

Doris PISCHEDDA

Curriculum Vitae

Personal information

Name **Doris, PISCHEDDA**
E-mail doris.pischedda@unitn.it
Nationality Italian
Date of birth February 28, 1984

Current Position

Dates **February 2017 – present**
Position Postdoctoral Research Fellow
Scientific Director Prof. Giorgio Coricelli
Research Project Title Dynamics of neural representations of stimuli during transfer learning
Name and address of institution Center for Mind/Brain Sciences - CIMeC – University of Trento
Via delle Regole 101 – 38123 Mattarello (TN) – Italy

Research/teaching experience

Dates **February 2016 – January 2017**
Position Postdoctoral Researcher
Name and address of institution Department of Economics – University of Minnesota
1925 4th Street South 4-101, Hanson Hall – 55455-0462 Minneapolis, MN – United States
Advisor Prof. Aldo Rustichini
Research Project Title Neural Representation of Game Variables in Strategic Interactions

Dates **September 2014 – January 2017**
Position Visiting Postdoctoral Researcher
Name and address of institution Bernstein Center for Computational Neuroscience – Charité-Universitätsmedizin
Philipipstraße 13, House 6 – 10115 Berlin – Germany
Advisor Prof. John-Dylan Haynes
Research Project Title Neural Representation of Collaborative Tasks

Dates **February 2014 – January 2016**
Position Postdoctoral Research Fellow
Scientific Director Prof. Paolo Cherubini
Research Project Title Deductive reasoning: neural representation of elementary logical connectives
Name and address of institution Department of Psychology – University of Milano-Bicocca
Piazza dell'Ateneo Nuovo 1 – 20126 Milan – Italy

Dates **February 2014 – January 2016**
Position Teaching assistant
Main activities and responsibilities Teaching assistance in General Psychology (M-PSI/01) at the Chair of Prof. Laura Macchi
Name and address of institution Department of Psychology – University of Milano-Bicocca
Piazza dell'Ateneo Nuovo 1 – 20126 Milan

Education and training

Dates	January 2010 – February 2014
Title of qualification awarded	PhD in Social, Cognitive, and Clinical Psychology
Advisor	Prof. Paolo Cherubini
Dissertation	Title: "Rule-guided Behaviour: How and where rules are represented and processed in human brain" Abstract: Much of our behaviour is guided by rules defining associations between meaningful stimuli and proper responses. The ability to flexibly switch between rules to adapt to a continuously changing environment is one of the main challenges for the human cognitive system. Investigating how different types and combinations of rules are encoded and implemented in human brain is crucial to understand how we select and apply rules to guide our behaviour and react flexibly to a dynamic environment. The present thesis addressed the issue of where in the brain different types of rules are represented and how they are processed. Behavioural paradigms, functional magnetic resonance imaging, and multivariate pattern classification were combined to shed light on the cognitive mechanisms underlying rule processing and to identify brain areas encoding the contents of such processes. Using a priming paradigm, the first study assessed which types of associations (conditional, disjunctive, spatial, or quantified) could be activated automatically and trigger unconscious inferences. It proved that Modus Ponens inference is carried out unconsciously. The second study demonstrated that a condition-action rule instructed on a trial-by-trial basis and immediately marked as irrelevant causes significant interference effects when involuntarily triggered by target stimuli matching the condition in the rule. In the third study, using complex rule sets, we showed that rules at different level in the hierarchy of action control are encoded in partially separate brain networks. Moreover, we found that rule information is represented in distinct brain areas when different types of rules are encoded jointly. In the fourth study, we used rules composed using different logical connectives to expand the set of associations considered and to assess possible differences in rule representation and processing between rules with distinct logical forms. We found that separate brain areas encoded task rule information during rule representation and evaluation and that the involvement of these areas depended on the specific rule active in a trial. Taken together, our results suggest that conditional rules hold a special status in the human cognitive system, contributing to our knowledge on rule-guided behaviour.
Name and address of organisation providing education and training	Department of Psychology – University of Milano-Bicocca Piazza dell'Ateneo Nuovo 1 – 20126 Milan
Dates	March 2012 – September 2013
Position	Visiting PhD Student
Name and address of organisation providing education and training	Bernstein Center for Computational Neuroscience – Charité-Universitätsmedizin Philipstraße 13, House 6 – 10115 Berlin
Advisor	Prof. John-Dylan Haynes
Research Project Title	Hierarchies of Control in Prefrontal Cortex
Dates	September 2009 – February 2010
Type of training and duration	Apprenticeship in Social Psychology (500 h)
Name and address of organisation providing education and training	Forum Cooperazione e Tecnologia Via Angera 3 – 20125 Milan
Activities	Action Research on Social Cohesion in Vimercate area: Analysis of the relevant literature; assessment of the viability of an intervention in the area; identification of the network of ongoing relationships; development and administration of questionnaires and interviews to grasp opinions and attitudes towards social cohesion; data processing and construction of semantic maps to summarize the results.
Dates	September 2006 – July 2009
Title of qualification awarded	Master of Science in Organisational Psychology and Psychology of Consumer Behaviour (curriculum "Psychology of Thinking and Decisional Processes")
Mark	110/110 summa cum laude
Dissertation	Title: "Rischio e immigrazione: una ricerca sul senso di sicurezza/insicurezza degli italiani verso gli immigrati" ("Risk and immigration: a study on the sense of security/insecurity of Italians towards

	immigrants”).
	Abstract: The phenomenon of immigration is acquiring increasing relevance in Italy. Some politicians claim that the presence of immigrants constitutes a risk for Italian people. Scientific research on public attitudes toward risks generally refers to the “psychometric paradigm”. We used this paradigm to investigate Italians’ risk perception toward immigrants. In the first study, 510 subjects filled in a questionnaire about the threats posed to security, economy, and culture by the presence of immigrants, at both the personal and the national level. The results showed that Italians rate the risk for security and economy higher, as well as the risk for the nation. Risk has a monofactorial structure and risk perception is affected by political orientation, education, victimization, estimated number of immigrants, perceived unpredictability of immigrants’ reactions, and friendship. In the second study, 128 Italians filled in a questionnaire similar to those designed by Fischhoff and colleagues. Data were analysed at both the aggregate and the individual level, focusing on hazards or participants. For different risks, the results showed lower correlations between attribute ratings analysed at the individual level. For participants, a two-factor structure emerged, explaining almost 50% of the total variance at the aggregate level and about 40% for each hazard. Finally the utility of this novel research is discussed.
Name and address of institution providing education and training	Faculty of Psychology – University of Milano-Bicocca Piazza dell'Ateneo Nuovo 1 – 20126 Milan
Dates	July 2006 – September 2006
Type of training and duration	Apprenticeship in General Psychology (250 h)
Name and address of organisation providing education and training	Azienda Unità Sanitaria Locale n° 4 - Lanusei Via Piscinas 5 – 08045 Lanusei (OG) – Italy
Activities	Administration of psychological tests (M.M.P.I., W.A.I.S., W.I.S.C., M.O.D.A., Raven's Progressive Matrices) and involvement in the psychological assessment of patients. Social interaction with schizophrenic patients of Casa Famiglia in Lanusei.
Dates	September 2003 – July 2006
Title of qualification awarded	Bachelor of Science in Psychology (curriculum “Applied Cognitive Psychology”)
Mark	110/110 summa cum laude
Dissertation	Title: “Ricerche sulla concezione del caso: acquisizioni, limiti, potenzialità, fenomeni connessi e problemi aperti” (“Studies on the conception of randomness: results, limits, further developments, related phenomena, and open issues”). Abstract: This critical review aims to clarify some features of the concept of randomness that are still unsettled or misunderstood by people, focusing on the psychological aspects. In the introduction, the distinctive features of the subject, the specific domain and the causes of the uncertainty related to the definition and measurement of randomness are outlined; additionally, the main approaches used to investigate randomness are described. In the first part of the dissertation, some of the most popular quantitative definitions of randomness are listed. The several indexes proposed by the mathematical and the statistical approaches have been the reference point to evaluate the performance of subjects in tasks devised to investigate randomness. In the second part, some of these studies using different types of tasks (perception, production, or judgment of random series), subjects’ categories (psychopathological or normal), and methods (analysis of performance by comparison with a referral model, comparisons between performance in different groups, or neuroimaging studies using random series task), are discussed. In the third part, studies on errors originated from a wrong interpretation of the concept are discussed, with the purpose to identify the causes, describe the process, and find an explanation in adaptive terms. For each study, the results, methodology, limits, open issues, and suggested models are discussed. The review provided interesting information that contributed to delineate a better-framed and more precise picture of the phenomena involved. Finally, the possibility to overcome the problematic aspects and come to a more precise definition of “randomness” is hypothesised and the possible implications discussed.
Name and type of organisation providing education and training	Faculty of Psychology – University of Milano-Bicocca Piazza dell'Ateneo Nuovo 1 – 20126 Milan
Dates	March 2006 – May 2006
Type of training and duration	Apprenticeship in General Psychology (250 h)
Name and type of organisation providing education and training	Faculty of Psychology – University of Milano-Bicocca Piazza dell'Ateneo Nuovo 1 – 20126 Milan

Activities Internship class for designing and carrying out experimental research.
 Project 1 (Forensic Decision Making): Influence of the statistical format of scientific evidence (different values of Random Match Probability) on jurors' verdict of guilty.
 Project 2 (Consumer Decision Making): Influence of question format (choice vs. rejection) and of feature description (with ratings vs. without ratings) on consumer's purchasing decision between two different models of the same product (enriched vs. impoverished option).

Dates **September 1998 – July 2003**

Title of qualification awarded High School leaving qualification at the Second Level College of Science (Computer Science National Programme)

Mark 100/100

Name and type of organisation providing education and training Liceo Scientifico Leonardo Da Vinci
 Località Coroddis – 08045 Lanusei (OG)

Fellowships

Dates **February 2017 – January 2019**

Fellowship Research fellowship, Center for Mind/Brain Sciences - CIMeC, University of Trento, Trento

Dates **February 2016 – January 2017**

Fellowship Research fellowship, Department of Economics, University of Minnesota, Minneapolis

Dates **February 2014 – January 2016**

Fellowship Research fellowship, Department of Psychology, University of Milano-Bicocca, Milan

Dates **January 2010 – December 2013**

Fellowship PhD fellowship, Department of Psychology, University of Milano-Bicocca, Milan

Professional society memberships

2016, 2013 Society for Neuroscience
 From 2014 Società Italiana di Neuroscienze

Personal skills and competences

Mother tongue **Italian**

Other languages

Self-assessment
 European level (*)

English

Spanish

German

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1	C2	C1	C2	C2
B1	C1	B1	A2	A2
A2	A2	A2	A2	A2

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences Excellent communication skills, good listener, excellent in establishing good social relationships
 Used to work in team as well as independently, excellent problem-solver, creative

	<p>Goal-oriented and work focused</p> <p>Hard-working, open-minded, well-organized person</p>
Organisational skills and competences	<p>Excellent skills in project management and team coordination</p> <p>Excellent in planning and highly precise in project definition</p>
Technical skills and competences	<p>Proficient in statistical data analyses (e.g., t-test, ANOVA, factorial analysis, cluster analysis) with SPSS</p> <p>Proficient in statistical data analyses (e.g., t-test, ANOVA, mixed-effect models) with R</p> <p>Proficient in fMRI data analysis using SPM and the toolboxes Anatomy, Anatomic Automatic Labelling, and xjView (display and labelling); MarsBaR and REX (ROI analysis), and The Decoding Toolbox (Multi-voxel Pattern Analysis and Representational Similarity Analysis)</p> <p>Proficient in image creation and processing with MRIcron, Adobe Illustrator, and Adobe Photoshop</p> <p>Proficient in programming psychological experiment with MATLAB, Cogent, and E-Prime</p> <p>Experience in reviewing manuscripts for scientific journals (e.g., Cerebral Cortex, Cortex, Journal of Cognitive Neuroscience)</p> <p>Experience as a member of the examination board for the course "General Psychology II"</p> <p>Experience in master and PhD student supervision on thesis projects and internships</p> <p>Experience in organising scientific events</p>
Computer skills and competences	<p>European Computer Driving Licence (full level) awarded by AICA (Associazione Italiana per l'Informatica ed il Calcolo Automatico)</p> <p>Proficient in using OS Microsoft Windows, MacOSX, and Linux</p> <p>Proficient in using Microsoft Office applications, as well as OpenOffice</p>
Artistic skills and competences	<p>Excellent skills in writing and proofreading</p>
Other skills and competences	<p>Hobbies: cooking, reading, and photography</p> <p>Interests: physics, astronomy, science</p> <p>Sport: swimming</p>

Publications

Peer-reviewed papers	<p>PISCHEDDA, D., Görgen, K., Haynes, J.-D., & Reverberi, C. (2017) Neural Representations of Hierarchical Rule Sets: the Human Control System Represents Rules Irrespective of the Hierarchical Level They Belong to. Manuscript under review.</p> <p>Di Rosa, E., PISCHEDDA, D., Cherubini, P., Mapelli, D., Tamburin, S., & Burigo, M. (2017). Working memory in healthy aging and in Parkinson's disease: Evidence of interference effects. <i>Aging, Neuropsychology, and Cognition</i>, 24(3), 281-298.</p> <p>Baggio, G., Cherubini, P., PISCHEDDA, D., Blumenthal, A., Haynes, J.-D., & Reverberi, C. (2016). Multiple neural representations of elementary logical connectives. <i>NeuroImage</i>, 135, 300-310.</p> <p>Reverberi, C., PISCHEDDA, D., Burigo, M., & Cherubini, P. (2012). Deduction Without Awareness. <i>Acta Psychologica</i>, 139(1), 244-253.</p>
Conference posters	<p>PISCHEDDA, D., Seyed-Allaei, S., Görgen, K., Haynes, J.-D., & Reverberi, C. (2017) What is done and who does it? Neural representations of one's own subtask, a partner's subtask, and of subtask ownership. <i>Poster session presented at the International Convention of Psychological Science (ICPS) 2017</i>. Vienna, Austria: Association for Psychological Science.</p> <p>Uithol, S., Görgen, K., PISCHEDDA, D., Toni, I., & Haynes, J.-D. (2017) The embedded self. <i>Poster session presented at the Einstein Symposium 2017 Me & I. Conceptual and empirical perspectives on the self</i>. Berlin, Germany: Einstein Foundation Berlin and Berlin School of Mind and Brain.</p>

- PISCHEDDA, D., Seyed-Allaei, S., Görden, K., Haynes, J.-D., & Reverberi, C. (2016) Who does what? Neural representations of identity and ownership of one's own and a partner's subtasks. *Program No. 362.25. 2016 Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2016. Online
- Cherubini, P., Baggio, G., PISCHEDDA, D., Görden, K., Blumenthal, A., Haynes, J.-D., & Reverberi, C. (2015) Concept combination with logical connectives. *Proceeding of the CNS (Cognitive Neuroscience Society) Annual Meeting 2015*, Abstract Number D131, p. 145. San Francisco, CA: Cognitive Neuroscience Society.
- PISCHEDDA, D., Görden, K., Haynes, J.-D., & Reverberi, C. (2014) Neural representation of rules at different hierarchical levels. *Proceedings of the 9th FENS (Federation of European Neuroscience Societies) Forum of Neuroscience*, Abstract Number 1813, p. 124. Milan, Italy: FENS.
- Baggio, G., Cherubini, P., PISCHEDDA, D., Görden, K., Blumenthal, A., Haynes, J.-D., & Reverberi, C. (2014) Concept combination with logical connectives. *Proceedings of the 9th FENS (Federation of European Neuroscience Societies) Forum of Neuroscience*, Abstract Number 2255, p. 446. Milan, Italy: FENS.
- PISCHEDDA, D., Görden, K., Haynes, J.-D., & Reverberi, C. (2013) Neural representation of rules at different hierarchical levels. *Program No. 573.12. 2013 Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2013. Online
- Reverberi, C., PISCHEDDA, D., & Cherubini, P. (2013). La rappresentazione di regole complesse è compositiva. *Atti del XIX Congresso AIP Sezione di Psicologia Sperimentale*, Roma 16-18 settembre 2013, p. 44. Rome, Italy: Associazione Italiana di Psicologia.

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base art. 13 del D. Lgs. 196/2003.