

## 業績目録

北田 亮

生理学研究所 心理生理学研究部門 助教

### (a) 外国語による論文・著書（分担執筆を含む）

\*は責任著者(corresponding author)を示す。

#### 1. 著書

[4] Kawamichi, H.\*, Yoshihara, K., **Kitada, R.**, Matsunaga, M., Sasaki, A.T., Yoshida, Y., ...Sadato, N. (2014). Sense of Acceptance: Key Factor of Social Learning. In Akazawa, T., Ogihara, N., C Tanabe, H., & Terashima, H. (Eds), *Dynamics of Learning in Neanderthals and Modern Humans* (Vol.2: pp217-220). Tokyo: Springer Japan.

[3] Lederman, S. J.\*, Klatzky, R. L., & **Kitada, R.** (2010). Haptic face processing and its relation to vision. In Naumer, M. J. & Kaiser, J. (Eds), *Multisensory object perception in the primate brain* (Chapter 15: pp 273-300). Berlin: Springer Verlag.

[2] **Kitada, R.\***, & Pawluk, D. (2010). Tactile sensation. In Weiner, I. B. & Craighead, W. D. (Eds), *The Corsini Encyclopedia of Psychology* (4th edition, Vol. 4: pp 1751-1752). New Jersey: John Wiley & Sons.

[1] Lederman, S. J.\*, **Kitada, R.**, & Pawluk, D. (2010). Haptic perception. In Weiner, I. B. & Craighead, W. D. (Eds), *The Corsini Encyclopedia of Psychology* (4th edition, Vol. 2: pp 750-752). New Jersey: John Wiley & Sons.

#### 2. 論文

[19] Okamoto, Y., **Kitada, R.**, Tanabe, H. C., Hayashi, M. J., Kochiyama, T., Munesue, T., . . . Sadato, N. \* (2014). Attenuation of the contingency detection effect in the extrastriate body area in autism spectrum disorder. *Neuroscience Research*, 87, 66-76.

[18] **Kitada, R.\***, Sasaki, A. T., 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*, 64C, 252-262.

※ [17] **Kitada, R.\***, Yoshihara, K., Sasaki, A. T., 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. *The Journal of Neuroscience*, 34, 10096-10108.

[16] Miyahara, M.\*, **Kitada, R.\***, Sasaki, A. T., Okamoto, Y., Tanabe, H. C., & Sadato, N. (2013). From gestures to words: spontaneous verbal labeling of complex sequential hand movements reduces fMRI activation of the imitation-related regions. *Neuroscience Research*, 75, 228-238.

※ [15] **Kitada, R.\***, Okamoto, Y., Sasaki, A. T., Kochiyama, T., Miyahara, M., Lederman, S. J., & 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. *Frontiers in Human Neuroscience*, 7, 7.

[14] **Kitada, R.\***, Sadato, N., & Lederman, S. J. (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.

[13] Pawluk, D., **Kitada, R.**, Abramowicz, A., Hamilton, C., & Lederman, S. J.\* (2011). Figure/Ground Segmentation via a Haptic Glance: Attributing Initial Finger Contacts to Objects or Their Supporting Surfaces. *IEEE Transactions on Haptics*, 4, 2-13.

[12] **Kitada, R.\***, Dijkerman, H. C., Soo, G., & Lederman, S. J. (2010). Representing human hands haptically or visually from first-person versus third-person perspectives. *Perception*, 39, 236-254.

[11] **Kitada, R.\***, Johnsrude, I. S., Kochiyama, T., & Lederman, S. J. (2010). Brain networks involved in haptic and visual identification of facial expressions of emotion: an fMRI study. *NeuroImage*, 49, 1677-1689.

※ [10] **Kitada, R.\***, Johnsrude, I. S., Kochiyama, T., & Lederman, S. J. (2009). Functional Specialization and Convergence in the Occipito-temporal Cortex Supporting Haptic and Visual Identification of Human Faces and Body Parts: An fMRI Study. *Journal of Cognitive Neuroscience*, 21, 2027-2045.

[9] Lawrence, M. A., **Kitada, R.**, Klatzky, R. L., & Lederman, S. J.\* (2007). Haptic roughness perception of linear gratings via bare finger or rigid probe. *Perception*, 36, 547-557.

[8] Lederman, S. J.\*, Klatzky, R. L., Abramowicz, A., Salsman, K., **Kitada, R.**, & Hamilton, C. (2007). Haptic recognition of static and dynamic expressions of emotion in the live face. *Psychological Science*,

18, 158-164.

[7] Lederman, S. J.\*, Kilgour, A., **Kitada, R.**, Klatzky, R. L., & Hamilton, C. (2007). Haptic face processing. *Canadian Journal of Experimental Psychology*, 61(3), 230-241.

※ [6] **Kitada, R.**, Kito, T., Saito, D. N., Kochiyama, T., Matsumura, M., Sadato, N.\*, & Lederman, S. J. (2006). Multisensory activation of the intraparietal area when classifying grating orientation: a functional magnetic resonance imaging study. *The Journal of Neuroscience*, 26, 7491-7501.

[5] Kilgour, A. R., **Kitada, R.**, Servos, P., James, T. W., & Lederman, S. J.\* (2005). Haptic face identification activates ventral occipital and temporal areas: an fMRI study. *Brain and Cognition*, 59, 246-257.

※ [4] **Kitada, R.**, Hashimoto, T., Kochiyama, T., Kito, T., Okada, T., Matsumura, M., . . . 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.

[3] **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.

[2] 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. *The Journal of Neuroscience*, 22, 3683-3691.

[1] **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.

(b) 国際学会・海外学会での発表・講演等

[24] **Kitada, R.**, Sasaki, A.T., Okamoto, Y., Kochiyama, T., & Sadato, N. (2014). The precuneus is involved in the detection of incongruency between tactile and visual texture information: A functional MRI study. Poster presentation at the 44th annual meeting of Society for Neuroscience (Washington DC, US).

[23] Yamada, K., Tanaka, S. C., **Kitada, R.**, Sugawara, S. K., Takahashi, H., Ohtake, F., & Sadato, N. (2014). Neural mechanism of social preferences toward reference persons of the same and different

gender. Poster presentation at the 44th annual meeting of Society for Neuroscience (Washington DC, US).

[22] Takahashi, H.K., **Kitada, R.**, Sasaki, A.T., Kawamichi, H., & Sadato, N. (2014). Interaction between TPJ and the medial prefrontal cortex for the inference of other's sadness. Poster presentation at the 20th Annual Meeting of the Organization for Human Brain Mapping (Hamburg, Germany).

[21] **Kitada, R.**, Yoshihara, K., Sasaki, A. T., Hashiguchi, M., Kochiyama, T., & Sadato, N. (2014). The brain network underlying the recognition of gestures in the blind: the supramodal role of EBA. Poster presentation at the 20th Annual Meeting of Organization for Human Brain Mapping (Hamburg, Germany).

[20] Sasaki, A.T., **Kitada, R.**, Okamoto, Y., & Sadato, N. (2013). Neural substrates of contingency detection for self and others - an fMRI study. Poster presentation at the 43rd Annual Meeting of the Society for Neuroscience (San Diego, CA, US).

[19] Yamada, K., Tanaka, S. C., **Kitada, R.**, Tanaka, S., Sugawara, S. K., Sadato, N., & Ohtake, F. (2012). Parietal cortex plays a role in translating cardinal utility into ordinal utility. Poster presentation at the 42nd Annual Meeting of the Society for Neuroscience (New Orleans, LA, US).

[18] Takahashi, H.K., **Kitada, R.**, Sasaki, A.T., Kawamichi, H., & Sadato, N. (2012). Neural substrates of cognitive empathy for sadness modulated by tears: A functional MRI study. Poster presentation at the 42nd Annual Meeting of the Society for Neuroscience (New Orleans, LA, US).

[17] Araki, Y., Yang, J., **Kitada, R.**, Sadato, N., & Wu, J. (2012). Brain activations related to tactile speed discrimination: an fMRI study. Poster presentation at the 2012 International Symposium on Early Detection and Rehabilitation Technology of Dementia (DRD2012) (Okayama, Japan).

[16] **Kitada, R.**, Okamoto, Y., Sasaki, A. T., Kochiyama, T., Miyahara, M., Lederman, S.J., & Sadato, N. (2011). Brain network involved in the recognition of facial expressions of emotion in the early blind. Poster presentation at the 12th International Multisensory Research Forum (Fukuoka, Japan).

[15] Kawamichi, H., **Kitada, R.**, Yoshihara, H.K., Takahashi, H., & Sadato, N. (2011). Activation of the reward system by joining hands with familiar person: an fMRI study. Poster presentation at the 8th IBRO World Congress of Neuroscience (Florence, Italy).

[14] **Kitada, R.**, Lederman, S. J., Miyahara, M. & Sadato, N. (2010). Early blind can haptically classify

static facial expressions of emotion. Poster presentation at the 40th Annual Meeting of Society for Neuroscience (San Diego, CA, US).

[13] Pawluk, D., **Kitada, R.**, Abramowicz, A., Hamilton, C., & Lederman, S.J. (2010). Haptic figure-ground differentiation via a haptic glance. Poster presentation at 2010 IEEE Haptics Symposium (Waltham, MA, US).

[12] Okamoto, Y., **Kitada, R.**, Sasaki, A., Morita, T., Itakura, S., Kochiyama, T., ... Sadato, N (2009). "Like me": The role of extrastriate body area for reciprocal imitation. Poster presentation at the 39th Annual Meeting of the Society for Neuroscience (Chicago, IL, US).

[11] **Kitada, R.**, Johnsrude, I. S., Kochiyama, T., & Lederman, S. J. (2008). Brain networks involved in haptic and visual identification of facial expressions of emotion: An fMRI study. Poster presentation at the 38th Annual Meeting of Society for Neuroscience (Washington, DC, US)

[10] **Kitada, R.**, Kochiyama, T., & Lederman, S. J. (2007). Fusiform face and extrastriate body areas are involved in the haptic identification of human faces and other body parts: an fMRI imaging study. Poster presentation at the 37th Annual Meeting of Society for Neuroscience (San Diego, CA, US)

[9] **Kitada, R.**, Lawrence, M. A., Klatzky, R. L., & Lederman, S. J. (2007). Haptic Roughness Perception of Linear Gratings via Bare Finger or Rigid Probe. Poster presentation at World Haptics Conference 2007 (Tsukuba, Japan)

[8] **Kitada, R.**, Kito, T., Saito, D. N., Kochiyama, T., Sadato, N., & Lederman, S. J. (2006). Multisensory Activation of the Intraparietal Area When Classifying Grating Orientation: An fMRI Study. Poster presentation at the 47th Annual Meeting of Psychonomic Society (Houston, TX, US).

[7] Lederman, S.J., Klatzky, R.L., Abramowics, A., Salsman, K., **Kitada, R.**, & Hamilton, C. (2006). Haptic Recognition of Static and Dynamic Expressions of Emotion in the Live Face. Oral presentation at the 47th Annual Meeting of Psychonomic Society (Houston, TX, US).

[6] James, T.W., Kilgour, A.R., Servos, P., **Kitada, R.**, Huh, E., & Lederman, S.J. (2006). Haptic exploration of facemasks recruits left fusiform gyrus. Poster presentation at the 6th Annual meeting of the Vision Sciences Society (Sarasota, FL, US)

[5] **Kitada, R.**, Kito, T., Saito, D. N., Kochiyama, T., Matsumura, M., Sadato, N., & Lederman, S. J.

(2006). Visuo-tactile activation of the intraparietal area during the classification of grating orientation: A Functional Magnetic Resonance Imaging Study. Poster presentation at the 12th Annual Meeting of Human Brain Mapping (Florence, Italy).

[4] **Kitada, R.**, Hashimoto, T., Kochiyama, T., Kito, T., Okada, T., Matsumura, M., ... Sadato, N. (2004). Graded response in the human brain for tactile roughness estimation of gratings: An fMRI study. Poster presentation at the 34th Annual Meeting of Society for Neuroscience (San Diego, CA, US).

[3] **Kitada, R.**, Hashimoto, T., Kochiyama, T., Naito, E., & Matsumura, M. (2002). Posterior parietal cortices integrate moving tactile stimuli of fingers; An fMRI study. Poster presentation at the 32nd Annual Meeting of Society for Neuroscience (Orlando, FL, US).

[2] **Kitada, R.**, Kochiyama, T., Hashimoto, T., Naito, E., & Matsumura, M. (2002). Involvement of posterior parietal cortices for integration of moving tactile stimuli on fingers; An fMRI study. Poster presentation at the 8th Annual Meeting of Organization for Human Brain Mapping (Sendai, Japan).

[1] **Kitada, R.**, Naito, E., Fetz, E. E., & Matsumura, M. (2001). Perceptual changes in illusory wrist flexion angles resulting from motor imagery of the same wrist movements. Poster presentation at the 31st Annual Meeting of Society for Neuroscience (San Diego, CA, US).

### (c) その他の国際的な業績

#### 1. 役職

Review editor, *Frontiers in Integrative Physiology* (2011年8月~)

#### 2. 国際雑誌査読

- *Acta Psychologica*
- *Attention, Perception and Psychophysics*
- *Brain and Cognition*
- *Canadian Journal of Experimental Psychology*
- *Cerebral Cortex*
- *Cortex*
- *Current Biology*
- *Experimental Brain Research*
- *Frontiers in Psychology*
- *Human Brain Mapping*
- *IEEE transactions on haptics*

- International Journal of Psychophysiology
- Journal of Experimental Psychology: Learning, Memory, and Cognition
- Journal of Neurophysiology
- Neuropsychologia
- Neuroscience Letters
- PLoS One

### 3. 国際シンポジウム・セミナー・ワークショップでの発表

[16] **Kitada, R.**, Sasaki, A.T., Okamoto, Y., Kochiyama, T., & Sadato, N. (2014). The precuneus is involved in the detection of incongruency between tactile and visual texture information: A functional MRI study. Poster presentation at Future of Shitsukan Research (Tokyo, Japan).

[15] **Kitada, R.** (2014). Brain network underlying haptic object recognition. Oral presentation at Symposium on "Shitsukan" of Touch (Tokyo, Japan) [招待講演]

[14] **Kitada, R.** (2013). Neural representation underlying the recognition of facial and bodily expressions in the early blind. Oral presentation at Blind Brain Workshop (Pisa, Italy) [招待講演]

[13] **Kitada, R.** (2012). Neural Substrates Underlying Haptic Recognition of Face and Bodyparts. Oral presentation at the annual meeting of Tactile Research Group Meeting, a Satellite Meeting of Psychonomics Society (Minneapolis, MN, US) [招待講演]

[12] Takahashi, H.K., **Kitada, R.**, Sasaki, A.T., Kawamichi, H., & Sadato, N. (2012). Neural substrates involved in recognition of tears on the face: a fMRI study. Poster presentation at the 43rd NIPS International Symposium: Face Perception and Recognition (Okazaki, Japan).

[11] **Kitada, R.**, Okamoto, Y., Sasaki, A.K., Kochiyama, T., Miyahara, M., Lederman, S.J., & Sadato, N. (2012). Early visual experience and the recognition of facial expressions: Involvement of the middle temporal and inferior frontal gyri in haptic identification by the early blind. Poster presentation at NIPS International Symposium Face Perception and Recognition (Okazaki, Japan).

[10] Kawamichi, H., Yoshihara, K., **Kitada, R.**, Matsunaga, M., Sasaki, A., Yoshida, Y., Takahashi, H., & Sadato, N. (2012). Study implication related to sense of acceptance: Key factor of social learning. Oral presentation at International Conference on Replacement of Neanderthals by Modern Humans: Testing Evolutionary Models of Learning (Tokyo, Japan).

[9] Takahashi, H.K., **Kitada, R.**, Sasaki, A.T., Kawamichi, H., & Sadato, N. (2012). Neural substrates involved in recognition of tears on the face: a fMRI study. Poster presentation at the 43rd NIPS International Symposium: Face Perception and Recognition (Okazaki, Japan).

[8] **Kitada, R.** (2012). Neural substrates of haptic object perception. Oral presentation at International Seminar on Time Series Modeling of Neuroscience Data, National Institute for Physiological Sciences (Okazaki, Japan) [招待講演]

[7] Okamoto, Y., **Kitada, R.**, Sasaki, A., Morita, T., Itakura, S., Kochiyama, T., Tanabe, H.C., & Sadato, N. (2010). “Like me”: The role of extrastriate body area for being imitated. Poster presentation at Japan-US Brain Research Cooperative Program: Workshop: Development of the Social Brain (Tokyo, Japan).

[6] Okamoto, Y., Kosaka, H., **Kitada, R.**, Tanabe, H.C., Munesue, T., Ishitobi, M., ... Sadato, N. (2010). The EBA dysfunction in the autism spectrum disorders (ASD); as a “comparator” of self and other’s action during reciprocal imitation. Poster presentation at 41th NIPS international symposium (Okazaki, Japan).

[5] Okamoto, Y., **Kitada, R.**, Sasaki, A., Morita, T., Itakura, S., Kochiyama, T., ... Sadato, N. (2009). “Like me”: The role of extrastriate body area for reciprocal imitation. Poster presentation at International Symposium: New Frontiers in Social Cognitive Neuroscience (Sendai, Japan).

[4] **Kitada, R.** (2008). Tactual object processing: the functional architecture of the brain. Oral presentation at Friday Fight Seminar, the Center for Neuroscience, Queen’s University (Kingston, ON, Canada)

[3] **Kitada, R.** (2006). Neural substrates of haptic body-part recognition: functional MRI study. Oral presentation at MRI Mayhem Seminar, the Center for Neuroscience, Queen’s University (Kingston, ON, Canada) [招待講演]

[2] **Kitada, R.** (2005). Tactile estimation of the roughness of gratings yields a graded response in the human brain: an fMRI study. Oral presentation at the Annual meeting of Tactile Research Group Meeting, a Satellite Meeting of Psychonomics Society (Toronto, ON, Canada) [招待講演]

[1] **Kitada, R.** (2004). Research on human somatosensory system: fMRI studies on processing of object properties. Oral presentation at a colloquium of the BBCS (Brain, Behavior and Cognitive Science) group,



Department of Psychology, Queen's University (Kingston, ON, Canada).

### 3. 海外の研究資金の獲得

[2] NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grant

Title: "Haptic Perceptual Organization via a Haptic Glance: Perception and Haptically

Guided Grasping" Apr 1, 2007- Mar 31, 2012 \$ 249,025 (summed over 5 years. overhead is 4 not included in this amount). Lead Investigator: Lederman, S.J. (with unpaid co-principal investigators:

**Kitada, R.** and Pawluk, D)

[1] NSERC RTI Grant: Title: "Custom Haptic Displays for the Study of Perceptual

Organization via a Haptic "Glance" April 1, 2007 - Mar 31, 2008 \$ 44,356 (overhead is not

included in this amount). Lead Investigator: Lederman, S.J. (with unpaid co-principal investigators:

**Kitada, R.** and Pawluk, D.)