R. Nathan Spreng
Curriculum Vitae

Professor of Neurology & Neurosurgery
Director, Laboratory of Brain and Cognition
Montreal Neurological Institute
Cognitive Neuroscience Unit
McGill University
3801 University St.
Montreal, QC, H3A 2B4, Canada
514-398-7268
Email: nathan.spreng@gmail.com, nathan.spreng@mcgill.ca

CITIZENSHIP & RESIDENCY

United States of America (Citizen)
Canada (Permanent Resident)

ACADEMIC POSITIONS

Current Primary Appointment

2021 – **Full Professor** (Research), Department Neurology & Neurosurgery, Montreal Neurological Institute, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC, Canada

Current Secondary Appointments

2019 – **Member**, McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, QC, Canada
2018 – **Associate Researcher**, Douglas Hospital Research Centre, Montreal, QC, Canada
2018 – **Associate Member**, Department of Psychiatry, McGill University, Montreal, QC, Canada
2018 – **Associate Member**, Department of Psychology, McGill University, Montreal, QC, Canada
2015 – **Adjunct Member**, Graduate Program, Department of Psychology, York University, Toronto, ON, Canada

Past Appointments

2017 – 2021 **Associate Professor** (Research), Department Neurology & Neurosurgery, Montreal Neurological Institute, McGill University, Montreal, QC, Canada
2017 – 2018 **Associate Professor** (with tenure), Department of Human Development, Cornell University, Ithaca, NY
2012 – 2017 **Assistant Professor**, Department of Human Development, Cornell University, Ithaca, NY

POSTDOCTORAL TRAINING AND EDUCATION

2008 – 2012 **Postdoctoral Fellow,** Harvard University, Cambridge, MA (mentor: Daniel L. Schacter)
2008 **Postdoctoral Fellow**, Rotman Research Institute at Baycrest, Toronto, ON (mentor: Cheryl Grady)
2008 **Ph.D.** (Psychology, Cognitive Neuroscience), University of Toronto, ON (mentor: Brian Levine)
2003 **M.A.** (Psychology, Brain & Behavior), University of Toronto, ON (mentor: Brian Levine)
2000 **B.A.** (Psychology), Sarah Lawrence College, Bronxville, NY (mentor: Elizabeth Johnston)

RESEARCH GRANTS

<u>**Current**</u>

2021 – 2026   **Canadian Institute of Health Research**
Co-Investigator (P.I.: Taylor W. Schmitz)
Linking preclinical mechanisms of neurodegeneration to individual risk profiles of Alzheimer's disease. C$1,365,000.

2021 – 2025   **Canadian Institute of Health Research**
Co-Investigator (P.I.: Sylvia C. Villeneuve)
Development and validation of blood biomarkers for the detection of preclinical Alzheimer's disease. C$930,000.

2020 – 2025   **National Institute on Aging**
Co-Principal Investigator (Contact) R01 AG068563 (co-P.I.: Danilo Bzdok)
Investigating the impact of loneliness on brain aging and pre-symptomatic Alzheimer's disease progression. $1,897,588 USD.

2018 – 2023   **Canadian Institutes of Health Research**
Principal Investigator
Brain networks and neurocognitive aging. C$539,325.

2018 – 2023   **National Institute on Aging**
Co-Principal Investigator R01 AG057764 (co-P.I.: Natalie Ebner, Contact)
Uncovering and surveilling financial deception risk in aging. $1,111,939 USD.

2019 – 2023   **National Institute on Aging**
Co-Principal Investigator R01 AG057764A *Alzheimer's Disease Supplement* I
(co-P.I.: Natalie Ebner, Contact) $250,000 USD.

2021 – 2023   **National Institute on Aging**
Co-Principal Investigator R01 AG057764-01A1 *Alzheimer's Disease Supplement II*
(co-P.I.: Natalie Ebner, Contact) $364,504 USD.

2017 – 2023   **Natural Sciences and Engineering Research Council of Canada**
Principal Investigator NSERC Discovery Grant
Redefining the role of the default network in goal directed cognition. C$168,000.

<u>**Completed**</u>

2018 – 2021   **National Institute on Aging**
Principal Investigator R03 AG060263
In vivo staging of preclinical Alzheimer's disease progression. $100,000 USD.

2018 – 2020   **Healthy Brains for Healthy Lives, Canada First Research Excellence Fund**
Principal Investigator Innovative Ideas Program
In vivo cholinergic markers of preclinical Alzheimer's disease progression. C$169,952.

2017   **Pfizer**
Principal Investigator Pfizer Scientific Services Evaluation Agreement
Cholinergic biomarkers of preclinical Alzheimer disease progression: a replication study.
$130,000 USD.

2016 – 2017	**Elder Justice Foundation** **Principal Investigator** Predicting financial exploitation risk in older adults. $37,760 USD.
2014 – 2016	**Alzheimer's Association** **Principal Investigator** New Investigator Research Grant (NIRG-14-320049) Dynamic brain network changes in healthy aging and Alzheimer's disease. $100,000 USD.

HONOURS

2021	CIHR Review Quality Assurance Recognition: Outstanding (designation to top 12% of reviewers)
2019 – 2021	Highly Cited Researcher (Top 1% papers by citations for field over decade), Web of Science
2019 – 2022	Fonds de recherche du Québec – Santé, Research Scholar (Junior 2) Project Title: *Réseaux cérébraux et neuropsychologie cognitive du vieillissement*
2018	Mentorship Award, Scientific Research Network on Decision Neuroscience and Aging
2018	Vincent Di Lollo Early Career Award, Canadian Society for Brain, Behaviour and Cognitive Science
2016	*NeuroImage* Best Paper Award for 2015
2015 – 2016	Cornell Institute for the Social Sciences Faculty Fellow
2013	Named a "Rising Star" by the Association for Psychological Science
2012 – 2017	Rebecca Q. and James C. Morgan Sesquicentennial Faculty Fellow, Cornell University
2008	Research Award, Jack and Rita Cathrall Fund, Rotman Research Institute
2007 – 2008	University of Toronto Doctoral Completion Fellowship
2002 – 2008	Travel Award, Jack and Rita Cathrall Fund, Rotman Research Institute
2004	Vivian Smith Advanced Studies Institute of the International Neuropsychological Society Fellow

PUBLICATIONS

<u>**Journal Articles Published or In Press**</u> († mentee author; * 100+ citations; ** 1000+ citations; total citations: 16,000+; h-index: 49; i10-index: 87; citation metrics from Google Scholar)

[100] Huang, S., Faul, L., †Sevinc, G., †Mwilambwe-Tshilobo, L., †Setton, R., †Lockrow, A.W., Ebner, N.C., Turner, G.R., **Spreng, R.N.** & De Brigard, F. (*in press*). Age differences in intuitive moral decision-making: Associations with inter-network neural connectivity. *Psychology & Aging*.

[99] †Setton, R., †Lockrow, A.W., Turner, G.R. & **Spreng, R.N.** Troubled past: A critical psychometric assessment of the self-report Survey of Autobiographical Memory (SAM)(*in press*). *Behavior Research Methods*.

[98] **Spreng, R.N.** & Turner, G.R. (2021). From exploration to exploitation: A shifting mental mode in late life development. *Trends in Cognitive Sciences*, 25, 1058-1071.

[97] Kupis, L., Goodman, Z.T., Kornfeld, S., Hoang, S., Romero, C., Dirks, B., Chang, C., **Spreng, R.N.**, Nomi, J.S., Uddin, L.Q. (2021). Brain dynamics moderate cognitive flexibility across the lifespan. *Cerebral Cortex*, 31, 5263–5274.

[96] Kong, R., Yang, Q., Gordon, E., Xue, A., Zuo, X., **Spreng, R.N.**, Ge, T., Holmes, A.J., Eickhoff, S. & Yeo, B.T.T. (2021). Individual-specific areal-level parcellations improve functional connectivity prediction of behavior. *Cerebral Cortex*, 31, 4477–4500

[95] †Baracchini, G., Mišić, B., †Setton, R., †Mwilambwe-Tshilobo, L., †Girn, M., Nomi, J.S., Uddin, L.Q., Turner, G.R. & **Spreng, R.N.** (2021). Inter-regional BOLD signal variability is an organizational feature of functional brain networks. *NeuroImage*, 237, 118149.

[94] **Spreng, R.N.** & Bzdok, D. (2021). Loneliness and neurocognitive aging. *Advances in Geriatric Medicine and Research*, 3, e210009.

[93] Anderson, K.M., Ge, T., Kong, R., Patrick, L.M., **Spreng, R.N.**, Sabuncu, M.R., Yeo, B.T.T. & Holmes, A.J. (2021). Heritability of individualized cortical network topography. *Proceedings of the National Academy of Sciences USA*, 118 (9) e2016271118.

[92] Kiesow, H., **Spreng, R.N.**, Holmes, A.J., Chakravarty, M.M., Marquand, A.F., Yeo, B.T.T. & Bzdok, D. (2021). Deep learning identifies partially overlapping subnetworks in the human social brain. *Communications Biology*, 4, 65.

[91] †Xu, N., Doerschuk, P.C., Keilholz, S.D. & **Spreng, R.N.** (2021). Spatiotemporal functional interactivity among large-scale brain networks. *NeuroImage*, 227, 117628.

[90] †Mwilambwe-Tshilobo, L. & **Spreng, R.N.** (2021). Social exclusion reliably engages the default network: A meta-analysis of Cyberball. *NeuroImage*, 227, 117666.

[89] **Spreng, R.N.**, Dimas, E., †Mwilambwe-Tshilobo, L., Dagher, A., Koellinger, P., Nave, G., Ong. A., Kernbach, J., Wiecki, T. Ge, T., Li. Y., Holmes, A.J., Yeo, B.T.T., Turner, G.R., Dunbar, R.I.M. & Bzdok, D. (2020). The default network of the human brain is associated with perceived social isolation. *Nature Communications*, 11, 6393.

[88] Weissberger, G.H., Mosqueda, L., Nguyen, A.L., Axelrod, J., Nguyen, C.P., Boyle, P.A., **Spreng, R.N.** & Han, S.D. (2020). Functional connectivity correlates of perceived financial exploitation in older adults. *Frontiers in Aging Neuroscience*, 12, 392.

[87] †Laurita, A.C., †DuPre, E., Ebner, N.C., Turner, G.R. & **Spreng, R.N.** (2020). Default network interactivity during mentalizing about known others is modulated by age and social closeness. *Social Cognitive &Affective Neuroscience*, 15, 537–549.

[86] †Fernandez-Cabello, S., Kronbichler, M., Van Dijk, K.R.A., Goodman, J.A., **Spreng, R.N.**, & †Schmitz, T.W. (2020). Basal forebrain volume reliably predicts the cortical spread of Alzheimer's degeneration. *Brain*, 143, 993–1009.

[85] †Schmitz, T.W., Soreq, H, Poirier, J., & **Spreng, R.N.** Longitudinal basal forebrain degeneration interacts with TREM2/C3 biomarkers of inflammation in pre-symptomatic Alzheimer's disease. (2020). *Journal of Neuroscience*, 40, 1931–1942.

[84] Ebner, N.C., Ellis, D.M., Lin, T., Rocha, H.A., Yang, H., Dommaraju, S., Soliman, A., Woodard, D.L., Turner, G.R., **Spreng, R.N.** & Oliveira, D. (2020). Uncovering susceptibility risk to online deception in aging. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 75, 522–533.

[83] **Spreng, R.N.**, †DuPre, E., Ji, J.L., Yang, G., Diehl, C., Murray, J., Pearlson, G. & Anticevic, A. (2019). Structural covariance reveals alterations in control and salience network integrity in chronic schizophrenia. *Cerebral Cortex*, 29, 5269–5284.

* [82] Uddin, L.Q., Yeo, B.T.T., & **Spreng, R.N.** (2019). Towards a universal taxonomy of macro-scale functional human brain networks. *Brain Topology*, 32, 926–942.

[81] Lowe, A.J., Paquola, C., Vos de Wael, R., †Girn, M., Lariviere, S., Tavakol, S., Royer, J., Caldairou, B., Schrader, D., Bernasconi, A., Bernasconi, N., **Spreng, R.N.** & Bernhardt, B.C. (2019). Targeting age-related

differences in brain and cognition with multimodal imaging and connectome topography profiling. *Human Brain Mapping*, 40, 5213–5230.

* [80] Rodriguez-Vazquez, B., Suarez, L.E., Shafiei, G., Markello, R., Paquola, C., Hagmann, P., Van Den Heuvel, M., Bernhardt, B.C., **Spreng, R.N.** & Misic, B. (2019). Gradients of structure-function tethering across neocortex. *Proceedings of the National Academy of Sciences USA*, 116, 21219–21227.

[79] Maillet, D., Beaty, R.E., †Adnan, A., Fox, K.C.R., Turner, G.R., & **Spreng, R.N.** (2019). Aging and the wandering brain: Age-related differences in the neural correlates of stimulus-independent thoughts. *Public Library of Science (PLoS) ONE*. 14(10): e0223981.

[78] Li, J., Bolt, T., Bzdok, D., Nomi, J.S., Yeo, B.T.T., **Spreng, R.N.** & Uddin, L.Q. (2019). Topography and behavioral relevance of the global signal in the human brain. *Scientific Reports*, 9, 14286.

[77] **Spreng, R.N.**, †Fernandez-Cabello, S., Turner, G.R. & Stevens, W.D. (2019). Take a deep breath: Multi-echo fMRI denoising effectively removes head motion artifacts, obviating the need for global signal regression. *Proceedings of the National Academy of Sciences USA*, (Letter), 116, 39, 19241–19242.

[76] Lemire-Rodger, S., †Lam, J., Viviano, J., Stevens, W.D., **Spreng, R.N.** & Turner, G.R. (2019). Inhibit, switch and update: A within-subject fMRI investigation of executive control. *Neuropsychologia*, 132, 107134.

[75] †Setton, R., Fisher, G., & **Spreng, R.N.** (2019). Mind the gap: Congruence between present and future motivational states shapes prospective decisions. *Neuropsychologia*, 132, 107130.

[74] **Spreng, R.N.** & Turner, G.R. (2019). The shifting architecture of cognition and brain function in older adulthood. *Perspectives on Psychological Science*, 14, 523–542.

[73] Ngo, G.H., Eickhoff, S.B., Nguyen, M., †Sevinc, G., Fox, P.T., **Spreng, R.N.** & Yeo, B.T.T. (2019). Beyond consensus: Embracing heterogeneity in curated neuroimaging meta-analysis. *NeuroImage*, 200, 142–158.

[72] †Laurita, A.C., Hazan, C. & **Spreng, R.N.** (2019). Neural signatures of chronic accessibility in parent – adult child attachment bonds. *Social Neuroscience*, 14, 462–469.

[71] †Mwilambwe-Tshilobo, L., Ge, T., Chong, M., †Ferguson, M.A., Misic, B., Burrow., A.L., Leahy, R., & **Spreng, R.N.** (2019). Loneliness and meaning in life are reflected in the intrinsic network architecture of the brain. *Social Cognitive & Affective Neuroscience*, 14, 423–433.

[70] †Dimech, C.J., Anderson, J.A.E., †Lockrow, A.W., **Spreng, R.N.** & Turner, G.R. (2019). Sex differences in the relationship between cardiorespiratory fitness and brain function in older adulthood. *Journal of Applied Physiology*, 126, 1032–1041.

[69] Bhattasali, S., Fabre, M., Luh, W.-M., Al Saied, H., Constant, M., Pallier, C., Brennan, J.R., **Spreng, R.N.** & Hale, J. (2019). Localising memory retrieval and syntactic composition: A fMRI study of naturalistic language comprehension. *Language, Cognition and Neuroscience*, 34, 491–510.

[68] †Horta, M., Ziaei, M., Lin, T., Porges, E., Fischer, H., Feifel, D., **Spreng, R.N.** & Ebner, N.C. (2019). Oxytocin alters patterns of brain activity and amygdalar connectivity by age during dynamic facial emotion identification. *Neurobiology of Aging*, 78, 42–51.

[67] †Laurita, A.C., Hazan, C. & **Spreng, R.N.** (2019). An attachment theoretical perspective for the neural representation of close others. *Social Cognitive & Affective Neuroscience*, 14, 237–251.

[66] †Adnan, A., Beaty, R., †Lam, J., **Spreng, R.N.** & Turner, G.R. (2019). Intrinsic default – executive coupling of the creative aging brain. *Social Cognitive & Affective Neuroscience*, 14, 291–303.

[65] †Adnan, A., Beaty, R., Silvia, P., **Spreng, R.N.** & Turner, G.R. (2019). Creative aging: Functional brain networks associated with divergent thinking in older and younger adults. *Neurobiology of Aging*, 75, 150–158.

[64] †Sullivan, M.D., Anderson, J.A.E., Turner, G.R. & **Spreng, R.N.** (2019). Intrinsic neurocognitive network connectivity differences between normal aging and mild cognitive impairment are associated with cognitive status and age. *Neurobiology of Aging*, 73, 219–228.

[63] Maillet, D., Beaty, R.E., Jordano, M.L., Touron, D.R, †Adnan, A., Silvia, P.J., Kwapil, T.R., Turner, G.R, **Spreng, R.N.**, Kane, M.J. (2018). Age-related differences in mind-wandering in daily life. *Psychology and Aging*. 33, 643–653.

[62] †Schmitz, T.W., Mur, M., Aghourian, M., Bédard, M.-A. & **Spreng, R.N.** (2018). Longitudinal Alzheimer's degeneration reflects the spatial topography of cholinergic basal forebrain projections. *Cell Reports*, 34, 28–36.

[61] Parikh, N., Ruzic, L., Stewart, G.W., **Spreng, R.N.** & De Brigard, F. (2018). What if? Neural activity underlying semantic and episodic counterfactual thinking. *NeuroImage,* 178, 332-345.

[60] Markello, R., **Spreng, R.N.**, Luh, W.-M., Anderson, A. & DeRosa, E. (2018). Functional segregation of the human basal forebrain using resting state functional connectivity MRI. *NeuroImage,* 173, 287–297.

[59] **Spreng, R.N.**, Madore, K.P. and Schacter, D.L. (2018). Better imagined: Neural correlates of the episodic simulation boost to prospective memory performance. *Neuropsychologia*, 113, 22–28.

* [58] Dixon, M.L., De La Vega, A., Mills, C. Andrews-Hanna, J.R., **Spreng, R.N.**, Cole, M. & Christoff, K. (2018). Heterogeneity within the frontoparietal control network and its relationship to the default and dorsal attention networks. *Proceedings of the National Academy of Sciences USA*, 115(7), E1598–E1607.

[57] **Spreng, R.N.**, †Lockrow, A.W., †DuPre, E., †Setton, R., Spreng, K.A.P. & Turner, G.R. (2018). Semanticized autobiographical memory and the default – executive coupling hypothesis of aging. *Neuropsychologia*, 110, 37–43.

[56] Mar, R.A. & **Spreng, R.N.** (2018). Episodic memory solves both social and nonsocial problems, and evolved to fulfill many different functions. *Behavioral and Brain Sciences* [commentary], 41, e20.

[55] †DuPre, E. & **Spreng, R.N.** (2017). Structural covariance networks across the lifespan, from 6 to 94 years of age. *Network Neuroscience*, 1, 302–323.

[54] Hill, P.F., Yi., R., **Spreng, R.N.** & Diana, R.A. (2017). Neural congruence between intertemporal and interpersonal decision making: Evidence from delay and social discounting. *NeuroImage*, 162, 186–198.

[53] **Spreng, R.N.**, Cassidy, B.N., Darboh, B., †DuPre, E., †Lockrow, A.W., †Setton, R. & Turner, G.R. (2017). Financial exploitation is associated with structural and functional brain differences in healthy older adults. *The Journals of Gerontology, Series A: Biological Sciences and Medical Sciences*, 72, 1365–1368.

[52] †Ferguson, M.A., Anderson, J.S. & **Spreng, R.N.** (2017). Fluid and flexible minds: Intelligence reflects synchrony in the brain's intrinsic network architecture. *Network Neuroscience,* 1, 192–207.

[51] †Sevinc, G., Gutvit, I.H & **Spreng, R.N.** (2017). Salience network engagement with the detection of morally laden information. *Social Cognitive & Affective Neuroscience*, 12, 1118–1127.

[50] †Laurita, A.C., Hazan, C. & **Spreng, R.N.** (2017). Dissociable patterns of brain activity for mentalizing about known others: A role for attachment. *Social Cognitive & Affective Neuroscience*, 12, 1072–1082.

[49] Chong, M., Bhushan, C., Joshi, A.A., Choi, S.Y., Haldar, J.P., Shattuck, D.W., **Spreng, R.N.** & Leahy, R.M. (2017). Individual parcellation of resting fMRI with a group functional connectivity prior. *NeuroImage*, 156, 87–100.

[48] †Xu, N., R. **Spreng, R.N.** & Doerschuk, P.C. (2017). Initial validation for the estimation of resting-state fMRI effective connectivity by a generalization of the correlation approach. *Frontiers in Neuroscience, Brain Imaging Methods*, 11, 271.

* [47] Dixon, M.L., Andrews-Hanna, J.R., **Spreng, R.N.**, Irving, Z.C. & Christoff, K. (2017). Interactions between default and dorsal attention networks vary by default subsystem and across cognitive states. *NeuroImage,* 147, 632–649.

[46] †DuPre, E., Luh, W.-M. & **Spreng, R.N.** (2016). Multi-echo fMRI replication sample of autobiographical memory, prospection and theory of mind reasoning tasks. *Scientific Data*, 3, 160116.

[45] **Spreng, R.N.**, Karlawish, J. & Marson, D.C. (2016). Cognitive, social and neural determinants of diminished decision-making and financial exploitation-risk in aging and dementia: A review and new model. *Journal of Elder Abuse & Neglect*, 28, 320–344.

[44] †Risk, B.B., Matteson, D.S., **Spreng, R.N.** & Ruppert, D. (2016). Spatiotemporal mixed modeling of multi-subject task fMRI via method of moments. *NeuroImage*, 142, 280–292.

* [43] †Schmitz, T.W., & **Spreng, R.N.** (2016). Basal forebrain degeneration precedes and predicts the cortical spread of Alzheimer's pathology. *Nature Communications*, 7, 13249.

* [42] Christoff, K., Irving, Z.C., Fox, K.C.R., **Spreng, R.N.** & Andrews-Hanna, J.R. (2016). Mind-wandering as spontaneous thought: A dynamic framework. *Nature Reviews Neuroscience*, 17, 718–731.

[41] De Brigard, F., Giovanello, K.S., Stewart, G.W., †Lockrow, A., O'Brien, M.M. & **Spreng, R.N.** (2016). Characterizing the subjective experience of episodic past, future and counterfactual thinking in healthy young and older adults. *Quarterly Journal of Experimental Psychology*, 12, 2358–2375.

* [40] **Spreng, R.N.**, Stevens, W.D., Viviano, J. & Schacter, D.L. (2016). Attenuated anticorrelation between the default and dorsal attention networks with aging: Evidence from task and rest. *Neurobiology of Aging*, 45, 149–160.

[39] Burrow, A.L., & **Spreng, R.N.** (2016). Waiting with purpose: A reliable but small association between purpose in life and impulsivity. *Personality and Individual Differences*, 90, 187–189.

* [38] Turner, G.R. & **Spreng, R.N.** (2015). Prefrontal engagement and reduced default network suppression co-occur and are dynamically coupled in older adults: The default – executive coupling hypothesis of aging. *Journal of Cognitive Neuroscience*, 27, 2462–2476. *Turner and Spreng are co-first authors.*

[37] **Spreng, R.N.**, Gerlach, K.D., Turner, G.R. & Schacter, D.L. (2015). Autobiographical planning and the brain: Activation and its modulation by qualitative features. *Journal of Cognitive Neuroscience*, 27, 2147–2157.

[36] Pillemer, K., Connolly, M.T., Breckman, R., **Spreng, R.N.** & Lachs, M.S. (2015). Elder mistreatment: Priorities for consideration by the White House conference on aging. *Gerontologist*, 55, 320–327.

* [35] Fox, K.C.R., **Spreng, R.N.**, Ellamil, M., Andrews-Hanna, J.R., & Christoff, K. (2015). The wandering brain: Meta-analysis of functional neuroimaging studies of mind-wandering and related spontaneous thought processes. *NeuroImage*, 111, 611–621.

NeuroImage Best Paper Award for 2015

* [34] Payne, J.D., Kensinger, E.A., Wamsley, E., **Spreng, R.N.**, Alger, S., Gibler· K., Schacter, D.L. & Stickgold, R. (2015). Napping and the selective consolidation of negative aspects of scenes. *Emotion*, 15, 176–186.

[33] De Brigard, F., **Spreng, R.N.**, Mitchell, J.P. & Schacter, D.L. (2015). Neural activity associated with self, other, and object-based counterfactual thinking. *NeuroImage*, 109, 12–26.

* [32] Szpunar, K.K., **Spreng, R.N.** & Schacter, D.L. (2014). A taxonomy of prospection: Introducing an organizational framework for future-oriented cognition. *Proceedings of the National Academy of Sciences USA*, 111, 18414–18421.

* [31] Gerlach, K.D., **Spreng, R.N.**, Madore, K.P., & Schacter, D.L. (2014). Future planning: Default network activity couples with frontoparietal control network and reward-processing regions during process and outcome simulations. *Social Cognitive & Affective Neuroscience*, 9, 1942–1951.

* [30] **Spreng, R.N.**, †DuPre, E., Selarka, D., †Garcia, J., Gojkovic, S., †Mildner, J., Luh, W.-M. & Turner, G.R. (2014). Goal-congruent default network activity facilitates cognitive control. *Journal of Neuroscience*, 34, 14108–14114.

[29] Persson, J., **Spreng, R.N.**, Turner, G.R., Herlitz, A., Morell, A., Stening, E., Wahlund, L.-O. Wikström, J., Söderlund, H. (2014). Sex differences in volume and structural covariance of the anterior and posterior hippocampus. *NeuroImage*, 99, 215–225.

* [28] Hassabis, D., **Spreng, R.N.**, Rusu, A.A., Robbins, C.A., Mar, R.A. & Schacter, D.L. (2014). Imagine all the people: How the brain creates and uses personality models to predict behavior. *Cerebral Cortex*, 24, 1979–1987. *Hassabis and Spreng are co-first authors.*

Featured in Freeman, J.B. & Stolier, R.M. (2014). The medial prefrontal cortex in constructing personality models. Trends in Cognitive Sciences, 18, 571–572.

** [27] Andrews-Hanna, J.R., Smallwood, J. & **Spreng, R.N.** (2014). The default network and self-generated thought: Component processes, dynamic control, and clinical relevance. *The Year in Cognitive Neuroscience, Annals of the New York Academy of Sciences*, 1316, 29–52.

[26] Stevens, W.D. & **Spreng, R.N.** (2014). Resting-state functional connectivity MRI reveals active processes central to cognition. *Wiley International Reviews (WIREs) Cognitive Science*, 5, 233–245.

[25] †Sevinc, G. & **Spreng, R.N.** (2014). Contextual and perceptual brain processes underlying moral cognition: A quantitative meta-analysis of moral reasoning and moral emotions. *Public Library of Science (PLoS) ONE*, 9: e87427.

[24] Brainerd, C.J., Reyna, V.F., Gomes, C.F.A., Kenney, A.E., Gross, C.J., Taub, E.S. & **Spreng, R.N.** (2014). Dual-retrieval models and neurocognitive impairment. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 40, 41–65.

[23] Gaesser, B., **Spreng, R.N.**, McLelland, V.C., Addis, D.R. & Schacter, D.L. (2013). Imagining the future: Evidence for a hippocampal contribution to constructive processing. *Hippocampus*, 23, 1150–1161.

[22] Mar, R.A., **Spreng, R.N.** & DeYoung, C.G. (2013). How to produce personality neuroscience research with high statistical power and low additional cost. *Cognitive, Affective, & Behavioral Neuroscience*, 13, 674–685.

* [21] **Spreng, R.N.** & Turner, G.R. (2013). Structural covariance of the default network in healthy and pathological aging. *Journal of Neuroscience*, 33, 15226–15234.

[20] **Spreng, R.N.** (2013). Examining the role of memory in social cognition. *Frontiers in Psychology*, 4, 437.
Introduction to the <u>Research Topic</u> *(special issue), edited by R.N. Spreng*

[19] **Spreng, R.N.** & Levine, B. (2013). Doing what we imagine: Completion rates and frequency attributes of imagined future events one year after prospection. *Memory*, 21, 458–466.

[18] Patel, R., **Spreng, R.N.** & Turner, G.R. (2013). Functional brain changes following cognitive and motor skills training: A quantitative meta-analysis. *Neurorehabilitation and Neural Repair*, 27, 187–199.

* [17] **Spreng, R.N.**, Sepulcre, J., Turner, G.R., Stevens, W.D. & Schacter, D.L. (2013). Intrinsic architecture underlying the relations among the default, dorsal attention, and frontoparietal control networks of the human brain. *Journal of Cognitive Neuroscience*, 25, 74–86.

** [16] Schacter, D.L., Addis, D.R., Hassabis, D., Martin, V.C., **Spreng, R.N.** & Szpunar, K.K. (2012). The future of memory: Remembering, imagining, and the brain. *Neuron*, 76, 677–694.

* [15] **Spreng, R.N.** & Schacter, D.L. (2012). Default network modulation and large-scale network interactivity in healthy young and old adults. *Cerebral Cortex*, 22, 2610–2621.

* [14] Patel, R., **Spreng, R.N.**, Shin, L.M. & Girard, T.A. (2012). Neurocircuitry models of post-traumatic stress disorder and beyond: A meta-analysis of functional neuroimaging studies. *Neuroscience & Biobehavioral Reviews*, 36, 2130–2142.

* [13] **Spreng, R.N.** (2012). The fallacy of a "task-negative" network. *Frontiers in Psychology*, 3, 145.

* [12] Turner, G.R. & **Spreng, R.N.** (2012). Executive functions and neurocognitive aging: Dissociable patterns of brain activity. *Neurobiology of Aging*, 33, 826.e1–826.e13.

* [11] **Spreng, R.N.** & Mar, R.A. (2012). I remember you: A role for memory in social cognition and the functional neuroanatomy of their interaction. *Brain Research*, 1428, 43–50.

[10] **Spreng, R.N.**, Drzezga, A., Diehl-Schmid, J., Kurz, A., Levine, B. & Perneczky, R. (2011). Relationship between occupation attributes and brain metabolism in frontotemporal dementia. *Neuropsychologia*, 49, 3699–3703.

* [9] Cusi, A., MacQueen, G., **Spreng, R.N.** & McKinnon, M.C. (2011). Altered empathic responding in major depressive disorder: Relation to symptom severity, illness burden, and psychosocial outcome. *Psychiatry Research*, 188, 231–236.

* [8] Gerlach, K.D., **Spreng, R.N.**, Gilmore, A.W. & Schacter, D.L. (2011). Solving future problems: Default network and executive activity associated with goal-directed mental simulations. *NeuroImage*, 55, 1816–1824.

** [7] **Spreng, R.N.**, Stevens, W.D., Chamberlain, J., Gilmore, A.W. & Schacter, D.L. (2010). Default network activity, coupled with the frontoparietal control network, supports goal-directed cognition. *NeuroImage*, 53, 303–317.

[6] **Spreng, R.N.**, Rosen, H., Strother, S., Black, S., Chow, T., Diehl-Schmid, J., Freedman, M., Graff-Radford, N., Hodges, J., Lipton, A., Mendez, M., Morelli, S., Miller, B. & Levine, B. (2010). Occupation attributes relate to location of atrophy in frontotemporal lobar degeneration. *Neuropsychologia*, 48, 3634–3641.

* [5] **Spreng, R.N.**, Wojtowicz, M. & Grady, C. (2010). Reliable differences in brain activity between young and old adults: A quantitative meta-analysis across multiple cognitive domains. *Neuroscience & Biobehavioral Reviews*, 34, 1178–1194.

* [4] **Spreng, R.N.** & Grady, C. (2010). Patterns of brain activity supporting autobiographical memory, prospection and theory-of-mind and their relationship to the default mode network. *Journal of Cognitive Neuroscience*, 22, 1112–1123.

** [3] **Spreng, R.N.**, Mar, R.A. & Kim, A.S.N. (2009). The common neural basis of autobiographical memory, prospection, navigation, theory of mind and the default mode: A quantitative meta-analysis. *Journal of Cognitive Neuroscience*, 21, 489–510.

* [2] **Spreng, R.N.**, McKinnon, M.C., Mar, R.A. & Levine B. (2009). The Toronto Empathy Questionnaire: Scale development and initial validation of a factor-analytic solution to multiple empathy measures. *Journal of Personality Assessment*, 91, 62–71.

* [1] **Spreng, R.N.** & Levine, B. (2006). The temporal distribution of past and future autobiographical events across the lifespan. *Memory & Cognition*, 34, 1644–1651.

Chapters

[9] Ebner, N. C., Pehlivanoglu, D., Polk, R., Turner, G. R., & **Spreng, R. N.** (in press). Aging online: Rethinking adulthood and aging in an unsafe digital era. In Y. Hanock & S. Wood (Eds.), *A Fresh look at Fraud: Theoretical and Applied Approaches* (Behavioral Economics and Healthy Behaviors). Routledge Taylor Francis.

[8] **Spreng, R.N.**, Ebner, N.C., Levin, B.E. & Turner, G.R. (2021) Aging and financial exploitation risk. In Factora, R., Ed. *Aging and Money* (2nd Edition). New York, NY: Springer Press, pp. 55-74. https://doi.org/10.1007/978-3-030-67565-3_5.

[7] **Spreng, R.N.** & Turner, G.R. (2019). Structure and function of the aging brain. In Samanez-Larkin, G., Ed. *The Aging Brain*. Washington DC: American Psychological Association.

[6] †DuPre, E. & **Spreng, R.N.** (2018). Rumination is a sticky form of spontaneous thought. In Fox, K. C. R. and Christoff, K.,Eds. *The Oxford Handbook of Spontaneous Thought: Mind-wandering, Creativity, Dreaming, and Clinical Conditions*. New York: Oxford University Press.

[5] Andrews-Hanna, J.R., Fox, K.C.R., Irving, Z.C., **Spreng, R.N.** & Christoff, K. (2018). The neuroscience of spontaneous thought: An evolving, interdisciplinary field. In Fox, K. C. R. and Christoff, K., Eds. *The

Oxford Handbook of Spontaneous Thought: Mind-wandering, Creativity, Dreaming, and Clinical Conditions. New York: Oxford University Press.

[4] **Spreng, R.N.**, Shoemaker, L. & Turner. G.R. (2017). Executive functions and neurocognitive aging. In Goldberg, E., Ed. *Executive functions in health and disease.* Academic Press: Elsevier, pp. 169–196.

[3] †Laurita, A.C. & **Spreng, R.N.** (2017). The hippocampus and social cognition. In Hannula, D.E. & Duff, M.C., Eds. *Hippocampus from Cells to Systems: Structure, Connectivity, and Functional Contributions to Memory and Flexible Cognition.* New York, NY: Springer, pp. 537–558.

[2] Szpunar, K.K., **Spreng, R.N.**, & Schacter, D.L. (2016). Toward a taxonomy of future thinking. In Michaelian, K., Klein, S.B., & Szpunar, K.K., Eds. *Seeing the future: Theoretical perspectives on future-oriented mental time travel.* Oxford: Oxford University Press, pp. 21–35.

* [1] **Spreng, R.N.** & Andrews-Hanna, J.R. (2015). The default network and social cognition. In Toga, A.W., Ed., *Brain Mapping: An Encyclopedic Reference.* Academic Press: Elsevier, pp. 165–169.

Abstracts and conference proceedings

[9] †Fernandez-Cabello, S., **Spreng, R.N.**, & †Schmitz, T.W. (2019). Basal forebrain volume predicts longitudinal trajectories of entorhinal neurodegeneration in Alzheimer's disease: Replication across ADNI datasets. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association* 15(7), P1404.

[8] Bhattasali, S., Hale, J., Pallier, C., Brennan, J., Luh, W.-M. & **Spreng, R.N.** (2018). Differentiating phrase structure parsing and memory retrieval in the brain. *Proceedings of the Society for Computation in Linguistics*, 1(1), 74–80.

[7] †Xu, N., R. **Spreng, R.N.**, & Doerschuk, P.C. (2014). Directed interactivity of large-scale brain networks: Introducing a new method for estimating resting-state effective connectivity MRI. *IEEE ICIP*, 978-1-4799-5751-4, 3508–3512.

[6] **Spreng, R.N.** & Schacter, D.L. (2011). Autobiographical and visuospatial planning in younger and older adults: An fMRI study. *Gerentologist*, 51, 538.

[5] Mar, R.A. & **Spreng R.N.** (2011). Neural overlap between memory and social cognition during the resting state. *Frontiers in Human Neuroscience, Conference Abstract: XI International Conference on Cognitive Neuroscience (ICON XI).* doi: 10.3389/conf.fnhum.2011.207.00162.

[4] **Spreng, R.N.**, Rosen, H., Strother, S., Black, S., Chow, T., Diehl-Schmid, J., Freedman, M., Graff-Radford, N., Hodges, J., Lipton, A., Mendez, M., Morelli, S., Miller, B., & Levine, B. (2008). Occupation attributes relate to origin of atrophy in frontotemporal lobar degeneration. *Dementia and Geriatric Cognitive Disorders*, 26, 1-94.

[3] **Spreng, R.N.**, Rosen, H., Chow, T., Morelli, S., Freedman, M., Black, S.E., Miller, B. & Levine, B (2005). Career selection in frontotemporal lobar degeneration: Relationship to localization of atrophy. *Journal of the International Neuropsychological Society*, 11(Suppl.S1), 106.

[2] **Spreng, R.N.**, Sengdy, P. & Levine, B. (2005). The distribution of autobiographical memories and plans across the lifespan. *Journal of the International Neuropsychological Society*, 11(Suppl.S1), 2-3.

[1] **Spreng, R.N.** & Levine, B. (2003). Temporal distribution of autobiographical thought over past and future. *The Clinical Neuropsychologist*, 17(1), 119.

Essays

[1] **Spreng, R.N.** & Mele, N. The Time Is Now to Bring the Fight to Dementia. *Huffington Post*, January 29, 2014.

MENTORSHIP & TEACHING

Post-Doctoral Fellows (First position)

2020 – present   Colleen Hughes
2020 – present   David Lemay
2021 – present   Alfie Wearn
2017 – 2018   Taylor W. Schmitz (Western University, Adjunct Research Professor)
2014 – 2017   Michael A. Ferguson (Harvard Medical School, Postdoctoral Fellow)

Graduate Students (First position)

Committee Chair
2021 – present   Miriam Taza
2021 – present   Shanny Foo
2020 – present   Jing Zhou
2019 – present   Giulia Baracchini
2018 – present   Manesh Girn
2015 – present   Laetitia Mwilambwe-Tshilobo

2015 – 2021   Roni Setton (Harvard University, Postdoctoral Fellow)
Doctoral Dissertation: New Perspectives on the Aging Brain

2017 – 2021   Amber Lockrow (Cornell University, Data Analyst)
Master's Thesis: Psychometric evaluation of the Autobiographical Interview

2014 – 2016   Elizabeth DuPre (McGill University, Doctoral Student)
Master's Thesis: Structural covariance networks across the lifespan, from 6 to 94 years of age

2013 – 2017   Anne C. Laurita (Cornell University, Postdoctoral Fellow)
Doctoral Dissertation: Neural representations of close others across adulthood: Empirical results and application of an attachment theoretical framework

Co-Supervision, York University
2016 – present   Jaeger Lam
2016 – present   Bri Darboh
2018 – present   Karin Kantarovich

2012 – 2018   Areeba Adnan (University of British Columbia, Clinical Internship)
Doctoral Dissertation: Creative aging: Functional neural networks associated with creativity in aging

Committee Member
2018 – present   Jamie Snytte
2018 – present   Shahin Tavakol
2018 – present   Laura Usme
2018 – present   Swapna Premasiri

2019 – present   Romke Hannema

2014 – 2017   David Sinclair (Google)
Doctoral Dissertation: Model selection results for latent high-dimensional graphical models on binary and count data with applications to fMRI and genomics

2013 – 2017   Nan Xu (Georgia Institute of Technology, Postdoctoral Fellow)
Doctoral Dissertation: Statistical modeling and inference in biological data: From brain networks to virus heterogeneity

Undergraduate Theses
2017   Charlene Hsiang Ling Tsai
Thesis: Intrinsic functional connectivity of the default network is associated with individual differences in social cognition

2015   Chelsea Brite
Thesis: Influence of aging on the neural correlates of autobiographical memory, prospection, and theory of mind

Undergraduate and Graduate Courses Taught

McGill University
Winter 2021   Graduate Seminar, Methods in Neuroimaging

Cornell University, Ithaca NY
Winter 2016   *Resting-State Functional MRI: Methodological innovation & challenges*
Winter 2015 – 2017   *Network Neuroscience: Selected Topics*
Winter 2013 – 2015, 2017   *Introduction to functional MRI analysis for human neuroimaging*
Fall 2013, 2014, 2016   *Human Brain and Mind: Introduction to cognitive neuroscience & neurology*

University of Toronto, St. George Campus
Summer 2006   *Introduction to Physiological Psychology*
Summer 2005   *Cognitive Neuroscience*

Mentorship Programs

2018 – present   Organization for Human Brain Mapping, Student and Postdoc International Mentoring Program
2014 – 2019   Sarah Lawrence College, Summer Science Internship Program

REVIEWING & EDITING

Editorial Board
Psychological Review, American Psychological Association (2020 – present)
Aging Brain, Elsevier (2020 – present)

Associate Editor
Perspectives on Psychological Sciences (interim, 2015 – 2016)

Guest Editor
Frontiers in Cognition Research Topic: Examining the role of memory in social cognition.

Review Editor
Frontiers in Brain Imaging Methods (2012 – 2019)

***Ad hoc* Reviewer**

Advanced Science ● Alzheimer's & Dementia ● Alzheimer's Research & Therapy ● American Journal of Psychiatry ● Assessment ● Biological Psychiatry ● Biology of Mood & Anxiety Disorders ● Brain and Behavior ● Brain and Cognition ● Brain Connectivity ● Brain Imaging and Behavior ● Brain Research ● Cerebral Cortex ● Cognition ● Cognitive, Affective, & Behaviorial Neuroscience ● Consciousness and Cognition ● Cortex ● Current Biology ● eLife ● Emotion Review ● Epilepsia ● European Journal of Neuroscience ● Frontiers in Cognition ● Frontiers in Human Neuroscience ● Human Brain Mapping ● International Journal of Neuropsychopharmacology ● JAMA Psychiatry ● Journal of Autism and Developmental Disorders ● Journal of Cognitive Neuroscience ● Journal of Experimental Psychology: General ● Journal of Experimental Psychology: Learning, Memory, and Cognition ● Journal of Gerontology B: Psychological Sciences ● Journal of Neuroscience ● Journal of Personality and Social Psychology ● Journal of Psychopharmacology ● Journal of Research in Personality ● Journal of the International Neuropsychological Society ● Memory ● Motivation and Emotion ● Nature Communications ● Nature Neuroscience ● Nature Human Behavior ● Nature Reviews Neuroscience ● Neurobiology of Aging ● Neurobiology of Learning and Memory ● NeuroImage ● Neuron ● Neuropsychologia ● Proceedings of the National Academy of Sciences ● Proceedings of the Royal Society, B: Biological Sciences ● Psychiatry Research: Neuroimaging ● Psychological Medicine ● Psychological Science ● Psychology, Crime & Law ● Psychopathology ● Public Library of Science (PLoS) ONE ● Rehabilitation Research and Practice

Grants (committee member)

Canadian Institutes of Health Research, *Biological and Clinical Aspects of Aging* (2019 – present)

Grants (*ad hoc*)
Austrian Science Fund
Canadian Foundation for Innovation
Deutsche Forschungsgemeinschaft (German Research Foundation)
European Research Council
Fonds de recherche du Québec – Nature et technologies (Canada)
Irish Research Council
Israel Science Foundation
Medical Research Council (MRC), United Kingdom
National Science Foundation (United States)
Netherlands Organisation for Scientific Research (NWO)
Research Foundation Flanders
Social Sciences and Humanities Research Council of Canada
US-Israel Binational Science Foundation

HOSPITAL, DEPARTMENT & UNIVERSITY SERVICE

2020 – present   Equity, Diversity and Inclusivity (EDI) Committee and Founding Member, Montreal Neurological Institute and Hospital
2020 – present   Steering Committee and Founding Member, Cognitive Neuroscience Network @ McGill
2020 – present   Research Management Committee, Healthy Brains for Healthy Lives

PROFESSIONAL MEMBERSHIPS

International Society for Behavioural Neuroscience ● Memory Disorders Research Society ● Organization for Human Brain Mapping ● Cognitive Neuroscience Society ● Society for Neuroscience

PROFESSIONAL TRAINING

2019   McGill French at Work Program, the Neuro, Montreal, QC, Canada
2016   Alan Alda Center for Communicating Science and the Kavli Institute at Cornell, Ithaca, USA
                   Science Communications Workshop
2012   Center for Teaching Excellence, Cornell University, Ithaca, USA

	Junior Faculty Course Design Institute
2009	Martinos Center for Biomedical Imaging, Charlestown MA, USA
	Near-Infrared Spectroscopy and Diffuse Optical Tomography Visiting Fellowship Course
2009	Martinos Center for Biomedical Imaging, Charlestown MA, USA
	SPM8 Workshop
2008	Behavioural Research and Imaging Network (BRAIN), Toronto, ON, Canada
	Workshop on Multivariate Analysis of Neuroimaging Data
2008	Rotman Research Institute at Baycrest, Toronto, ON, Canada
	Neuroimaging: Experimental Design, Methods and Analysis
2004	The International Neuropsychological Society's Vivian Smith Advanced Studies Institute, Xylokastro, Greece
	The Frontal Lobes
2003	Medical College of Wisconsin, WI, USA
	Introductory Course in Functional Magnetic Resonance Imaging

INVITED KEYNOTES, TALKS & LECTURES

Functional Architecture of Aging. Wallace H. Coulter Department of Biomedical Engineering at Emory University and Georgia Tech, GA, USA (Virtual, March, 2021).

Functional Architecture of Aging. Max Planck Institute for Human Development, Berlin, Germany (Virtual, March, 2021).

Explorations into the default network of the human brain. Wellcome Center for Integrative Imaging, University of Oxford, UK (Virtual, February, 2021).

Explorations into the default network of the human brain. Institute of Neuroscience and Psychology Seminar Series, University of Glasgow, UK (Virtual, February, 2021).

The default network and self-generated thought: Component processes, dynamic control and clinical relevance. Grand Rounds, International Research Training Group, Department of Psychiatry, Psychotherapy, and Psychosomatics, RWTH Aachen University, Germany (Virtual, January, 2021).

Explorations into the default network of the human brain. Institute of Neuroscience and Medicine, Research Centre Jülich, Germany (Virtual, December, 2020).

Explorations into the default network of the human brain. Multidisciplinary Research Colloquium Series, School of Gerontology, University of Southern California, USA (Virtual, October, 2020).

Explorations into the default network of the human brain. Cognitive Neuroscience of Development and Aging (CoNDA) Center Seminar Series, University of Nebraska – Omaha, USA (Virtual, August, 2020).

Explorations into the default network of the human brain. Centre intégré en neuroimagerie et neurostimulation de Québec (CINQ) Science Day Plenary Speaker, Quebec, CA (Virtual, May, 2020).

Explorations into the default network of the human brain. Brain Imaging Research Centre Seminar, University of Connecticut, Connecticut, USA (Virtual, May, 2020).

Explorations into the default network of the human brain. University of Miami SEEDS program colloquium, College of Arts and Sciences and the Institute for Data Science & Computing, Miami, FL, USA (Virtual, April, 2020).

Explorations into the default network of the human brain. Colloquium, Institute of Gerontology, Wayne State University, Detroit, MI, USA (February, 2020).

Financial Vulnerability & Exploitation in Aging: From Surveillance to Intervention. Stopping Financial Exploitation: Florida on the Forefront. Gainesville, Florida, USA. (November, 2019)

Human cortical parcellation: Challenges and solutions for individual variation in functional neuroanatomy. Feindel Brain Imaging Lecture Series, Montreal Neurological Institute, QC, Canada (October, 2019).

Cognitive, emotional and social dimensions of interpersonal vulnerability in older adulthood. Financial Industry Regulatory Authority: State of financial fraud in America. Washington, D.C. USA, (October, 2019)

Explorations into the default network of the human brain. Keynote, Alpine Brain Imaging Meeting. Champery Switzerland (January, 2019).

Explorations into the default network of the human brain. Vincent Di Lollo Early Career Award Address, Canadian Society for Brain, Behaviour & Cognitive Science Annual Meeting. St. John's, Newfoundland. (July, 2018).

Network dynamics and neurocognitive aging. Keynote, Multi-disciplinary Perspectives in Aging Research Symposium. The York University Centre for Aging Research and Education & Canadian Association on Gerontology – Student Connection, York University, ON, Canada (May, 2016).

Determinants of Financial Vulnerability in Community-Dwelling Older Adults: A Pilot Research Study. Bronfenbrenner Center for Translational Research, Cornell University, Ithaca, NY, USA (October, 2015).

The default network and self-generated thought: component processes, dynamic control and clinical relevance. Memory and Aging Center Colloquium, University of California at San Francisco, CA, USA (May, 2015).

Default and executive network interactivity involved in goal-directed cognition. Institute of Cognitive Science, Intermountain Neuroimaging Consortium Colloquium, Colorado University at Boulder, CO, USA (May, 2015).

The default network and self-generated thought: component processes and dynamic control. National Institutes of Health, Science event lecture, Bethesda, MD, USA (April, 2015).

Default and executive network interactivity involved in goal-directed cognition. Department of Psychology Colloquium, New York University, NY, USA (February, 2015).

Default and executive network interactivity involved in goal-directed cognition. Toronto Western Research Institute Imaging Rounds, Toronto Western Hospital, ON, Canada (October, 2014).

The default network and self-generated thought: component processes and dynamic control. Duke Institute for Brain Sciences, Center for Cognitive Neuroscience Colloquium, Duke University, Raleigh NC, USA (May, 2014).

Imagine all the people: Neuroimaging evidence for memory's role in navigating the social world. Science Seminar Series, Sarah Lawrence College, Bronxville, NY, USA (November, 2013).

Face in the crowd: Sociomnemonic influences on working memory. Cognitive Science @ Cornell's Anniversary Symposium. Cornell University, Ithaca, NY, USA (October, 2013)

Goal-directed cognition and large-scale network interactivity. Brownbag, Phyllis Green and Randolph Cowen Institute for Pediatric Neuroscience, Child Mind Institute, New York University School of Medicine, NY, USA (May, 2013).

Imagine all the people: Neuroimaging evidence for memory's role in navigating the social world. Neurobiology and Behavior Seminar Series, Department of Neurobiology and Behavior. Cornell University, Ithaca, NY, USA (February, 2013).

Goal-directed cognition and large-scale network interactivity. Neuropsychology Seminar Series, Department of Psychology. Queens College, City University of New York, USA (February, 2013).

Large-scale brain network interactivity: Implications for goal-directed cognition and aging. Colloquium Series, Department of Psychology. Cornell University, Ithaca, NY, USA (January, 2013).

Imagine all the people: Neuroimaging evidence for memory's role in navigating the social world. Program for Culture, Brain, Development, and Mental Health Colloquium, Foundation for Psychocultural Research and UCLA, Los Angeles, CA, USA (November, 2012).

Functional neuroanatomy of self-projection: Autobiographical and social contributions to imagination. Neuroscience Day at Cornell. Cornell University, Ithaca, NY, USA (October, 2012)

Imagine all the people: Neuroimaging evidence for memory's role in navigating the social world. Social Brain Sciences Colloquium. Dartmouth University, Hanover, NH, USA (September, 2012).

Large-scale brain network interactivity and aging. Human Development Brown Bag Colloquium. Cornell University, Ithaca, NY, USA (September, 2012).

Neural correlates of autobiographical planning and the intrinsic connectivity between large-scale brain networks. Advanced Laboratory in Cognitive Neuroscience & Memory Research Seminar. Harvard University, Cambridge, MA, USA (March, 2012).

Functional neuroanatomy of self-projection: Autobiographical and social contributions to imagination. Conversations on Mind, Brain & Behavior. Notre Dame, South Bend, IN, USA (March, 2012).

An examination of large-scale brain networks' involvement in goal-directed cognition: Partial least squares and graph-analytic theory approaches to fMRI data. Quantitative Studies Group Colloquia. Notre Dame, South Bend, IN, USA (March, 2012).

Functional neuroanatomy of simulation: fMRI evidence from episodic simulation and mental inference judgments of the self and others. Advanced Laboratory in Cognitive Neuroscience & Memory Research Seminar. Harvard University, Cambridge, MA, USA (October, 2011).

Changes in large-scale network coupling, but not task-related activation, with healthy aging. Brain Aging Neuroimaging Group (BANG!). Massachusetts General Hospital, Martinos Center for Biomedical Imaging, Charlestown, MA, USA (May, 2011).

Integrity of default, attention and control networks with advancing age: Evidence from autobiographical and visuospatial planning. Advanced Laboratory in Cognitive Neuroscience & Memory Research Seminar. Harvard University, Cambridge, MA, USA (April, 2011).

The cognitive neuroscience of future-oriented thinking: Implications for memory, social cognition and aging. Science Luncheon Series, Center for Vital Longevity, Dallas, TX, USA (March, 2011).

The Default Network: Relationship to cognition and resting-state networks. Sunnybrook Hospital, Neuroimaging Research Rounds, Toronto, ON, Canada (March, 2011).

Default, attention and control network interactivity: Evidence from task-evoked and resting-state neuroimaging studies. Rotman Rounds, Rotman Research Institute at Baycrest, Toronto, ON, Canada (March, 2011).

The Default Network: Relationship to cognition and resting-state networks. Boston VA Neuroimaging Research Lecture Series, Boston, MA, USA (March, 2011).

The cognitive neuroscience of future-oriented thinking. Cognition, Brain & Behavior Research Seminar. Harvard University, Cambridge, MA, USA (December, 2010).

I remember you: A role for memory in social cognition and the functional neuroanatomy of their interaction. Aging, Cognition & Culture Seminar, Brandeis University, Waltham, MA, USA (July, 2010).

Core Network Cognition. Toronto Western Research Institute Imaging Rounds, Toronto Western Hospital, ON, Canada (October, 2009).

Default Network Cognition. Harvard Medical School Neurophysiology Seminar, Boston, MA, USA (July, 2009).

Multiple pathways to the future: Brain networks that support autobiographical and visuospatial planning. Advanced Laboratory in Cognitive Neuroscience & Memory Research Seminar. Harvard University, Cambridge, MA, USA (May, 2009).

Behavioral and Neural Elements of Self-Projection. Advanced Laboratory in Cognitive Neuroscience & Memory Research Seminar. Harvard University, Cambridge, MA, USA (November, 2008).

A common neural basis of autobiographical memory, prospection, navigation and theory-of-mind within the default network? Toronto Western Research Institute Imaging Rounds, Toronto Western Hospital, ON, Canada (April, 2008).

Does your job change your brain, or does your brain change your job? The relationship of occupation to atrophy in frontotemporal dementia. Rotman Rounds, Rotman Research Institute at Baycrest, Toronto, ON, Canada (April, 2008).

PRESENTATIONS AT MEETINGS AND SYMPOSIA

Talks

Spreng, R.N. (Virtual, February 2021). Brain and self over the lifespan. Neuroscience of the Self and Adaptive Real-World Behaviour. Healthy Brains for Healthy Lives, Special Webinar Series.

†Xu, N., R. **Spreng, R.N.**, Keilholz, S. (Virtual, July 2020). Investigation of spatiotemporal functional interactivity among large-scale brain networks. Organization for Human Brain Mapping.

Spreng, R.N. (June, 2019). The creative aging brain: Functional brain networks associated with divergent thinking in older and younger adults. International Society for Behavioural Neuroscience, Annual Meeting, Taormina, Italy.

Spreng, R.N. (June, 2019). The shifting architectures of cognition and brain function: A lifespan network neuroscience perspective. Organization for Human Brain Mapping, Annual Meeting, Rome, Italy.

Spreng, R.N. (May, 2019). Loneliness and meaning in life are reflected in the intrinsic network architecture of the brain. Social Affective Neuroscience Society, Annual Meeting, Miami, FL, USA.

†Schmitz, T.W., Soreq, H, Poirier, J., & **Spreng, R.N.** (March, 2019). Proteopathy and astroglial reactivity drive cholinergic neurodegeneration in preclinical Alzheimer's disease. Alzheimer's Disease/Parkinson's Disease (AD/PD), Annual Meeting, Lisbon, Portugal.

†Fernández-Cabello, S., **Spreng, R.N.** & †Schmitz, T.W. (March, 2019). Basal forebrain volume predicts longitudinal trajectories of entorhinal neurodegeneration in Alzheimer's disease: replication across ADNI datasets. Alzheimer's Disease/Parkinson's Disease (AD/PD), Annual Meeting, Lisbon, Portugal.

†Schmitz, T.W., Soreq, H, Poirier, J., & **Spreng, R.N.** (November, 2018). Endogenous compensation for Alzheimer's neuropathology is genotype dependent. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

†Adnan, A., Beaty, R., Lam, J., Silvia, P., **Spreng, R.N.** & Turner, G.R. (November, 2018). Creative aging: Functional brain networks associated with divergent thinking in older and younger adults. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

Ebner, N.C., Oliveira, D., Turner, G.R. & **Spreng, R.N.** (November, 2018). Uncovering age-related vulnerabilities in trust-related decision making: A brain-behavior analysis. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

Spreng, R.N. (June, 2018). Selective vulnerability of the cholinergic basal forebrain in preclinical Alzheimer's disease. Multimodal Neuroimaging for Mental Disorders Workshop. National University of Singapore, Singapore.

†Schmitz, T.W., Soreq, H, Poirier, J., & **Spreng, R.N.** (March, 2018). Triangulating cell-type specific degeneration of the cholinergic basal forebrain in preclinical Alzheimer's disease. Alzheimer's Disease/Parkinson's Disease (AD/PD), Annual Meeting, Torino, Italy.

†Schmitz, T.R. & **Spreng, R.N.** (November, 2017). Basal forebrain degeneration precedes and predicts the cortical spread of Alzheimer's pathology. Society for Neuroscience, Annual Meeting, Washington DC, USA.

†Schmitz, T.R. & **Spreng, R.N.** (March, 2017). Basal forebrain degeneration precedes and predicts the cortical spread of Alzheimer's pathology. Alzheimer's Disease/Parkinson's Disease (AD/PD), Annual Meeting, Vienna, Austria.

Spreng, R.N. (August, 2017). Cognitive, emotional and social dimensions of interpersonal vulnerability in older adulthood, Annual National Adult Protective Services Association Conference, Milwaukee, WI, USA.

Spreng, R.N. (January, 2017). The default – executive coupling hypothesis of aging: Semanticized cognition in older adulthood. Dallas Aging & Cognition Conference, Center for Vital Longevity, University of Texas at Dallas, Dallas, TX, USA.

†Schmitz, T.R. & **Spreng, R.N.** (November, 2016). Basal forebrain degeneration precedes and predicts the cortical spread of Alzheimer's pathology. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

Spreng, R.N. (June, 2016). Default and executive network interactivity involved in goal-directed cognition. Organization for Human Brain Mapping Annual Meeting, Geneva, Switzerland.

Spreng, R.N. (May, 2016). Social and cognitive dimensions of interpersonal vulnerability in older adulthood. Opportunities for Advancing Behavioral and Social Research on Aging, APS Pre-Conference sponsored by the National Institute on Aging. Chicago, IL, USA.

Spreng, R.N., Karlawish, J. & Marson, D. (October, 2015). Risk Factors: Diminished Cognitive/Decisional Capacity (Break out session). NIH Workshop: Multiple Approaches to Understanding and Preventing Elder Abuse. National Institutes of Health, Bethesda, MD, USA.

Spreng, R.N. (May, 2015). Understanding why older adults are vulnerable to financial exploitation and abuse. Institute on Aging and the Department of Medical Ethics and Health Policy Annual Retreat, Aging with Financial Security. Smilow Center for Translational Research, University of Pennsylvania, Philadelphia, PA, USA.

Stevens, W.D., **Spreng, R.N.**, Viviano, J., Schacter, D.L. (November, 2014). Age-related dedifferentiation of intrinsic functional connectivity both within and between the default and dorsal attention networks. Society for Neuroscience, Annual Meeting, Washington DC, USA.

Spreng, R.N. (February, 2014). The default network and self-generated thought: component processes and dynamic control. The default mode network in aesthetics and creativity, symposium hosted by the Italian Academy for Advanced Studies in America at Columbia University in cooperation with the College of Arts and Science at New York University, New York, NY, USA.

Spreng, R.N., Turner, G.R. (November, 2013). Structural covariance of the default network in healthy and pathological aging. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

Spreng, R.N., Schacter, D.L. (January, 2012). Age-related differences in medial prefrontal connectivity during autobiographical planning. Social-Personality Gerontology preconference to the Society of Personality and Social Psychology Annual Meeting, San Diego, CA, USA.

Spreng, R.N., Schacter, D.L. (November, 2011) Autobiographical and visuospatial planning in young and old adult: An fMRI study. Gerontological Society of America Annual Meeting, Boston, MA, USA.

Stevens, W.D., **Spreng, R.N.,** Gaessar, B., Schacter, D.L. (June, 2011). Image-Invariant Neural Priming of Faces is Associated with Changes in Functional Connectivity of FFA. Organization for Human Brain Mapping Annual Meeting, Quebec City, Canada. *Also presented as a poster.*

Spreng, R.N. (March, 2011) The shared functional neuroanatomy of theory of mind and autobiographical memory. Eastern Psychological Society Annual Meeting, Boston, MA, USA.

Spreng, R.N. (December, 2010). Default, attention and control network interactivity during goal-directed planning. Charles River Association for Memory, Cambridge, MA, USA.

Spreng, R.N., Gilmore, A.W., Schacter, D.L. (April, 2010). Levels of difficulty in autobiographical and visuospatial planning differentially modulate core, dorsal attention and control network activity. Slide presentation at the Cognitive Neuroscience Society Annual Meeting, Montreal, QC, Canada.

Posters

[†]Baracchini. G., [†]Mwilambwe-Tshilobo, L., [†]Setton, R., [†]Lockrow, A.W., Turner, G.R., Spreng, R.N. (June, 2021). Altered inter-regional similarity in BOLD variability traces functional integration in aging. OHBM Annual Meeting (Virtual conference).

[†]Girn, M., Bzdok, D., [†]Lockrow, A.W., [†]Setton, R., [†]Mwilambwe-Tshilobo, L., Turner, G.R., Spreng, R.N. (June, 2021). Deep behavioral phenotyping reveals two multivariate axes of default network covariance. OHBM Annual Meeting (Virtual conference).

[†]Setton, R., [†]Mwilambwe-Tshilobo, L., [†]Girn, M., [†]Lockrow, A.W., [†]Baracchini, G., Lowe, A.J., Cassidy, B.N., Li, J., Luh, W.-M., Bzdok, D., Leahy, R.M., Ge, T., Marguilies, D.S., Mišić, B., Bernhardt., B.C., Stevens, W.D., De Brigard, F., Kundu, P., Turner, G.R. & **Spreng, R.N.** (June, 2021). Functional architecture of the aging brain. OHBM Annual Meeting (Virtual conference).

Kupis, L., Goodman, Z., Kornfeld, S., Hoang, S., Romero, C., Dirks, B., Chang, C., Spreng, R.N., Nomi, J., Uddin, L. (June, 2021). Brain dynamics moderate cognitive flexibility across the lifespan. OHBM Annual Meeting (Virtual conference).

Uddin, L., Betzel, R., Cohen, J., Damoiseaux, J., De Brigard, F., Eickhoff, S., Fornito, A., Gratton, C., Gordon, E., Laird, A., Larson-Prior, L., McIntosh, A.R., Nickerson, L., Pessoa, L., Pinho, A.L., Poldrack, R., Razi, A., Sadaghiani, S., Shine, J., Yendiki, A., Yeo, B.T.T., Spreng, R.N. (June, 2021). Update from WHATNET: Workgroup for HArmonized Taxonomy of NETworks. OHBM Annual Meeting (Virtual conference).

Nomi, J., Bzdok, D., Li, J., Bolt, T., Kornfeld, S., Goodman, Z., Yeo, B.T.T., Spreng, R.N., Uddin, L. (July, 2020). Global signal topography changes across the lifespan. OHBM Annual Meeting (Virtual conference).

†Kantarovich. K., †Mwilambwe-Tshilobo, L., †Fernández-Cabello, S., †Lockrow, A., Turner, G.R., Spreng, R.N. (July, 2020). Investigating white matter lesion load, intrinsic functional connectivity, and cognition in aging. OHBM Annual Meeting (Virtual conference).

†Baracchini, G., †Mwilambwe-Tshilobo, L., †Girn, M., †Setton, R., Misic, B., Turner, G.R., Spreng, R.N. (July, 2020). Functional Connectivity and Interregional BOLD Signal Variance across Large-scale Networks. OHBM Annual Meeting (Virtual conference).

†Setton, R., †Mwilambwe Tshilobo, M., †Baracchini, G., †Girn, M., †Lockrow, A., Li, J., Ge, T., Leahy, R., Turner, G.R., Spreng, R.N. (July, 2020). ME-fMRI connectivity associations with behavior using group and individualized parcellation schemes. OHBM Annual Meeting (Virtual conference).

†Girn, M., Roseman, L., Bernhardt, B., Smallwood, J., Leech, R., Carhart-Harris, R., Spreng, R.N. (July, 2020). LSD attenuates the macroscale functional hierarchy of the brain. OHBM Annual Meeting (Virtual conference).

†Girn, M., Lowe, A.J., †Lockrow, A., †Setton, R., †Mwilambwe-Tshilobo, L., Marguilies, D.S., Bernhardt, B., Turner, G.R., **Spreng, R.N.** (October, 2019). Age-related differences in the principal gradient of macroscale cortical organization. Presentation at the Society for Neuroscience, Annual meeting, Chicago, CA. USA.

†Girn, M., †Lockrow, A., †Setton, R., †Laetitia Mwilambwe-Tshilobo, L., Turner, G.R., **Spreng, R.N.** (June, 2019). Dynamic functional network connectivity in healthy older and younger adults. Organization for Human Brain Mapping, Annual Meeting, Rome, Italy.

Li, J., Bolt, T., Bzdok, D., Nomi, J.S., Yeo, B.T.T., Uddin, L.Q. & **Spreng, R.N.** (June, 2019). Topography and behavioral relevance of the global signal in the human brain. Organization for Human Brain Mapping, Annual Meeting, Rome, Italy.

Maillet, D., Beaty, R.E., †Adnan, A., Fox, K.C.R., Turner, G.R., & **Spreng, R.N.** (June, 2019). Age-related differences in the neural correlates of self-generated thoughts at rest. Organization for Human Brain Mapping, Annual Meeting, Rome, Italy.

†Mwilambwe-Tshilobo, L., †Lockrow, A., †Setton, R., †Fernández-Cabello, S., Turner, G.R., **Spreng, R.N.** (May, 2019). Age-related differences in the neural correlates of loneliness and social isolation in young and older adults. Social Affective Neuroscience Society, Annual Meeting, Miami, FL, USA.

†Horta, M., Ziaei, M., Lin, T., Porges, E., Fischer, H., Feifel, D., **Spreng, R.N.** & Ebner, N.C. (November, 2018). Oxytocin modulation of amygdala connectivity varies by age and facial emotion. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

†DuPre, E.M., O. Esteban, O., Salo, T., Markello, R.D., Whitaker, K., Kundu, P. & **Spreng, R.N.** (June, 2018). Introducing a BIDS-compliant multi-echo fMRI preprocessing pipeline. Organization for Human Brain Mapping Annual Meeting, Singapore.

Markello, R.D., De Rosa, E., †DuPre, E.M., Luh, W.-M., **Spreng, R.N.** & Anderson, A.K. (June, 2017). Autonomic influences on resting-state activity mediated by the basal forebrain. Organization for Human Brain Mapping Annual Meeting, Vancouver, BC, Canada.

†Lam J., Turner, G.R. & **Spreng, R.N.** (November, 2016). Dynamic default network engagement as a function of stimulus familiarity and task performance. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

De Brigard, F., Stewart, G.W., Parikh, N. & **Spreng, R.N.** (November, 2016). A quantitative meta-analysis of neuroimaging studies on counterfactual thinking. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

†Xu, N., Doerschuk, P.C. & **Spreng, R.N.** (August, 2016). What are the most talkative brain regions? 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Orlando, FL, USA.

Chong, M., Bhushan, C., Joshi, A.A., Haldar, J.P., **Spreng, R.N.** & Leahy, R.M. (June, 2016). Individual performance of resting fMRI parcellation with group connectivity priors. Organization for Human Brain Mapping Annual Meeting, Geneva, Switzerland.

†Laurita, A.C. & **Spreng, R.N.** (April, 2016). Neural representations of adult attachment. Social & Affective Neuroscience Society Annual Meeting, New York City, NY, USA.

†DuPre, E., †Lockrow, A., Luh, W.-M. & **Spreng, R.N.** (April, 2016). Age-related changes in the neural correlates of remembering, imagining, and mentalizing. Cognitive Neuroscience Society Annual Meeting, New York City, NY, USA.

†Sevinc, G. & **Spreng, R.N.** (April, 2016). The processing of moral salience during a semantic association task. Cognitive Neuroscience Society Annual Meeting, New York City, NY, USA.

Markello, R., †Lockrow, A., Luh, W.-M., **Spreng, R.N.** & Anderson, A. (April, 2016). Heart rate variability reveals brain-body loops in the insular cortex. Cognitive Neuroscience Society Annual Meeting, New York City, NY, USA.

Parikh, N., Ruzic, L., Stewart, G.W., **Spreng, R.N.** & De Brigard, F. (April, 2016). Neural effects of plausibility during episodic and semantic counterfactual thinking. Cognitive Neuroscience Society Annual Meeting, New York City, NY, USA.

†DuPre, E. & **Spreng, R.N.** (October, 2015). Relationship between large-scale cortical networks estimated by structural covariance and resting-state functional connectivity MRI. Society for Neuroscience, Annual Meeting, Chicago, IL, USA.

†Ferguson, M., Anderson, J., & **Spreng, R.N.**, (June, 2015). Multivariate network patterns relate behavior to resting-state functional connectivity MRI. Organization for Human Brain Mapping Annual Meeting, Honolulu, HI, USA.

Chong, M., Joshi, A., Haldar, J., DuPre, E., Luh, W.-M., Shattuck, D., **Spreng, R.N.**, & Leahy, R. (June, 2015). A group approach to functional cortical parcellation from resting-state fMRI. Organization for Human Brain Mapping Annual Meeting, Honolulu, HI, USA.

Spreng, R.N., Daley, M., & Turner, G.R. (June, 2014). Evaluating network thresholding methods for fMRI. Organization for Human Brain Mapping Annual Meeting, Hamburg, Germany.

Spreng, R.N., †DuPre, E., Selarka, D. †Gojkovic, S., †Mildner, J., †Kurkela, K. & Turner, G.R. (April, 2014). Contextually relevant default network activity facilitates working memory performance. Cognitive Neuroscience Society Annual Meeting, Boston, MA, USA.

†DuPre, E., Marusak, H.A., Gotlib, I.H., Thomason, M.E., **Spreng, R.N.** (April, 2014). Developmental trajectory of functional connectivity of the default network. Cognitive Neuroscience Society Annual Meeting, Boston, MA, USA.

Xu, N., **Spreng, R.N.**, Doerschuk, P.C. (April, 2014). Directed interactivity of large-scale brain networks: Introducing a new method for estimating resting-state effective connectivity MRI. Cognitive Neuroscience Society Annual Meeting, Boston, MA, USA.

Madore, K.P., **Spreng, R.N.**, Schacter, D.L. (April, 2014). Episodic simulation and prospective memory: Correlates of sustained executive activity. Cognitive Neuroscience Society Annual Meeting, Boston, MA, USA.

Lemire-Rodger, S., **Spreng, R.N.**, Selarka, D., Turner, G.R. (April, 2014). Fractionating executive control in the human brain. Cognitive Neuroscience Society Annual Meeting, Boston, MA, USA.

Persson, J., **Spreng, R.N.**, Turner, G.R., Herlitz, A., Morell, A., Stening, E., Wahlund, L.-O. Wikström, J., Söderlund, H. (April, 2014). Sex differences in volume and structural covariance of the anterior and posterior hippocampus. Cognitive Neuroscience Society Annual Meeting, Boston, MA, USA.

De Brigard, F., **Spreng, R.N.**, Mitchell, J.P., Schacter, D.L. (November, 2013). Neural activity associated with self, other, and object-based counterfactual thinking. Society for Neuroscience, Annual Meeting, San Diego, CA, USA.

Spreng, R.N. & Schacter, D.L. (June, 2013). Attenuated anticorrelation with aging: Evidence from an autobiographical planning task. Organization for Human Brain Mapping Annual Meeting, Seattle, WA, USA

Spreng, R.N., Gerlach, K.D., Schacter, D.L. (April, 2013). Default network and executive control correlates of autobiographical plans and their qualitative features revealed by parametric modulation analyses. Cognitive Neuroscience Society Annual Meeting, San Francisco, CA, USA.

Zhang, G., Ke, Z., Cain, M., **Spreng, R.N.** (July, 2012). Identifying subsystems of the default network using dynamic factor analysis. Developing Novel Statistical Methods in NeuroImaging preconference to the Joint Statistical Meeting, San Diego, CA, USA.

Spreng, R.N., Hassabis, D., Robbins, C., Schacter, D.L. (November, 2011). Functional neuroanatomy of simulation: fMRI evidence from episodic simulation and mental inference judgments of the self and others. Society for Neuroscience, Washington DC, USA.

Mar, R.A., **Spreng, R.N.** (September, 2011). Neural Overlap between Memory and Social Cognition during Resting State. 11th International Conference on Cognitive Neuroscience, Mallorca, Spain.

Stevens, W.D., **Spreng, R.N.,** Gaessar, B., Schacter, D.L. (June, 2011). Image-Invariant Neural Priming of Faces is Associated with Changes in Functional Connectivity of FFA. Organization for Human Brain Mapping Annual Meeting, Quebec City, Canada. *Also presented as a talk.*

Spreng, R.N., Sepulcre, J., Schacter, D.L. (June, 2011). Intrinsic connectivity within and between the default, attention and control networks of the brain. Organization for Human Brain Mapping Annual Meeting, Quebec City, Canada.

Strother, S.C., Oder, A.E. **Spreng, R.N.**, Spring, R., Grady, C.G. (August, 2010). The NPAIRS Computational Statistics Framework for Data Analysis in Neuroimaging. Annual International Conference on Computational Statistics, Paris, France.

Oder, A.E., **Spreng, R.N.**, Somji, I., Churchill, N.W., Strother, S.C. (June, 2010). PLSNPAIRS: An Open Software Package for Data-driven Analysis of fMRI Data in a Resampling Framework. Organization for Human Brain Mapping Annual Meeting, Barcelona, Spain.

Gerlach, K.D., Wig, G.S., **Spreng, R.N.**, Gilmore, A.W., Schacter, D.L. (June, 2010). Neural activity associated with goal-directed simulation of future events. Organization for Human Brain Mapping Annual Meeting, Barcelona, Spain.

Spreng, R.N., Gilmore, A.W., Schacter, D.L. (January, 2010). The cognitive neuroscience of autobiographical planning: Implications for aging. Center for Vital Longevity, Dallas, TX, USA.

Spreng, R.N., Chamberlain, J., Gilmore, A.W., Stevens, W.D., Schacter, D.L. (December, 2009). The neural basis of autobiographical and visuospatial planning. Charles River Association for Memory, Cambridge, MA, USA.

Spreng, R.N., Chamberlain, J., Gilmore, A.W., Stevens, W.D., Schacter, D.L. (October, 2009). The neural basis of autobiographical and visuospatial planning. Society for Neuroscience, Chicago, IL, USA.

Stevens, W.D., Gaessar, B., **Spreng, R.N.**, Schacter, D.L. (October, 2009). Exposure to variable images of unfamiliar faces improves subsequent face-recognition and is associated with image-invariant neural priming across distributed brain regions. Society for Neuroscience, Chicago, IL, USA.

Spreng, R.N., Rosen, H., Strother, S., Black, S., Chow, T., Diehl-Schmid, J., Freedman, M., Graff-Radford, N., Hodges, J., Lipton, A., Mendez, M., Morelli, S., Miller, B., Levine, B. (September, 2008). Occupation attributes relate to origin of atrophy in frontotemporal lobar degeneration. International Conference on Frontotemporal Dementia, Rotterdam, The Netherlands.

Mar, R.A., Kim, A.S.N., **Spreng, R.N.** (November, 2007). The neural basis of projecting the self into narratives. Paper presented at the Theory of Mind and Literature Conference, Purdue University, West Lafayette, Indiana, USA.

Spreng, R.N., Rosen, H., Chow, T., Morelli, S., Freedman, M., Black, S.E., Miller, B., Levine, B (February, 2005). Career selection in frontotemporal lobar degeneration: Relationship to localization of atrophy. Poster presented at the 33rd Annual International Neuropsychological Society Meeting, St. Louis, Missouri, USA.

Spreng, R. N., Sengdy, P., Levine, B. (February, 2005). The distribution of autobiographical memories and plans across the lifespan. Poster presented at the 33rd Annual International Neuropsychological Society Meeting, St. Louis, Missouri, USA.

Spreng, R. N., McKinnon, M., Binns, M., Levine, B. (January, 2005). Re-assessing empathy: A factor-analytic solution to multiple self-report empathy scales. Poster presented at the 6th Annual Convention of the Society for Personality and Social Psychology, New Orleans, Louisiana, USA.

Spreng, R. N., Levine, B. (September, 2003). Prospective and retrospective autobiographical event distribution across the lifespan. Poster presented at the Brenda Milner Symposium, Montreal Neurological Institute, Montreal, Quebec, Canada.

Spreng, R. N., Levine, B. (August, 2003). Temporal distribution of autobiographical thought over past and future. Poster presented at the 111th Annual Convention of the American Psychological Association, Toronto, Ontario, Canada.

OUTREACH

Aging and brain health: Strategies and challenges. Talk presented to the Cornell Association of Professors Emeriti, Ithaca, NY (March, 2016).

Aging and brain health: Strategies and challenges. Talk presented at the Ithaca Sunrise Rotary Club, Ithaca, NY (October, 2015).

Aging and brain health: Strategies and challenges. Talk presented at Longview, Ithaca, NY (September, 2015).

Aging and brain health: Strategies and challenges. Talk presented at the Tompkins County Office for the Aging, 40th Annual Luncheon, Ithaca, NY (May, 2015).

Aging and brain health: Strategies and challenges. Talk presented at the Tompkins County Office for the Aging, Ithaca, NY (December, 2014).

MEDIA COVERAGE

McGill researchers among the world's most cited: Web of Science (November, 2019)
McGill Reporter	https://reporter.mcgill.ca/mcgill-researchers-among-the-worlds-most-cited-web-of-science/

Creativité et connectivité: Que se passe-t-il dans notre cerveau lorsqu'on crée? (December, 2019)
Le Médecin du Québec, volume 54, numéro 12, https://fmoq-mdq.s3.amazonaws.com/2019/12/004-014-VieProfessionnelle-1219.pdf#page=3

Brains and Losses: The Bottom Line on Aging and Financial Vulnerability (May, 2019)
Marketplace (NPR)

Could brain scans spot elderly people at risk of fraud before they are even targeted by conmen? (May, 2017)
Daily Mail	http://www.dailymail.co.uk/news/article-4528420/Could-brain-scans-spot-elderly-people-risk-fraud.html

Are Cholinergic Neurons "Patient Zero" of Alzheimer's Disease? (November, 2016)
Alzforum	http://www.alzforum.org/news/research-news/are-cholinergic-neurons-patient-zero-alzheimers-disease

How Empathic Are You? (June, 2016)
Buzzfeed	https://www.buzzfeed.com/kellyoakes/whats-your-empathy-score?

Purpose in Life Impedes Impulsivity (December, 2015)
Pacific Standard	http://www.psmag.com/health-and-behavior/purpose-in-life-impedes-impulsivity

How Can Daydreaming Improve Goal-Oriented Results? (December, 2014)
Psychology Today   http://www.psychologytoday.com/blog/the-athletes-way/201411/how-can-daydreaming-improve-goal-oriented-results

Reminiscing can help boost mental performance (October 23, 2014)
Science Daily   http://www.sciencedaily.com/releases/2014/10/141023111050.htm

Academic Minute: Aging Brain Network (April 2014)
Northeast Public Radio   http://wamc.org/post/dr-nathan-spreng-cornell-university-aging-brain-network

Loss of brain volume could flag Alzheimer's (September 2013)
Futurity   http://www.futurity.org/faster-brain-shrinkage-flag-alzheimers/

Talk of the Town (1hr radio interview; August, 2013)
WVBR 93.5 FM

Who are you thinking about? The fMRI knows (June 2013)
APA Monitor on Psychology   http://www.apa.org/monitor/2013/06/frmi.aspx

Brain Scans Can Now Tell Who You're Thinking About (March, 2013)
Singularity Hub   http://singularityhub.com/2013/03/23/brain-scans-can-now-tell-who-youre-thinking-about/

Brain Researchers Can Detect Who We Are Thinking About (March, 2013)
Scientific American   http://www.scientificamerican.com/article.cfm?id=brain-researchers-can-detect-who-we-are-thinking-about

Brain scan knows who you are thinking about (March, 2013)
Discovery News   http://news.discovery.com/tech/biotechnology/brain-scan-knows-who-youre-thinking-about-130314.htm

Черты личности разных людей кодируются в различных регионах мозга (March, 2013)
RBC Daily   http://rbcdaily.ru/cnews/562949986270836

Brain scan that shows researchers what you are thinking about (March, 2013)
Daily Mail   http://www.dailymail.co.uk/sciencetech/article-2293683/Brain-scan-breakthrough-researches-just-youre-thinking-lead-treatment-disorders-like-autism.html

The New Power of Memory: Sharp Recall Skills Prove Key to Future Success; Some Excel at 'Mental Time Travel' (March 2013)
Wall Street Journal   http://online.wsj.com/article/SB10001424127887324281004578354131329060180.html

Mental Picture of Others Can Be Seen Using fMRI, Finds New Study (March, 2013)
Science Daily   http://www.sciencedaily.com/releases/2013/03/130305091000.htm

When disaster strikes others: How your brain responds   Empathy and coping in the wake of a disaster (March, 2011)
Psychology Today   http://www.psychologytoday.com/blog/fulfillment-any-age/201103/when-disaster-strikes-others-how-your-brain-responds

Künstler trifft es links, Lehrer rechts: Die Berufswahl verrät, in welcher Hirnhälfte die Demenz zuerst zuschlägt (February, 2011)
Psychologie Heute

Business Minded: The intriguing link between dementia and your daily grind (January, 2011)
Psychology Today

Peoples' jobs linked to area of brain degeneration (October 19, 2010)
Medical Post

Dementia, career choice linked (September 23, 2010)
National Post   http://news.nationalpost.com/2010/09/23/dementia-career-choice-linked-in-study/

For Sufferers of an Early-Onset Dementia, Career Choice May Determine Location of Disease in Brain (September 22, 2010)
Science Daily   http://www.sciencedaily.com/releases/2010/09/100922124348.htm