

# Alberto Acerbi

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Assistant Professor

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## Current position

*Department of Sociology and Social Research, University of Trento (Italy)*

Assistant professor 2023-current

## Previous positions

*Centre for Culture and Evolution, Division of Psychology, Brunel University London (UK)*

Lecturer 2019-2023

*School of Innovation Science, Eindhoven University of Technology (The Netherlands)*

Researcher 2015-2019

*Department of Archaeology and Anthropology, Bristol University (UK)*

Newton Research Fellow 2013-2104

*Centre for the study of cultural evolution, Stockholm University (Sweden) & Università di Bologna (Italy)*

Post-doctoral researcher 2008-2012

*Max Planck Institute for Evolutionary Anthropology, Leipzig (Germany)*

Post-doctoral researcher 2007-2008

*Institute of Cognitive Sciences and Technologies, CNR, Roma (Italy)*

Research assistant 2004-2007

## Education

PhD, Anthropology, Università di Siena (Italy) 2007

MA, Philosophy (cum laude), Università di Siena (Italy) 2002

## Publications

### BOOKS

1. **Acerbi A**, Mesoudi A, Smolla M (2022), *Individual-based models of cultural evolution. A step-by-step guide using R*, New York: Routledge. Online free version available at: <https://acerbialberto.com/IBM-cultevo>
2. **Acerbi A** (2020), *Cultural Evolution in the Digital Age*, Oxford: Oxford University Press.  
Arabic translation (2021), Arab Scientific Publishers, Inc.

### PREPRINTS

1. **Acerbi A**, De Courson B (2023), Weak content preferences stabilise culture, available at: <https://osf.io/7z4ws/>

### JOURNAL ARTICLES

1. Brinkmann L, Baumann F, Bonnefon J-F, Derex M, Müller TF, Nussberger A-M, Czaplicka A, **Acerbi A**, Griffiths TL, Henrich J, Leibo JZ, McElreath R, Oudeyer P-Y, Stray J, Rahwan I (2023), Machine Culture, *Nature Human Behaviour*, 7, 11
2. **Acerbi A**, Stubbersfield JM (2023), Large language models show human-like content biases in transmission chain experiments, *Proceedings of the National Academy of Sciences USA*, 120 (44), e2313790120
3. Youngblood M, Stubbersfield JM, Morin O, Glassman R, **Acerbi A** (2023), Cultural transmission bias in the spread of voter fraud conspiracy theories on Twitter during the 2020 US election, *Humanities and Social Sciences Communications*, 10, 573
4. **Acerbi A**, Sacco PL (2023), Self-interest, prosociality, and the moral cognition of markets: A comparative analysis of The Theory of Moral Sentiments and The Wealth of Nations, *Rationality and Society*, 35, 4
5. Altay S, **Acerbi A** (2023), People Believe Misinformation Is a Threat Because They Assume Others Are Gullible, *New Media and Society*, online first
6. **Acerbi A**, Burns J, Cabuk U, Kryczka J, Trapp B, Valletta JJ, Mesoudi A (2023), Sentiment analysis of the Twitter in response to Netflix's *Our Planet* documentary, *Conservation Biology*, e14060
7. Altay S, Berriche M, **Acerbi A** (2023), Misinformation on Misinformation: Conceptual and Methodological Challenges, *Social Media + Society*, 9, 1
8. **Acerbi A**, Snyder WD, Tennie C (2022), The method of exclusion (still) cannot identify specific mechanisms of cultural inheritance, *Scientific Reports*, 12, 21680
9. **Acerbi A** (2022), From storytelling to Facebook. Content biases when retelling or sharing a story, *Human Nature*, 33, 2
10. **Acerbi A\***, Altay S\*, Mercier H (2022), Research note: Fighting misinformation or fighting for information?, *Harvard Kennedy School Misinformation Review*, 3, 1 (\*equal contribution)
11. **Acerbi A**, Charbonneau M, Miton H, Scott-Phillips T (2021), Culture without copying or selection, *Evolutionary Human Sciences*, 3, e50

12. Manvir S, **Acerbi A**, Caldwell C, Danchin E, Isabel G, Molleman L, Scott-Phillips T, Tamariz M, van den Berg P, van Leeuwen E, Derex M (2021), Beyond social learning, *Philosophical Transactions of the Royal Society B*, 376, 20200050
13. Morin O, Jacquet P, Vaesen K, **Acerbi A** (2021), Social information use and social information waste, *Philosophical Transactions of the Royal Society B*, 376, 20200052
14. Jansson F, Aguilar E, **Acerbi A**, Enquist M (2021), Modelling Cultural Systems and Selective Filters, *Philosophical Transactions of the Royal Society B*, 376, 20200045
15. **Acerbi A\***, Kerhoas D\*, Webber A, McCabe G, Mittermeier R, Schwitzer C (2020), The impact of the “World’s 25 Most Endangered Primates” list on scientific publications and media. *Journal for Nature Conservation*, 54, 125794 (\*equal contribution)
16. Brand CO, **Acerbi A**, Mesoudi A (2019), Cultural evolution of emotional expression in 50 years of song lyrics, *Evolutionary Human Sciences*, 1, e11
17. Morin O, Sobchuk O, **Acerbi A** (2019), Why people die in novels: Testing the Ordeal Simulation Hypothesis, *Palgrave Communications*, 5, 2  
     Italian translation (2023), in: *La narrazione come incontro* (Ciotti F, Morabito C, Eds.) Firenze: Firenze University Press: 59-80.
18. **Acerbi A** (2019), Cognitive attraction and online misinformation, *Palgrave Communications*, 5, 15
19. Morgan TJH, **Acerbi A**, van Leeuwen EJC (2019), Copy-the-majority of instances or individuals? Two approaches to the majority and their consequences for conformist decision-making, *PLoS ONE*, 14(1), e0210748
20. **Acerbi A**, Tehrani J (2018), Did Einstein really say that? Testing content versus context in the cultural selection of quotations, *Journal of Cognition and Culture*, 18 (3-4), 293-311
21. Ruck D, Bentley RA, **Acerbi A**, Garnett P, Hruschka DJ (2017), Role of Neutral evolution in word turnover during centuries of English word popularity, *Advances in Complex Systems*, 20 (6-7), 1750012
22. **Acerbi A**, Kendal J, Tehrani J (2017), Cultural complexity and demography: the case of folktales, *Evolution and Human Behaviour*, 38 (4), 474-480
23. Morin O\*, **Acerbi A\*** (2017), Birth of the cool. A two-centuries decline in emotional expression in Anglophone fiction, *Cognition and Emotion*, 31 (8), 1663-1675 (\*equal contribution)
24. **Acerbi A** (2016), A cultural evolution approach to digital media, *Frontiers in Human Neuroscience*, 10, 636
25. **Acerbi A\***, van Leeuwen EJC\*, Haun DBM, Tennie C (2016), Conformity cannot be identified based on population-level signatures, *Scientific Reports*, 6, 36068 (\*equal contribution)
26. van Leeuwen EJC, **Acerbi A**, Kendal RL, Tennie C, Haun DBM (2016), A re-appreciation of “conformity”, *Animal Behaviour*, 122, e5-e10
27. **Acerbi A**, Tennie C, Mesoudi A (2016), Social learning solves the problem of narrow-peaked search landscapes: experimental evidence in humans, *Royal Society Open Science*, 3(9): 160215

28. **Acerbi A**, Tennie C (2016), The role of redundant information in cultural transmission and cultural stabilization, *Journal of Comparative Psychology*, 130(1): 62-70
29. Pugliese F, **Acerbi A**, Marocco D (2015), Emergence of Leadership in a Group of Autonomous Robots, *PLoS ONE*, 10(9): e0137234
30. **Acerbi A**, Mesoudi A (2015), If we are all cultural Darwinians what's the fuss about? Clarifying recent disagreements in the field of cultural evolution, *Biology & Philosophy*, 30(4): 481-503
31. Ghirlanda S, **Acerbi A**, Herzog H (2014), Dog movie stars and dog breed popularity: A case study in media influence on choice, *PLoS ONE*, 9(9): e106565
32. **Acerbi A**, Bentley RA (2014), Biases in cultural transmission shape the turnover of popular traits, *Evolution and Human Behaviour*, 35(3): 228-236
33. Bentley RA, **Acerbi A**, Ormerod P, Lamos V (2014), Books Average Previous Decade of Economic Misery, *PLoS ONE*, 9(1): e83147
34. Ghirlanda S, **Acerbi A**, Herzog H, Serpell JA (2013), Fashion vs. Function in Cultural Evolution: The case of Dog Breed Popularity, *PLoS ONE*, 8(9): e74770
35. **Acerbi A**, Lamos V, Garnett P, Bentley RA (2013), The expression of emotions in 20th century books, *PLoS ONE*, 8(3): e59030
36. **Acerbi A**, Ghirlanda S, Enquist M (2012), Old and Young Individuals' Role in Cultural Change, *Journal of Artificial Societies and Social Simulations*, 15(4): 1
37. **Acerbi A**, Ghirlanda S, Enquist M (2012), The logic of fashion cycles, *PLoS ONE*, 7(3): e32541
38. **Acerbi A**, Jacquet P, Tennie C (2012), Behavioral constraints and the evolution of faithful social learning, *Current Zoology*, 58(2): 307-318
39. **Acerbi A**, Tennie C, Nunn CL (2011), Modeling imitation and emulation in constrained search spaces, *Learning & Behavior*, 39(2): 104-114
40. **Acerbi A**, Nunn CL (2011), Predation and the phasing of sleep: an evolutionary individual-based model, *Animal Behaviour*, 81(4): 801-811
41. **Acerbi A**, Enquist M, Ghirlanda S (2009), Cultural evolution and individual development of openness and conservatism, *Proceedings of the National Academy of Sciences USA*, 106(45): 18931-18935
42. **Acerbi A**, McNamara P, Nunn CL (2008), To Sleep or not to Sleep: The Ecology of Sleep in Artificial Organisms, *BMC Ecology*, 8(10): 1-12
43. **Acerbi A**, Parisi D (2006), Cultural Transmission Between and Within Generations, *Journal of Artificial Societies and Social Simulations*, 9(1): 1

#### BOOK CHAPTERS / CONFERENCE PROCEEDINGS

1. **Acerbi A** (2023), Digital Culture, in: *The Oxford Handbook of Cultural Evolution* (Tehrani J et al., Eds), Oxford, Oxford University Press, C41S1-C41S10
2. Pianzola F, **Acerbi A**, Rebora S (2020), Cultural Accumulation and Improvement in Online Fan Fiction, in: *Proceedings of the Workshop on Computational Humanities Research* (Karsdorp F et al., Eds.), CEUR: 2-11

3. **Acerbi A**, Ghirlanda S, Enquist M (2014), Regulatory traits: cultural influences on cultural evolution, in: *Evolution, Complexity, and Artificial Life* (Cagnoni S et al., Eds.), Berlin, Springer: 135-147
4. **Acerbi A**, Lampos V, Bentley RA (2013), Robustness of emotions extraction from 20th century English books, in: *IEEE BigData 2013 Proceedings*: 1-8
5. **Acerbi A**, Ghirlanda S, Enquist M (2012), Regulatory Traits in Cultural Evolution, in: *Proceedings of the Italian Workshop on Artificial Life and Evolutionary Computation* (Cagnoni S et al., Eds.), University of Parma: 1-9
6. Pugliese S, **Acerbi A**, Miglino O, Marocco D (2012), Emergence of Leadership in a Group of Autonomous Robots, in: *Proceedings of the Post-Graduate Conference on Robotics and Development of Cognition*: 36-39
7. **Acerbi A**, Marocco D (2009), Orienting learning by exploiting sociality: an evolutionary robotics simulation, in: *IJCNN 2009 Conference Proceedings*, Piscataway, NJ, IEEE Press: 20-27
8. Marocco D, **Acerbi A** (2007), Adaptation and Social Facilitation in a Population of Autonomous Robots, in: *Proceedings of the Seventh International Conference on Epigenetic Robotics* (Berthouze L et al., Eds.), Lund, Lund University Cognitive Science Series: 85-91
9. Cecconi F, Zappacosta S, Marocco D, **Acerbi A** (2007), Social and individual learning in a microeconomic framework, in: *Proceedings of the Econophysics Colloquium and Beyond*, University of Ancona
10. **Acerbi A**, Marocco D, Nolfi S (2007), Social Facilitation on the Development of Foraging Behaviors in a Population of Autonomous Robots, in: *Advances in Artificial Life. Proceedings of ECAL 2007* (Almeida e Costa F et al., Eds.), Berlin, Springer: 625-634
11. **Acerbi A**, Parisi D (2007), The Evolution of Pain, in: *Advances in Artificial Life. Proceedings of ECAL 2007* (Almeida e Costa F et al., Eds.), Berlin, Springer: 816-824
12. **Acerbi A**, Nolfi S (2007), Social Learning and Cultural Evolution in Embodied and Situated Agents, in: *Proceedings of the First IEEE Symposium on Artificial Life* (Abbass HA et al., Eds.), Piscataway, NJ, IEEE Press: 333-340

#### OTHERS

1. **Acerbi A** (2021), Review of Joseph Henrich, The Weirdest People in the World, *Evolutionary Studies in Imaginative Culture*, 5 (1): 91-96
2. **Acerbi A**, Brand C (2020), Why are pop songs getting sadder than they used to be?, *aeon*, available at: <https://aeon.co/ideas/why-are-pop-songs-getting-sadder-than-they-used-to-be>
3. **Acerbi A\***, van Leeuwen EJC\*, Haun DBM, Tennie C (2018), Sigmoidal acquisition curves do not necessarily indicate conformity. Reply to Smaldino et al. (2018), *Scientific Reports*, 8, 14016 (\*equal contribution)
4. **Acerbi A**, Sacco PL (2018), Folk-economic beliefs as “evidential fiction”: Putting the economic public discourse back on track (Commentary on Boyer & Petersen), *Behavioral and Brain Sciences*, 41, e159
5. **Acerbi A** (2017), Review of Tim Lewens, Cultural Evolution: Conceptual Challenges, *Philosophy of Science*, 84(1)

6. **Acerbi A** (2013), The History of Our Emotions in Millions of Books, *Huffington Post* (USA Edition), available at: [https://www.huffpost.com/entry/human-emotion-books-history\\_b\\_3084869](https://www.huffpost.com/entry/human-emotion-books-history_b_3084869)
7. Ghirlanda S, **Acerbi A**, Enquist M, Nakamaru M (2010), The Sometimes Evitable Route to Conservatism and Persuasiveness. A Replay to Xue and Costopoulos, *Current Anthropology*, 51(2): 271-272
8. **Acerbi A**, Marocco D, Vogt P (2008), Social Learning in Embodied Agents, special double issue of *Connection Science*, 20(2-3)

### **Recent/forthcoming conference presentations, invited talks and workshops**

*Misinformation on misinformation*, Computational Political Psychology Network seminar, July 11, 2023 (invited)

*Individual-based models of cultural evolution*, The Computational Summer school on Modeling Social and collective behavior (COSMOS), Konstanz, Germany, July 5, 2023 (invited)

*Disinformati sulla disinformazione*, Department of Social, Political and Cognitive Sciences, University of Siena, Italy, April 28, 2023 (invited)

*Social influence and misinformation online*, 18th Annual Conference of the Italian Association of Cognitive Sciences, Rovereto, Italy, December 15-17, 2022 (invited)

*Negative sentiment online*, Evolution, Cognition and Culture workshop, Abbaye de Saint Jacut de la mer, France, November 30, 2022 (invited)

*Social influence and misinformation online*, HELMeTO 2022, 4th International Conference on Higher Education Learning Methodologies and Technologies Online, Palermo, Italy, September 21-23, 2022 (keynote speaker)

*Cultural evolution in the digital age*, Center for Humans & Machines, Max Planck Institute for Human Development, Berlin, Germany, August 30, 2022 (invited)

*Misinformation on misinformation*, PCNet22 (Political Communication Networks), satellite workshop of NetSci 2022, July 18, 2022 (keynote speaker)

*Can digital media boost cumulative cultural evolution in the arts?*, Cultural Evolution & Computational Humanities, Max Planck Institute for the Science of Human History, Jena, Germany, June 29 - July 1, 2022 (invited)

*Digital age: the long view*, Centre for the study of cultural evolution, Stockholm University, Stockholm, Sweden, May 19, 2022 (invited)

*Simulare la cultura*, Giornata in onore di Domenico Parisi, Università La Sapienza, Roma, Italy, May 6, 2022 (invited)

*Misinformation: the long view*, Misinformation in the Digital Age : Comparative Contexts and Policy Lessons, IAST, Toulouse, France, May 5-6, 2022 (invited)

*Social influence and misinformation online*, Oxford Brookes Centre for Psychological Research Seminar Series, Oxford, UK, April 27, 2022 (invited)

*Digital age: the long view*, CBEN Cultural Evolution, University of Tilburg, The Netherlands, November, 18-19, 2021 (keynote speaker)

*Why is misinformation on misinformation successful?*, MatchPoints 2021 - Democracy and Culture in the Digital Age, Aarhus University, Denmark, May, 27-29, 2021 (invited)

*Attrattori culturali e disinformazione online*, La narrazione come incontro. Le teorie della narrazione tra cognizione, evoluzione e computazione, La Sapienza University, Roma, Italy, May, 21, 2021 (invited)

*Digital age: the long view*, Centre for Logic and Philosophy of Science seminar, KU Leuven, Belgium, May, 14, 2021 (invited)

*Digital age: the long view*, ROPH (Research on Online Political Hostility) seminar, Aarhus University, Denmark, April, 14, 2021 (invited)

*From storytelling to Facebook. Content biases are stronger when retelling a story than when sharing it*, EHBEA 2021, online, March, 24-27, 2021

## Teaching

COSMOS 2023 (The Computational Summer school on Modeling Social and collective behavior), Konstanz, instructor - 2023

University of Trento, module leader - Cultural analytics - from 2023

Brunel University London, module co-leader - Psychology of social media - from 2021 to 2023

Brunel University London, module leader - Statistics - from 2020 to 2023

Brunel University London, team taught modules - Evolutionary perspective on culture, Special topics in culture and evolution, Cross-cultural and evolutionary research methods - from 2020 to 2023

Brunel University London, guest lecturer - Individual differences, Introduction to Bioinformatics - 2020

Ecole Normale Supérieure, guest lecturer - Introduction to Cognitive Social Sciences - 2020 and 2018

Eindhoven University of Technology, module leader - Evolutionary Foundations of Innovation Science - 2018 and 2017

University of West England, guest lecturer - Research Skills - 2018, 2015, and 2014

Eindhoven University of Technology, teaching supervisor - Introduction to Modelling - 2017 and 2016

University of Bristol, seminar series (8 seminars) - Anthropology and Well-being - 2015

University of Bristol, guest lecturer - Contemporary Theory in Anthropology, Advanced Writing in Archaeology and Anthropology, Anthropological Methods - 2015 and 2014

University of Bristol, teaching assistant - Contemporary Theory in Anthropology - 2013

Stockholm University, guest lecturer - Human ethology - 2012 and 2011

## Supervision

From 2023: PhD advisor: Pietro Nickl, Max Planck School of Cognition, Berlin, "The Social dynamics of cultural evolution online".

From 2020: five MSc projects and ten BSc projects at Brunel University London  
two MRes projects (co-supervision) at the University of Bristol (2014-2015)

### **Advisory board Member**

GOLEM (Graphs and Ontologies for Literary Evolution Models) ERC project (2023-2027)

### **Editorial board member**

Culture and Evolution (AKJournals)

### **PhD Panels Member**

Francesco Lomonaco: Raising Teenagers' Awareness of Social Media Threats: A Theoretical and Empirical Study, Università degli Studi di Milano-Bicocca - 2023

Niels Lettinga: Environmental adversity and prosocial preferences, and a new methodology to increase the external validity of economic games, Ecole Normale Supérieure, Paris - 2021

Bradley Peter Walker: Evidence that Cultural Transmission Biases Differentially Influence Human Communication, The University of Western Australia - 2021

Jose Segovia Martin: Social and cognitive constraints on the evolution of culturally transmitted variants: Models, experiments and theory, Universitat Autònoma de Barcelona - 2020

Simon Carrignon: Content-Dependent Biases in Social Learning Strategies: a multiscale approach, Universitat Pompeu Fabra, Barcelona - 2019

### **Grants and awards**

John Templeton Foundation (2022): ~ 167,000 GBP ("Changing the perspective on social media interventions: improving engagement with true news")

BRIEF award (2020): ~ 9,000 GBP ("From storytelling to Facebook. Does the medium of transmission change which content is successful?")

Newton International Fellowship (2013-2014): ~ 187,000 GBP ("Cultural Evolution Online. New models for a new era")

Wenner-Gren foundation (2010-2012): ~ 24,000 GBP

### **Reviewer**

**Books:** Berghahn Books, Cambridge University Press, MIT Press.

**Grant applications:** NWO Talent Programme - VICI scheme, Cultural Evolution Society Transformation Fund, National Science Foundation (NSF), EHBEA 2014 Student Research Grant Competition, Swedish Research Council (Individual Grant Application), Knut and Alice Wallenberg Foundation (Wallenberg Academy Fellows).

**Journals:** Acta Biotheoretica, Animal Behaviour, Advances in Complex Systems, Behaviour & Information Technology, Behavior Research Methods, Biology & Philosophy, Biology Letters, Cognitive Science, Cognitive Systems Research, Cognition, Connection Science, Current Zoology, Evolution and Human Behavior, Evolutionary Anthropology, Evolutionary Human Sciences, Evolution Medicine and Public Health, Frontiers in Ecology and the Environment,



Frontiers in Psychology, IEEE Autonomous Mental Development, Interaction Studies, Journal of Evolutionary Psychology, Journal of Artificial Societies and Social Simulations, Journal of Cognition and Culture, Journal of Experimental Psychology: General, Journal of General Philosophy of Science, Journal of Theoretical Biology, Learning & Behavior, Mathematical Anthropology and Cultural Theory, Nature, Nature Human Behaviour, Nature Communications, New Media & Society, Palgrave Communications, Perspective on Psychological Science, Philosophy of Science, PLoS ONE, PNAS, PNAS Nexus, Polis, Proceedings of the Royal Society B, Royal Society Interface, SAGE Open, Scientific Reports, SN Social Sciences, Synthese, The British Journal for the Philosophy of Science, Trends in Ecology and Evolution.

**Conferences:** CHR2023,CHR2022, CHR2021, CHR2020, Applications in Cultural Evolution: Arts, Languages, Technologies 2018, ISBE 2016, ECSI 2014, ECAL 2013, EPOS V, WIVACE 2012, WIVACE 2008, SAB 2008, WIVACE 2007, ECAL 2007, EEG 2007, SAB 2006, WIVA III.