Interpretation in Philosophy and Neuroscience," *Consciousness and Cognition* (38), pp. 151-154.
25. **Michał Klincewicz**, (2015) "Autonomous Weapon Systems, the Frame Problem, and Computer Security," *Journal of Military Ethics*, pp. 162-176.
26. **Michał Klincewicz**, (2014) "Understanding Perception of Time in Terms of Perception of Change," *Procedia: Social and Behavioral Sciences*, pp. 58-63.
27. **Michał Klincewicz** and Lily Frank, (2013) "Consciousness is More Complicated than That: The Limitations of Interactive Capacity," *American Journal of Bioethics: Neuroscience* 4(4), pp. 38-39.
28. **Michał Klincewicz**, (2012) "Neural Correlates of Temporality?" *Consciousness and Cognition* 21(2), pp. 695-703.

29. **Michał Klincewicz**, (2011) “Quality Space Model of Temporal Perception,” *Lectures Notes in Computer Science/Lecture Notes in Artificial Intelligence, Multidisciplinary Aspects of Time and Time Perception*, pp. 230-245.

### **Book Chapters**

1. Lily Frank and **Michał Klincewicz** (forthcoming), “Uses and Abuses of AI Ethics,” Handbook of the Ethics of AI. Edward Elgar Publishing.
2. **Michał Klincewicz** (2023), “Institutional Trust in Medicine in the Age of Artificial Intelligence.” In David Collins, Mark Alfano & Iris Jovanovic (eds.), The Moral Psychology of Trust. Rowman and Littlefield/Lexington Books: Rowman and Littlefield/Lexington Books.
3. **Michał Klincewicz**, Lily Frank, and Emma Jane (2022), “The Ethics of Matching: Mobile and web-based dating and hook up platforms,” Routledge Handbook of Philosophy of Sex and Sexuality, Routledge, edited by Brian D. Earp, Clare Chambers and Lori Watson.
4. Lily Frank and **Michał Klincewicz** (2022), “The Moral Rights and Wrongs of Online Hook-ups,” Oxford Handbook of Digital Ethics, Oxford University Press, edited by Carissa Veliz
5. Elisabeth O’Neill, **Michał Klincewicz**, and Michiel Kremmer (2022), “Ethical Issues with Artificial Ethics Assistants” Oxford Handbook of Digital Ethics, Oxford University Press, edited by Carissa Veliz
6. **Michał Klincewicz**, (2017), “Challenges to Engineering Moral Reasoners: Time and Context” in Robot Ethics 2.0, Oxford University Press, edited by Patrick Lin, Ryan R. Jenkins, and Keith A. Abney.

### **Grants and Awards Received**

1. **January 2024** SEED Funding “Understanding the associations between online video game play and well-being in a representative Dutch sample” (8577€)
2. **September 2023**, with Arthur Bran Herbener, Charlotte Jonasson, Johanna Seibt, Roberta Rocca, Aarhus University AUFF Nova “Introducing MARC - a Multifunctional Autoregressive Chatbot for AI-delivered mental health interventions.”
3. **January 2023** Starter Grant, “Moral Improvement with Video Games” (287000€)
4. **September 2020**, with Elisabeth Huis in ‘t Veld and Pieter Spronck, “Modelling Expert Decisions in Complex Environments” as a part of the MasterMinds, with Prof Max Louwse as Primary Investigator (4 year PhD student financing; in collaboration with The Barn and Port of Rotterdam)
5. **June 2019**, with Amanda Cawston and Nathan Wildman, Research Traineeship Grant “You had to be there: Virtual experience and Moral knowledge” (5000€)
6. **May 2017-June 2018**, faculty mentor for student grant for Dominika Drażyk, my Master student “Methods of Studying Perception of Auditory Duration – Method of Comparison”, Paidogogos Pro, in collaboration with RMF FM Radio Kraków. (3000€)
7. **September 2017, 2019**, Rector’s Prize for outstanding research, Jagiellonian University (2500€)
8. **December 2015-2019**, Narodowe Centrum Nauki, SONATA 9 “Multimodal Aspects of Time Perception” (218000 PLN / 51080€); Primary Investigator
9. **February 2014**, Deutsche Forschungsgemeinschaft (DFG) International Scientific Events Grant “Conscious Experience of Time: its significance and interpretation in neuroscience and philosophy” (8200€); Primary Investigator
10. **September 2009-2011**, CUNY Writing Fellow (25000\$ per annum)
11. **September 2006-2010**, CUNY Graduate Student Research Grant (1500\$)

### **Service and Professional Activity**

1. **January 2024-** Member of The Netherlands Research School for Information and Knowledge Systems (SIKS)
2. **June 2022-** School Council of the Tilburg University School of Humanities and Digital Science (Vice-chair of the council)
3. **November 2019-** Admissions committee for MSc/BA in CSAI, Tilburg University, School

- of Humanities and Digital Sciences; Colloquium Doctum
4. **September 2019**- REDC Ethics committee, Tilburg University, Tilburg University, School of Humanities and Digital Sciences
  5. **November 2019-2021** Exam committee, Tilburg University, School of Humanities and Digital Sciences
  6. **October 2019**, Visiting Research Fellow, University of Technology, Sydney.
  7. **November 2018**, organizer of Auditory Perception and Musical Sound, Institute of Philosophy, Jagiellonian University.
  8. **March 2015-October 2018**, coordinator of the Cognitive Science Student Association, Institute of Philosophy, Jagiellonian University
  9. **November 2017-October 2018**, editorial board of Annual Cognitive Science Review, Jagiellonian University.
  10. **March 2016-June 2018**, organizer of Cognitive Science Colloquium talks, Institute of Philosophy, Jagiellonian University.
  11. **March 2015-October 2018**, coordinator of the Central European Exchange Program (CEEPUS) for University Studies, Institute of Philosophy, Jagiellonian University
  12. **September 2017-June 2018** local organizing committee of the annual meeting of the Association for the Scientific Study of Consciousness (ASSC), Kraków, Institute of Psychology, Jagiellonian University.
  13. **September 2017-September 2018** local organizing committee of the annual meeting of the Polish Cognitive Science Society, Kraków, Institute of Psychology, Jagiellonian University.
  14. **December 2016-May 2018**, Scientific Committee and Academic Adviser for 9<sup>th</sup> and 10<sup>th</sup> Cracow Cognitive Science Conference.
  15. **October 2015**, Scientific committee member for AAAI Spring workshop “Ethical and Moral Considerations in Artificial Agents,” Stanford University, USA.
  16. **March 2015**, co-organizer of “Predictive coding workshop” in Venice, Italy, an interdisciplinary conference for PhD students from the Berlin School of Mind and Brain and several other institutions in Europe.
  17. **September 2014**, co-organizer of “Conscious experience of time: its significance and interpretation in neuroscience and philosophy”—an interdisciplinary conference on time perception in the Berlin School of Mind and Brain.
  18. **Summer, Fall 2009**, organizer for the CUNY Cognitive Science Symposium.
  19. **Reviewer for:** Cyberpsychology, Behavior, and Social Networking, Societies, Phenomenology and Cognitive Sciences, New Ideas in Psychology, MIT Press, Mind, Science and Engineering Ethics, Ethics and Information Technology, Theory and Psychology, TOPOI, Consciousness and Cognition, Philosophical Psychology, Topics in Cognitive Science, Cortex, Frontiers in Neuroscience, Frontiers in Psychology, Lecture Notes in Artificial Intelligence, Bloomsbury, National Science Centre Poland.

### **Pedagogical and Professional training**

1. 2023: PhD supervision workshop
2. 2022: Council Workshops (x3)
3. 2020: UTQ (BKO) Certification of Portfolio as Qualified University Teacher in Netherlands.
4. 2011-2013: CUNY Writing Fellow at Borough of Manhattan Community College, a 2-year fellowship where my primary responsibility was to bring cutting edge pedagogical techniques to bear on already existing classes, in collaboration with the teachers themselves.

### **Summary of teaching experience**

*Prepared* and Taught 70+ courses in computer science, philosophy, cognitive science and related disciplines, at bachelor, master and doctoral level, for classes ranging from 7 students to 220 students, in 7 Universities, in collaboration with faculty from law, computer science, psychology, neuroscience, and philosophy.

*Supervised* 5 doctoral, 52 masters, and 11 bachelor theses.

Reviewed or served on committees of 100+ theses.

## **Thesis Supervision**

### Doctoral

1. Kamyab Ghorbanpour (ongoing, daily supervisor), “Moral Improvement with Video Games” 2024-2028 (Tilburg University)
2. Arthur Bran Herbener (ongoing, daily supervisor), “Stoic Robots: A Social Robot-Delivered Stoic Intervention Targeting Mental Health in University Students” 2022-2026 (Aarhus University)
3. Gianluca Guglielmo (ongoing, daily supervisor), “Modelling Expert Decisions in Complex Environments” 2020-2024 (Tilburg University)
4. Łukasz Borowiecki (unfinished, daily supervisor), “The debate about the nature of sound: temporality and its role in auditory perception” 2015-2022 (Jagiellonian University)
5. Paweł Zięba (2018, daily supervisor), “Experiential pluralism in epistemology and philosophy of perception” 2015-2018 (Jagiellonian University); external reviewers: Mark Kalderon, Craig French

### Masters

1. Hilde Maria Hellinga “International Academic Collaboration: Collaboration Patterns Based on the Location of Individual Academics Using the NeuroTree Dataset” (January 2024, Tilburg U. DSS)
2. Femke van Verseveld “Understanding the Relationship between Human Facial States and the Degree of Artificiality and Expressiveness in Virtual Character Design: A Machine Learning Approach” (January 2024, Tilburg U. DSS)
3. Hieu Dao “Improving Sales Forecasting by Using Fuel-prices: Impact on SMES Sector” (January 2024, Tilburg U. DSS)
4. Tim van der Meulen “Unveiling the Interplay between Keystrokes and Metadata in Predicting Tetris Scores and Self-assessed Experience Levels” (May 2023, Tilburg U. DSS)
5. Noortje Spee “Identifying the Health Status of Food Purchases Using Ensemble Methods” (May 2023, Tilburg U. DSS)
6. Thanh Nguyen “Machine Learning Model for Forecasting Perishable Foods in Retail Business” (June 2023, Tilburg U. DSS)
7. Victor Reemus “Classifying sentiment of Steam reviews by adding topic model keywords as input features” (June 2023, Tilburg U., DSS)
8. Connor Murray “Measuring the Influences on Academic Funding and Success with Non-Linear Machine Learning Methods” (June 2022, Tilburg U. DSS)
9. Rens Jansen “Model comparison of applying the multilingual ‘mBERT’ and Dutch ‘RobBERT’ language models as a neural approach to named entity recognition of legislation references in a corpus of Dutch case law” (Tilburg U. DSS)
10. Jost Remmen “Predicting and analyzing football outcomes with match and player statistics” (June 2022, Tilburg U. DSS)
11. Josse Wannet “The Rise of Advanced Statistics: Home team Advantage in the NBA and the Effect of Location” (January 2022, Tilburg U. DSS)
12. Florian Böhm “Using Entity-Action-Target Relationships To Classify Conspiratorial YouTube Videos” (January 2022, Tilburg U. DSS)
13. Wessel van Lit “Conspiracy Tweet Classification with Named Entities: Using a Combination of Keyword Extraction and Named Entities Recognition to Identify Conspiratorial Tweets” (January 2022, Tilburg U. DSS)
14. Josse Wennet “The Rise of Advanced Statistics: Home Team Advantage in the NBA and the Effect of Location” (January 2022, Tilburg U. DSS)
15. Sander Leneers “Applying the Redistributive Theory of Roemer as Algorithmic Fairness” (January 2022, Tilburg U. DSS)
16. Attila Balla, “Comparing Improved TF-IDF Algorithms on Classification of Conspiratorial Content” (August 2021, Tilburg U. DSS)
17. Dmitrios Alexandros Kaplanis “Classifying Conspiratorial YouTube Content Using Purpose-built Corpora and Recurrent Neural Networks” (July 2021, Tilburg U. DSS)

18. Neris Ozen “Capitalizing on a Small Dataset: Investigating the Performance of the Co-training Algorithm in Identification of Conspiratorial Material” (July 2021, Tilburg U. DSS)
19. Thalia Rademakers “Detecting Agents in Conspiratorial Content: An Enhanced Keyword-based Approach Using Named Entity Recognition” (July 2021, Tilburg U. DSS)
20. Ivette Bonestroo “Recurrence Over BERT as a Solution for Small Dataset and Long Tests in Conspiracy Video Classification” (July 2021, Tilburg U. DSS)
21. Bente Sinke, “Geolocation and Academic Success” (July 2021, Tilburg U. DSS)
22. Zeyn Fert “Comparing of Topic Modeling Algorithms on News Articles” (June 2021, Tilburg U. DSS)
23. Jose Orozco “Convolutional Neural Networks in Text Classification of Conspiratorial Content” (June 2021, Tilburg U. DSS)
24. Youri Slabber “Towards Multiclass Classification of Conspiratorial Content: A Data Science Approach to the Issue of Conspiracy Theory”
25. Tommy Wurtz “Using Neural Networks to Classify Conspiracy Content on YouTube” (January 2021, Tilburg U. DSS)
26. Melisa Yilmaz “Classification of Conspiratorial Content on YouTube” (January 2021, Tilburg U. DSS)
27. Omar Ahmed “Classification of Conspiratorial Content on YouTube – Performance Based on Different Feature Extractions” (January 2021, Tilburg U. DSS)
28. Job Wegman “A Bigram-based Approach to Conspiracy Video Classification” (January 2021, Tilburg U. DSS)
29. Joost van Weert, “Predicting Academic Success Using Academic Genealogical Data, a Data Science Approach” (January 2021, Tilburg U. DSS)
30. Evgeny Vasilets “How Prosocial Behavior in Video-games Affects Real- life Behavior?” (January 2021, University of Amsterdam, Brain and Cognitive Science)
31. Gianluca Guglielmo “A Behavioral Study of the Effects of Moral Decision-making on Facial Thermal Variations Comparing Subjects Playing, and Subjects Watching a Morally Charged Video Game” (July 2020, Tilburg U. CSAI)
32. Charley Bosman “The Influence of Compassion and Nudges on Moral Decision-making in Video Games” (July 2020, Tilburg U. CSAI)
33. Leonie Thijssen “Explaining the Differences between Sexes in Morally Charged Video Games” (July 2020, Tilburg U. CSAI)
34. Kevin Hoffman “Virtual Morality: Using Thermal Imaging and Video Games for Moral Decision Making Research” (July 2020, Tilburg U. CSAI)
35. Siebe Albers “Detecting Conspiratorial Content Using Wordvector Models Trained on reddit Conspiracy Language for Feature Enrichment” (July 2020, Tilburg U. CSAI)
36. Raf van den Eijnden “A Keyword-based Approach to Conspiracy Video Classification” (July 2020, Tilburg U. CSAI)
37. Tolga Akyazi “Classification of Conspiratorial Content on YouTube – Measuring Influence of Sentiment Weighting on Classification Performance” (July 2020, Tilburg U. CSAI)
38. Evelien Smeets “The Effect of High-intensity Linguistic Nudges on Justice Sensitivity in a Video Game” (July 2020, Tilburg U. CSAI)
39. Eloy Kivits “Cutaneous Temperature Changes During Decision Making in a Narrative Video Game” (January 2020, Tilburg U. CSAI)
40. Linda Deckers “The effect of robotic nudges on temporal accessibility of moral foundations and in turn the influence on moral decision making in video games” (January 2020, Tilburg U. CSAI)
41. Natalia Kowalska “The Role of Compassion and Robotic Nudges in Moral Decisions in Video Games” (January 2020, Tilburg U. CSAI)
42. Ties de Bont (September 2019, Tilburg U. CSAI) “Differences in (meta cognitive) performance on object versus feature change detection”
43. Carmen Buysse (July 2019, Tilburg U. CSAI) “A Behavioral Study of the Effect of Spacing on Visual Detection”
44. Irene Font Peradejordi (July 2019, Tilburg U. CSAI) “A Behavioral Study of Facial Expression Patterns during Moral Decision Making Using Facial Recognition Techniques”
45. Quinty Kouveld (July 2019, Tilburg U. CSAI) “Social Conformity and Moral Decision Making”

46. Maria Soares da Eira (July 2019, Tilburg U. CSAI) “Applying the Theory of Justice as Algorithmic Fairness”
47. Dominka Drążyk (July 2019, Jagiellonian U. Cognitive Science) “Time estimation using the method of comparison” in collaboration with RMF FM Radio, Kraków, Poland.
48. Kinga Ciupińska (June 2018, Jagiellonian U. Cognitive Science) “An EEG study of the differential influence of valence, arousal, and attention on perceptual judgments about duration”
49. Agnieszka Gębuś (June 2018, Jagiellonian U. Cognitive Science) “A behavioral study of the effect of complexity of an auditory stimulus on duration judgments in the auditory oddball paradigm”
50. Sabina Krauze (July 2017, Jagiellonian U. Cognitive Science), “Emotional reactions to unexpected harmony in music: the role of openness to experience and creativity”
51. Maria Janicka (July 2017, Jagiellonian U. Cognitive Science), “Embodied conceptual knowledge”
52. Marta Sokólska (September 2016, Jagiellonian U. Cognitive Science), “Moral enhancement in light of cognitive science” (Jerzy Perzanowski Prize, best master’s thesis in cognitive science 2016)

#### Bachelor (Licentiate)

1. Arkadiusz Kaus, (August 2019, Jagiellonian U. Cognitive Science), “Musical hallucinations in terms of predictive coding”
2. Piotr Szymanek (July 2018, Jagiellonian U. Cognitive Science), “Onset of lucid dreams as a result of Bayesian reasoning”
3. Rita Rain (October 2018, Jagiellonian U. Cognitive Science), “Linguistic relativity and cultural diversity in speaking and thinking about time”
4. Agnieszka Lisowska (July 2018, Jagiellonian U. Cognitive Science), “The Notion of Individual in the Debate about Unconscious Perception”
5. Maria Kubaszek (July 2017, Jagiellonian U. Cognitive Science), “Differences in the time of identification of environmental sounds between groups of musicians and non-musicians from ecological psychoacoustics perspective”
6. Dominka Drążyk (July 2017, Jagiellonian U. Cognitive Science), “Rhythm and estimation of auditory stimuli duration in models of time perception”
7. Karolina Bednarczyk (July 2017, Jagiellonian U. Cognitive Science), “Individual differences in perception of musical consonance and dissonance”
8. Natalia Moczyróg (July 2017, Jagiellonian U. Cognitive Science), “In what way is time perception embodied?”
9. Anna Ciołek (June 2016, Jagiellonian U. Cognitive Science), “The mechanisms of semantic priming”
10. Kinga Ciupińska (June 2016, Jagiellonian U. Cognitive Science), “Difficulties in research on the perception of time: the role of arousal and attention”
11. Karol Zaborowski (June 2016, Jagiellonian U. Cognitive Science), “Embodiment during dreamless sleep – evaluation of Evan Thompson’s and Jennifer Windt’s arguments”

#### Teaching-related activities

1. **March 2015-October 2018**, coordinator of the Cognitive Science Student Association, Institute of Philosophy, Jagiellonian University
2. **March 2016-June 2018**, organizer of Cognitive Science Colloquium talks, Institute of Philosophy, Jagiellonian University.
3. **March 2015-October 2018**, coordinator of the Central European Exchange Program (CEEPUS) for University Studies, Institute of Philosophy, Jagiellonian University
4. **December 2016-May 2018**, Scientific Committee and Academic Adviser for 9<sup>th</sup> and 10<sup>th</sup> Student Cracow Cognitive Science Conference.
5. **March 2015**, co-organizer of “Predictive coding workshop” in Venice, Italy, an interdisciplinary conference for PhD students from the Berlin School of Mind and Brain and several other institutions in Europe.

**Courses taught as responsible teacher grouped by subject area**

(University taught, number of times, approximate number of students in each class)

Computer Science

- Data Structures and Algorithms (160), Tilburg University (with CSAI faculty)
- Research Seminar Data Science and Society for Pre-masters (160), Tilburg University

Logic

- Logic, Pace University x 4 (30)
- Logic and Moral Reasoning, Baruch College x4 (35)

Cognitive Science

- Core Topics in Cognitive Science, Tilburg University x3 (7-18)
- Creative Thinking, Tilburg University/Eindhoven University of Technology (140)
- Cognitive Science, Tilburg University/Eindhoven University of Technology (35)
- Cognitive Science 1, Tilburg University/Eindhoven University of Technology (160)
- Cognitive Science 2, Tilburg University/Eindhoven University of Technology (60)
- Doctoral Seminar in Cognitive Science, x 2 Jagiellonian University (5)
- Perception, Jagiellonian University x 3 (60)
- Diploma Seminar: Natural and Artificial Cognitive Systems (with computer science faculty), Jagiellonian University x 2 (15)
- Cognitive Science Workshop (with computer science faculty), Jagiellonian U. x2 (15)
- Engineering Cognitive Systems, Jagiellonian U. (with computer science faculty) (15)
- Introduction to Cognitive Science, Jagiellonian University x3 (120)
- Philosophy of Psychology: The Mind and the Brain (graduate seminar), Berlin School of Mind and Brain (40)
- Philosophical Psychology, x 5, Hunter College, Pace University (35)
- Foundations of Neuroscience, CogNES doctoral program, Jagiellonian University (10)
- Ethical Aspects of Artificial Intelligence, Jagiellonian University (10) x3

Ethics

- Ethics and Neuroscience (graduate seminar), Berlin School of Mind and Brain (30)
- Computer Ethics, Baruch College x10 (40)
- Cyber Citizenship: Ethics and the Internet, Pace University x 3 (with computer information systems faculty, honors learning community) (30)
- Ethics in the Workplace, Pace University x 4 (with law faculty) (30)
- Normative Ethics, Ethics, Hofstra University x 2, Pace University, Baruch College (30)

Philosophy of Mind

- Philosophy of Mind, Jagiellonian University x2 (35)
- Consciousness, Jagiellonian University x 2 (40) (with psychology and neuroscience faculty)
- Computers, Minds, and Intentionality, Pace University x3 (30)
- Minds and Computers, Baruch College (35)
- Consciousness, Perception, and Time, Jagiellonian University (10)

General Philosophy

- Introduction to Philosophy, Baruch College, Hofstra University x 2, City College of New York [a part of Harlem college preparation program] (35)
- Modern Philosophy, Pace University x1 (30)



- Ancient Philosophy, Pace University x1 (30)

### **Invited Presentations**

1. **August 2021**, “As if it was moral’: The use of non-player characters (NPCs) to explore morality in video games” (with Gianluca Guglielmo), Subjective Probability and Decision Making, Warwick, UK
2. **July 2021**, “The Temperature of Morality” (with Gianluca Guglielmo) Foundations of Digital Games, Vancouver Canada (online)
3. **November 2020**, “The Ethics of Autonomous Vehicles” TestDive Nokia annual conference (online)
4. **December 2019**, “Emerging ethical and legal issues in healthcare machine learning,” XAILA 2019 Workshop at the JURIX 2019 Conference, Madrid, Spain.
5. **November 2019**, “Directly Affecting Social Change with Computing Technologies: Methods and Pitfalls,” 4TU Ethics of Socially Disruptive Technologies Conference, TU/e, Netherlands.
6. **October 2019**, “Video Games, Robotic Nudges, and Thermal Cameras on the Hard Road to Moral Improvement,” Emerging Technologies and Society, UTS, Sydney, Australia.
7. **November 2018**, “Computational Model of Perceptually Driven Change in Musical Performance,” Auditory Perception and Musical Sound, Institute of Philosophy, Cracow, Poland.
8. **August 2018**, “Philosophers Doing Cognitive Science,” 12th Meeting of the Polish Cognitive Science Society, Kraków, Poland.
9. **April 2018**, “Moral Dimensions of Artificial Intelligence,” Kogniackcja, University of Szczecin, Poland.
10. **January 2018**, “Temporal mental qualities and the inheritance thesis,” Limits of Perception Workshop, Van Leer Institute, Jerusalem, Israel.
11. **November 2018**, “Moral Dimensions of Artificial Intelligence,” Cognitive Science Symposium, University of Białystok, Poland
12. **October 2017**, „Moral Enhancement with Artificial Intelligence,” OSCW Netherlands Seminar, Eindhoven Technical University, Netherlands.
13. **June 2017**, “The moral dimensions of artificial intelligence,” University of Twente, Netherlands
14. **May 2017**, “The moral dimensions of artificial intelligence,” Collegium Ignatium, Cracow.
15. **February 2017**, “Interdisciplinary collaboration: a case study of autonomous artificial intelligence and moral decision-making,” University of Kurdistan Hewlêr, Erbil, Iraq.
16. **January 2017**, “Mental states, processes, and events,” C-Lab Winter Retreat, Wisła, Poland.
17. **November 2016**, “Engineering moral reasoners with artificial intelligence,” Machine Ethics and Machine Law Conference, Cracow, Poland.
18. **October 2016**, “Autonomous weapon systems and asymmetrical warfare,” Eindhoven University of Technology, Eindhoven, Netherlands.
19. **September 2016**, “Moral enhancement with artificial intelligence,” Conference of the Polish Cognitive Science Society, Białystok, Poland.
20. **September 2016**, “Tonality modulates conscious experience of duration,” Conference of the Polish Cognitive Science Society, Białystok, Poland.
21. **July 2016**, “Moral enhancement with artificial intelligence,” Designing Moral Technologies: Theoretical, Practical, and Ethical Issues, Ansona, Switzerland.
22. **March 2016**, “Metaethics in context of engineering ethical and moral systems,” AAAI Spring Workshop, Stanford University, USA.
23. **February 2016**, “Autonomous weapon systems and the frame problem,” Philosophy Colloquium, Technical University Eindhoven, Eindhoven, Netherlands.
24. **January 2016**, “Perception of change as a key to understanding perception of time,” C-Lab Workshop Retreat, Zakopane, Poland.
25. **December 2015**, “Multimodal aspects of time perception,” Department of Epistemology, Jagiellonian University, Cracow, Poland.
26. **November 2015**, “Future of artificial intelligence,” public debate, Klub

- Jagielloński, Cracow, Poland.
27. **October 2015**, "Orienting time perception to action," Situating Cognition: Agency, Affect, and Extension, University of Warsaw, Warsaw, Poland.
  28. **July 2015**, "Limits of temporal phenomenology," Towards a Science of Consciousness, Helsinki, Finland.
  29. **July 2015**, "Limits of temporal phenomenology," German Society for Analytic Philosophy, Osnabrueck, Germany.
  30. **May 2015**, "Time in film and cognitive science," meeting of the Association for Neuroesthetics, Venice, Italy.
  31. **February 2015**, "Autonomous weapon systems, the frame problem, and computer security," Jagiellonian University seminar for PhD students in philosophy, Cracow, Poland.
  32. **February 2015**, "Investigating the mind with eye-tracking and SOAR," AGH Technical University, Cracow, Poland.
  33. **February 2015**, "Orienting time perception to action," Jagiellonian University Cognitive Science, Cracow, Poland.
  34. **February 2015**, "Autonomous weapon systems, the frame problem, and computer security," Polish Academy of Sciences, Institute of Philosophy and Sociology, Warsaw, Poland.
  35. **November 2014**, "Thinking about and in time," STATE Experience Science Festival, Berlin, Germany.
  36. **October 2014**, "Action and Time Perception," Cognitive Science Symposium, CUNY Graduate Center.
  37. **October 2014**, "Consciousness: Basic Research," Pace University Fellows Retreat, Warwick, New York.
  38. **August 2014**, "What is predictive coding?" Workshop for PhD students, Berlin School of Mind and Brain, Berlin, Germany.
  39. **June 2014**, "The Case for Action-Oriented Time Perception," Cognition and Action: the Jagiellonian-Rutgers Conference in Cognitive Science, Cracow, Poland. (winner of prize for best post-doctoral presentation)
  40. **May 2014**, "On Deciding to Choose to Do Otherwise," Free-Will: Philosophy Meets Neuroscience, The Gonda Multidisciplinary Brain Research Center, Bar-Ilan University, Israel.
  41. **May 2014**, "Time perception, action, and predictive coding," Michael Pauen Philosophy Colloquium, Berlin School of Mind and Brain, Berlin.
  42. **March 2014**, "Perception of Time and Change," International Conference on Timing and Time Perception (TIMELY), Ionian Academy, Corfu, Greece.
  43. **February 2014**, "Can Machines Think?" Brain Awareness Week, Berlin School of Mind and Brain, Berlin.
  44. **November 2013**, "Dreams are Probably not Conscious Experiences," Michael Pauen Philosophy Colloquium, Berlin School of Mind and Brain, Berlin.
  45. **October 2013**, "Understanding Conscious Experience of Time in Terms of Change Detection," The Faculty of Psychology Colloquium, University of Warsaw, Poland.
  46. **October 2013**, "What Can Psychology Tell Us About the Experience of the Passage of Time?" Szczecin University International Conference for Doctoral Students, Szczecin, Poland
  47. **October 2013**, "Time Perception and Change Detection," Visual cognition lab at the Berlin School of Mind and Brain and the Institute of Medical Psychology
  48. **September 2013**, "Understanding the Experience of the Passage of Time in Terms of Change Detection," Berlin Center for Advanced Neuroimaging, Charité – Universitäts Medizin Berlin
  49. **August 2013**, "Social Cognition and Time," KOSMOS Summer School, Berlin School of Mind and Brain, Berlin, Germany
  50. **July 2013**, "Autonomous Military Systems, the Frame Problem, and Computer Security," International Association for Computing and Philosophy, University of Maryland, College Park, Maryland.
  51. **June 2013**, "Unmanned Systems and the Frame Problem," Robotic Weapons Control

- Symposium, Pace University, New York.
52. **April 2013**, "Aristotle's 'friendship-in-virtue' as an Educational Model," Addressing Critical Challenges for the Liberal Arts College, Dyson Day Conference, Pace University, New York.
  53. **December 2012**, "Temporal Mental Qualities and the Illusion of Passage of Time," Annual Meeting of the Eastern Division of the American Philosophical Association, Atlanta, GA.
  54. **August 2012**, "The Appearance of Unity of Consciousness over Time," Cognitive Science Symposium, CUNY Graduate Center.
  55. **July 2012**, "Subjective Time Distortions Caused by Looming Visual Stimuli," CCNY Cognitive Neuroscience Lab, New York.
  56. **July 2012**, "Access and the Unity of Consciousness," Association for the Scientific Study of Consciousness, Brighton, UK.
  57. **December 2011**, "Some Evidence for the Temporal Quality Space Model," CCNY Cognitive Neuroscience Lab, New York.
  58. **July 2011**, "Inner-clock Model and Temporal Judgments," Society for Philosophy and Psychology, Montreal, Canada.
  59. **June 2011**, "Inner-clock Model and Conscious Judgments of Duration," Association for the Scientific Study of Consciousness, Kyoto, Japan.
  60. **October 2010**, "Time and Consciousness," Cognitive Science Symposium, CUNY Graduate Center.
  61. **June 2010**, "Explaining the Experience of Succession," Association for the Scientific Study of Consciousness, Toronto, Canada. (poster)
  62. **March 2010**, "Aristotle and Cicero on Friendship and Education," Society of Fellows of Dyson College Induction Ceremony, Pace University, New York. (panel)
  63. **June 2009**, "A Solution to the Puzzle of Temporal Experience," Association for the Scientific Study of Consciousness, Berlin, Germany (poster)
  64. **June 2009**, "A Solution to the Puzzle of Temporal Experience," Memory and Self-understanding, Hanse-Wissenschaftskolleg, Delmenhorst, Germany
  65. **September 2008**, "Twardowski on Brentano in Context of Contemporary Theories of Consciousness," 8th Polish Philosophical Congress, Warsaw, Poland.
  66. **June 2008**, "Self-representationalism's Aristotelian Troubles," Association for the Scientific Study of Consciousness, Taipei, Taiwan. (poster)
  67. **April 2008**, "Brentano and Husserl on Self-consciousness Redux," Toward a Science of Consciousness, Tucson, Arizona (poster)
  68. **October 2008**, "Self-consciousness as Time-consciousness," Cognitive Science Symposium, CUNY Graduate Center.
  69. **August 2007**, "Self-presentation and the Priority of Intentionality," Cognitive Science Symposium, CUNY Graduate Center.
  70. **August 2005**, "Individuating Emotive Attitudes and the Self," Cognitive Science Symposium, CUNY Graduate Center.
  71. **August 2004**, "Representationalism, Schizophrenia and HOTs," Cognitive Science Symposium, CUNY Graduate Center.
  72. **October 2001**, "Plato and Xenophon on the Apology of Socrates: Philosophy and Sophrosunê," Society for Ancient Greek Philosophy, Binghamton University.

### **Comments in Conferences**

1. **March 2012**, Comments on Dan Burnston, Sebo Uithol, and Wilem Haselager's "Intentions in the Brain," 14<sup>th</sup> Annual Meeting of the Southern Society for Philosophy and Psychology, Savannah, Georgia.
2. **April 2009**, Comments on: Andreas Elpidorou's "The Epistemology of Embodied Action: A Lesson from Neuropsychology," 12<sup>th</sup> Annual CUNY Graduate Student Conference.
3. **May 2007**, Comments on: David Davies's "Photographic Depiction and the Ethical Dimensions of Photography," Conference on Depiction, University of Manchester, UK.

### **IT experience**

1. **2012-2013, Cognitive Neuroscience Lab, Prof. Tony Ro, City College of New York, NY.**  
Position: affiliated PhD candidate (Prof. Ro is member of dissertation committee)

Technologies: C++, DirectX 9, 10

Description: designed and implemented 4 perceptuo-behavioral experiments, 2 of which became a chapter in my PhD dissertation and involved 3D rendered stimuli in motion. The other two involved visual stimuli with very short presentation durations (<100 milliseconds) and depended on close hardware monitoring to maintain constant timing. I also set up and piloted an experiment using a legacy eye tracker, which involved both C++ and low-level C code augmentation. ~20, 000 lines of code in C++

2. **2002-2009, via Aristotle Consulting for DSV, Inc., Clark, New Jersey**

Position: software architect, programmer, consultant

Technologies: Java, C++, AIX, DB2, Apache, WebSphere, XSL, XML

Description: designed, implemented, and lead development of major and minor software projects.

(1) The most prominent and long-term was *D-track*, which integrated multiple legacy databases into mirrored DB2 databases and then delivered the data to the web,

via XML and XSL. Testing and research lead me to settle on now obsolete Java technologies for XML formation and decomposition into SQL statements. The XML messaging between database locations was coordinated, at first, through FTP, then through WebSphere technologies. The front-end interface to DB2 relied at first on Apache Tomcat web servers with limited security protocols and eventually WebSphere with adequate app/web/security server architecture. All HTML was delivered via dynamic transformations, first using standard JSP technologies, and eventually XML/XSL transformations facilitated by back-end Java programs. (2) Minor projects involved C++ programs that facilitated document transformation, on-the-fly PDF creation on- and off- line, label creation, and optical text readers. (3) Front-end development was eventually dispatched to junior programmers, which I partially supervised and trained. (4) All of this work required me writing proposals, regular interaction with DSV, Inc., executives, and presentations that made each project contingent on business needs and successful communication.

3. **2002-2002, IPSoft, Inc., New York, NY**

Position: Engineer

Technologies: Perl, Unix variants (Solaris, Linux, etc.)

Description: Routine system administrator duties on a variety of architectures with remote access to critical server architecture of IPSoft clients.

4. **1998-2001, DanTransport, Inc**

Position: contract website designer

**Short Abstract of Dissertation**

In my dissertation I critically survey existing theories of time consciousness and draw on recent work in neuroscience and philosophy to develop an original theory. My view depends on a novel account of temporal perception based on the notion of temporal qualities, which are mental properties that are instantiated whenever we detect change in the environment. When we become aware of these temporal qualities in an appropriate way, our conscious experience will feature the distinct temporal phenomenology that is associated with the passing of time. The temporal qualities model of perception makes two predictions about the mechanisms of time perception; one that time perception is modality specific and the other that it can occur without awareness. My argument for this view partially depends on several psychophysical experiments that I designed and implemented myself and which investigate subjective time distortions caused by looming visual stimuli. These results show that the mechanisms of conscious experience of time are distinct from the mechanisms of time perception, as my theory of temporal qualities predicts.

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