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School of Psychology

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Academic Career

Apr 2017 – Present	Professor School of Psychology, Chukyo University, Japan
Apr 2017 – Present	Visiting Researcher NTT Communication Science Laboratories, NTT Corporation, Japan
June 2016 – Mar 2017	Collaborative Researcher National Institute for Physiological Sciences, National Institutes of Natural Sciences, Japan
Apr 2014 – Mar 2016	Visiting Scholar United Graduate School of Child Development, Osaka University, Japan
Apr 2003 – Mar 2017	Research Scientist NTT Communication Science laboratories, NTT Corporation, Japan
Apr 2002 – Mar 2003	Post-doctoral Fellow Department of Psychology, Graduate School of Letters, Kyoto University, Japan
Jan 2000 – Mar 2002	Research Fellow Japan Society for the Promotion of Science (JSPS)
Apr 1999 – Mar 2002	Ph.D. in Experimental Psychology Department of Psychology, Graduate School of Letters, Kyoto University, Japan

Grants and Fellowships

2020 – Present	Principal Investigator on JSPS KAKENHI grant (no. 20H01789)
2017 – 2019	Co-Investigator with Ken Kihara (AIST, Japan) on JSPS KAKENHI grant (no. 17K04494)
2017 – 2018	Research grant funded by Asahi Group Holdings, Ltd.
2017 – 2018	Research grant funded by CinemaRay Co., Ltd.
2017	Research grant awarded by the Institute of Advanced Collaborative Research, Chukyo University
2016	Principal Investigator on JSPS Bilateral Programs in collaboration with Daniel Pressnitzer

	(CNRS, France)
2009 – 2014	Co-Investigator with Makio Kashino (NTT, Japan) on JST CREST grant
2007 – 2009	Co-Investigator with Naoyuki Osaka (Kyoto University, Japan) on JSPS KAKENHI grant (no. 19203032)
2003 – 2004	Research grant awarded by NTT Communication Science Laboratories
2000 – 2002	Grant-in-Aid for JSPS Fellows (no. 00J03371)
1999	The Japanese Ministry of Education Graduate Fellowship
1992 – 1996	The Japanese Ministry of Education Undergraduate Fellowship

Awards

2010	Excellent Presentation Award, International College of Neuropsychopharmacology
2008	Best Presentation Award, The Japanese Psychonomic Society
2000	Best Presentation Award, The Japanese Psychonomic Society
1999	Best Presentation Award, The Japanese Psychonomic Society

Publications

Articles in Refereed Journals

* Asterisks indicate invited articles.

41. Koumura, T., Nakatani, M., Liao, H.-I., & Kondo, H. M. (under review). Deep, soft and dark sounds induce autonomous sensory meridian response.
40. Terashima, H., Kihara, K., Kawahara, J. I., & Kondo, H. M. (under review). Common principles underlie the fluctuation of auditory and visual sustained attention.
39. Kondo, H. M., & Lin, I-F. (2020). Excitation-inhibition balance and auditory multistable perception are correlated with autistic traits and schizotypy in a non-clinical population. **Scientific Reports**, 10, 8171.
38. Honda, S., Ishikawa, Y., Konno, R., Imai, E., Nomiyama, N., Sakurada, K., Koumura, T., Kondo, H. M., Furukawa, S., Fujii, S., & Nakatani, M. (2020). Proximal binaural sound can induce subjective frisson. **Frontiers in Psychology**, 11, 316.
- *37. Kondo, H. M. & Kochiyama, T. (2018). Normal aging slows spontaneous switching in auditory and visual bistability. **Neuroscience**, 389, 152-160.
36. Kondo, H. M., Pressnitzer, D., Shimada, Y., Kochiyama, T., & Kashino, M. (2018). Inhibition-excitation balance in the parietal cortex modulates volitional control for auditory and visual multistability. **Scientific Reports**, 8, 14548.
35. Koizumi, A., Lau, H., Shimada, Y., & Kondo, H. M. (2018). The effects of neurochemical balance in the

anterior cingulate cortex and dorsolateral prefrontal cortex on volitional control under irrelevant distraction. **Consciousness and Cognition**, 59, 104-111.

- *34. Takeuchi, T., Yoshimoto, S., Shimada, Y., Kochiyama, T., & Kondo, H. M. (2017). Individual differences in visual scene analysis by motion and associated neurotransmitter concentrations in the brain. **Philosophical Transactions of the Royal Society B: Biological Sciences**, 372, 20160111.
- *33. Kondo, H. M., Farkas, D., Denham, S. L., Asai, T., & Winkler, I. (2017). Auditory multistability: Idiosyncratic perceptual switching patterns and neurotransmitter concentrations in the brain. **Philosophical Transactions of the Royal Society B: Biological Sciences**, 372, 20160110.
- *32. Kondo, H. M., van Loon, A., Kawahara, J. I., & Moore, B. C. J. (2017). Auditory and visual scene analysis: an overview. **Philosophical Transactions of the Royal Society B: Biological Sciences**, 372, 20160099.
- 31. Kihara, K., Kondo, H. M., & Kawahara, J. I. (2016). Differential contributions of GABA concentration in frontal and parietal regions to individual differences in attentional blink. **Journal of Neuroscience**, 36, 8895-8901.
- 30. Farkas, D., Denham, S. L., Bendixen, A., Tóth, D., Kondo, H. M., & Winkler, I. (2016). Auditory multistability: idiosyncratic perceptual switching patterns, executive functions and personality traits. **PLOS ONE**, 11, e0154810.
- *29. Yoshimoto, S., Takeuchi, T., Shimada, Y., Kochiyama, T., & Kondo, H. M. (2015). Neurotransmitter concentrations in the brain and visual motion assimilation/contrast. **Japanese Journal of Psychonomic Science**, 34, 201-202.
- 28. Kihara, K., Takeuchi, T., Yoshimoto, S., Kondo, H. M., & Kawahara, J. I. (2015). Pupillometric evidence for the locus coeruleus-noradrenaline system facilitates attentional processing of action-triggered visual stimuli. **Frontiers in Psychology**, 6, 827.
- 27. Kondo, H. M., Nomura, M. & Kashino, M. (2015). Different roles of the COMT and HTR2A genotypes in working memory subprocesses. **PLOS ONE**, 10, e0126511.
- *26. Kondo, H. M., Toshima, I., Pressnizer, D., & Kashino, M. (2014). Probing the time course of head-motion cues integration during auditory scene analysis. **Frontiers in Neuroscience**, 8, 170.
- *25. Toshima, I., Aoki, S., Kondo, H. M., Kashino, M., & Hirahara, T. (2013). Usefulness of acoustical telepresence robot for auditory psychophysics (in Japanese). **Journal of the Robotics Society of Japan**, 31, 788-796.
- 24. Koizumi, A., Kitagawa, N., Kondo, H. M., Kitamura, M. S., Sato, T., & Kashino, M. (2013). Serotonin transporter gene-linked polymorphism affects detection of facial expressions. **PLOS ONE**, 8, e59074.
- 23. Kondo, H. M., Kitagawa, N., Kitamura, M. S., Koizumi, A., Nomura, M., & Kashino, M. (2012). The separability and commonality of auditory and visual bistable perception. **Cerebral Cortex**, 22, 1915-1922.
- 22. Kondo, H. M., Pressnizer, D., Toshima, I., & Kashino, M. (2012). The effects of self-motion on auditory scene analysis. **Proceedings of the National Academy of Sciences of the United States of America**, 109, 6775-6780.

- *21. Kashino, M., & Kondo, H. M. (2012). Functional brain networks underlying perceptual switching: auditory streaming and verbal transformations. **Philosophical Transactions of the Royal Society B: Biological Sciences**, 367, 977-987.
20. Koizumi, A. Kitagawa, N., Kitamura, M. S., Kondo, H. M., Sato, T. & Kashino, M. (2010). Serotonin transporter gene and inhibition of conflicting emotional information. **NeuroReport**, 21, 422-426.
19. Kondo, H. M., & Kashino, M. (2009). Involvement of the thalamocortical loop in the spontaneous switching of percepts in auditory streaming. **Journal of Neuroscience**. 29, 12695-12701.
- *18. Tsubomi, H., Kondo, H. M., & Watanabe, K. (2008). Common capacity limit for visual short-term memory with and without delay interval. **Japanese Journal of Psychonomic Science**, 27, 119-120.
- *17. Kondo, H. M. (2008). Neural correlates of the formation of auditory percepts (in Japanese). **Japanese Journal of Psychonomic Science**, 27, 75-79.
16. Kondo, H. M., & Kashino, M. (2007). Neural mechanisms of auditory awareness underlying perceptual changes. **NeuroImage**, 36, 123-130.
15. Morishita, M., Kondo, H., Ashida, K., Otsuka, Y., & Osaka, N. (2007). Predictive power of working memory task for reading comprehension: an investigation using reading span test (in Japanese). **Japanese Journal of Psychology**, 77, 495-503.
14. Otsuka, Y., Osaka, N., Morishita, M., Kondo, H., & Osaka, M. (2006). Decreased activation of anterior cingulate cortex in the working memory of the elderly. **NeuroReport**, 17, 1479-1482.
13. Kondo, H., Osaka, N., & Osaka, M. (2004). Cooperation of the anterior cingulate cortex and dorsolateral prefrontal cortex for attention shifting. **NeuroImage**, 23, 670-679.
12. Osaka, N., Osaka, M., Morishita, M., Kondo, H., & Fukuyama, H. (2004). A word expressing affective pain activates anterior cingulate cortex in the human brain: an fMRI study. **Behavioural Brain Research**, 153, 123-127.
11. Kondo, H., & Osaka, N. (2004). Susceptibility of spatial and verbal working memory to demands of the central executive. **Japanese Psychological Research**, 46, 86-97.
10. Osaka, N., Osaka, M., Kondo, H., Morishita, M., Fukuyama, H., & Shibasaki, H. (2004). The neural basis of executive function in working memory: an fMRI study based on individual differences. **NeuroImage**, 21, 623-631.
9. Kondo, H., Morishita, M., Osaka, N., Osaka, M., Fukuyama, H., & Shibasaki, H. (2004). Functional roles of the cingulo-frontal network in performance on working memory. **NeuroImage**, 21, 2-14.
8. Otsuka, Y., Morishita, M., Kondo, H., & Osaka, N. (2003). Relationship between reading comprehension and inhibitory mechanism in working memory (in Japanese). **Japanese Journal of Psychonomic Science**, 21, 131-136.
7. Osaka, N., Osaka, M., Kondo, H., Morishita, M., Fukuyama, H., & Shibasaki, H. (2003). An emotion-based facial expression word activates laughter module in the human brain: a functional magnetic resonance imaging study. **Neuroscience Letters**, 340, 127-130.
6. Osaka, M., Osaka, N., Kondo, H., Morishita, M., Fukuyama, H., Aso, T., & Shibasaki, H. (2003). The

neural basis of individual differences in working memory capacity: an fMRI study. **NeuroImage**, 18, 789-797.

5. Kondo, H., Morishita, M., Ashida, K., Otsuka, Y., & Osaka, N. (2003). Reading comprehension and working memory: structural equation modeling approach (in Japanese). **Japanese Journal of Psychology**, 73, 480-487.
- *4. Kondo, H. & Osaka, N. (2000). Testing the resource sharing model of working memory (in Japanese). **Japanese Journal of Psychonomic Science**, 19, 27-28.
3. Kondo, H. & Osaka, N. (2000). Effect of concreteness of target words on verbal working memory: an evaluation using Japanese version of reading span test (in Japanese). **Japanese Journal of Psychology**, 71, 51-56.
2. Kondo, H., Morishita, M., & Osaka, N. (2000). Verbal working memory and reading span test (in Japanese). **Japanese Psychological Review**, 42, 506-523.
- *1. Kondo, H. & Osaka, N. (1999). Interaction between spatial and verbal working memory (in Japanese). **Japanese Journal of Psychonomic Science**, 18, 89-90.

Book Section

1. Kashino, M., Okada, M., Mizutani, S., Davis, P., & Kondo, H.M. (2007) The dynamics of auditory streaming: psychophysics, neuroimaging, and modeling. In: Kollmeier, B., Klump, G., Hohmann, V, Langemann, U, Mauermann, M, Uppenkamp, S, Verhey, J. (Eds.), **Hearing - From Sensory Processing to Perception** (pp.275-283). Berlin: Springer.

Preprints

2. Koumura, T., Nakatani, M., Liao, H.-I., & Kondo, H. M. (2019). Deep, soft, and dark sounds induce autonomous sensory meridian response. **bioRxiv**. DOI: 10.1101/2019.12.28.889907
1. Honda, S., Ishikawa, Y., Konno, R., Imai, E., Nomiya, N., Sakurada, K., Koumura, T., Kondo, H., Furukawa, S., Fujii, S., Nakatani, M. (2019). Proximal binaural sound can induce subjective frisson. **arXiv:1904.06851**.

Conference Presentations (international only)

Talks and Posters

* Asterisks indicate invited talks.

30. Terashima, K., Kihara, K., Kawahara, J. I., & Kondo, H. M. (January 2020). Auditory sustained attention fluctuates similarly to visual sustained attention. **Poster Presented at the 43rd Association for Research in Otolaryngology MidWinter Meeting**, San Jose, CA, USA.
- *29. Kondo, H. M., Pressnitzer, D., Toshima, I., & Kashino, M. (November 2016). Effects of source- and head-motion on auditory perceptual organization. **Paper Presented at the 5th Joint Meeting of the Acoustical Society of America and the Acoustical Society of Japan**, Honolulu, HI, USA. Invitation by Dr. Griffin D. Romigh & Dr. Douglas S Brungart.

- *28. Kondo, H. M. (June 2016). Neural mechanisms of auditory and visual scene analysis. **Paper Presented at CNRS-NTT Joint Seminar 2016**, Fontainebleau, France. Invitation by Dr. Daniel Pressnitzer.
- 27. Takeuchi, T., Yoshimoto, S., Shimada, Y., Kochiyama, T., & Kondo, H. M. (October 2015). Individual differences in visual motion perception and the associated excitatory and inhibitory neurotransmitter concentrations in the brain. **Poster Presented at OSA Fall Vision Meeting 2015**, San Jose, CA, USA.
- *26. Kondo, H. M. (June 2015). Sensory-perceptual transformations for auditory scene analysis. **Paper Presented at the 9th International Conference on Complex Medical Engineering**, Okayama, Japan. Invitation by Dr. Koji Abe.
- 25. Kihara, K., Takeuchi, T., Yoshimoto, S., Kondo, H. M., & Kawahara, J. I. (May 2014). The locus coeruleus-noradrenaline system facilitates attentional processing of action-triggered visual stimuli. **Poster Presented at Vision Sciences Society Meeting 2014**, St. Pete Beach, FL, USA.
- 24. Kondo, H. M., Pressnitzer, D., Toshima, I., & Kashino, M. (December 2013). Effects of sound motion and head motion on the resetting of auditory streaming. **Poster Presented at the 2nd Meeting of UCL-NTT Collaboration "Deep Brain Communication" Project**, Atsugi, Japan.
- 23. Toshima, I., Kondo, H. M., Pressnitzer, D. & Kashino, M. (March 2013). Evaluating the effect of head motion on auditory streaming using an acoustical telepresence robot: TeleHead. **Poster Presented at Final Symposium on JST-ANR Binaural Active Audition for Humanoid Robots**, Kyoto, Japan
- *22. Kondo, H. M., Pressnitzer, D., Toshima, I., & Kashino, M. (May 2012). Effect of source-motion and self-motion on the resetting of auditory scene analysis. **Paper Presented at Acoustics 2012**, Hong Kong, China. Invitation by Dr. Mounya Elhilali.
- *21. Kondo, H. M. (Nov 2011). Sensory-perceptual transformations for auditory scene analysis. **Paper Presented at NTT-ENS Workshop 2011**, Paris, France. Invitation by Dr. Alain de Cheveigné.
- 20. Koizumi, A., Kitagawa, N., Suzuki, M. K., Kondo, H. M., Sato, T. & Kashino, M. (July 2011). The serotonin transporter gene and gender affect detection of facial expression. **Poster Presented at the International Society for Research on Emotion 2011 Conference**, Kyoto, Japan.
- 19. Kondo, H. M., Kitagawa, N., Kitamura, M. S., Koizumi, A., Nomura, M., & Kashino, M. (June 2011). Separability and commonality of auditory and visual bistable perception. **Poster Presented at the 15th Association for the Scientific Study of Consciousness**, Kyoto, Japan.
- 18. Nomura, M., Kondo, H. M., & Kashino, M. (June 2010). Impulsive-related human prefrontal brain activation during Go/No-go task is modulated by COMT Val158Met polymorphism: an fMRI study. **Paper presented at the International College of Neuropsychopharmacology 2010**, Hong Kong, China.
- 17. Kashino, M., Kondo, H. M., Kitagawa, N., Kitamura, M. S., & Nomura, M. (February 2010). The effects of the catechol-O-methyltransferase (COMT) Val¹⁵⁸Met polymorphism on auditory and visual bistable perception. **Paper Presented at the 33rd Association for Research in Otolaryngology**, Anaheim, CA, USA.
- 16. Koizumi, A., Kitagawa, N., Suzuki, M. K., Kondo, H. M., & Kashino, M. (August 2009). The serotonin transporter polymorphism (5HTTLPR) affects behavioral performance of an emotional face-word Stroop task. **Poster Presented at the International Society for Research on Emotion 2009 Conference**,

Leuven, Belgium.

15. Kitagawa, N., Suzuki, M. K., Kondo, H. M., Nomura, M., & Kashino, M. (August 2008). Perceptual transitions in bistable perception occur correlatively between vision and hearing. **Poster Presented at the 31st European Conference of Visual Perception**, Utrecht, Netherlands.
14. Kashino, M., Kondo, H. M., & Okada, M. (June 2008). Perceptual dynamics of auditory streaming and its neural correlates. **Paper Presented at Acoustics 2008**, Paris. Lay Language paper
13. Tsubomi, H., Kondo, H. M., & Watanabe, K. (May 2008). Common capacity limit for visual perception and working memory. **Poster Presented at Vision Sciences Society Meeting 2008**, Naples, FL, USA.
12. Nomura, M., Kondo, H. M., & Kashino, M. (August 2007). 5-HT2A receptor gene polymorphism can explain ventrolateral prefrontal cortex activation to monetary during Go/no-go task. **Poster Presented at the 30th European Conference of Visual Perception**, Arezzo, Italy.
11. Kashino, M., Okada, M., Mizutani, S., Davis, P., & Kondo, H. M. (August 2006). The dynamics of auditory streaming: psychophysics, neuroimaging, and modeling. **Paper Presented at the International Symposium on Hearing 2006**, Kloppenburg, Germany.
10. Nomura, M., Kondo, H. M., & Kashino, M. (June 2006). 5-HT2A receptor gene polymorphism modulates activation in the human ventrolateral frontal lobe during Go/No-go task. **Poster Presented at the 12th Human Brain Mapping**, Florence, Italy.
9. Kondo, H., & Kashino, M. (February 2005). Distributed brain activation involved in the changes of auditory perceptual organization: an fMRI study on the verbal transformation illusion. **Poster Presented at the 28th Association for Research in Otolaryngology**, New Orleans, LA, USA.
8. Otsuka, Y., Kondo, H., Morishita, M., & Osaka, N. (August 2004). Aging effect on the neural basis of controlled attention in working memory. **Poster Presented at the 2nd International Conference on Working Memory**, Kyoto, Japan.
7. Kondo, H., Morishita, M., Osaka, N., Osaka, M., Fukuyama, H., & Shibasaki, H. (August 2004). The modulation of the cingulo-prefrontal network for verbal and visuospatial working memory: an fMRI study. **Poster Presented at the 2nd International Conference on Working Memory**, Kyoto, Japan.
6. Osaka, N., Osaka, M., Kondo, H., Morishita, M., Fukuyama, H., & Shibasaki, H. (November 2003). Neural basis of executive function in working memory: an individual difference in reading span. **Poster Presented at the 33rd Annual Meeting of the Society for Neuroscience**, New Orleans, LA, USA
5. Kondo, H. (October 2003). Cingulo-prefrontal network and working memory. **Paper Presented at NTT-UCL Joint Workshop on Human Information Processing 2003**, Kyoto, Japan.
4. Osaka, N., Kondo, H., Morishita, M., Osaka, M., Fukuyama, H., Aso, T., & Shibasaki, H. (July 2003). Executive function based an ACC-PFC network in working memory: an individual difference based fMRI study. **Poster Presented at the 6th IBRO World Congress of Neuroscience**, Prague, Czech.
3. Kondo, H., & Osaka, N. (September 2002). Sensitivity of visual and spatial working memory to demands of central executive. **Poster Presented at the 1st European Working Memory Symposium**, Ghent, Belgium.
2. Kondo, H., & Osaka, N. (July 2001). Selective interference between visual and spatial working memory.

Poster Presented at the 3rd International Conference on Memory, Valencia, Spain.

1. Osaka, N., Kondo, H., & Morishita, M. (April 1998) Blindsight in transparent motion perception. **Paper Presented at Toward a Science of Consciousness 1998 "Tucson III"**, Tucson, AZ, USA.

Professional Activities

Organizing Seminar

The CNRS-NTT Joint Seminar 2016 (June 14-16), "Theoretical and Experimental Approaches Towards Auditory Scene Analysis" (together with Daniel Pressnitzer), Fontainebleau, France.

Editorial Service

Editorial Board Member: **Scientific Reports** (May 2019 – Present)

Lead Guest Editor: Special issue on "Auditory and Visual Scene Analysis", **Philosophical Transactions of the Royal Society B: Biological Sciences** (published in 2017).

Journal Review

Brain Imaging and Behavior; Cerebral Cortex; Cortex; Current Medical Imaging Reviews; European Journal of Neuroscience; Frontiers in Auditory Cognitive Neuroscience; Frontiers in Consciousness Research; Frontiers in Systems Neuroscience; Hearing Research; International Journal of Psychology; IEEE Transactions on Biomedical Engineering; Japanese Psychological Research; Journal of Cognitive Neuroscience; Journal of Neuroscience Methods; Journal of Vision; Neuroimage; Neuroscience; Philosophical Transactions of the Royal Society B; PLOS ONE; Psychophysiology; Schizophrenia Research; The Open Neuroimaging Journal.

Grant Review

German-Israeli Project Cooperation (DIP), Israel

Professional Affiliations

Association for Psychological Science (Member)

Japan Neuroscience Society (Member)

Japanese Psychological Association (Member)

Japanese Psychonomic Society (Member)

Society for Neuroscience (Member)