David J. Halpern

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Employment History

2020 –   **Postdoctoral Fellow.** Department of Psychology, University of Pennsylvania
           Advisor: Michael Kahana

Education

2020   **Ph.D.**, Psychology (Cognition and Perception), New York University
          Advisor: Todd Gureckis

2019   **M.A.**, Psychology, New York University

2013   **B.A.** Psychology and Music, Columbia University

Preprints and Forthcoming

Rudoler, J., Bruska, J., Chang, W., Dougherty, M., Katerman, B., **Halpern**, **D. J.**, Diamond, N., & Kahana, M. (Under Review). Optimizing learning via real-time neural decoding. *Journal of Neural Engineering*, https://www.biorxiv.org/content/early/2023/08/27/2023.08.25.553563.full.pdf. https://doi.org/10.1101/2023.08.25.553563

Halpern, **D. J.**, & Gureckis, T. (In Revision). Getting blood from a stone: Improving neural inferences without neural data. *Imaging Neuroscience*. https://www.biorxiv.org/content/10.1101/2021.01.21.427334v2

Halpern, **D. J.**, Lega, B. C., Gross, R. E., Wu, C., Sperling, M. R., Aronson, J. P., Jobst, B. C., & Kahana, M. J. (In Revision). Study-phase reinstatement: Encoding spontaneous thoughts as memories. *Nature Neuroscience*. https://www.biorxiv.org/content/10.1101/2023.10.04.560946v2

Peer-Reviewed Journal Articles

Dougherty, M. R., **Halpern**, **D. J.**, & Kahana, M. J. (2023). Forward and backward recall dynamics. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. https://doi.org/10.1037/xlm0001254

Adrogue, R. T., Herz, N., **Halpern**, **D. J.**, Tracy, J., & Kahana, M. J. (2023). Multitrial free recall for evaluating memory. *Neuropsychology*. https://doi.org/10.1037/neu0000910

Halpern, **D. J.**, Tubridy, S., Davachi, L., & Gureckis, T. M. (2023). Identifying causal subsequent memory effects. *Proceedings of the National Academy of Sciences*, *120*(13), https://www.pnas.org/doi/pdf/10.1073/pnas.2120288120, e2120288120. https://doi.org/10.1073/pnas.2120288120

van Baar, J. M., **Halpern**, **D. J.**, & FeldmanHall, O. (2021). Intolerance of uncertainty modulates brain-to-brain synchrony during politically polarized perception. *Proceedings of the National Academy of Sciences*, *118*(20), https://www.pnas.org/doi/pdf/10.1073/pnas.2022491118, e2022491118. https://doi.org/10.1073/pnas.2022491118

Nussenbaum, K., Cohen, A. O., Davis, Z. J., **Halpern**, **D. J.**, Gureckis, T. M., & Hartley, C. A. (2020). Causal information-seeking strategies change across childhood and adolescence. *Cognitive Science*, *44*(9), e12888. https://onlinelibrary.wiley.com/doi/full/10.1111/cogs.12888

Gureckis, T. M., Martin, J., McDonnell, J., Rich, A. S., Markant, D., Coenen, A., **Halpern**, **D. J.**, Hamrick, J. B., & Chan, P. (2016). psiTurk: An open-source framework for conducting replicable behavioral experiments online. *Behavior Research Methods*, *48*(3), 829–842.

Peer-Reviewed Conference Proceedings

Nussenbaum, K., Cohen, A. O., Davis, Z., **Halpern**, **D. J.**, Gureckis, T., & Hartley, C. (2019). Causal intervention strategies change across development, In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

Halpern, **D. J.**, & Rodriguez, P. (2018). Partisan representations: Partisan differences in semantic representations and their role in attitude judgments., In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. `https://cognitivesciencesociety.org/wp-content/uploads/2019/01/cogsci18_proceedings.pdf`

Halpern, **D. J.**, Tubridy, S., Davachi, L., & Gureckis, T. (2018). Predicting memory performance using a joint model of brain and behavior, In *Proceedings of the 2nd Annual Computational Cognitive Neuroscience Conference*.

Halpern, **D. J.**, Tubridy, S., Wang, H., Gasser, C., Popp, P., Davachi, L., & Gureckis, T. (2018). Knowledge tracing using the brain, In *Proceedings of the 11th International Conference on Educational Data Mining*. `https://educationaldatamining.org/files/conferences/EDM2018/papers/EDM2018_paper_158.pdf`

Rich, A., Popp, P. O., **Halpern**, **D. J.**, Rothe, A., & Gureckis, T. (2018). Modeling second-language learning from a psychological perspective, In *Proceedings of the 13th Workshop on Innovative Use of NLP for Building Educational Applications*.

Tubridy, S., **Halpern**, **D. J.**, Davachi, L., & Gureckis, T. M. (2018). A neurocognitive model for predicting the fate of individual memories, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. `https://cognitivesciencesociety.org/wp-content/uploads/2019/01/cogsci18_proceedings.pdf`

Halpern, **D. J.**, & Gureckis, T. M. (2017). Categorization, information selection and stimulus uncertainty., In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*. `https://cognitivesciencesociety.org/wp-content/uploads/2019/01/cogsci17_proceedings.pdf`

Conference Abstracts

Dougherty, M., **Halpern**, **D. J.**, & Kahana, M. J. (2022). Forward and backward serial recall, In *Proceedings of the 44th Annual Conference of the Cognitive Science Society*.

Halpern, **D. J.**, Chang, W., & Kahana, M. J. (2022a). The role of memory search in evaluations, In *18th Annual Context and Episodic Memory Symposium*.

Halpern, **D. J.**, Chang, W., & Kahana, M. J. (2022b). The role of memory search in evaluations, In *55th Annual Meeting of the Society for Mathematical Psychology*.

Halpern, **D. J.**, & Kahana, M. J. (2022a). Covert reinstatement predicts recall initiation, In *19th Annual Computational and Systems Neuroscience (Cosyne) Meeting*.

Halpern, **D. J.**, & Kahana, M. J. (2022b). Covert reinstatement predicts recall initiation, In *29th Annual Cognitive Neuroscience Society Meeting*.

Halpern, **D. J.**, & Kahana, M. J. (2021). Directly measuring reactivation of memorized content directly measuring reactivation of memorized content with electrophysiology., In *17th Annual Context and Episodic Memory Symposium*.

van Baar, J., **Halpern**, **D. J.**, Rodriguez, P., Hasson, U., & FeldmanHall, O. (2020). The multimodal roots of polarized political perception, In *13th Annual Meeting of the Social Affective Neuroscience Society*.

Halpern, **D. J.**, & Rodriguez, P. (2019). Similarity in social space predicts similarity of semantic space, In *52nd Annual Meeting of the Society for Mathematical Psychology*.

Halpern, **D. J.**, Tubridy, S., Davachi, L., & Gureckis, T. (2019). Combining neural and behavioral data to predict human long-term memory, In *52nd Annual Meeting of the Society for Mathematical Psychology*.

Rodriguez, P., & **Halpern**, **D. J.** (2018a). Exploring the role of semantic memory in attitude judgments, In *114th American Political Science Association Annual Meeting*.

Rodriguez, P., & **Halpern**, **D. J.** (2018b). Political attitudes: Exploring the role of semantic memory in attitude judgments, In *41st Annual Meeting of the International Society for Political Psychology*.

Halpern, **D. J.**, & Rodriguez, P. (2017). Beyond semantics: Semantic memory influences attitude judgments, In *58th Annual Meeting of the Psychonomic Society*.

Tubridy, S., **Halpern**, **D. J.**, Davachi, L., & Gureckis, T. (2017). A hierarchical bayesian approach to inferring mnemonic status from the brain, In *1st Annual Computational Cognitive Neuroscience Conference*.

Halpern, **D. J.**, & Gureckis, T. (2016). Constrained optimization of measurements: A model of information selection in categorization, In *49th Annual Meeting of the Society for Mathematical Psychology*.

Halpern, **D. J.**, Howell, B., & Keller, R. (2013). Applications of music analysis algorithms to interactive music, In *The Improvising Brain Symposium*.

Grants

(2023-2028)   National Institutes of Health, R01MH055687
                "Associative Processes in Episodic Memory"
                $366,466 annual direct costs.
                Key Personnel (Post Doc)

Fellowships and Awards

Summer 2018   Computational Cognitive Neuroscience Conference Travel Grant

Fall 2017   NYU Dean's Travel Award

Summer 2016   Richard Shiffrin Travel Award

Summer 2015   Okinawa Computational Neuroscience Course

Summer 2012   Harvey Mudd NSF REU in Systems

Summer 2011   Amgen Scholars Summer Research Fellow