

CURRICULUM VITAE

Ryo Kitada

Nanyang Associate Professor,
Division of Psychology, School of Social Sciences, Nanyang Technological University
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Academic Qualifications:

Ph.D. Human and Environmental Studies

Graduate School of Human and Environmental Studies, Kyoto University, Japan (May 2005)

M.S. Human and Environmental Studies

Graduate School of Human and Environmental Studies, Kyoto University, Japan
(March 2002)

B.A. Human Studies

Faculty of Human Studies, Kyoto University, Kyoto, Japan (March 2000)

Professional Qualifications/Memberships:

- Member of Society for Neuroscience (2004 - present)
- Member of Organization for Human Brain Mapping (2014 - present)
- Member of Japan Neuroscience Society (2009 - present)
- Member of SICE Haptics committee (2009 - present)
- Member of Japanese Psychological Association (2010 - present)
- Member of Japanese Cognitive Science Society (2012 - present)

Summary of Working Experience:

Nanyang Associate Professor (2017 Jan 16th – Present)

Division of Psychology, School of Social Sciences, College of Humanities, Arts, & Social Sciences,
Nanyang Technological University, Singapore

Assistant professor (2008 Aug 1st – 2016 Dec 31st)

Division of Cerebral Integration, National Institute for Physiological Sciences, Japan

Assistant professor (Joint appointment, 2008 Aug 1st – 2016 Dec 31st)

Department of Physiological Sciences, the Graduate University for Advanced Studies
(SOKENDAI)

JSPS (Japan Society for the Promotion of Science) Postdoctoral Fellow for Research Abroad (2007 April 1st - 2008 July 31st)

Department of Psychology, Queen's University (Supervisor: Prof. Susan J. Lederman)

Postdoctoral Fellow (2005 Aug 1st – 2007 March 31st)

Department of Psychology, Queen's University (Supervisor: Prof. Susan J. Lederman)

A. TEACHING

(1) Text-books, book chapters, monograph, software

- [1] **Kitada R** (2011) (in Japanese) Neuroimaging methods for tactile research. In Ikuya Murakami (eds). Shinri-gaku Kennkyu-hou (Psychological Methodologies on perception research). pp. 184-185. Seishin-Shobo (written in Japanese).
- [2] **Kitada R** and Pawluk DTV (2010) 'Tactile sensation' Corsini Encyclopedia of Psychology (4th edition), 4: pp. 1751-1752. John Wiley & Sons.
- [3] Lederman SJ, **Kitada R** and Pawluk DTV (2010) 'Haptic perception' Corsini Encyclopedia of Psychology (4th edition), 2: pp. 750-752. John Wiley & Sons.
- [4] **Kitada R** (2003) 'Motor imagery, Kinesthesia and illusion, Active touch, Motor cognition and Mirror Neuron' In. Matsumura M, Oda S and Ishihara A (eds). Nou Hyakuwa (One hundred stories of the human brain, edited by), pp. 106-112. Ichimura Publishing House (written in Japanese).
- [5] **Kitada R** (2002) 'Hitono-ugokino-shinkeikagaku' [Charles T. Leonard (1997), 'The Neuroscience of Human Movement' Elsevier Science Health Science] edited by Matsumura M, Moritani T and Oda S, pp. 38-47, Ichimura Publishing House.

B. RESEARCH

(1) Awards

- **Distinguished International Researcher Award for Young Psychologist (JPA award for international contributions) from Japanese Psychological Association 2015**

This award is considered very prestigious in Japanese psychological society, given to only a few psychologists whose research performance is outstanding. The other four awardees in 2015 include Shinobu Kitayama (Prof. Michigan Univ, H index 67).
- **Japan Society for the Promotion of Science (JSPS) Postdoctoral Fellowships for Research Abroad (US\$ ~100,000) 2007 – 2008**

This award is given to those whose research performance and proposal are outstanding. The competition rate is 15 %.
- **Travel Award by Inoue Foundation for Science 2002 (US\$ 2,000)**

This award is given to graduate students who would like to present their research finding outside of Japan.

(2) Citations

H Index 14 with i10 index of 17 (google scholar). One of the papers was cited 280 times (Naito. Kochiyama, Kitada et al., 2003)

(3) Invited presentations at scientific meetings/workshops (international only)

- [1] 'Brain networks for haptic object recognition.' The 2nd international workshop on neuroimaging and human connectomics at Beijing Normal University (2016 Sep 19th)
- [2] 'The supra-modal brain network for the recognition of faces and bodies: is visual experience necessary for the development of high-order visual cortices?' The 5th international Conference on Cognitive Neurodynamics, at The Palm Beach Resort & Spa Sanya, China (2015 June 5th)
- [3] 'Brain network underlying haptic object recognition' Internatinal symposium on Shitsukan of Touch, at the University of Electro Communication, Chofu, Tokyo (2014 July 14th)
- [4] 'Neural Substrates Underlying Haptic Recognition of Face and Bodyparts' Blind Brain Workshop, at Bagni di Pisa Palace & Spa, Pisa, Italy (2013 Oct 17th)
- [5] 'Neural Substrates Underlying Haptic Recognition of Face and Bodyparts' the Annual Meeting of the Tactile Research Group Meeting, at a Sattelite Meeting of Psychonomics Society at Hilton Minneapolis Hotel, Minneapolis, MN, US (2012 Nov 15th)
- [6] 'Neural substrates of haptic object perception' International Seminar on Time Series Modeling of Neuroscience Data at National Institute for Physiological Sciences Okazaki, Japan (2012 Nov 24)
- [7] 'Tactile estimation of the roughness of gratings yields a graded response in the human brain: an fMRI study' at the Annual Meeting of the Tactile Research Group, at Sheraton Centre Toronto Hotel, Toronto, Ontario (2005 Nov 9th)

(4) Service as a reviewer

- Reviewing editor, Frontiers in Integrative Physiology (2011 - present)
- Ad-hoc reviewer in the following journals:
 - Science • Current Biology • Cerebral Cortex • Human Brain Mapping • Cortex • Journal of Experimental Psychology Learning, Memory, and Cognition • Acta Psychologica • Attention, Perception and Psychophysics • Brain and Cognition • Canadian Journal of Experimental Psychology • Experimental Brain Research • IEEE transactions on haptics • International Journal of Psychophysiology • Journal of Neurophysiology • Neuropsychologia • Neuroscience Letters • PLoS One

(5) External research funding

List project title, funding level, and start and end dates. Please state your role (PI, collaborator, etc.)

- [1] Project Title:** Neural correlates underlying onomatopoeia expressing tactile material perception
Funding level: Grant-in-Aid for Scientific Research on Innovative Areas by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan. 6,600,000 JPY (overhead is not included in this amount) (declined in 2017).
Start and end dates: 2016 April – 2018 March (grant number 16H01680)
PI: Ryo Kitada
- [2] Project Title:** Neural substrates underlying velvet hand illusion
Funding level: Hayao Nakayama Foundation for Science & Technology and Culture. 750,000 (Japanese) YEN (overhead is not included in this amount)
Start and end dates: 2015 April – 2015 March
PI: Ryo Kitada
- [3] Project Title:** Neural substrates underlying emotional processing evoked by interpersonal touch
Funding level: A Grant-in-Aid for Scientific Research on Innovative Areas by the MEXT Japan. 9,200,000 YEN (overhead is not included in this amount)
Start and end dates: 2013 April – 2015 March (grant number 25135734)
PI: Ryo Kitada
- [4] Project Title:** Effects of visual deprivation on the development of social bond'
Funding level: A Grant-in-Aid for Young Scientists (B) by the MEXT Japan. 3,300,000 YEN (overhead is not included in this amount)
Start and end dates: 2013 April – 2016 March (grant number 25871059)
PI: Ryo Kitada
- [5] Project Title:** Cross-modal neural system underlying material perception
Funding level: A Grant-in-Aid for Young Scientists (B) by the MEXT, Japan 3,400,000 YEN (summed over 2 years. overhead is not included in this amount)
Start and end dates: 2011 April - 2012 March (grant number 23700326)
PI: Ryo Kitada
- [6] Project Title:** Haptic face imitation
Funding level: A Grant-in-Aid for Scientific Research on Innovative Areas by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan. (grant number 23119727) 5,400,000 YEN (summed over 2 years. overhead is not included in this amount).
Start and end dates: 2011 April – 2012 March
PI: Ryo Kitada
- [7] Project Title:** Haptic Face perception and recognition

Funding level: A Grant-in-Aid for Scientific Research on Innovative Areas: Title: " by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan. (grant number: 21119524) 4,300,000 YEN (summed over 2 years. overhead is not included in this amount).

Start and end dates: 2009 April – 2010 March

PI: Ryo Kitada

[8] Project Title: Haptic Perceptual Organization via a Haptic Glance: Perception and Haptically Guided Grasping

Funding level: NSERC (Natural Sciences and Engineering Research Council of. Canada) Discovery Grant Title: "CAD\$ 249,025 (summed over 5 years. overhead is not included in this amount)

Start and end dates: 2009 April – 2012 March

PI: Susan Lederman, **Co-PI(unpaid):** Dianne T.V. Pawluk (Virgina Common Wealth) and Ryo Kitada

[9] Project Title: Custom Haptic Displays for the Study of Perceptual Organization via a Haptic Glance

Funding level: NSERC (Natural Sciences and Engineering Research Council of. Canada) RTI Grant CAD\$ 44,356 (overhead is not included in this amount).

Start and end dates: April 1, 2007 - Mar 31, 2008

PI: Susan Lederman, **Co-PI(unpaid):** Dianne T.V. Pawluk (Virgina Common Wealth) and Ryo Kitada

(6) Research activities

I have been conducting cognitive neuroscience research on multisensory perception and social cognition. While I am setting up my own laboratory in NTU, I am collaborating with researchers in Japan and other countries to investigate the neural mechanisms of each them and impact of sensory deprivation and developmental disorders on these mechanisms.

(7) Trainees

Honors Thesis Students

2007 – 2008: Grace Soo (co-supervised with Prof. Susan Lederman at Queen's University)

Graduate Students (Ph.D)

2008 – 2013: Yuko Okamoto (co-supervised with Prof. Norihiro Sadato)

2010 – 2015: Haruka Takahashi (co-supervised with Prof. Norihiro Sadato)

2013 – 2017: Motofumi Sumiya (co-supervised with Prof. Norihiro Sadato)

Visiting graduate student and Postdoctoral Fellow

2012 – present: Rajaei Nader (co-supervised with Prof. Masahiro Ohka, Nagoya University)

C. PUBLICATIONS

Number of journal paper: **30 (already published or in press)**

Number of conference papers: **2**

Number of book: **3** (reviews in the form of book chapters)

Number of patent: **0**

Journal paper

Peer-reviewed papers

***indicates the corresponding author (meaning a leading author in each paper in my field)**

- [1] Rajaei N, **Kitada R***, Aoki N, Takahashi H, Miyaoka T, Kochiyama T, Ohka M & Sadato N (under review) The brain networks underlying conscious tactile perception of textures revealed by the Velvet Hand Illusion
- [2] Fujimoto S, Tanaka S, Yamaguchi T, Kon N, Nakayama T, Kondo K & **Kitada R*** (under review) The effect of dual-hemisphere transcranial direct current stimulation over the parietal operculum on tactile orientation discrimination
- [3] Sumiya M, Koike T, Okazaki S, **Kitada R*** & Sadato N* (in press) Brain networks of social action-outcome contingency: the role of the ventral striatum in integrating signals from the sensory cortex and medial prefrontal cortex. **Neurosci Res**
- [4] Okamoto Y*, Kosaka H*, **Kitada R**, Seki A, Tanabe HC, Hayashi MJ, Kochiyama T, Saito DN, Yanaka HT, Munesue T, Ishitobi M, Omori M, Wada Y, Okazawa H, Koeda T and Sadato N (in press) Age-dependent atypicalities in body- and face-sensitive activation of the EBA and FFA in individuals with ASD. **Neurosci Res**
- [5] Yang J, **Kitada R***, Kochiyama T, Yu Y, Makita K, Araki Y, Wu J*, Sadato N (2017) Brain networks involved in tactile speed classification of moving dot patterns: the effects of speed and dot periodicity. **Sci Rep** 7:40931. (Journal was ranked as Q1 in Web of Science 2015)
- [6] Tanaka SC*, Yamada K*, **Kitada R**, Tanaka S, Sugawara SK, Ohtake F, Sadato N (2016) Overstatement in happiness reporting with ordinal, bounded scale. **Sci Rep** 6:21321. (Journal was ranked as Q1 in Web of Science 2015)
- [7] Pawluk DTV, Adams RJ and **Kitada R** (2015) 'Review: Behavioral Research, Technology Development and Applications in Assistive Technology for Individuals Who are Blind or Vision Impaired Using Haptics' **IEEE transactions on haptics** 8, pp. 258-278 (review).
- [8] Takahashi HK, **Kitada R***, Sasaki AT, Kawamichi H, Okazaki S, Kochiyama T, Sadato N* (2015) Brain networks of affective mentalizing revealed by the tear effect: The integrative role of the medial prefrontal cortex and precuneus. **Neurosci Res** 101:32-43.
- [9] Kawamichi H, **Kitada R***, Yoshihara K, Takahashi H, Sadato N (2015) Interpersonal Touch Suppresses Visual Processing of Aversive Stimuli. *Frontiers in Human Neuroscience* 9, 164. (first and second authors equally contributed to the work) (Ranked Q1 in Web of Science 2015 in the field of psychology)
- [10] Okamoto Y, **Kitada R**, Tanabe HC, Hayashi MJ, Kochiyama T, Munesue T, Ishitobi M, Saito DN,

- Yanaka HT, Omori M, Wada Y, Okazawa H, Sasaki AT, Morita T, Itakura S, Kosaka H, Sadato N* (2014) Attenuation of the contingency detection effect in the extrastriate body area in autism spectrum disorder. **Neurosci Res** 87: 66-76.
- [11] **Kitada R***, Sasaki AT, Okamoto Y, Kochiyama T, Sadato N (2014) Role of the precuneus in the detection of incongruency between tactile and visual texture information: A functional MRI study. **Neuropsychologia** 64:252-262.
- [12] **Kitada R***, Yoshihara K, Sasaki AT, Hashiguchi M, Kochiyama T, Sadato N (2014) The brain network underlying the recognition of hand gestures in the blind: the supramodal role of the extrastriate body area. **J Neurosci** 34:10096-10108. (Ranked Q1 in Web of Science 2015)
- [13] Miyahara M*, **Kitada R***, Sasaki AT, Okamoto Y, Tanabe HC, Sadato N (2013) From gestures to words: spontaneous verbal labeling of complex sequential hand movements reduces fMRI activation of the imitation-related regions. **Neurosci Res** 75:228-238.
- [14] **Kitada R***, Okamoto Y, Sasaki AT, Kochiyama T, Miyahara M, Lederman SJ, Sadato N (2013) Early visual experience and the recognition of basic facial expressions: involvement of the middle temporal and inferior frontal gyri during haptic identification by the early blind. **Front Hum Neurosci** 7:7. (Ranked Q1 in Web of Science 2015 in the field of psychology)
- [15] **Kitada R***, Sadato N, Lederman SJ (2012) Tactile perception of nonpainful unpleasantness in relation to perceived roughness: effects of inter-element spacing and speed of relative motion of rigid 2-D raised-dot patterns at two body loci. **Perception** 41:204-220.
- [16] Pawluk D, **Kitada R***, Abramowicz A, Hamilton C, Lederman SJ (2011) Figure/Ground Segmentation via a Haptic Glance: Attributing Initial Finger Contacts to Objects or Their Supporting Surfaces. **IEEE Trans Haptics** 4:2-13.
- [17] **Kitada R***, Dijkerman HC, Soo G, Lederman SJ (2010) Representing human hands haptically or visually from first-person versus third-person perspectives. **Perception** 39:236-254.
- [18] **Kitada R***, Johnsrude IS, Kochiyama T, Lederman SJ (2010) Brain networks involved in haptic and visual identification of facial expressions of emotion: an fMRI study. **NeuroImage** 49:1677-1689. (Ranked Q1 in Web of Science 2015)
- [19] **Kitada R***, Johnsrude IS, Kochiyama T, Lederman SJ (2009) Functional specialization and convergence in the occipito-temporal cortex supporting haptic and visual identification of human faces and body parts: an fMRI study. **J Cogn Neurosci** 21:2027-2045.
- [20] Lawrence MA, **Kitada R**, Klatzky RL, Lederman SJ* (2007) Haptic roughness perception of linear gratings via bare finger or rigid probe. **Perception** 36:547-557.
- [21] Lederman SJ*, Kilgour A, **Kitada R**, Klatzky RL, Hamilton C (2007) Haptic face processing. **Can J Exp Psychol** 61:230-241.
- [22] Lederman SJ*, Klatzky RL, Abramowicz A, Salsman K, **Kitada R**, Hamilton C (2007) Haptic recognition of static and dynamic expressions of emotion in the live face. **Psychol Sci** 18:158-

164. (Ranked Q1 in Web of Science 2015)

- [23] **Kitada R**, Kito T, Saito DN, Kochiyama T, Matsumura M, Sadato N*, Lederman SJ (2006) Multisensory activation of the intraparietal area when classifying grating orientation: a functional magnetic resonance imaging study. **J Neurosci** 26:7491-7501. (Ranked Q1 in Web of Science 2015)
- [24] Kilgour AR, **Kitada R**, Servos P, James TW, Lederman SJ* (2005) Haptic face identification activates ventral occipital and temporal areas: an fMRI study. **Brain Cogn** 59:246-257.
- [25] **Kitada R**, Hashimoto T, Kochiyama T, Kito T, Okada T, Matsumura M, Lederman SJ, Sadato N* (2005) Tactile estimation of the roughness of gratings yields a graded response in the human brain: an fMRI study. **NeuroImage** 25:90-100. (Ranked Q1 in Web of Science 2015)
- [26] **Kitada R**, Kochiyama T, Hashimoto T, Naito E, Matsumura M (2003) Moving tactile stimuli of fingers are integrated in the intraparietal and inferior parietal cortices. **Neuroreport** 14:719-724.
- [27] Naito E, Kochiyama T, **Kitada R**, Nakamura S, Matsumura M, Yonekura Y, Sadato N (2002) Internally simulated movement sensations during motor imagery activate cortical motor areas and the cerebellum. **J Neurosci** 22:3683-3691. (Ranked Q1 in Web of Science 2015)
- [28] **Kitada R**, Naito E, Matsumura M (2002) Perceptual changes in illusory wrist flexion angles resulting from motor imagery of the same wrist movements. **Neuroscience** 109:701-707.

Non-peer reviewed papers

- [29] **Kitada R** and Sadato N (2017) Neural Mechanisms underlying Braille reading. *Clinical Neuroscience* 35: 172-173 (invited, written in Japanese).
- [30] **Kitada R** (2014) Psychology of Haptic Object Recognition. *Clinical Neuroscience* 32: 183-186 (invited, written in Japanese).
- [31] **Kitada R** (2012) Cognitive Brain Mechanisms Underlying Psychology of Haptic Object Recognition. *Journal of the Robotics Society of Japan* 30: 466-468 (invited, written in Japanese).
- [32] **Kitada R** (2012) Response of Visual Cortex of Visually-Impaired Individuals. *Clinical Neuroscience* 30: 593-594 (invited, written in Japanese).

Conference papers

- [33] **Kitada R** (2016) The supra-modal brain network for the recognition of faces and bodies: is visual experience necessary for the development of high-order visual cortices? In Wang R and Pan X (eds) *Advances in Cognitive Neurodynamics* Vol. 5 311–316.
- [34] Pawluk DTV, **Kitada R**, Abramowicz A, Hamilton C, Lederman SJ (2010) Haptic figure- ground differentiation via a haptic glance. *Proceedings of the Annual Haptics Symposium on Teleoperator and Virtual-Environment Systems*.

Book chapters

- [35] **Kitada R** (2016) THE BRAIN NETWORK FOR HAPTIC OBJECT RECOGNITION. In H. Kajimoto, S. Saga & M. Konyo (eds). Pervasive haptics 21–37 Springer Japan.
- [36] Lederman SJ, **Kitada R**, Klatzky RL (2010) Visuo-haptic face perception In Kaiser J & Naumer MJ (eds). Multisensory Object Perception in the Primate Brain. pp. 273-300. Springer Verlag.
- [37] **Kitada R** (2010) 'Tactile information processing in the human brain' In M. Shimojo, T., Maeno, H., Shinoda & A., Sano (eds) Shokkaku-Ninshiki-Mechanism To Shokkaku Sensor, Shokkaku Display Gijutsu (Mechanisms of haptic recognition and technologies of haptic displays). pp. 19-35. Science and Technology (written in Japanese).