

PERSONAL INFORMATION

Last Name, First Name: Caspar, Emilie A.

Date and Place of Birth: 04/10/1987, Brussels (Uccle)

Address: rue de Lombardie, 59, 1060, Brussel, Belgium

Personal Webpage: <https://scholar.google.be/citations?user=QIY2seEAAAAAJ&hl=fr&oi=ao>

Personal blog: <https://emiliecaspar.home.blog/>

MAJOR RESEARCH INTERESTS

Voluntary actions, obedience; responsibility, forensic psychology and psychiatry, psychopathology and antisocial behaviours, (im)moral decision-making, sense of agency, free will, moral consciousness, conscious intention, synaesthesia, robotics and prosthesis, body-ownership.

ACADEMIC DEGREES – Université libre de Bruxelles

- December 2015** **PhD - cognitive neurosciences**
 Dissertation: « *What governs our sense of being an agent? An experimental and electrophysiological approach of how disturbances in the intention-action-outcome chain modulate sense of agency* », under the supervision of Prof. A. Cleeremans
- 2012-2014** **Certificate in forensic sciences and forensic psychiatry**
- 2011-2012** **Teaching certificate in psychology (CESS)**
- 2009-2011** **MA - neuropsychology and cognitive development**
 Dissertation: « *Learning synesthetic associations at explicit and implicit levels* », under the supervision of Prof. R. Kolinsky.

HONORS & AWARDS

- 07/2019** **European Commission**, Research Coordinator for the project entitled “Campaigns with counter and alternative narratives to radicalisation implemented by COSS” – Internal Security Fund – Police Programme (EU proposal 867460 – GAMER) **€84,400/€990,000**
- 12/2018** **Bial Foundation**, Co-Principal Investigator for the project “A neuroscience approach to investigating how hierarchy influences moral behaviours” **€45,000**
- 10/2017** **National Fund for Scientific Research (FNRS)**, chargé de recherches (post-doctoral researcher), Belgium (3 years, *postponed until 12/2019*).
- 01/2017** **European Commission, Marie Skłodowska-Curie actions** (individual fellowship), Post-doctoral fellowship (2 years), European Commission H2020 (EU proposal 743685 – AGENT) **€177,598**
- 2017** Nominated for the **APS Rising star**
- 11/2016** **Laureate of the Evens Science Prize 2016** (Evens foundation) together with Patrick Haggard, Axel Cleeremans and Julia Christensen for our work on how coercion changes the sense of agency in the human brain **€30,000**
- 10/2016** **National Fund for Scientific Research (FNRS)**, Scientific collaborator, Belgium.
- 10/2016** **Fondation FYSSSEN** - Post-doctoral study grant, France. **€25,000**
Declined by the fellow due to the impossibility to combine two grants.
- 2016** Nominated for the **William James Prize**, ASSC Association for the Scientific Study of Consciousness for the paper « Coercion changes the sense of agency in the human brain » published in *Current Biology*.
- May9th, 2016** **Laureate of the Prix de Psychologie** (Prize of Psychology) **€1,000**
 Awarded by the Royal Academy of Belgium for the best PhD thesis in scientific psychology defended between January 2012 and December 2015.

- 2014 - 2017 Travel grants for a scientific collaboration with University College London** €2,500 each
 January 2014 - June 2014: FNRS traveling grant
 July 2014 - December 2014: BRIC, Université libre de Bruxelles
 January 2015 - August 2015: FNRS traveling grant
 October 2017 – December 2017: FNRS traveling grant
- 25/11/2014 Laureate of the Theodorus III price** for the idea of creating and developing a robotic hand that can be used in experiments conducted in psychology and neurosciences. €5,000
- 10/2012 National Fund for Scientific Research (FNRS)**, four-years Phd Scholarship, Belgium

ONGOING AND SUBMITTED GRANT APPLICATION

08/2020	BitBrain	€50,000
10/2020	Volkswagen Foundation “Artificial Intelligence and the Society of the Future”	€300K/€1500K
11/2020	Projet de cooperation au développement (ARES)	€300K

PROFESSIONAL APPOINTMENTS

- 10/2020-present Part-time scientific consultant**, Radio La Benevolencija Humanitarian Tools Foundation
- 12/2019 present Post-doctoral Researcher**, National Funds for Scientific Research (FNRS), Belgium, Université libre de Bruxelles (supervision: Axel Cleeremans)
- 12/2017 Post-doctoral Researcher**, Marie Skłodowska-Curie actions (Individual Fellowship), European Commission – Netherlands Institute for Neurosciences, Amsterdam, The Netherlands (supervision: Christian Keysers and Valeria Gazzola)
- 11/2019**
- 10/2016 Post-doctoral Researcher**, National Funds for Scientific Research (FNRS), Belgium, Université libre de Bruxelles (supervision: Axel Cleeremans)
- 11/2017**
- 10/2012 Research fellow**, National Funds for Scientific Research (FNRS), Belgium
- 09/2016** Université libre de Bruxelles (supervision: Axel Cleeremans)
- 01/2013 Visiting researcher** at University College London (UCL), United-Kingdom (supervision : Patrick Haggard)
- 06/2014**
- 10/2011 Teacher in Psychology and Social Sciences - Humanity degree.** Collège La Fraternité, 173 rue de Molenbeek, 1020, Bruxelles, Belgium
- 06/2012**

PUBLICATIONS (Current H=11, citations= 430 – source: Google Scholar)

PUBLISHED REFEREED JOURNAL ARTICLES

- Caspar, E.A.,** De Beir, A., Lauwers, G., Cleeremans, A., Vanderborght, B. (2021). How using brain-computer influences the sense of agency. *Plos ONE*
- Caspar, E.A.,** Lo Bue, S., Magalhaes De Saldanha da Gama, P.A., Haggard, P., & Cleeremans A. (2020). The effect of military training on the sense of agency and outcome processing. *Nature Communications*, 11(1), 1-10. (IF=11.880).
- Caspar, E.A.,** Ioumpa, K., Keysers, C. & Gazzola, V. (2020). Obeying orders reduces vicarious brain activation towards victims' pain. *NeuroImage*, 117251. (IF=5.902).
- Caspar, E. A.,** Cleeremans, A., & Haggard, P. (2018). Only giving orders? An experimental study of the sense of agency when giving or receiving commands. *PloS one*, 13(9), e0204027. (IF=2.276)
- Invitation by the Editor-in-chief - **Caspar E.A. (2017)**. Coercition et perte d'agentivité. *Médecine/sciences*, 33(5), 543-547.
- Lush, P., **Caspar, E.A.,** Cleeremans, A., Haggard, P., Magalhães De Saldanha da Gama, P.A., & Dienes, Z. (2017). The power of suggestion: Post-hypnotically induced changes in the temporal binding of intentional action outcomes. *Psychological Sciences*. (IF=7.888)
- Caspar, E.A.,** Rigoni, D., Verdin, O., Cleeremans, A. & Klein, O. (2017). What do you believe in?

- French translation of the FAD-plus to assess beliefs in free will and determinism and its relation with religious practices and personality traits. *Psychologica Belgica*, 57(1), pp.1–16. (IF=0.806)
8. **Caspar, E.A.**, Vuillaume, L., Magalhães De Saldanha da Gama, P. A., & Cleeremans, A. (2017). The impact of (dis)belief in free will on moral behaviours. *Frontiers in psychology*, 8. (IF=2.323)
 9. **Caspar, E.A.**, Desantis, A., Dienes, Z., Cleeremans, A., & Haggard, P. (2016). The sense of agency as tracking control. *Plos ONE*. (IF=2.276)
 10. Khalighinejad, N., Bahrami, B., **Caspar E.A.**, & Haggard, P. (2016). Social transmission of experience of agency: an experimental study. *Frontiers in psychology*, 7:1315. (IF=2.323)
 11. **Caspar, E.A.**, Christensen, J., Cleeremans, A., & Haggard P. (2016). Coercion changes the sense of agency in the human brain. *Current Biology*, 26, 585-592. (IF=8.851).
 12. **Caspar, E.A.** & Cleeremans, A. (2016). ‘Free Will’: Are we all equal? A dynamical perspective of the conscious intention to move. *Neuroscience of Consciousness*, 2016:1.
 13. **Caspar, E.A.**, Cleeremans, A. & Haggard, P. (2015). The relationship between human agency and embodiment. *Consciousness and Cognition*, 33, 226-236. (IF=2.378)
 14. **Caspar, E.A.**, De Beir, A., Magalhães De Saldanha da Gama, P.A., Yenaux, F., Vanderborght, B. & Cleeremans, A. (2015). New frontiers in the rubber hand illusion: when a robotic hand becomes one’s own. *Behavior Research Methods*, 47(3), 744-55. (IF=5.130).
 15. Magalhães De Saldanha da Gama, P. A., Slama, H., **Caspar, E.A.**, Gevers, W., Cleeremans, A. (2013) Placebo-Suggestion Modulates Conflict Resolution in the Stroop Task. *PLoS ONE*, 8(10). (IF=2.276)
 16. **Caspar, E.A.** & Kolinsky, R. (2013). Revue d’un phénomène étrange: la synesthésie. *L’année Psychologique*, 119(3)

PUBLISHED REFEREED CONFERENCE ARTICLES

1. De Beir, A., **Caspar, E.A.**, Yernaux, F., Magalhães De Saldanha da Gama, P.A., Cleeremans, A., & Vanderborght, B. (2014). Developing new frontiers in the Rubber Hand Illusion: Design of an open-source robotic hand to better understand prosthesis. *The 23rd IEEE International Symposium on Robot and Human Interactive Communication*. Edinburgh, Scotland, UK.
2. Beckerle, P., De Beir, A, Schürmann, T., & **Caspar E.A.** (2016). Human Body Schema Exploration: Analyzing Design Requirements of Robotic Hand and Leg Illusions. *IEEE RO-MAN 2016*.

RESUBMITTED AFTER REVIEW - UNDER REVIEW – IN PREPARATION

1. Sahai, A., **Caspar, E.A.**, De Beir, A., Grynszpan, E., Pacherie, E., & Berberian, B. (under review). Reinforcing one’s sense of agency during human-machine interactions: a behavioral study using a full humanoid robot. *Consciousness and Cognition*.
2. **Caspar, E.A.**, Beyer, F., Cleeremans, A., & Haggard, P. (under review). The obedient mind and the volitional brain: a neural basis of preserved sense of agency under coercion.
3. **Caspar, E.A.**, Gishoma D. & Magalhães De Saldanha da Gama, P. A. (submitted). Obedience to authority in the aftermath of a genocide. A social neuroscience study in Rwanda.
4. **Caspar, E.A.**, Ioumpa, K., Arnaldo, I. Keyser, C. & Gazzola, V. (under review). On the relationship between empathy for pain, sense of agency and feeling of responsibility.
5. Villa R., **Caspar, E.A.**, Aglioti, S. & Cleeremans, A. (in prep). How congruence of actions and action outcomes influences the human sense of agency.

COMMUNICATIONS

INVITED LECTURES / CONFERENCE TALKS / SYMPOSIA / WORKSHOPS

- Invited to give a workshop for PhD student on electroencephalography (ONWAR, The Netherlands Institute for Neurosciences), October 17th, 2019
- Invited by Agnieszka Wykowska for a symposium on social robots, September 28th, ESCOP, European Society for Cognitive Psychology, September 25-29, 2019, Tenerife.
- Invited as a speaker at the Cognitive Control and Performance Monitoring Workshop (in memory of Laurence Questienne), June 14th-15th, Belgium
- Invited to give a lecture entitled “*The obedient brain: Discovering the neuro-cognitive mechanisms at play in coercive situations*”, at Université libre de Bruxelles (Belgium), April 24th 2019.
- Invited to give a lecture entitled “*The obedient brain: Discovering the neuro-cognitive mechanisms at play in coercive situations*”, at Gent University (Belgium), March 27th, 2019.
- Invited as a keynote speaker at the PhD Existence 2019 on Body and Mind (Olomouc, Czech Republic),

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January 21st & 22d, 2019.

- Invited to give a lecture on electrophysiology in social and cognitive neurosciences, at the Netherlands Institute for Neuroscience Jun 15th 2018
- Invited by Valeria Gazzola to give a symposium talk at the Netherlands Institute for Neuroscience February 9th 2018 on “*How giving or receiving coercive command modulates the sense of agency*”.
- Invited by Prof. Major Salvatore Lo Bue at the Royal Military Academia to give lessons on the neural mechanisms of obedience (in 2017 and in 2018).
- Invited to speak during the "Assessing Ethics in research" (Université libre de Bruxelles & Vrij University Brussels), December 7th, 2017.
- Invited as a Keynote + workshop speaker for the EPOS Dutch Autumn school (Leiden, The Netherlands) for a lecture entitled “*How giving or receiving coercive commands modulates the sense of agency*” and a workshop “*How to measure human volition?*”, November 20-22, 2017.
- Invited as a Keynote speaker of the conference “Sense of Agency and Moral Responsibility” for a talk entitled “*how giving or receiving coercive commands modulates the sense of agency* », Université Catholique de Louvain, May 29-30 2017.
- Invited by Christian Keysers for a talk entitled: « *What governs our sense of being an agent?* », University of Amsterdam, November 26th, 2015.
- Invited by Martin Edwards for a symposium on Embodiment, May 28th, 2015. « *The relationship between human agency and embodiment: evidences from the robotic hand illusion.* » BAPS, Belgian Association for Psychological Sciences.
- Invited by Olaf Blanke & Nathan Faivre for a talk entitled: « *The relationship between human agency and embodiment* », April 29th 2015, Ecole polytechnique fédérale de Lausanne.
- Invited by James Moore for a talk entitled: « *Intentional binding with a robotic hand: how much is agency modulated by embodiment?* », March 14th, 2014, Goldsmiths, University of London - Department of Psychology.

ORAL PRESENTATIONS

- **Caspar, E.A.**, Ioumpa, K., Keysers, C. & Gazzola, V. Obeying orders reduces vicarious brain activation towards victims’ pain. ASCC, Association for the scientific study of consciousness, June 25-29, 2019 London, Canada.
- **Caspar, E.A.**, Lo Bue, S., Magalhães De Saldanha da Gama, P.A., Cleeremans, A., & Haggard, P. The effect of military training on sense of agency. ESCAN, European Society for Cognitive and Affective Neuroscience, July 19-22 2018, Leiden, The Netherlands.
- **Caspar, E.A.**, De Beir, A., Cleeremans, A., & Vanderborght, B. How using brain-machine interfaces influences the human sense of agency. ASCC, Association for the scientific study of consciousness, June 26-29 2018, Krakow, Poland
- **Caspar, E.A.**, Lo Bue, S., Magalhães De Saldanha da Gama, P.A., Cleeremans, A., & Haggard, P. The effect of military training on sense of agency. ASCC, Association for the scientific study of consciousness, June 13-16 2017, Beijing, China.
- **Caspar, E.A.**, Lo Bue, S., Magalhães De Saldanha da Gama, P.A., Cleeremans, A., & Haggard, P. The effect of military training on sense of agency. BAPS, Belgian Association for Psychological Sciences, Brussels, May 31 2017.
- **Caspar, E.A.**, Cleeremans, A., & Haggard, P. *Coercion changes the sense of agency in the human brain.* BAPS, Belgian Association for psychological science, May 24th 2016, Antwerp, Belgium.
- **Caspar, E.A.**, Cleeremans, A., & Haggard, P. *Doing the dirty work: influence of coercion on the sense of agency and related brain mechanisms.* ESCOP, European Society for Cognitive Psychology, September 17-20, 2015, Cyprus.
- **Caspar, E.A.**, Cleeremans, A. & Haggard, P. *The sense of agency as tracking control.* ASSC, Association for the scientific study of consciousness, July 7-10, 2015, Paris, France
- **Caspar, E.A.** *Free will: Are we all equal?* Journée des doctorants, November 7th 2014, Université libre de Bruxelles, Belgium.
- **Caspar, E.A.**, & Cleeremans, A. *Disturbance in the intention-action-outcome causal chain: how failures affect agency.* Séminaire Connex, December 10th 2014, Université libre de Bruxelles.
- **Caspar, E.A.**, Haggard, P. & Cleeremans, A. (May 30th, 2014). *Intentional binding with a robotic hand: how much agency is modulated by embodiment?* ASCC, Association for the scientific study of consciousness, July 16th 2014, Brisbane, Australia.
- **Caspar, E.A.**, Haggard, P. & Cleeremans, A. *Intentional binding with a robotic hand: how much agency*

is modulated by embodiment? BAPS, Belgian Association for psychological science, May 27th 2014, KULeuven, Belgium.

MEDIA ENGAGEMENT, MEDIA ATTENTION & VULGARISATION ACTIVITIES

- January 15th 2021: Interview on the radio (La première) on how working in a military environment influences the sense of agency
- December 8th, 2020: Interview for a podcast of the scientific study of the sense of agency by WaterCooler Neuroscience Podcast Network
- November 2020: Invited to write an article on Neurosciences and Religion for the Centre d'Action Laïque de la Province de Liège (Belgium)
- November 2020 : Interview for an article on the Dunning-Kruger effect.
- October 2d, 2020: Invited to give a class on affective neurosciences by the Fédération Wallonie-Bruxelles
- September 2020: Broadcasted by *Matière Grise* on brain-computer interfaces (“*Quand la science s’inspire de la fiction*”) with Axel Cleeremans
- August 2020: Invited by Nature publisher to write a blog post on “Behind the paper” ([Link](#))
- August 2020: Interviews and worldwide coverage of Caspar, Lo Bue et al. (2020): e.g. Scientific American, Science Magazine, RTBF, etc.
- August 2020: Interviews and worldwide coverage of Caspar, Ioumpa et al. (2020): e.g. Science Magazine, The Latest Research News, IFL Science, Neurosciences News, etc.
- January 2020: Interviewed for the section of the European Commission’s CORDIS website
- September 2019: Interviewed for the FNRS magazine on how beliefs influence the interpretation of scientific data
- July 2019: Interview by CeSCuP - Podcast Milgram des Savoirs
- June 1st-August 31st 2019: Invited to participate in the Exhibition “The Art of Difference” (BOZAR, Brussels) by preparing the section on brain-computer interfaces.
- May 2019: Invited speaker at Pint of Science Festival Brussels 2019
- April 26th 2019: Invited speaker at I love Science Festival
- February 1st-February 30th 2019: Interview for *Neuron, Science & Vie, La recherche*
- January 28th 2019: Interview by the BBC about Free-will and Coercion ([Link](#))
- June 2018: Interviewed by the BBC future for an article on what it is like to stand up against authority
- June 20th-August 26th 2018: Invited to participate in the Exhibition “The Art of Difference” (BOZAR, Brussels) by preparing the section on brain-computer interfaces.
- May 16th 2018: Invited speaker at Pint of Science Festival Brussels 2018 ([Link](#)).
- April 17th 2018: Interviewed for *Radio Panik* during the Pint of Science Festival Brussels
- March, 2018 (From August 2017): Interviewed by VICE (Netflix) – featured in ‘The Most Unknown’
- February 19th, 2018: Interviewed by students to explain why using robots is interesting in science (*RadioClash*).
- January 20th, 2017: Invited to give a conference about the notion of free will in neurosciences by the “Brussels Skeptics in the Pub ». [Link](#).
- May 31st, 2017: Invited together with Axel Cleeremans and Laurène Vuillaume to write an article on the neural basis of religiosity for the Observatoire des Religions et de la Laïcité. [Link](#).
- July 15th, 2017: Invited at the radio (RTBF, la première) to speak about how coercion modifies behaviours
- May 9th, 2017: Invited to write for *Imperfect Cognitions Blog*. [Link](#).
- March, 11th, 2016: Invited to write for *OUP Blog*. [Link](#).
- February, 18th, 2016: Worldwide coverage of Caspar et al. (2016). [Link](#). (*Nature, The New York Times, The American Scientist, BBC News, Scientific American, ...*)
- February 18th, 2016 to present: Interview for *Le Soir, ABC Science, Daily Science, Estonian Public Broadcasting, Science et Vie Junior, Sciences Humaines, The Christian Science Monitor, ...*
- January, 17th, 2016: Interview for *Quartz* about our Research on Free will and Impulsivity. [Link](#).
- January, 4th, 2016: Interview for *The New Scientist*.
- February, 2015: Interview about Synaesthesia for *Pharmagazine*.

COMMISSIONS OF TRUST & EDITORIAL RESPONSIBILITIES

- 2016 Scientific Expert for the Agence Nationale de la Recherche (ANR, France)
- 2015 Editor-in-chief of the « ULB Researchers’ Handbook » (Université libre de Bruxelles) -
- 2012 - present Ad Hoc referee for Cortex, Consciousness and Cognition; SCAN; Acta Psychologica; The

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Quarterly Journal of Experimental Psychology; Social Cognition; Cognition; Frontiers; Experimental Brain Research; Attention, Perception, & Psychophysics; Psychologica Belgica; Plos One; Cognitive Psychology; Current Psychology; Scientific Report

CONSULTANCY

- Invited Scientific Expert for the Agence Nationale de la Recherche (ANR, France)

MEMBERSHIP OF SCIENTIFIC SOCIETIES

- Member of the Association for the Scientific Study of Consciousness (ASSC)
- Member of the Belgian Association for Psychological Science (BAPS)
- Member of the European Society for Cognitive Psychology (ESCOPE)
- Member of the European Society for Cognitive and Affective Neuroscience (ESCAN)

PROJECTS AND EVENTS ORGANIZATION

- 2019 - present Co-founding member and co-organizer of the BAPS junior board (Belgian Association for Psychological Sciences) - Treasurer
- 2013 - 2017 Co-organizer of the Phd Day in psychology, Université libre de Bruxelles & Vrije Universiteit van Brussels (average number of participants/year: 82).

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

- 2012 – present **Supervision of 1 postdoc - 3 PhD students** (1 full time & 2 visiting) - **23 Master thesis – 24 Master internships**
Netherlands Institute for Neurosciences (The Netherlands), ULB (Belgium), Palacký University Olomouc (Czech Republic), La Sapienza - University of Rome (Italy), University of Maastricht (The Netherlands), University of Amsterdam (The Netherlands), Royal Military Academy (Belgium); University of Gorinchem (The Netherlands), Université de Lyon (France)

INSTITUTIONAL RESPONSIBILITIES

- 2019 – present Effective member of the “Journée et accueil des étudiants”, ULB
- 2018 - 2019 Invited Member for the ‘Group for Scientific Policy’, Objectif Recherche ASBL
- 2016 – 2017 Elected member of the Deontology and Integrity Research Council, ULB, Belgium
- 2014 – 2017 Elected effective scientific member of the Administration Council of the University, ULB
- 2014 – 2017 Effective member of the Academic Council of the University, ULB
- 2014 – 2017 Effective member of the Council for Studies of the University, ULB
- 2014 – 2017 Effective member of the Council for International Relation of the University, ULB
- 2013 – 2017 Elected representative of the scientific body at the Administration Council of the Faculty of psychology, ULB
- 2013 – 2017 Effective member of the “Journée et accueil des étudiants”, ULB
- 2013 – 2017 Effective member of the Ethics committee for Psychology, ULB
- 2009 - 2011 Elected effective Student member of the Faculty of Psychology and Educational Sciences, ULB

TEACHING ACTIVITIES

- 2020 – present **Maître d’enseignement (=senior lecturer)**, Université libre de Bruxelles, Faculty of Psychology
Class: Questions d’éthique et de déontologie (Bachelor)
Duties: Teaching (15h/year), course and evaluation
- 2014 – 2016 **Teaching assistant**, Université libre de Bruxelles, Faculty of Psychology
Class: Research seminar in cognitive psychology (Master)
Duties: Teaching (2 hours x 15 class/year), course and evaluation
- 2013 – 2016 **Teaching assistant**, Université libre de Bruxelles, Faculty of Psychology
Class: Méthodologie de l’expérimentation (Bachelor)

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2011 – 2012 **Duties:** Teaching (3 hours x 5 class/year), course and evaluation
Teacher, Collège La Fraternité, Brussels
Class: Psychology and social sciences (Secondary school)
Duties: Full time teaching (20h/week), course and evaluation