

Curriculum Vitae

Prof. Teija Margit Kujala (formerly Niittyvuopio), Ph.D.; gender: female;
Born in May 31, 1964 in Kemijärvi, Finland; citizenship: Finnish; current residence: Helsinki, Finland.

Affiliation Cognitive Brain Research Unit, Medical Faculty, University of Helsinki (UH), Finland; Phone: +358 50 3183962, **E-mail:** teija.m.kujala@helsinki.fi; **Web page:** <http://www.helsinki.fi/CBRU>

Education and degrees

March 4, 2002, Docent (Adj. Prof.) of Cognitive Neuroscience, UH

March 11, 1997, Ph.D.; major: Psychology, UH

December 17, 1991, M.A.; major: Psychology, UH

Main positions held

Current position:

2014- Professor of Psychology, Faculty of Medicine, UH

Previous main positions:

2011-2014, Professor of Brain, Learning and Education, Cicero Learning, UH

2007-2011, Professor (Cognitive Neuroscience and Its Clinical and Educational Applications), Institute of Behavioural Sciences, UH

2006-present, Director/Co-Director of Cognitive Brain Research Unit, Dept. Psychology, UH

2006-2007, University Senior Lecturer, Dept. Psychology, UH

2005-2006, Professor of Psychology (acting), Dept. Psychology, University of Turku

2001-2005, Fellow of Helsinki Collegium for Advanced Studies, UH

2001, Post-doctoral researcher (granted by graduate school *Functional Imaging in Medicine*)

1999-2000, Senior researcher of the Academy of Finland

1997-1999, Junior researcher of the Academy of Finland

1995-1997, Research assistant of the Academy of Finland

1992-1994, Research Fellow in the Dept. Psychology, UH

Research funding, leadership, and supervision

Research funding and leadership:

- 1994, personal grant, Ella and Georg Ehrnrooth Foundation (5000 €)
- 1995, project grant (PI), the Academy of Finland (19 600 €)
- 1998, project grant (PI), the Finnish Work Environment Fund (50 000 €)
- 2002, project grant (co-PI), European Science Foundation and the Academy of Finland (114 467 €)
- 2006-2011, Director of Cognitive Brain Research Unit, Dept. Psychology, UH
- 2007, a grant for hiring a visitor, Center for International Mobility (10 800 €)
- 2007, a grant for research equipment, UH (50 000 €)
- 2008, graduate-school funding for hiring post-graduate students, UH (135 000 €, on estimation)
- 2008, *Philips Nordic Prize 2007* for research within neurodevelopmental disorders (25 000 €)
- 2008, a grant for hiring a visitor, Center for International Mobility (12 000 €)
- 2008, project grant (PI), Academy of Finland (400 000 €)
- 2008, research grant of the Faculty of Behavioural Sciences, UH (8000 €)
- 2008, a grant for hiring a visitor, Center for International Mobility (9600 €)
- 2008, grant for building up modern psychophysiology research laboratories, UH (101 000 €)
- 2009, research grant of the Faculty of Behavioural Sciences, UH (20 000 €)
- 2010, a grant for building up a Neurophysiology Research and Education Centre (including, e.g., a transcranial magnetic stimulation and EEG devices), UH (300 000 €)
- 2012, award from the Institute of Behavioural Sciences for the success in the international evaluation of research and doctoral training in the UH (20 000 €)
- 2014, project grant (PI), the Academy of Finland (600 000 €)
- 2014, project grant (PI), Jane and Aatos Erkko foundation (700 000 €)
- 2017-, Director of Cognitive Brain Laboratory, Faculty of Medicine, University of Helsinki (starting grant, 25 000 €)

Supervision of post-doctoral researchers: Dr. Alexander Sorokin, Dr. Minna Lehtonen, Dr. Alina Leminen, Dr. Sari Ylinen, Dr. Eino Partanen, Dr. Paula Virtala, Dr. Soila Kuuluvainen

Completed Thesis supervision:

Ph.D. Theses (9): Yury Shtyrov (in 2000), Titta Ilvonen (in 2006), Tuulia Lepistö (in 2008), Riikka Lovio (2013), Eino Partanen (in 2013), Petteri Simola (in 2014), Maria Mittag (in 2014), Sini Haapala (2016),

Soila Kuuluvainen (2017)

Master's Theses: 27

Current supervision:

Ph.D. Theses (11): Riikka Lindström (primary), Outi Reinvall (primary), Lilli Kimppa (primary), Sini Koskinen (secondary), Elina Niemitalo-Haapola (secondary), Miika Leminen (secondary), Laura Hedlund (secondary), Anja Thiede (primary), Linda Lönnqvist (primary), Piia Turunen (secondary), Tatu Huovilainen (primary)

Merits in teaching

Courses (Univ. Turku, Univ. Helsinki):

- The principles of cognitive psychology and neuropsychology (basic studies of psychology), 2005-2006
- Cognitive Neuroscience (intermediate studies of psychology), 2005-2006
- Psychopharmacology (intermediate studies of psychology), 2005-2006
- Neuropsychology (intermediate studies of psychology), 2005-2006
- Clinical neuropsychology (advanced studies of psychology), 2005-2006
- Integrative Neuroscience course (post graduate and advanced studies of psychology and related disciplines); course organizer, 2008, 2009, 2011
- Hands-on magnetoencephalography course (post graduate and advanced studies of psychology and related disciplines); course organizer, 2009
- Hands-on trans-cranial magnetic stimulation course (post graduate and advanced studies of psychology and related disciplines); course organizer, 2010
- fMRI in Neuroscience Research (post graduate and advanced studies of psychology and related disciplines); course organizer, 2011
- Introduction to Bilingualism (all levels of studies); a course of Åbo Academi, the responsible teacher in Helsinki 2016
- Contributor to <http://yle.fi/teos/ihmeellisetavot/> (Massive Open Online Course), 2015
- Advanced Practicum of Cognitive Neuroscience (advanced studies of psychology), one of the supervising teachers, 2015-2016

Seminars (Univ. Turku, Univ. Helsinki), summer/winter schools:

Bachelor's thesis seminar (2005-2006), Master's thesis seminar (2010, 2015-2017), Graduate Club (for Doctoral students; 2006-2007), Seminar for Doctoral students (2011-2017), Helsinki Summer School for Cognitive Neuroscience (2012, 2013, 2015, 2017; co-organizer).

Other academic merits

Service as a Ph.D. pre-examiner

- Marja Laasonen (UH, Finland, fall 2002)
- Eira Jansson-Verkasalo (University of Oulu, Finland, fall 2003)
- Frank Becker (Faculty of Medicine, University of Oslo, Norway, 2008)
- Sarah Dos Santos Sequeira (Faculty of Psychology, University of Bergen, Norway, 2009)
- Annika Hultén (Åbo Academi University, Turku, Finland, 2011)
- Fiia Takio (Faculty of Social Sciences, University of Turku, Finland, 2012)
- Berge Osnes (Faculty of Psychology University of Bergen, Bergen, Norway, 2012)
- Ingrid Funderud (Faculty of Social Sciences, University of Oslo, Oslo, Norway, 2014)
- Andreas Hojlund Nielsen (Faculty of Arts, Aarhus University, Aarhus, Denmark, 2014)

Service as an opponent in Ph.D. dissertation

- Eira Jansson-verkasalo (University of Oulu, Finland, December 19, 2003)
- Frank Becker (Faculty of Medicine, University of Oslo, Norway, January 30, 2009)
- Sarah Dos Santos Sequeira (Faculty of Psychology, University of Bergen, Norway, September 24, 2009)
- Berge Osnes (Faculty of Psychology, University of Bergen, Norway, October 10, 2012)
- Ingrid Funderud (Faculty of Social Sciences, University of Oslo, Oslo, Norway, February 26, 2014)
- Andreas Hojlund Nielsen (Faculty of Arts, Aarhus University, Aarhus, Denmark, 2015)
- Daniel Mullens (Department of Psychology, The University of Newcastle, Newcastle, Australia, 2016).

Assessment of academic competence and candidates for academic posts

- Docentships: Dr. Lea Hyvärinen (UH, Finland, 2004), Dr. Annamari Tuulio-Henriksson (UH, Finland, 2006), Dr. Päivi Helenius (UH, Finland, 2007), Dr. Timo Ruusuvirta (University of Turku, Finland, 2011),

Dr. Silja Pirilä (University of Tampere, Finland, 2012), Dr. Mira Karrasch (University of Turku, Finland, 2013), Dr. Katja Valli (University of Turku, Finland, 2015), Dr. Okko Räsänen (Aalto University, Espoo, Finland, 2015)

- Habilitation thesis of Dr. Barbara Sabitzer (Alpen-Adria-Universität Klagenfurt, Austria, 2014)

Assessment of candidates for academic posts

- Assessment of the work of Dr. Elyse Sussman for promotion to the rank of Professor of Neuroscience and Otorhinolaryngology-Head & Neck Surgery at Albert Einstein College of Medicine, New York, USA (2009)
- Assessment of applications for a position as Professor in Cognitive Neuroscience at the University of Skövde, Sweden (2010).
- Member of the Review panel of applications for a position as Professor in Clinical Neuropsychology of Psykonet (Institute of Behavioural Sciences, UH, Finland, 2011).
- Member of the Appointment committee for a position as Professor in Personality Psychology (Institute of Behavioural Sciences, UH, Finland, 2014)
- Member of the Appointment committee for a position as an acting Professor in Developmental Psychology (Institute of Behavioural Sciences, UH, Finland, 2014)
- Member of the Appointment committee for a position as University Lecturer of Mental Health (Institute of Behavioural Sciences, UH, Finland, 2014)
- Assessment of the work of Dr. Monica Wagner for promotion to the rank of Associate Professor in St. John's College of Liberal Arts and Sciences at St. John's University (2015)

Peer review of funding applications and for research funding agencies and organizations

- A 10-year research centre application for *Economic & Social Research Council* (United Kingdom, 2003)
- A research project grant application for *The Israel Science Foundation Economic & Social Research Council* (Israel, 2003)
- A research project grant application for *The Finnish Work Environment Fund* (Finland, 2003)
- A research project grant application for *Riksbankens Jubileumfond* (Sweden, 2006)
- Post-doctoral grant applications for *The UH* (Finland, 2006)
- A research project grant application for *The National Science Foundation* (Linguistics Program) (USA, 2007)
- A post-doctoral research post for *The Turku Institute for Advanced Studies* (Finland, 2008)
- A research project grant application for *The Israel Science Foundation, Focal Initiatives in Research in Science and Technology (F.I.R.S.T.)* program (Israel, 2009)
- Project applications for *European Research Council* starting grants (2013)
- A research project grant application for *BRACE – Funding Research into Alzheimer's* (Great Britain, 2014)
- Project applications for *European Research Council* starting grants (2015)
- Reviewer of a progress report and research plan of Institute of Hearing Research, *Medical Research Council* (UK, spring 2016)

Memberships and positions of trust

- Member of the Management Group of the Cognitive Brain Research Unit, Institute of Behavioural Sciences, University of Helsinki: 1997-present
- Member of the Governing Council of the Brain Research Society of Finland: January 21, 2002-2006
- Deputy member of the Research Council of the Faculty of Behavioural Sciences: August 1, 2006-2009
- Deputy member of the Management Board of the Graduate School of Psychology: 2006-July 31, 2010
- Chairman of the Management Group of the Cognitive Brain Research Unit, Institute of Behavioural Sciences, University of Helsinki: 2007-2011, 2015-present
- Deputy member of the Management Board of the Department of Psychology, University of Helsinki: August 8, 2007-December 31, 2008
- Member of the Management Board of the BioMag laboratory, Helsinki University Central Hospital: 2008-March 24, 2011
- Member of the Management Board of the Neuroscience Research Centre, University of Helsinki: May 4, 2008-March 31, 2014

- Member of the Management Board of the Department of Psychology, University of Helsinki: 2009
- Vice Director of the Management Board of the Graduate School of Psychology: August 1, 2010-February 6, 2011
- Member of the Management Board of the National Doctoral Programme of Psychology: August 1, 2010-2015
- Deputy member of the Institute Council of the Institute of Behavioural Sciences, University of Helsinki: 2010-2013
- Deputy member of the Management Board of Neuroimaging Infrastructure of the Greater Helsinki area: 2011-present
- Member of the Faculty Council of the Faculty of Behavioural Sciences, University of Helsinki: April 1, 2012-2016
- Member of the Management Board of Cicero Learning, University of Helsinki, January 1, 2014-present
- Member of the Management board of the Doctoral Programme PsyCo, University of Helsinki: September 9, 2014-May 31, 2015
- Deputy member of the Institute Council of the Institute of Behavioural Sciences, University of Helsinki: December 4, 2014-December 31, 2016
- Member of the assessment committee of Docentship applications of the Faculty of Medicine, University of Helsinki, spring 2016-present

Leaderships and memberships in review and steering groups

- Member of the review board of a research project grant application for *The Canada Foundation for Innovation*: 2009
- Scientific expert member in the Steering Committee of *the Computational Sciences* research program of the Academy of Finland: 2009-
- Leader of a panel assessing Center of Excellence applications to *Research Council of Norway*: 2011
- Member of the Scientific Advisory Board of *Cognition, Communication, and Learning* research centre at Lund University, Lund, Sweden: 2012-present

Served as a referee for the following scientific journals

Applied Acoustics, Audiology and Neuro-Otology, Biological Psychiatry, Biological Psychology, BMC Neuroscience, Brain, Brain and Language, Brain Research, Brain Topography, Cerebral Cortex, Clinical Neurophysiology, Clinical Neuropsychology, Cognitive Brain Research, Cognitive Neurophysiology, Cognitive Neuropsychology, Cognitive Neuroscience, Developmental Cognitive Neuroscience, Developmental Science, Duodecim, Dyslexia, Ear and Hearing, European Journal of Neuroscience, Frontiers in Human Neuroscience, Frontiers in Neuroscience, Human Brain Mapping, International Journal of Psychophysiology, Journal of Child Psychology and Psychiatry, Journal of Cognitive Neuroscience, Journal of Neurolinguistics, Journal of Neuroscience, Journal of Psychophysiology, Language and Cognitive Processes, Medical Science Monitor, MedWeb, Music Perception, NeuroImage, Neuropsychologia, Neuroscience & Biobehavioral Reviews, Neuroscience Letters, PlosOne, Proceedings of the National Academy of Sciences (USA), Psychological Bulletin, Psychophysiology, Psykologia, The European Journal of Cognitive Psychology, The TOHOKU Journal of Experimental Medicine, Trends in Cognitive Sciences, Vision Research

Membership in congress committees

- The III Finnish-Estonian Symposium on Cognitive Psychology (Sept. 22-25, 1993; Siuntio, Finland)
- Neuroscience Finland 2002 (March 14-15, 2002; Helsinki, Finland)
- International meeting on phenotypic and genetic profiles in Asperger Syndrome and infantile autism (November 7-8, 2003; Helsinki, Finland); Session Organizer
- Neuroscience Finland (August 22-23, 2003; Helsinki, Finland); Session Organizer
- Evoked Potentials International Conference XIV (March 28-31, 2004; Leipzig, Germany); Symposium Organizer
- Fourth Conference on Mismatch Negativity (MMN) and its Clinical and Scientific Applications (April 22-26, 2006; Cambridge, UK); Symposium Organizer
- Psykologia 2008 (August 20-22, 2008; Helsinki, Finland)
- Speech and Brain 2009 (March 19-20, 2009; the 2nd Symposium of the Finnish Speech Research Collegium)
- Fifth Conference on Mismatch Negativity (MMN) and its Clinical and Scientific Applications (April 4-7,

2009; Budapest, Hungary)

- Learning Mind and Brain (December 3-4, 2009; Helsinki, Finland)
- Speech and Brain (March 19-20, 2010; Helsinki, Finland)
- Sixth Conference on Mismatch Negativity (MMN) and its Clinical and Scientific Applications (May 1-4, 2012; New York, USA)
- Neurodynamics of language and music symposium (June 12-13, 2014; Helsinki, Finland), co-organizer
- Error Signals from the Brain - 7th Mismatch Negativity Conference (MMN 2015; September 8-11, 2015, Leipzig, Germany)
- Adaptive Brain in Health and Disease - 8th Mismatch Negativity Conference (MMN 2018)

Invited talks in international congresses: 21

Most important awards

The Philips Nordic Prize for 2007 for achieved and continued research work on neurodevelopmental disorders (shared with Prof. Risto Näätänen)

Scientific and societal impact of research

Publications (published and in press) in international peer reviewed journals: over 130

Ten most important publications

1. Kujala, T., Alho, K. & Näätänen, R. Cross-modal reorganization of human cortical functions. *Trends in Neurosciences*, 2000, 23, 115-120.
2. Kujala, T. & Näätänen, R. The mismatch negativity in evaluating central auditory dysfunction in dyslexia. *Neuroscience & Biobehavioral Reviews*, 2001, 25, 535-543.
3. Kujala, T., Karma, K., Ceponiene, R., Belitz, S., Turkkila, P., Tervaniemi, M. & Näätänen, R. Plastic neural changes and reading improvement caused by audio-visual training in reading-impaired children. *Proceedings of the National Academy of Sciences*, 2001, 98, 10509-10514.
4. Palva, S., Palva, J. M., Shtyrov, Y., Kujala, T., Ilmoniemi, R. J., Kaila, K. & Näätänen, R. Distinct evoked gamma responses to speech and non-speech sounds in humans. *J. Neurosci.*, 2002, 22, RC211, 1-5.
5. Pihko, E., Mickos, A., Kujala, T., Pihlgren, A., Westman, M., Alku, P., Byring, R. & Korkman, M. Group intervention changes brain activity in bilingual language impaired children. *Cerebral Cortex*, 2007, 17, 849-858.
6. Kujala, T. & Näätänen, R. The adaptive brain – A neurophysiological perspective. *Progress in Neurobiology*, 2010, 91, 55-67.
7. Näätänen, R., Kujala, T., Kreegipuu, K., Carlson, S., Escera, C., Baldeweg, T. & Ponton, C. The mismatch negativity: An index of cognitive decline in neuropsychiatric and neurological diseases and in aging. *Brain*, 2011, 134, 3432-3450.
8. Marie, C., Kujala, T. & Besson, M. Musical and linguistic expertise influence pre-attentive and attentive processing of non-speech sounds. *Cortex*, 2012, 48, 447-457.
9. Kujala, T., Lepistö, T. & Näätänen, R. The neural basis of aberrant speech and audition in autism spectrum disorders. *Neuroscience & Biobehavioral Reviews*, 2013, 37, 697-704.
10. Partanen, E., Kujala, T., Näätänen, R., Liitola, A., Sambeth, A. & Huotilainen, M. Learning-induced neural plasticity of speech processing before birth. *Proceedings of the National Academy of Sciences (USA)*, 2013, 110, 15145-15150.

Interviews : television: 13 (e.g., in BBC News), radio: 13, newspapers: 45 (e.g., in Der Spiegel, Daily Telegraph), web: 9

Positions of trust in society and other societal merits

- An expert for *Tiede* magazine (A Finnish magazine popularizing science)
- An expert for *the Ministry of Environment* on the effects of background noise (reported in publication “Ympäristömelun vaikutukset”, Suomen Ympäristö 3/2007; Edita Prima Oy, Helsinki 2007)
- An expert on brain plasticity in an international project “*Science Changing the World*”, of the Finnish centre *Heureka* popularizing science
- An invited Editor and Author for a publication on brain and learning of the Board of Education (http://www.oph.fi/julkaisut/2012/aivot_oppimisen_valmiudet_ja_koulunkaynti)