

Luca Tummolini

Italian National Research Council (CNR)

Istituto di Scienze e Tecnologie della Cognizione (ISTC-CNR)

Personal

Born on March 6, 1975

Italian Citizen

Languages: Italian (native speaker); English (proficiency level)

Education

Ph.D. Cognitive Science, *with honors*, University of Siena, 2010

Dissertation in Philosophy of Sociality: *Sociality at its Joints: An Essay on the Cognitive Foundations of Social Facts*

Supervisor: Prof. Cristiano Castelfranchi (Psychology and Philosophy)

Co-supervisor: Prof. Ugo Pagano (Economics)

Committee: Prof. Cristiano Castelfranchi (chair), Prof. John Gruzelier, Prof Francesco Ferretti

M.A. Communication Studies, *summa cum laude*, University of Siena, 2001

Dissertation in Cognitive Psychology: *Sensorimotor Processes of Distributed Cognition: Eye Movements as a Representational System*

Academic Appointments

Associate Member, Behavioral Ethics Lab, University of Pennsylvania, 2013–

Researcher, Istituto di Scienze e Tecnologie della Cognizione, 2012–

Research Fellow, Istituto di Scienze e Tecnologie della Cognizione, 2004–2012

Research Assistant, University of Siena, 2002–2003

Grants & Fellowships

Visiting Fellow, Institute of Philosophy, School of Advanced Studies, London (UK), 2012.

Visiting Scholar, European University Institute (EUI), Fiesole, Italy, 2011.

Research Fellow, Istituto di Scienze e Tecnologie della Cognizione, Roma, Italy 2004–2011.

Summer Research Fellowship, University of Virginia, Charlottesville, USA, 2004.

Research Grant, University of Siena, Siena, Italy, 2002–2003.

Research Interests

My research interests are in the cognitive foundations of social facts like conventions, norms and social institutions. My general aim is to develop a naturalized account of social facts that is coherent with the most recent advancements in the cognitive and behavioural sciences.

Areas of Specialization: Philosophy of Cognitive and Social Sciences, Philosophy of Mind and of Sociality, Cognitive Psychology, Behavioral Game Theory

Publications

Journal Articles

Tummolini, L. (in press) Making our ends meet: Shared intention, goal adoption and the third-person perspective, *Phenomenology and the Cognitive Sciences*.

Roversi, C., Borghi, A., Tummolini, L. (in press) A marriage is an artefact and not a walk that we take together, *Review of Philosophy and Psychology*.

Borghi A., Scorolli C., Caligiore D., Baldassarre G., Tummolini L. (2013) The embodied mind extended: Using words as social tools, *Frontiers in Psychology*, 4(214).

Tummolini, L., Andrighetto G., Castelfranchi, C., Conte, R. (2013), A convention or (tacit) agreement betwixt us: on reliance and its normative consequences, *Synthese*, 190(4), 585 - 618

Tummolini, L., Borghi, A., Scorolli, G. (2013) Disentangling the Sense of Fairness from the Sense of Ownership, *Behavioral and Brain Sciences*, Commentary, 36(1), 101-102.

Tummolini, L., Castelfranchi, C. (2011) The Embodiment of Ownership, *Sistemi Intelligenti*, 2, 345 - 357.

Castelfranchi, C., Pezzulo, G., Tummolini, L. (2010) Behavioral Implicit Communication (BIC): Communicating with smart environments via our practical behaviors and its traces, *International Journal of Ambient Computing and Intelligence*, 2(1), 1-12.

Tummolini, L. (2008). Convention: an interdisciplinary study, *Topoi*, 27, 1-3.

Tummolini, L., Castelfranchi, C. (2007) Trace Signals. The Meanings of Stigmergy, *Lecture Notes in Computer Science Series*, Vol. 4389, 141-156.

Tummolini L., Castelfranchi C. (2006). The cognitive and behavioral mediation of institutions: Towards an account of institutional actions, *Cognitive Systems Research*, 7(2-3), 307-323.

Tummolini, L., Castelfranchi C., Ricci, A. Viroli, M., Omicini, A. (2005) Exhibitionists and Voyeurs do it better: a Shared Environment for Flexible Coordination with Tacit Messages, *Lecture Notes in Artificial Intelligence*, LNAI 3374, Springer-Verlag, 215-231.

Editorial Activities

(with Salice, A.) Social Facts: Metaphysical and Empirical Perspectives, *Phenomenology and the Cognitive Sciences*, 2013.

(with Falcone, R., Miceli, M., Paglieri F.) *The Goals of Cognition: Essays in Honor of Cristiano Castelfranchi*, College Publications, 2013.

Convention: an Interdisciplinary Study, *Topoi: an International Review of Philosophy* 27, 1-2, 1-164, 2008.

with contributions by: Ken Binmore, Margaret Gilbert, Ruth Millikan, Gerald Postema, Olivier Faverau, Bruno Verbeek, Don Ross, Giacomo Sillari, Mark Bickhard, Rick Alterman, Andrei Marmor.

(with Castelfranchi C.), Cognition, Joint Action and Collective Intentionality, *Cognitive Systems Research*, 7, 2-3, 97-323, 2006.

(with Castelfranchi, C., Balkenius, C., Butz, M., Ortony, A., Roy, D.), From Reactive to Anticipatory Cognitive Embodied Systems, *Technical Report Fs-05-05*, AAAI Fall Symposium (2005), AAAI Press, Menlo Park (CA).

Book Chapters

Grossi D., Tummolini L., Turrini P. (2013) Norms in Game Theory. In S. Ossowski (ed.): *Agreement Technologies*, Dordrecht: Springer, 191-197.

Tummolini, L. (2013) Social Convention. In B. Kaldis, Ed. *Encyclopedia of Philosophy and the Social Sciences*, SAGE, 900-902.

Castelfranchi, C., Piunti, M., Ricci, A., Tummolini, L. (2012) Aml Systems as Agent-Based Mirror Worlds: Bridging Humans and Agents through Stigmergy. In T. Bosse, Ed. *Agents and Ambient Intelligence*, IOS Press, 17-31.

Tummolini, L., Mirolli, M., Castelfranchi, C. (2009). Stigmergic Cues and their Uses in Coordination: An Evolutionary Approach. In A. Uhrmacher and D. Weyns (Eds.), *Multi-Agent Systems: Simulation and Applications*. Taylor and Francis, 243-265.

Tummolini, L. (2009) L'armonia del silenzio: verso una teoria degli accordi taciti. In Raffaele Caterina (Ed.) *La Dimensione Tacita del Diritto*, Napoli: Edizioni Scientifiche Italiane, 147-157.

Proceedings

Gaudout, B., Longin, D., Lorini, E., Tummolini, L. (2008) Anchoring Institutions in Agents' Attitudes. Towards a Formal Framework for Autonomous Multi-Agent Systems. In Lin Padgham and David Parkes (Eds.) *Proceedings of the International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2008)*, ACM Press, 728-735.

Lorini E., Tummolini L., Herzig A. (2005). Establishing Mutual Beliefs by Joint Attention: towards a Formal Model of Public Events. In Bruno G. Bara, Lawrence Barsalou, and Monica Bucciarelli, *Proceedings of the XXVII Annual Conference of the Cognitive Science Society*, July 21-23, Stresa, Italy.

Omicini, A. Ricci, A. Viroli, M., Castelfranchi C., Tummolini, L. (2004) Coordination Artifacts: Environment Based Coordination for Intelligent Agents. In Carles Sierra and Liz Sonenberg (Eds.) *Proceedings of the International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2004)*, ACM Press: 286-293.

Castelfranchi, C., Tummolini, L. (2003) Positive and Negative Expectations and the Deontic Nature of Social Conventions, in *Proceedings of the 9th International Conference of Artificial Intelligence and Law (ICAIL 2003)*, ACM Press: 119-125.

Castelfranchi, C., Giardini, F., Lorini, E., Tummolini, L. (2003) The Prescriptive Destiny of Predictive Attitudes: from Expectations to Norms via Conventions. In R. Alterman, D. Kirsh (Eds) *Proceedings of the 25th Annual Meeting of the Cognitive Science Society*, Boston.

In Preparation

Tummolini, L. When Social Reality Meets the Eyes: A Cognitive Approach. In Kaldis, B. (Ed) *Mind and Society: Cognitive Science Meets the Philosophy of Social Sciences*, Synthese Library, to appear in 2013.

Invited Talks

- Cognitive Foundations of Group Attitudes - International Workshop (IRIT, Toulouse, France), 2012
- New Trends in the Philosophy of the Social Sciences - International Workshop (UNED, Madrid, Spain), 2010
- Mind in Action - International Lectures Series (University of Palermo, Italy), 2010
- Morals, Emotions and Cognition - National Conference (University of Bari, Italy), 2009
- Normative Multi-Agent Systems - Dagstuhl Seminar Series (Germany), 2009
- Conventions - International Workshop (University of Paris X, France), 2008
- Formal Models of Norm Change - International Workshop (University of Luxembourg), 2007
- Normative Concepts - International Conference (University of Zurich, Switzerland), 2007
- Michael Bratman and The Structure of Agency - International Workshop (University of Berne, Switzerland), 2007

Organization of Scientific Events

- II Conference of the European Network on Social Ontology (with Alessandro Salice; Luiss University, Rome, Italy), September 2011
<http://www.enso2011.it>
- Interdisciplinary Workshop on Moral Emotions (with Cristiano Castelfranchi, Francesco Mancini and Amelia Gangemi, ISTC-CNR, Rome, Italy), 2008
- AAAI Fall Symposia Series - From Reactive to Anticipatory Cognitive Embodied Systems (Washington, DC, USA), 2005
- IV International Conference on Collective Intentionality - Cognition and Collective Intentionality Mental Prerequisites and Attitudes for Collective Intentionality: Philosophical, Logical, Computational, Neural and Psychological Models (University of Siena, Italy), 2004
<http://www.istc.cnr.it/collintIV/index.htm>

International Research Projects

- FET Coordinated Action - SINTELNET: European Network of Social Intelligence, Co-Chair of the Social Epistemology Working Group, 2011–2013.
- International Laboratory in Interacting Knowledge Systems (ILIKS), 2005–2011
- ESF Individual Project - The Cooperative Mind: Proximate Explanations of Human and Animal Cooperation, 2007–2010

6th FP European Project - MindRACES From Reactive to Anticipatory Cognitive Embodied Systems, 2004–2007

ESF Individual Project - EUROCORES OMLL Programme: The Origin of Man, Language and Languages, 2004

Professional Activities

Member, American Association of Cognitive Science (COGSCI)

Member, European Network on Social Ontology (ENSO)

Reviewer for: Adaptive Behavior; Cognition; Cognitive Semiotics; Cognitive Processing: International Quarterly of Cognitive Science; Connection Science; Mind; Psychological Research: An International Journal of Perception, Attention, Memory, and Action; Journal of Cognitive Systems Research; Review of Philosophy and Psychology; Topoi: An International Review of Philosophy; Topoi Library: Springer Book Series.

Teaching

Luiss University, Rome, Italy

Logic, Spring 2013.

Economic Psychology, Spring 2009.