

CURRICULUM VITAE

STEFAN KÖHLER, PH.D.

CURRENT ADDRESS

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CURRENT AND PAST POSITIONS

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|----------------|--|
| 2014 – present | Professor, Dept. of Psychology, Brain and Mind Institute & Graduate Program in Neuroscience, University of Western Ontario |
| 2006 – 2014 | Associate Professor, Dept. of Psychology, Brain and Mind Institute & Graduate Program in Neuroscience, University of Western Ontario |
| 2008 – present | Associate Scientist, Rotman Research Institute, Baycrest Centre, Toronto |
| 2000 – 2006: | Assistant Professor, Dept. of Psychology & Graduate Program in Neuroscience, University of Western Ontario |
| 1998 – 2000: | Research Associate, Cognitive Neuroscience Unit, Montreal Neurological Institute, McGill University |
| 1995 – 1998: | Post-Doctoral Research Fellow, Rotman Research Institute, University of Toronto |

UNIVERSITY EDUCATION

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|--------------|--|
| 1991 – 1995: | Ph.D., Psychology, University of Toronto
in addition: Completion of the Collaborative Program in Neuroscience at the Ph.D. level, University of Toronto
<i>Thesis:</i> Visual long-term memory for spatial location and object identity in humans: Neural correlates and cognitive processes
<i>Supervisor:</i> Morris Moscovitch |
| 1985 – 1991: | Diplom, Psychology, Universität Bielefeld, Germany
<i>Thesis:</i> Memory deficits in patients with Alzheimer's disease
<i>Supervisor:</i> Wolfgang Hartje |

AREAS OF RESEARCH INTEREST

General: Cognitive neuroscience
 Specific: Memory & amnesia
 Visual cognition
 Affective neuroscience

ACADEMIC HONORS

2014 – 2016: Faculty Scholar, Faculty of Social Science, University of Western Ontario
 2007 – 2008: Katz Visiting Scientist Award, Baycrest Centre, Toronto
 2003: Premier's Research Excellence Award (PREA), Province of Ontario
 1998: Jack and Rita Catherall Research Scholarship
 Baycrest Centre for Geriatric Care, Toronto
 1995 – 1998: Women's Auxiliary Alzheimer Research Fellowship,
 Baycrest Centre for Geriatric Care, Toronto
 1996: Honorable Mention for Shahin Hashtroudi Memorial
 Dissertation Award of the American Psychological Society
 1994 – 1996: Ontario Graduate Scholarship, Ontario Ministry of
 Education and Training
 1991 – 1994: Connaught Fellowship, University of Toronto
 (most prestigious fellowship for international students at U of T)
 1991: Award of honor for the completion of the Diplom degree in
 psychology, Universität Bielefeld

RESEARCH GRANTS

PRESENT

Köhler, S. (2018). Neural mechanisms linking memory and interoception. Natural Sciences and Engineering Research Council of Canada (Principal Applicant; operating grant; 5 years; annual amount granted \$40,000; total amount \$200,000).

Culham, J. C., Goodale, M., Martinez-Trujillo, J. Johnsrude, I., Eagleson, R., Menon, R., **Köhler, S.**, Peters, T., Mitchell, D. Owen, A. (2018). Equipment for Neuroimaging of Virtual Stimuli and Virtual Interactions. Natural Sciences and Engineering Research Council of Canada (Co-Applicant; equipment grant; total amount \$ 146,517).

Khan, A., **Köhler, S.**, Johnsrude, I., Menon, R., Mirsattari, S., Rosenbaum, S., Burneo, J., Hammond, R., Peter, T, Steven, D. (2016). Probing hippocampal integrity with ultra-high resolution MRI and behaviour in temporal lobe epilepsy. Canadian Institutes of

Health Research (Co-Principal Applicant with A. Khan as Nominated Principle Applicant; operating grant; 4 years; annual amount granted \$114,675; total amount \$ 458,700).

Menon, R., Ansari, D., Bartha, R., Cusack, R., Everling, S., Goodale, M., **Köhler, S.**, Lomber, S., Owen, A., Williamson, P. (2016). Centre for Functional and Metabolic Mapping. Brain Canada Foundation (Co-Applicant; platform support grant; annual amount granted \$1,000,000; total amount \$3,000,000).

PAST

Köhler, S. (2015). Imaging brain mechanisms of successful antidepressant treatment at ultra-high resolution. University of Western Ontario. Faculty Research Development Fund (Principal Applicant; operating grant; 1 year; total amount granted \$5,000).

Köhler, S. (2012). Neural mechanisms involved in recognition of famous people. Natural Sciences and Engineering Research Council of Canada (Principal Applicant; operating grant; 5 years; annual amount granted \$31,000; total amount \$155,000).

Köhler, S. (2013). Delusional misidentification in Alzheimer's disease and related dementias. Alzheimer Foundation London and Middlesex (Principal Applicant; operating grant; 2 years; annual amount granted \$50,000; total amount \$100,000).

Sullivan, J., **Köhler, S.** (2013). The epistemic status of fMRI. Rotman Institute of Philosophy (Co-Principal Applicant; catalyst operating grant; 1 year; total amount \$10,000).

Köhler, S. (2009), Mirsattari, S. Neural mechanisms of familiarity assessment. Canadian Institutes of Health Research (Principal Applicant; operating grant; 5 years; annual amount granted \$84,835; total amount \$424,175).

Goodale, M.A., Culham, J.C., Gribble, P.L., Joanisse, J.M.F., **Köhler, S.**, Minda, J.P., Ansari, D. (2010). Transcranial magnetic stimulation for research in cognitive neuroscience. Natural Sciences and Engineering Research Council of Canada (Co-Applicant; equipment grant; total amount \$98,178).

Köhler, S. (2007). Presurgical evaluation of memory function with fMRI in intractable temporal-lobe epilepsy. Savoy Foundation (Principal Applicant; operating grant; 1 year; total amount \$29,163).

Köhler, S. (2006). Neural mechanisms of perceptual priming. Natural Sciences and Engineering Research Council of Canada (Principal Applicant; operating grant; 5 years; extended by additional year; annual amount granted \$19,810; total amount \$99,050).

Gawronski, B., Morton, B., **Köhler, S.** (2006). Mathematical modeling of self-regulation processes. University of Western Ontario. Academic Development Fund. New Research and Scholarly Initiative Award (Co-Applicant; operating grant; 1 year; total amount granted \$46,478).

Köhler, S. (2004). Medial temporal-lobe contributions to novelty detection and recognition memory. Canadian Institutes of Health Research (Principal Applicant; operating grant; 3 years and extended for 4th year; annual amount granted \$71,201; total amount \$221,217).

Goodale, M., Corneil, B., Crawford, J.D., Culham, J., Everling, S., **Köhler, S.**, Menon, R., Tweed, D., Vilis, T. (2004) Neural transformations for perception and action. Canadian Institutes of Health Research (Co-Applicant; group grant; 5 years; annual amount granted \$454,440; total amount \$2,272,200)

Köhler, S. (2003). Neural basis of human novelty detection. Premier's Research Excellence Award (PREA). (Principal Applicant; grant for graduate student support; 5 years; total amount granted including university contributions \$150,000).

Köhler, S., Everling, S., Gribble, P., & Joannisse, M. (2001). Multidisciplinary approaches to cognitive neuroscience. Canadian Foundation for Innovation (Principal Applicant together with 3 other Principal Applicants; New Opportunities Grant for Infrastructure; 2 years; total amount granted including partner contributions \$659,293).

Köhler, S. (2001). Memory encoding of object locations. Natural Sciences and Engineering Research Council of Canada (Principal Applicant; operating grant; 4 years; annual amount granted \$17,000; total amount \$ 68,000).

Köhler, S. (2001). Laboratory set-up to perform fMR image analysis. Natural Sciences and Engineering Research Council of Canada (Principal Applicant; equipment grant; amount granted \$8,000).

Köhler, S. (2001). Memory impairments after two different forms of surgical intervention. University of Western Ontario. Academic Development Fund. New Research and Scholarly Initiative Award (Principal Applicant; operating grant; 1 year (extended); total amount granted \$7,443).

PUBLICATIONS AND PRESENTATIONS

REFEREED MANUSCRIPTS – SUBMITTED

(* supervised trainee is first author)

*DeKraker, J., Lau, J.C., Ferko, K.M., Khan, A.R. & **Köhler, S.** (submitted). Hippocampal morphology and cytoarchitecture in the 3D BigBrain. [bioRxiv](#), 599571.

REFEREED MANUSCRIPTS – PUBLISHED OR IN PRESS

(* supervised trainee is first author)

*Martin C.B., Mirsattari, S.M., Pruessner, J.C., Burneo, J.G., Hayman-Abello, B. & **Köhler, S.** (in press). Relationship between déjà vu experiences and recognition-memory impairments in temporal lobe epilepsy. [Memory](#).

*Yang, H., Laforge, G., Stojanoski, B., Nichols, E.S., McRae, K. & **Köhler, S.** (2019). Late positive complex in event-related potentials tracks memory signals when they are decision relevant. [Scientific Reports](#), *9*, 9469.

Anderson, N.D., Martin, C.B., Czyzo, J., & **Köhler S.** (2019). When gist and familiarity collide: Evidence from false recognition in younger and older adults. [The Journals of Gerontology Series B Psychological Sciences and Social Sciences](#), *74*, 927-932.

Inhoff, M.C., Heusser, A.C., Tambini, A., Martin, C.B., O’Neil, E.B., **Köhler, S.**, Meager, M.R., Blackmon, K., Vazquez, B., Devinsky, O., & Davachi, L., (2019). Understanding perirhinal contributions to perception and memory: Evidence through the lens of selective perirhinal damage. [Neuropsychologia](#), *124*, 9-18.

*Blumenthal, A., Stojanoski, B., Martin, C.B., Cusack, R., & **Köhler S.** (2018). Animacy and real world size shape object representations in the human medial temporal lobes. [Human Brain Mapping](#), *39*, 3779-3792.

*DeKraker J., Ferko K.M., Lau J.C., **Köhler S.**, & Khan A.R. (2018). Unfolding the hippocampus: An intrinsic coordinate system for subfield segmentations and quantitative mapping. [Neuroimage](#), *167*, 408-418.

*Martin C.B., Sullivan J.A., Wright J, & **Köhler S.** (2018). How landmark suitability shapes recognition memory signals for objects in the medial temporal lobes. [Neuroimage](#), *166*, 425-436.

Lacot, E., Vautier, S., **Köhler, S.**, Pariente, J., Martin, C., Puel, M., Lotterie, J.A. & Barbeau, E.J. (2017). Familiarity and recollection vs representational models of

medial temporal lobe structures: a single-case study. Neuropsychologia, 104, 76-91.

- *Blumenthal, A., Duke, D., Bowles, B., Gilboa, A., Rosenbaum, R. S., **Köhler, S.**, & McRae, K. (2017). Abnormal semantic knowledge in a case of developmental amnesia. Neuropsychologia, 102, 237-247.
- *Fiacconi, C. M., Kouptsova, J. E., & **Köhler, S.** (2017). A role for visceral feedback and interoception in feelings-of-knowing. Consciousness and Cognition, 53, 70-80.
- Staresina, B. & **Köhler, S.** (2017). Die neuronale Zeitmaschine. Gehirn & Geist, 16, 50-55.
- Josselyn, S. A., **Köhler, S.**, & Frankland, P. W. (2017). Heroes of the engram. Journal of Neuroscience, 37, 4647-4657.
- *Duke, D., Martin, C. B., Bowles, B., McRae, K., & **Köhler, S.** (2017). Perirhinal cortex tracks degree of recent as well as cumulative lifetime experience with object concepts. Cortex, 89, 61-70.
- *Bowles, B., Duke, D., Rosenbaum, S., McRae, K., & **Köhler, S.** (2016). Impaired assessment of cumulative lifetime familiarity for object concepts after left anterior temporal-lobe resection that includes perirhinal cortex but spares the hippocampus. Neuropsychologia, 90, 170-179.
- *Fiacconi, C.M., Peter, E. L., Owais, S. & **Köhler, S.** (2016). Knowing by heart: Visceral feedback shapes recognition memory judgments. Journal of Experimental Psychology: General, 145, 559-572.
- Epp, J.R., Mera, R.S., **Köhler, S.**, Josselyn, S.A., & Frankland, P.W. (2016). Neurogenesis-mediated forgetting minimizes proactive interference. Nature Communications, 7, 10838.
- *Martin, C.B., Cowell, R.A., Gribble, P.L., Wright, J., & **Köhler, S.** (2016). Distributed category-specific recognition memory signals in human perirhinal cortex. Hippocampus, 26, 423-436.
- *Fiacconi, C. M., Dekraker, J., & **Köhler, S.** (2015). Psychophysiological evidence for the role of emotion in adaptive memory. Journal of Experimental Psychology: General, 144, 925-933.
- Josselyn, S. A., **Köhler, S.**, & Frankland, P. W. (2015). Finding the engram. Nature Reviews Neuroscience, 16, 521-534.

- *Fiacconi, C.M., Barkley, V., Duke, D., Finger, E.C., Rosenbaum, R.S., Carson, N., Gilboa, A., & **Köhler, S.** (2014). Nature and extent of person recognition impairments associated with Capgras Syndrome in Lewy Body Dementia. Frontiers in Human Neuroscience, 8, 726.
- *Bowles, B., & **Köhler, S.** (2014). Availability of semantic knowledge in familiar-only experiences for names. Journal of Experimental Psychology: Learning, Memory and Cognition, 40, 724-37.
- *O'Neil, E.B., Hutchison, R.M., McLean, D.A., & **Köhler, S.** (2014). Resting-state fMRI reveals functional connectivity between face-selective perirhinal cortex and the fusiform face area related to face inversion. NeuroImage, 92, 349-355.
- *Duke, D., Fiacconi, C.M., & **Köhler, S.** (2014). Parallel effects of processing fluency and positive affect on familiarity-based recognition decisions for faces. Frontiers in Psychology, 5, 328.
- Frankland, P.W., **Köhler S.** & Josselyn, S.A. (2013). Hippocampal neurogenesis and forgetting. Trends in Neurosciences, 36, 497-503.
- *Martin, C.B., McLean, D.A., O'Neil, E.B., & **Köhler S.** (2013). Distinct familiarity-based response patterns for faces and buildings in perirhinal and parahippocampal cortex. Journal of Neuroscience, 33, 10915-10923.
- *O'Neil E.B., Barkley, V.A. & **Köhler S.** (2013). Representational demands modulate involvement of perirhinal cortex in face processing. Hippocampus, 23, 592-605.
- *Martin C.B., Mirsattari S.M., Pruessner J.C., Pietrantonio S., Burneo J.G., Hayman-Abello B., **Köhler S.** (2012). Déjà vu in unilateral temporal-lobe epilepsy is associated with selective familiarity impairments on experimental tasks of recognition memory. Neuropsychologia, 50, 2981-2991.
- *O'Neil E.B., Protzner A.B., McCormick C., McLean D.A., Poppenk J., Cate A.D., & **Köhler S.** (2012). Distinct patterns of functional and effective connectivity between perirhinal cortex and other cortical regions in recognition memory and perceptual discrimination. Cerebral Cortex, 22, 74-85.
- *Bowles, B, Harlow, A.M., Meeking, M.M., & **Köhler S.** (2012). Discriminating famous from fictional names based on lifetime experience: Evidence in support of a signal detection model based on finite mixture distributions. Journal of Experimental Psychology: Learning, Memory and Cognition, 38, 78-91.
- Rosenbaum R.S., Carson N., Abraham N., Bowles B., Kwan D., **Köhler S.**, Svoboda E., Levine B., & Richards B. (2011). Impaired event memory and recollection in a case of developmental amnesia. Neurocase, 17, 394-409.

- *Bowles, B., O'Neil, E.B., Mirsattari, S.M., Poppenk, J., & **Köhler S.** (2011). Preserved hippocampal novelty responses following anterior temporal-lobe resection that impairs familiarity but spares recollection. Hippocampus, 21, 847-854.
- *Martin C.B., Bowles B., Mirsattari S.M., & **Köhler S.** (2011). Selective familiarity deficits after left anterior temporal-lobe removal with hippocampal sparing are material specific. Neuropsychologia, 49, 1870-1878.
- *Cate A.D., Goodale M.A., & **Köhler S.** (2011). The role of apparent size in building- and object-specific regions of ventral visual cortex. Brain Research, 1388, 109-122.
- Poppenk, J., **Köhler, S.**, Moscovitch, M. (2010). Revisiting the novelty effect: When familiarity, not novelty, enhances memory. Journal of Experimental Psychology: Learning, Memory and Cognition, 36, 1321-1330.
- *Bowles B., Crupi, C., Pigott, S., Parrent, A., Wiebe, S., Janzen L., & **Köhler S.** (2010). Double dissociation of selective recollection and familiarity impairments following two different surgical treatments for temporal-lobe epilepsy. Neuropsychologia, 48, 2640-2647.
- *O'Neil, E.B., Cate, A.D., & **Köhler S.** (2009). Perirhinal cortex contributes to accuracy in recognition memory and perceptual discriminations. Journal of Neuroscience, 29, 8329–8334.
- *Poppenk, J., Walia, G. , Joanisse, M.F., Klein, D., McIntosh, A.R., & **Köhler, S.** (2008). Why is the meaning of a sentence better remembered than its form? An fMRI study on the role of novelty-encoding processes. Hippocampus, 18, 909-918.
- Chouinard, P.A., Morrissey, B.F., **Köhler, S.**, Goodale, M.A. (2008). Repetition suppression in occipital-temporal visual areas is modulated by physical rather than semantic features of objects. Neuroimage, 41, 130-144.
- *Danckert, S.L., Gati, J., Menon, R.S., & **Köhler, S.** (2007). Perirhinal and hippocampal contributions to visual recognition memory can be distinguished from those of occipito-temporal structures based on conscious awareness of prior occurrence. Hippocampus, 17, 1081-1092.
- *Bowles B., Crupi C., Mirsattari S.M., Pigott S.E., Parrent A.G., Pruessner J.C., Yonelinas A.P., **Köhler, S.** (2007) Impaired familiarity with preserved recollection after anterior temporal-lobe resection that spares the hippocampus. Proceedings of the National Academy of Sciences USA, 104, 16382-16387.

- *Robertson, E.K. & **Köhler, S.** (2007). Insights from child development on the relationship between episodic and semantic memory. Neuropsychologia, *45*, 3178-3189.
- *Cothros, N., **Köhler, S.**, Dickie, E.W., Mirsattari, S.M., & Gribble, P.L. (2006). Proactive interference as a result of persisting neural representations of previously learned motor skills in primary motor cortex. Journal of Cognitive Neuroscience, *18*, 2167-2176.
- *Cate, A.D. & **Köhler, S.** (2006). The missing whole in perceptual models of perirhinal cortex. Trends in Cognitive Sciences, *10*, 396-397.
- *Ganel, T., Gonzalez, C.L.R., Valyear, K.F., Culham, J.C., Goodale, M.A., & **Köhler, S.** (2006). The relationship between fMRI adaptation and repetition priming. Neuroimage, *32*, 1432-1440.
- Cavina Pratesi C., Valyear K.F., Culham, J.C., **Köhler, S.**, Obhi, S. S., Marzi, C.A. & Goodale, M.A. (2006). Dissociating arbitrary stimulus-response mapping from movement planning during preparatory period: Evidence from event-related fMRI. Journal of Neuroscience, *26*, 2704-2713.
- Köhler, S.**, Danckert S., Gati J. S., & Menon R.S. (2005) Novelty responses to relational and non-relational information in the hippocampus and the parahippocampal region: A comparison based on event-related fMRI. Hippocampus, *15*, 763-774.
- Rosenbaum, R.S., **Köhler, S.**, Schacter, D.L., Moscovitch, M., Westmacott, R., Black, S.E., Gao, F., & Tulving, E. (2005). The Case of K.C.: Contributions of a memory-impaired person to memory theory. Neuropsychologia, *43*, 989-1021.
- Gilboa, A., Ramirez, J., **Köhler, S.**, Westmacott, R., Black, S.E., & Moscovitch, M. (2005). Retrieval of autobiographical memory in Alzheimer's disease: Relation to volumes of medial temporal lobe and other structures. Hippocampus, *15*, 535-550.
- Köhler, S.**, Paus, T., Buckner, R.L., & Milner, B. (2004). Effects of left inferior prefrontal stimulation on episodic memory formation: A two-stage fMRI-rTMS study. Journal of Cognitive Neuroscience, *16*, 178 – 188.
- Köhler, S.**, Crane, J., Milner, B. (2002). Differential contributions of the parahippocampal place area and the anterior hippocampus to human memory for scenes. Hippocampus, *12*, 718-723.
- Pruessner, J.C., **Köhler, S.**, Crane, J., Pruessner, M., Lord, C., Byrne, A., Kabani, N., Collins, D.L., & Evans, A.C. (2002). Volumetry of temporopolar, perirhinal, entorhinal, and parahippocampal cortex from high-resolution MR images:

Considering the variability of the collateral sulcus. Cerebral Cortex, 12, 1342-1353.

Schiavetto, A., **Köhler, S.**, Winocur, G., Grady, C.L. & Moscovitch, M., (2002). Neural correlates of object and spatial memory: Effects of aging. Neuropsychologia, 40, 1428-1442.

Köhler, S., Moscovitch, M., & Melo, B. (2001). Episodic memory for object location versus episodic memory for object identity: Do they rely on distinct encoding processes? Memory & Cognition, 29, 948-959.

Köhler, S., Moscovitch, M., Winocur, G., & McIntosh, A.R. (2000). Episodic encoding and recognition of pictures and words: Role of the human medial temporal lobes. Acta Psychologica, 105, 159-179.

Rosenbaum, R.S., Priselac, S., **Köhler, S.**, Black, S.E., Gao, F., Nadel, L., Moscovitch, M. (2000). Remote spatial memory in an amnesic person with extensive bilateral hippocampal lesions. Nature Neuroscience, 3, 1044-1048.

Trinka, E., Dubeau, F., Andermann, F., Hui, A., Bastos, A., Li, L.M., **Köhler, S.**, & Olivier, A. (2000). Successful epilepsy surgery in catastrophic postencephalitic epilepsy. Neurology, 54, 2170-2173.

Trinka, E., Dubeau, F., Andermann, F., Bastos, A., Hui, A., Li, L.M., **Köhler, S.**, & Olivier, A. (2000). Clinical findings, imaging characteristics and outcome in catastrophic post-encephalitic epilepsy. Epileptic Disorders, 2, 153-162.

Köhler, S., McIntosh, A.R., Moscovitch, M., & Winocur, G. (1998). Functional interactions between the medial temporal lobes and posterior neocortex related to episodic memory retrieval. Cerebral Cortex, 8, 451-461.

Köhler, S., Black, S.E., Sinden, M., Szekely, C., Kidron, D., Parker, J.L., Foster, J.K., Moscovitch, M., Winocur, G., Szalai, J.P., & Bronskill, M.J. (1998). Memory impairments associated with hippocampal versus parahippocampal-gyrus atrophy: An MR volumetry study in Alzheimer's disease. Neuropsychologia, 36, 901-914.

Köhler, S., Moscovitch, M., Winocur, G., Houle, S., & McIntosh, A.R. (1998). Networks of domain-specific and general regions involved in episodic memory for spatial location and object identity. Neuropsychologia, 36, 129-142.

Köhler, S., Kapur, S., Moscovitch, M., Winocur, G. & Houle, S. (1995). Dissociation of pathways for object and spatial vision: A PET study in humans. NeuroReport, 6, 1865-1868.

Moscovitch, M., Kapur, S., **Köhler, S.**, & Houle, S. (1995). Distinct neural correlates of visual long-term memory for spatial location and object identity: A positron emission tomography (PET) study in humans. Proceedings of the National Academy of Sciences USA, *92*, 3721-3725.

Köhler, S. (1994). Quantitative characterization of verbal learning deficits in patients with Alzheimer's disease. Journal of Clinical and Experimental Neuropsychology, *16*, 749-753.

BOOK CHAPTERS AND BOOK REVIEWS

(* supervised trainee is first author)

*Martin C.B., Fiacconi, C., & **Köhler S.** (2015). Déjà vu: A window into understanding the cognitive neuroscience of familiarity. In Addis, D.R., Barense, M., & Duarte, A. (Eds.), The Cognitive Neuroscience of Human Memory (pp 172-187). Hoboken: Wiley-Blackwell.

Köhler, S. (2008). Review of P. Frith, Making up the mind. How the brain creates our mental world. Oxford: Blackwell. Canadian Psychology, *49*, 344-345.

Köhler, S. (2001). Dictionary entries on terms related to 'human memory'. In P. Winn (Ed.), Dictionary of Biological Psychology. London: Routledge.

Köhler, S. & Moscovitch, M. (1997). Unconscious visual processing in neuropsychological syndromes: A survey of the literature and evaluation of models of consciousness. In M.D. Rugg (Ed.), Cognitive Neuroscience (pp. 305-373). Cambridge, MA: MIT Press.

PAPERS IN REFEREED CONFERENCE PROCEEDINGS

Köhler, S., Habib, R., Black, S.E., Szekely, C., Sinden, M., & Tulving, E. (1997). Cross-modal priming in the densely amnesic subject K.C. Brain and Cognition, *35*, 420-423. (Proceedings of the 7th Annual Conference of the Rotman Research Institute, Toronto, Ontario, Canada).

PUBLISHED ABSTRACTS

(first author or with first-author lab trainees since 2007)

*Ferko, K.M., Blumenthal, A., Proklova, D., Martin, C.B., Bussey, T. Saksida, L.M., Khan, A. & **Köhler, S.** (2019). Pattern separation in ventral visual stream. Society for Neuroscience Abstracts (Poster presented at 49th Annual Meeting of the Society for Neuroscience, Chicago, IL, USA).

- *Blumenthal, A., Martin, C.B., Cowell, R. & **Köhler, S.** (2018). Similarities in perirhinal cortex response patterns related to decision outcome in recognition memory judgments. Society for Neuroscience Abstracts (Poster presented at 48th Annual Meeting of the Society for Neuroscience, San Diego, CA, USA).
- *Yang, H., McRae, K. & **Köhler, S.** (2018) Late positive event-related potential tracks outcome of cumulative memory judgments. Supplement of the Journal of Cognitive Neuroscience, 74 (Poster presented at the 25th Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, USA).
- Blumenthal, A., Stojanoski, B., Martin, C., Cusack, R. & **Köhler, S.** (2017). Organization of object representations in the medial temporal lobe. Supplement of the Journal of Cognitive Neuroscience, 29 (Poster presented at the 24th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).
- DeKraker, J., Ferko, K, Khan, A., **Köhler, S.** (2016). Unravelling subfields of the hippocampal head with 7T MRI: leveraging the dark band. Society for Neuroscience Abstracts (Presentation in Nanosymposium on ‘Medial Temporal Lobe Subregion Imaging in Normal and Pathological Memory’ at 46th Annual Meeting of the Society for Neuroscience, San Diego, CA, USA).
- Blumenthal, A., Stojanoski, B., Martin, C., Cusack, R. & **Köhler, S.** (2016). Representational similarity analysis of category-related recognition-memory signals in the human medial temporal lobe. Journal of Vision (Poster presented at the 16th Annual Meeting of the Vision Sciences Society Sixteenth, St. Pete Beach, Florida, USA)
- DeKraker, J., Fiacconi, C.M., , **Köhler, S.** (2015). Autonomic contributions to adaptive memory. Supplement of the Journal of Cognitive Neuroscience, 27, 82 (Poster presented at the 22th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).
- Martin, C. , **Köhler, S.** (2015). Category-specific patterns of recognition memory signals in perirhinal and parahippocampal cortex. Supplement of the Journal of Cognitive Neuroscience, 27, 50 (Poster presented at the 22th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).
- Duke, D., Bowles, B., Martin, C.B., Rosenbaum, R. S., McRae, K., **Köhler, S.** (2014) Human perirhinal cortex supports frequency judgments as well as judgments of cumulative lifetime familiarity. Society for Neuroscience Abstracts (Poster presented at 44th Annual Meeting of the Society for Neuroscience Washington, DC, USA).
- Fiacconi, C.M., Barkley, V., Finger, E.C., Duke, D., Rosenbaum, R. S., Gilboa, A., **Köhler, S.** (2014). Person Recognition Impairments and Autonomic Deficits

Associated with Capgras Syndrome in Lewy Body Dementia. Society for Neuroscience Abstracts (Poster presented at 44th Annual Meeting of the Society for Neuroscience Washington, DC, USA).

O'Neil, E. & **Köhler, S.** (2014). Functional role and connectivity of perirhinal cortex in face processing. Journal of Vision (Invited talk in symposium on 'Beyond the FFA: The role of the ventral anterior temporal lobes in face processing' at the Annual Meeting of the Vision Sciences Society, St. Pete Beach, Florida, USA).

O'Neil, E., Hutchison, R.M., McLean, D.A., & **Köhler, S.** (2013). Resting state data in humans reveal behaviorally-relevant connectivity between the 'anterior face patch' in perirhinal cortex and the fusiform face area. Society for Neuroscience Abstracts (Poster presented at 43rd Annual Meeting of the Society for Neuroscience, San Diego, California, USA).

Köhler, S., Bowles, B., & McRae, K. (2013). Concept familiarity, frequency judgments, and semantic knowledge after anterior temporal lobe resection that spares the hippocampus. Supplement of the Journal of Cognitive Neuroscience, 25, 51 (Poster presented at the 20th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).

Duke, D., Bowles, B., Gilboa, A., Rosenbaum, S.R. McRae, K. & **Köhler, S.** (2013). Abnormal semantic memory structure in a case of developmental amnesia. Supplement of the Journal of Cognitive Neuroscience, 25, 81 (Poster presented at the 20th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).

Martin, C.B., McLean, D.A., O'Neil, E.B., & **Köhler, S.** (2013). Distinct patterns of familiarity responses for faces and buildings revealed with multi-voxel pattern analysis in perirhinal and parahippocampal cortex. Supplement of the Journal of Cognitive Neuroscience, 25, 168 (Poster presented at the 20th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).

Bowles, B., O'Neil, E., Barkley, V. & **Köhler, S.** (2011). That name rings a bell! An fMRI investigation of the role of semantic knowledge in 'familiarity-only' experiences. Society for Neuroscience Abstracts (Poster presented at 41st Annual Meeting of the Society for Neuroscience, Washington, D.C., USA).

O'Neil, E., Barkley, V. & **Köhler, S.** (2011). Comparing perirhinal cortex activity during memory, oddball and visual search tasks involving faces. Society for Neuroscience Abstracts (Poster presented at 41st Annual Meeting of the Society for Neuroscience, Washington, D.C., USA).

Bowles, B., McRae, K., **Köhler, S.** (2010). A link between familiarity impairments in recognition memory and impairments in familiarity assessment for semantic concepts acquired over a lifetime. Supplement of the Journal of Cognitive

Neuroscience, 22, 57 (Poster presented at the 17th Annual Meeting of the Cognitive Neuroscience Society, Montreal, Quebec, Canada).

Martin, C., Mirsattari, S., Hayman-Abello, B., Burneo, J., **Köhler, S.** (2010). Selective familiarity impairments in temporal lobe epilepsy with déjà vu. Supplement of the Journal of Cognitive Neuroscience, 22, 276 (Poster presented at the 17th Annual Meeting of the Cognitive Neuroscience Society, Montreal, Quebec, Canada).

Bowles, B., Gordon, M., & **Köhler, S.** (2009). The role of familiarity and recollection in fame judgements: A receiver operating characteristics (ROC) analysis. Supplement of the Journal of Cognitive Neuroscience, 21, 137 (Poster presented at the 16th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).

O'Neil, E., Cate, A., Poppenk, J., & **Köhler, S.** (2009). Distinct patterns of functional connectivity between perirhinal cortex and other cortical regions in recognition memory and perceptual discrimination. Supplement of the Journal of Cognitive Neuroscience, 21, 59 (Poster presented at the 16th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).

Köhler, S. (2008). Cognitive and neural mechanisms of novelty detection and recognition memory. Brain and Cognition, 67, S4-S5 (Invited paper presented at the XVII Meeting of Theoretical and Experimental Neuropsychology [TENNET], Montreal, Canada).

O'Neil, E., Cate, A., **Köhler, S.** (2008) Perirhinal cortex activity is related to accuracy in recognition memory and on perceptual discriminations. Supplement of the Journal of Cognitive Neuroscience, 20, (Poster presented at the 15th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).

Bowles B., O'Neil, E., Poppenk, J., Mirsattari S.M., P, **Köhler, S.** (2008) Direct fMRI evidence for preserved hippocampus functioning after partial removal of anterior temporal-lobe input structures. Supplement of the Journal of Cognitive Neuroscience, 20, (Poster presented at the 15th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, California, USA).

Bowles B., Crupi C., Mirsattari S.M., Pigott S.E., Parrent A.G., Pruessner J.C., Yonelinas A.P., **Köhler, S.** (2007) Normal recollection but impaired familiarity following partial left anterior temporal-lobe resection with hippocampal sparing. Supplement of the Journal of Cognitive Neuroscience, 19, (Poster presented at the 14th Annual Meeting of the Cognitive Neuroscience Society, New York City, New York, USA).

INVITED PRESENTATIONS AND SYMPOSIUM CONTRIBUTIONS

(since 2007)

- Köhler, S.** (2019, June). Mechanisms involved in assessing the cumulative experience with objects accrued over a lifetime (Invited talk at Annual Meeting of the International Society for Behavioral Neuroscience, Taormina, Sicily, Italy).
- Köhler, S.** (2019, June). Mechanisms involved in assessing cumulative lifetime familiarity with object concepts (Invited talk in symposium on ‘Memory in the Wild’ at the Annual Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science, Waterloo, Ontario).
- Köhler, S.** (2019, April). Role of medial temporal lobe structures in familiarity assessment (Invited talk at the Center of Brain, Behavior and Metabolism, University of Lübeck, Germany).
- Köhler, S.** (2018, November). Functional organization of recognition memory in the human medial temporal lobe (Invited talk at the University Medical Center Hamburg-Eppendorf, Germany).
- Köhler, S.** (2018, June). Feeling states related to human memory (Invited keynote address at Western University’s Annual Graduate Conference in Philosophy of Mind, Language, and Cognitive Science, London, Ontario).
- Köhler, S.** (2018, April). Feeling states in memory judgements (Invited talk at Rotman Rounds at Baycrest Centre, Toronto, Ontario).
- Köhler, S.** (2017, March). Medial-temporal lobe contributions to familiarity assessment: Neuropsychological evidence (Invited keynote address at Cognitive Neuroscience of Memory Conference, Liège, Belgium).
- Köhler, S.** (2017, Feb). Functional organization of recognition memory in the human medial temporal lobe (Invited keynote address at Canadian Spring Conference on Behaviour and Brain, Fernie, British Columbia).
- Köhler, S.** (2016, Oct). Functional organization of recognition memory in the human medial temporal lobe (Invited talk in the Program in Neuroscience at University of Guelph, Guelph, Ontario).
- Köhler, S.** (2016, July). Role of the medial temporal lobes in familiarity assessment and déjà vu (Invited talk in symposium on ‘Conceptual and empirical advances in déjà vu research’ at 6th International Conference on Memory, Budapest, Hungary).

- Köhler, S., Fiacconi, C.M.** (2016, July). Knowing by heart: How visceral feedback shapes familiarity in recognition-memory judgments (Invited talk in symposium on ‘Mechanisms underlying familiarity and novelty decisions: Two sides of the same coin?’ at 6th International Conference on Memory, Budapest, Hungary).
- Köhler, S.** (2016, May). Category specificity of recognition memory signals in the human medial temporal lobe. (Invited talk at the Joint Research Symposium, Donders Institute & Western Brain and Mind Institute, Donders Institute, Radboud University, Nijmegen, The Netherlands).
- Köhler, S.** (2016, April). Neural mechanisms of familiarity assessment (Invited talk at the Montreal Neurological Institute, McGill University, Montreal, Quebec).
- Köhler, S.** (2015, Oct). Mechanisms of familiarity assessment in humans (Invited talk at the Centre for Theoretical Neuroscience, University of Waterloo, Waterloo, Ontario).
- Köhler, S.** (2015, June). The interface between memory and perception in the temporal lobe (Invited talk at the International Neuropsychological Symposium, Collioure, France).
- Köhler, S.** (2015, June). Mechanisms of familiarity assessment: Insights gained from studies with faces (Invited talk at Festschrift in Honor of Morris Moscovitch, University of Toronto, Toronto, Ontario).
- Köhler, S.** (2015, Feb). Mechanisms involved in assessing the cumulative life-time exposure to concepts (Invited talk at Ebbinghaus Empire, Dept. of Psychology, University of Toronto, Toronto, Ontario).
- Fiacconi, C.M., & **Köhler, S.** (2015, March). The role of autonomic arousal and interoceptive awareness in Capgras syndrome and neurodegenerative disease (Invited talk at the Geriatric Interdisciplinary Grand Rounds, Parkwood Institute, St. Joseph’s Health Care, London, Ontario)
- Köhler, S.** (2014, Nov). Decoding recognition-memory decisions from fMRI signals in the medial temporal lobes (Invited talk at Deutsches Zentrum für Neurodegenerative Erkrankungen, Magdeburg, Germany).
- Köhler, S.** (2014, June). Delusional misidentifications in Alzheimer’s disease and related dementias (Invited talk at London Public Library in Outreach Event organized by Alzheimer Society London and Middlesex, London, ON).
- Köhler, S.** (2014, May). Familiarity and the medial temporal lobes (Invited talk at the Second International Conference on the Functional Architecture of Memory, Ruhr-Universität Bochum, Bochum, Germany).

- Köhler, S.** (2014, March). Neural mechanisms of familiarity assessment and its impairments in patients with memory disorders (Invited talk at the 24th Annual Baycrest Rotman Research Institute Conference, Toronto, Canada).
- Köhler, S.** (2014, April). Functional role and connectivity of perirhinal cortex in face processing (Invited talk at Rotman Rounds at Baycrest Centre, Toronto, Ontario).
- Köhler, S.** (2013, July). Neural mechanisms of familiarity assessment (Invited talk at the Cyclotron Research Centre, University of Liège, Liège, Belgium).
- Köhler, S.** (2013, May). Familiarity and the medial temporal lobes (Invited colloquium at the Interdisciplinary Program in Neuroscience, Georgetown University, Washington, DC, USA).
- Köhler, S.** (2012, Nov). Role of the medial temporal lobes in familiarity assessment and feelings of déjà vu (Invited colloquium at the Ruhr-Universität Bochum, Bochum, Germany).
- Köhler, S.** (2012, July). Déjà vu in unilateral temporal-lobe epilepsy is associated with selective impairments in familiarity assessment (Invited talk in symposium on 'Déjà vu' at 1st Conference of the European Society for Cognitive and Affective Neuroscience, Marseille, France).
- Köhler, S.** (2012, March). How separable are memory and perception in the human temporal lobe? (Invited talk at Rotman Rounds at Baycrest Centre, Toronto, Ontario).
- Köhler, S.** (2012, Feb). Experiential phenomena of déjà vu and the assessment of familiarity in temporal-lobe epilepsy (Invited talk in Epilepsy Rounds at London Heath Sciences Centre, London, Ontario).
- Köhler, S.** (2012, Feb). Neural mechanisms of familiarity assessment (Invited talk at the L.O.V.E. Conference, Niagara Falls, Ontario).
- Köhler, S.** (2011, Aug). Selective familiarity impairments associated with medial-temporal lobe lesions (Invited talk at Donders Institute for Brain, Cognition and Behaviour at Radboud University Nijmegen, The Netherlands).
- Köhler, S.** (2011, June). Impairments in familiarity assessment associated with medial-temporal lobe lesions (Invited talk at Festschrift in Honour of Andrew Mayes, Manchester, UK).
- Köhler, S.** (2011, June). Functional interactions between the medial temporal lobes and other cortical regions in recognition memory and perceptual discrimination (Invited talk in symposium on 'New directions in the neuroimaging of memory' at International Conference on Memory ICOM 5, York University, York, UK).

- Köhler, S.** (2011, June). Invited discussant of symposium 'From perception to memory in the MTL. Computational, neuropsychological, and neuroimaging perspectives' (at International Conference on Memory ICOM 5, York University, York, UK).
- Köhler, S.** (2011, April). Neural mechanisms of familiarity assessment (Invited colloquium at the Neuroscience Program, York University, Toronto, Ontario).
- Köhler, S.** (2010, Nov). Functional organization of the human medial temporal lobes: Converging evidence from lesion and neuroimaging research (Invited colloquium at the Douglas Institute, McGill University, Montreal, Quebec).
- Köhler, S.** (2010, July). Three patterns of recognition-memory impairment following different types of surgical intervention for temporal-lobe epilepsy. (Invited paper presented in symposium on neuropsychological approaches of recognition memory at the Second Annual Meeting of the Federation of the European Societies of Neuropsychology, Amsterdam, The Netherlands).
- Köhler, S.** (2010, March). Role of the medial temporal lobes in recognition memory: Evidence from fMRI and patient-based research (Invited colloquium at the Imaging Series, Centre for Addiction and Mental Health (CAMH), Toronto, Ontario).
- Köhler, S.** (2009, Sept). Perirhinal cortex involvement in recognition memory and perceptual discrimination: Commonalities and differences. (Invited paper presented in symposium on perceptual role of medial temporal-lobe structures at the Annual Meeting of the Memory Disorders Research Society, Chapel Hill, NC, USA).
- Köhler, S.** (2009, Sept). Selective familiarity impairments in recognition memory. (Invited paper presented in symposium on single-case studies at the Annual Meeting of the Memory Disorders Research Society, Chapel Hill, NC, USA).
- Köhler, S.** (2009, July). Functional organization of the human medial temporal lobes: Evidence from fMRI and patient-based research (Invited colloquium at Max Planck Institute for Neurological Research, Cologne, Germany).
- Köhler, S.** (2008, April). Neural mechanisms of novelty detection and recognition memory in humans (Invited colloquium at the Department of Psychology, University of Toronto at Mississauga, Mississauga, Ontario).
- Köhler, S.** (2008, April). Medial temporal-lobe mechanisms that support episodic memory. (Invited colloquium at the Department of Psychology, Brown University, Providence, RI, USA).

Köhler, S. (2008, April). Medial temporal-lobe mechanisms that support episodic memory. (Invited presentation at the Toronto Western Hospital Imaging Rounds, Toronto, Ontario).

Köhler, S. (2008, April). Functional organization of the human medial temporal lobes. Converging Evidence from Neuroimaging and Lesion Research. (Invited colloquium at the Center for Memory and Brain, Boston University, Boston, USA).

Köhler, S. (2008, April). Hippocampal activation in a patient with impaired familiarity and preserved recollection (Invited colloquium at the Memory Disorders Research Center, Boston VA, Boston, USA).

Köhler, S. (2008, April). Functional organization of the human medial temporal lobes. (Invited colloquium at the Montreal Neurological Institute, Montreal, Canada).

Köhler, S. (2008, Feb). Neural mechanisms of novelty detection and recognition memory in humans. (Invited paper in Symposium “Memory of Mice and Men” of the Neurosciences & Mental Health (NMH) Research Program at the Hospital for Sick Children, Toronto, Canada).

Köhler, S. (2008, Feb). Medial temporal-lobe responses to different types of novelty. (Invited presentation at the Toronto Western Hospital Imaging Rounds, Toronto, Ontario).

Köhler, S. (2007, April). Functional organization of the human medial temporal lobes. (Invited colloquium at the Rounds of the Rotman Research Institute, Toronto, Canada).

Köhler, S. (2007, March). Cognitive and neural mechanisms of novelty detection and recognition memory. (Invited paper in Symposium on Neuroimaging and Memory at the Annual Rotman Research Institute Conference, Toronto, Canada).

PRESENTATIONS AT PROFESSIONAL MEETINGS OTHER THAN PUBLISHED ABSTRACTS AND INVITED PRESENTATIONS

(first author or with lab trainees since 2007)

*DeKraker, J., Ferko, K.M., Lau, J.C., **Köhler S.**, & Khan A.R. (2019). Morphological and laminar characterization of the human hippocampus in 3D BigBrain (Poster presented at the Annual Meeting of the Organization for Human Brain Mapping, Rome, Italy).

*DeKraker, J., Ferko, K.M., Lau, J.C., **Köhler S.**, & Khan A.R. (2019). Morphological and laminar characterization of the human hippocampus in 3D

BigBrain (Poster presented at the Canadian Association for Neuroscience, Toronto, Ontario).

- *Martin, C.B., Mirsattari, S.M., Pruessner, J.C., Burneo, J.G., Hayman-Abello, B., & **Köhler, S.** (2019). Déjà vu in temporal lobe epilepsy as a window into understanding metamemory (Poster presented at the Annual Meeting of the Association for the Scientific Study of Consciousness, London, Ontario).
- *Ferko, K., Blumenthal, A., Proklova, D., Martin, C., Khan, A., & **Köhler, S.** (2019). Similarities between visual object representations in Lateral Occipital Complex (Poster presented at the Annual Meeting of the Organization for Human Brain Mapping, Rome, Italy).
- *Blumenthal, A., Martin, C.B., Cowell, R.A., & **Köhler, S.** (2019). Perirhinal cortex representations that support item-based recognition decisions are shaped by temporal encoding context (Talk presented at the Context and Episodic Memory Symposium, Philadelphia, PA, USA).
- *Brooks, G., & **Köhler, S.** (2019). Feelings-of-knowing experiences predict information seeking behaviour (Poster presented at the Annual Meeting of the Association for the Scientific Study of Consciousness, London, Ontario).
- *Brooks, G., & **Köhler, S.** (2019). Feelings-of-knowing experiences predict information seeking behavior (Talk presented at the Toronto Area Memory Group, Toronto, Ontario).
- *Brooks, G., & **Köhler, S.** (2019). Feelings-of-knowing experiences predict information seeking behavior (Poster presented at Neuroscience Research Day, London, Ontario).
- *Blumenthal, A., Martin C.B., Cowell, R. & **Köhler, S.** (2019). Similarities in perirhinal cortex response patterns related to decision outcome in recognition memory judgments (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- *Yang, H., Duke, D, McRae, K. & **Köhler, S.** (2019). Late positive complex in event-related potentials tracks memory signals when they are decision relevant (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- *DeKraker, J., Lau, J.C., Ferko, K.M., Khan, A.R. & **Köhler, S.** (2018). Computational Anatomy in the 3D BigBrain Hippocampus (Talk presented at the Hippocampal Subfields Group Meeting, Magdeburg, Germany).
- Köhler, S.** (2018). Perirhinal cortex representations that support item-based recognition decisions are shaped by temporal encoding context. (Talk presented

at the Annual Meeting of the Memory Disorders Research Society, University of Toronto, Toronto, Ontario).

- *Yang, H., McRae, K. & **Köhler, S.** (2018). ERPs track memory decisions about recent and lifetime exposure (Talk presented at Annual Meeting of the Toronto Area Memory Group, University of Toronto, Toronto, Ontario).
- *Ferko, K., Blumenthal, A., Proklova, D., Saksida S., Bussey, T, Kahn, A. & **Köhler, S.** (2018). Development of a new behavioural paradigm to probe pattern separation (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- *DeKraker J., Ferko K., Lau J.C., **Köhler, S.**, & Khan, A. R. (2017). Using Laplace's equation to generate a standardized, 'unfolded' map of hippocampal grey matter. (Poster presented at the Annual Meeting of the Organization for Human Brain Mapping, Vancouver, BC)
- *DeKraker J., Ferko K., Lau J.C., **Köhler, S.**, Khan, A. R. (2017). Unfolded hippocampal coordinate system for quantitative mapping and subfield segmentation. Talk presented at the Annual Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, HI, USA).
- Yang, H., Duke, D, McRae, K. & **Köhler, S.** (2017). Late positivity complex (LPC) tracks degree of recent as well as cumulative experience with object concepts. (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- Blumenthal, A., Duke, D., Bowles, B., Gilboa, A., Rosenbaum, R.S., **Köhler, S.** & McRae, K. (2017). Abnormal semantic knowledge in a case of developmental amnesia. (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- Kouptsova, J.E., Fiacconi, C., & **Köhler, S.** (2017). Are There Feelings in Feelings-of-Knowing? Evidence from Psychophysiology and Measures of Interoception (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- Köhler, S.** (2016). Perirhinal cortex tracks the cumulative lifetime experience with object concepts. (Talk presented at the Annual Meeting of the Memory Disorders Research Society, Princeton University, Princeton, NJ, USA).
- Duke, D., Ethridge, P., Saffronsky, E., Fiacconi, C., & **Köhler, S.** (2016). Fear boosts recognition memory performance for emotionally neutral stimuli. (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).

- Fiacconi, C.M., Peter, E. L., Owais, S. & **Köhler, S.** (2016). Knowing by heart: Visceral feedback shapes recognition memory judgments. (Poster presented at 57th Annual Meeting of the Psychonomic Society, Boston, Massachusetts, USA).
- Fiacconi, C.M., Peter, E. L., Owais, S. & **Köhler, S.** (2016). Knowing by heart: Visceral feedback shapes recognition memory judgments. (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- Fiacconi, C.M., & **Köhler, S.** (2015). Examining the Role of Interoceptive Cues in Feeling-of-Knowing Judgments. (Poster presented at Society for Psychophysiological Research, Seattle, WA, USA).
- Fiacconi, C.M., & **Köhler, S.** (2015). Are there feelings in feelings-of-knowing? (Poster presented at Canadian Society for Brain, Behaviour, & Cognitive Science, Ottawa, Ontario)
- Fiacconi, C.M., & **Köhler, S.** (2015). The many faces of familiarity: From attributions to affect (Invited talk presented at International Workshop on Learning, Memory, and Attention, Granada, Spain).
- DeKraker, J., Khan, A., & **Köhler, S.** (2015) Imaging the human hippocampal head with 7 Tesla MRI at ultra-high resolution. (Talk given at Epilepsy and Neuroscience Research Day, London Health Sciences Centre, London, Ontario).
- DeKraker, J., Fiacconi, C.M., **Köhler, S.** (2015). Autonomic Contributions to Adaptive Memory. (Poster presented at Inaugural Brain and Mind Symposium in London, Ontario).
- DeKraker, J., Fiacconi, C.M., **Köhler, S.** (2015). Autonomic Contributions to Adaptive Memory. (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E.), Niagara Falls, Ontario).
- DeKraker, J., Fiacconi, C.M., **Köhler, S.** (2015). Autonomic Contributions to Adaptive Memory. (Poster presented at Canadian Society for Brain, Behaviour and Cognitive Sciences, Ottawa, Ontario).
- Duke, D., Bowles, B., Martin, C.B., Rosenbaum, R. S., McRae, K., & **Köhler, S.** (2015). Human perirhinal cortex supports recent frequency and cumulative long-term exposure to concepts. (Poster presented at London Health Research Day, London, Ontario).
- Fiacconi, C.M., Barkley, V., Finger, E.C., Duke, D., Carson, N., & **Köhler, S.** (2015). Psychophysiological Evidence Related to Delusional Person Misidentification in Neurodegenerative Disease. (Poster presented at the 25th Annual Rotman Research Institute Conference, Toronto, Ontario).

- Fiacconi, C.M., DeKraker, J., & **Köhler, S.** (2014). Psychophysiological Evidence for the Role of Affect and Arousal in Adaptive Memory (Poster presented at the 26th Annual Meeting of the Association for Psychological Science, San Francisco, California, USA)
- Dunphy, L., Fiacconi, C.M., & **Köhler, S.** (2014). When faces “feel” familiar: The role of affective signals in face recognition. (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- Duke, D., Bowles, B., Gilboa, A., Rosenbaum, R.S., McRae, K., **Köhler, S.** (2014). Typicality, familiarity, and feature production in a case of developmental amnesia. (Poster presented at Southern Ontario Neuroscience Association, London, Ontario, Canada).
- Fiacconi, C.M., Barkley, V., Finger, E.C., Duke, D., Rosenbaum, R. S., Gilboa, A., & **Köhler, S.** (2014). Nature and extent of person recognition impairments associated with Capgras Syndrome in Lewy Body Dementia. (Poster presented at 24th Annual Rotman Research Institute Conference, Toronto, Ontario).
- Fiacconi, C.M., Dekraker, J., & **Köhler, S.** (2014). Psychophysiological Evidence for the Role of Emotional Arousal in Adaptive Memory. (Poster presented at Lake Ontario Visionary Establishment (L.O.V.E), Niagara Falls, Ontario).
- Martin, C.B., & **Köhler, S.** (2014). Distributed nature of familiarity-based memory representations in perirhinal cortex. (Poster presented at 24th Annual Rotman Research Institute Conference, Toronto, Ontario).
- Martin, C.B., & **Köhler, S.** (2014). Distributed nature of familiarity-based memory representations in perirhinal cortex. (Poster presented at Southern Ontario Neuroscience Association, London, Ontario, Canada).
- Köhler, S.** (2013). Content-specific familiarity signals in the medial temporal lobes. (Talk presented at the Annual Meeting of the Memory Disorders Research Society, University of Toronto, Toronto, Ontario).
- Duke, D., Bowles, B., Gilboa, A. , Rosenbaum, S.R., McRae, K. & **Köhler, S.** (2013). Abnormal semantic memory structure in a case of developmental amnesia. (Poster presented at the 7th Annual Meeting of the Canadian Association for Neuroscience, Toronto, Ontario).
- Martin, C.B., McLean, D.A., O’Neil, E.B., & **Köhler, S.** (2013). Familiarity-based recognition response patterns for faces, buildings, and chairs in perirhinal and parahippocampal cortex. (Poster presented at the 7th Annual Meeting of the Canadian Association for Neuroscience, Toronto, Ontario).

- O'Neil, E., Barkley, V. & **Köhler, S.** (2013). Representational demands modulate involvement of perirhinal cortex in face processing. (Poster presented at the 7th Annual Meeting of the Canadian Association for Neuroscience, Toronto, Ontario).
- Fiacconi, C.M., Barkley, V., Finger, E.C., Carson, N., Rosenbaum, S.R., Gilboa, A. , & **Köhler, S.** (2013). Recognizing famous individuals: A deficit in patients with Capgras Syndrome? (Poster presented at the 7th Annual Meeting of the Canadian Association for Neuroscience, Toronto, Ontario).
- Köhler, S.** (2012). Déjà vu in temporal-lobe epilepsy is associated with selective familiarity impairments in recognition memory (Talk at the Annual Meeting of the International Society for Behavioural Neuroscience, Half Moon Bay, California, USA).
- Duke, D., **Köhler, S.** (2012). Effects of affective priming on familiarity-based recognition of faces. (Poster presented at the 24th Annual Meeting of the Association for Psychological Science, Chicago, Illinois, USA).
- Köhler, S.** (2010). When a name rings a bell: Availability of semantic knowledge in familiarity-only experiences. (Paper presented at the Annual Meeting of the Memory Disorders Research Society, Northwestern University, Evanston, Illinois, USA).
- Bowles, B., Gordon, M., **Köhler, S.** (2008). Using receiver operating characteristics to test the assumption that familiarity for known people is supported by an all-or-none process (Poster presented at the 18th Annual Meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, London, Ontario, Canada).
- O'Neil, Cate, A.D., **Köhler, S.** (2008). Accuracy related activation in the perirhinal cortex in recognition memory and perceptual discriminations. Recent evidence suggests the perirhinal cortex. (Poster presented at the 18th Annual Meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, London, Ontario, Canada).
- Köhler, S.** (2007). Impaired familiarity with preserved recollection following anterior temporal-lobe resection that spares the hippocampus. Paper presented at the Annual Meeting of the Memory Disorders Research Society, Cambridge, UK.

OTHER PROFESSIONAL CONTRIBUTIONS

REVIEWS AND APPRAISALS

Reviewer for: Acta Psychologica; Behavioral and Brain Sciences; Behavioral Neurology; Behavioral Brain Research; Behavioral Neuroscience; Brain Research; Cerebral Cortex; Cognition; Cognitive, Affective, and Behavioral Neuroscience; Cortex; Current Biology; eLife; Emotion; European Journal of Neuroscience; Experimental Brain Research; Frontiers in Psychiatry; Hippocampus; Human Brain Mapping; Journal of Cognitive Neuroscience; Journal of Experimental Psychology: Learning, Memory & Cognition; Journal of the International Neuropsychological Society; Journal of Neurophysiology; Journal of Neuroscience; Journal of Neuroscience, Psychology, and Economics; Journal of Visualized Experiments; Memory; Memory & Cognition; Nature Reviews Neuroscience; Neurocase; Neuroimage; Neuron; Neuropsychologia; Neuropsychology; Neuroscience & Biobehavioral Reviews; Neuroscience Letters; PLoS Computational Biology; PLoS One; Proceedings of the National Academy of Sciences (PNAS); Psychology and Aging; Psychological Bulletin; Psychological Science; Psychonomic Bulletin and Review; Scientific Reports; Trends in Cognitive Sciences

External Grant Appraiser for:- Deutsche Forschungsgemeinschaft
(German Research Foundation)

- Canadian Institutes of Health Research (CIHR)
- Fonds de recherche du Québec – Nature et technologies
- Natural Sciences and Engineering Research Council of Canada (NSERC)
- National Science Foundation (NSF) USA
- Royal Society UK
- Wellcome Trust UK
- Medical Research Council UK
- Israel Science Foundation (ISF)
- United States - Israel Binational Science Foundation
- Alzheimer Research Society Canada
- Alzheimer Society London Middlesex

Panel Member CIHR Project Grant Scheme (spring 2017)

Panel Member CIHR Behavioural Sciences C (spring 2008, spring 2009, permanent member 2009-12)

Panel Member Early Researcher Award, Ontario Ministry of Research and Innovation (spring 2009, spring 2010)

Tenure or Promotion evaluation of faculty members at Virginia Tech (2017); University of Massachusetts Amherst (2017, 2019); University of Alberta (2019); Georgetown University (2016); York University, Canada (2010, 2014); University of Toronto (2014, 2016); Villanova University, USA (2013); University of Western Ontario (2013, 2017; 2018)

EDUCATIONAL CONTRIBUTIONS (TEACHING & MENTORSHIP)

- Teaching – Undergraduate:
- PSY 338/3138; Memory; 3rd year (2001; 2002; 2003; 2004; 2005; 2007; 2009; 2010; 2011; 2012; 2013; 2014; 2015; 2016; 2017; 2018; 2019)
 - PSY 324/3224; Neuropsychology and Cognitive Neuroscience; 3rd year (2001; 2002; 2003; 2004; 2005; 2006; 2008; 2009; 2010; 2011; 2012; 2013)
 - PSY 3295; Memory and Emotion; Special Topics Seminar; 3th year (2013)
 - PSY 4295; Memory and Emotion; Special Topics Seminar; 4th year (2017)
 - PSY 488; Cognitive Neuroscience of Memory; Special Topics Seminar; 4th year (2005)
 - PSY 399/3998F/3999G/4999F/4999G; Independent Study (with M.A. Wu, 2019; A. Paas 2012; D. Wang, 2011/12; M. Gordon, 2007; G. Walia, 2003)
- Teaching – Graduate:
- PSY 9207; Behavioral and Cognitive Neuroscience Seminar (2015, 2016, 2017, 2019)
 - PSY 9251; Cognitive, Developmental & Brain Sciences Seminar (2019)
 - Neurosci 9500; Behaviour & Cognition (2011)
 - PSY 735/9222; Cognitive Neuroscience of Memory (2006, 2009, 2015)
 - Individual lectures in Principles of Neuroscience (Neuroscience 500/9500; 2002, 2003, 2004, 2005, 2007, 2009, 2015, 2016, 2017, 2018; 2019)
- Postdoctoral Supervision:
- Roy Haast (2018 – present; Co-supervisor A.R. Khan)
 - Melissa Troyer (2019 – present; Co-Supervisor Ken McRae)
 - Mark Vida (2017 – 2018; Co-supervisor M. Moscovitch, Shayna Rosenbaum)
 - Chris Fiacconi (2012 – 2016; Co-supervisor A. Owen)

- Anthony Cate (2005 – 2006; Co-supervisor M. Goodale)
- Tzvi Ganel (2003 – 2005; Co-supervisor M. Goodale)

Graduate Supervision:

- Haopei Yang (Neurosci; PhD); 2017 – present
- Kayla Ferko (Neurosci; PhD); 2019 – present
- Sudesna Chakraborty (Neurosci; PhD; Co-Supervisor A.R. Khan); 2017 – 2019
- Jordan DeKraker (Neurosci; PhD; Co-Supervisor A.R. Khan); 2016 - present
- Anna Blumenthal (Psychol; PhD); 2014 - 2018
- Devin Duke (Psychol; PhD); 2011 - 2016
- Chris Martin (Psychol; PhD); 2009 – 2015
- Ed O’Neil (Neurosci; PhD); 2008 – 2013
- Ben Bowles (Neurosci; PhD); 2007 – 2011

- Monique Chatterton (Neurosci; MSc); 2019 – present
- Mahdiah Varvani Farahani (Neurosci; MSc; Co-Supervisor A.R. Khan); 2018 – present
- Gregory Brooks (Neurosci; MSc; Co-Supervisor A.R. Khan); 2018 – present
- Brittany Haynes (Neurosci; MSc; Co-Supervisor P.A. MacDonald); 2017 – present
- Kayla Ferko (Neurosci; MSc; Co-Supervisor A.R. Khan); 2017 – 2019
- Jane Kouptsova (Neurosci; MSc); 2015 – 2017
- Haopei Yang (Neurosci; MSc); 2015 – 2017
- Jordan DeKraker (Psychol; MSc); 2014 - 2016
- Lauren Dunphy (Psychol; MSc); 2012 – 2014
- Devin Duke (Psychol; MSc); 2009 – 2011
- Chris Martin (Psychol; MSc); 2007 – 2009
- Gesine Alders (Neurosci; MSc; Primary Supervisor: S. Mirsattari); 2007 - 2009
- Ed O’Neil (Neurosci; MSc); 2006 – 2008
- Ben Bowles (Neurosci; MSc); 2005 – 2007
- Stacey Danckert (Neurosci; MSc); 2002 - 2004
- Carina Crupi (Neurosci; MSc); 2002 - 2004
- Nick Cothros (Neurosci; MSc; Co-Supervisor P. Gribble); 2002 – 2004

Honours Student Supervision:

- Hanna Whitehead (Psychol, 2019 – 2020)
- Mofei (Annie) Wu (Psychol, 2018 – 2019)
- Sascha Gill (Neurosci, 2016 – 2017))

- Kayla Ferko (Neurosci, 2016 – 2017)
- Shannon Wong (Psychol, 2016 – 2017)
- Erika Peter (Psychol, 2014 – 2015)
- Anne Sabourin (Psychol, 2013 – 2014)
- Victoria Hoffman (Psychol, 2013 – 2014)
- Sheldon Hill (Psychol, 2013 – 2014)
- Celia Fidalgo (Psychol, 2012 – 2013)
- Paige Ethridge (Psychol, 2012 – 2013)
- Emily Safronsky (Psychol, 2011 – 2012)
- Holly Fernandes (Psychol, 2010 – 2011)
- Victoria Barkley (Psychol; 2009 – 2010)
- Laura Ocolisan (Psychol; 2008 - 2009)
- Chris Fiacconi (Psychol; 2006 - 2007)
- Catherine Hau (Psychol; 2005 - 2006)
- Alison Firestone (Psychol; Co-supervisor P.Gribble); 2004 – 2005
- Luke Kipp (Physiol); 2004 – 2005
- Jordan Poppenk (Psychol); 2004 - 2005
- Erin Dickie (Physiol; Co-supervisor P. Gribble); 2003 – 2004
- Gautam Walia (Psychol); 2003 - 2004
- Peggy Maxwell Bos (Psychol); 2001 – 2002
- Lindsay Howland (Psychol); 2001 – 2002

Graduate Examinations (external only):

- Ph.D.; Dept of Psychology; Wilfrid Laurier University; 2015
- Ph.D.; Dept of Psychology; York University; 2014
- Ph.D.; Dept. of Neuroscience; McGill University; 2012
- Ph.D.; Institute of Medical Science; University of Toronto; 2011
- Ph.D.; Dept. of Psychology; University of Toronto; 2011
- Ph.D.; Melbourne School of Graduate Research; University of Melbourne; Australia; 2008

ADMINISTRATIVE CONTRIBUTIONS

- Dept. of Psychology:
- Associate Chair, Research (2018 – present)
 - Area Chair; Cognitive, Developmental & Brain Sciences (2018 – present)
 - Area Chair; Cognitive and Behavioural Neuroscience (2015 - 2017)

- Member of Promotion and Tenure Committee (2019 – present)
- Member of Nominations Committee (2005 – 2007; 2013 - 2017)
- Member of Graduate Affairs Committee (2016 – 2017)
- Member of Undergraduate Affairs Committee (2002 – 2004; 2005 - 2007)
- Member of Workload Committee (2003 - 2005)
- Member of Appointments Committee (2000 – 2002; 2011 – 2012; 2019)
- Member of Executive Coordinating Committee (2003 – 2004; 2018 - present)

- University:
- Own Your Future Faculty Advisory Committee (2017-present)
 - Member of Steering Committee, Rotman Institute of Philosophy (2012 – 2014; 2016 - present)
 - Member of Steering Committee, Brain and Mind Institute (2013 – 2016; 2018 - present)
 - Member Trillium Scholarship Committee (2016- 2018)
 - Interim Co-Director, Graduate Program in Neuroscience (2014 – 2015)
 - Member of Speakers Committee, Joint Lecture Series of Brain and Mind Institute and Rotman Institute of Philosophy (2012 – 2015)
 - Member of Curriculum Committee, Graduate Program in Neuroscience (2013 – 2014)
 - Member of Space Committee, Brain and Mind Institute (2013 – 2014)
 - Member of Program Committee, Graduate Program in Neuroscience (2010 – 2013)
 - Representative of Faculty of Social Science at Faculty of Science Council (2001 – 2004)

MEMBERSHIP AND ACTIVITIES IN PROFESSIONAL ORGANIZATIONS

- Membership in:
- Association for Psychological Science
 - Cognitive Neuroscience Society
 - International Society for Behavioral Neuroscience
 - Memory Disorders Research Society
 - Society for Neuroscience

Scientific Program Committee, Canadian Association for Neuroscience (2013 – 2016)

Scientific Advisory Committee, Human Brain Mapping (2003 – 2004)

Member-at-large, Membership Chair, International Society for Behavioral Neuroscience (2002 – 2006)

Organizer of Symposium ('Memory in the Wild'), Annual Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science, Waterloo, Ontario (2019)

Organizer of Symposium ('Perceptual contributions of medial temporal-lobe structures'), Annual Meeting of the Memory Disorders Research Society, Chapel Hill, NC, USA (2010)

Organizer of Symposium ('Memory functions of the hippocampus and parahippocampal regions: Are they dissociable?'), Annual Meeting of the Memory Disorders Research Society, Tucson, Arizona (2005)

PUBLIC OUTREACH & IN THE NEWS

(since 2012)

CBC Radio Ontario Morning August 2018

<http://www.cbc.ca/ontariomorning/index.html>

Western Student Radio April 2017

<http://www.soundofsci.org/>

Cognitive Neuroscience Society July 2017

<https://www.cogneurosociety.org/linking-words-and-memories-how-we-remember-the-structure-of-things/>

New Scientist August 2016

<https://www.newscientist.com/article/2101089-mystery-of-deja-vu-explained-its-how-we-check-our-memories/>

Medical News Today April 2016

<http://www.medicalnewstoday.com/articles/308849.php>

Brain Decoder March 2015

<https://www.braindecoder.com/the-neuroscience-of-deja-vu-1211097359.html>

Psychology Today Nov 2014

<http://www.psychologytoday.com/blog/annals-the-emotions/201411/you-are-not-the-man-i-married>

New Scientist Nov 2014

<http://www.newscientist.com/article/mg22429944.700-imposter-disorder-explains-how-mans-wife-was-stolen.html#.VHdwHckcPjW>

Lab Report, The Chronicle of Neurology & Psychiatry June 2014

Panel member at the Alzheimer Society London and Middlesex Speaker Series,
London Public Library May 2014

London Free Press Jan 2014

<http://virtual.lfpress.com/doc/londonfreepress/alzheimersjan15/2014011401/>

Le Monde (France) Sept 2012

http://www.lemonde.fr/cgi-bin/ACHATS/acheter.cgi?offre=ARCHIVES&type_item=ART_ARCH_30J&objet_id=1208763&xtmc=deja_vu&xtr=1

London Free Press Sept 2012

<http://www.lfpress.com/2012/09/13/deja-vu-explained-but-you-knew-that>

CBC Radio Ontario Morning Aug 2012

<http://www.cbc.ca/ontariomorning/index.html>

1290 CJBK Astral Radio The Biggs Show Aug 2012

<http://www.cjbk.com/Shows/TheBiggsShow.aspx>

(version Oct 2019)