

## **Geoffrey Brookshire**

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University of Birmingham  
Edgbaston  
Birmingham  
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United Kingdom

### **Current position**

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2018–Present     Postdoctoral Research Fellow  
University of Birmingham  
PI: Ole Jensen

### **Education**

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2018             Ph.D. in Psychology - Integrative Neuroscience  
University of Chicago  
PI: Daniel Casasanto

2017-18         Visiting student at Cornell University

2013             M.A. in Experimental Psychology  
The New School for Social Research  
PI: Daniel Casasanto

2009             B.A. with honors in Psychology  
University of California – Berkeley  
PI: Rich Ivry

### **Awards**

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2016             William Orr Dingwall Foundation Neurolinguistics Fellowship  
2016             Center for Gesture, Sign and Language Research Grant  
2014             Arts, Science, & Culture Graduate Collaboration Grant  
2013             Norman H. Anderson Research Fund  
2013             New School for Social Research Outstanding M.A. Graduate award  
2011–2013      New School for Social Research Dean's Scholarship

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| 2012      | National Science Foundation GRFP Honorable Mention                   |
| 2011      | Robert J. Glushko & Pamela Samuelson Foundation Student Travel Grant |
| 2009      | Highest distinction in general scholarship, UC Berkeley              |
| 2008–2009 | Robert & Colleen Haas Scholar  |
| 2005      | Flinn Foundation Scholarship Finalist                                |

## Publications

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- Brookshire, G.** & Casasanto, D. (2018). Approach motivation in human cerebral cortex. *Philosophical Transactions of the Royal Society B*. DOI: 10.1098/rstb.2017-0141
- Brookshire, G.**, Lu, J., Nusbaum, H. C., Goldin-Meadow, S., & Casasanto, D. (2017). Visual cortex entrains to sign language. *Proceedings of the National Academy of Sciences*, 114(24), 6352-6357.
- Gray, S. J., **Brookshire, G.**, Casasanto, D., & Gallo, D. (2015). Electrically Stimulating Prefrontal Cortex at Retrieval Improves Recollection Accuracy. *Cortex*, 73, 188-194.
- Casasanto, D., **Brookshire, G.**, & Ivry, R. (2015). Meaning is not a reflex: Context dependence of motor-meaning congruity effects. *Cognitive Science*, 39(8), 1979-1986.
- Casasanto, D., Jasmin, K., **Brookshire, G.** & Gijssels, T. (2014). The QWERTY Effect: How typing shapes word meanings and baby names. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society* (pp. 296–301). Austin, TX: Cognitive Science Society.
- Brookshire, G.**, Graver, C., & Casasanto, D. (2013). Motor Asymmetries Predict Neural Organization of Emotion. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 245–250). Austin, TX: Cognitive Science Society.
- Brookshire, G.** & Casasanto, D. (2012). Motivation and Motor Control: Hemispheric Specialization for Approach Motivation Reverses with Handedness. *PLoS ONE* 7(4): e36036. doi:10.1371/journal.pone.0036036
- Brookshire, G.** & Casasanto, D. (2011). Motivation and Motor Control: Hemispheric Specialization for Motivation Reverses with Handedness. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 2610-2615). Austin, TX: Cognitive Science Society.
- Brookshire, G.**, Ivry, R., & Casasanto, D. (2010). Modulation of motor-meaning congruity effects for valenced words. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (pp. 1940-1945). Austin, TX: Cognitive Science Society.

## Talks

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\* Invited talks

- 2020      \* Psycholinguistics group meeting, University of Birmingham, UK
- \* Casasanto lab meeting, Cornell University
- 2018      \* Chang lab, UCSF
- \* Meetings on Methodology for MEEG, University of Birmingham, UK
- \* Speech and Language Consortium meeting, University of Westminster, UK
- 2017      89<sup>th</sup> annual meeting of the Midwestern Psychological Association, Chicago, IL
- Human Development Brown Bag talk, Cornell
- 2015      Art, Science and Culture Initiative at UChicago
- University of Chicago Neuroscience Annual Retreat
- Humanities Day at UChicago
- 2014      Cognitive Workshop, University of Chicago
- NEURO chats, University of Chicago
- 2013      35<sup>th</sup> annual meeting of the Cognitive Science Society, Berlin, Germany
- 2011      33<sup>rd</sup> annual meeting of the Cognitive Science Society, Boston, MA

## Posters

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- Brookshire, G.**, Landau, A., & Jensen, O. (2019). Investigating rhythmic attentional sampling using rapid frequency-tagging in MEG. Poster presented at the MEG UK Conference in Cardiff, UK.
- Brookshire, G.** & Casasanto, D. (2018). Cortex can entrain to predictable sequences even in the absence of periodicity. Poster presented at the 25<sup>th</sup> annual meeting of the Cognitive Neuroscience Society in Boston, MA.
- Lucero, C., **Brookshire, G.**, Quirk, C., Goldin-Meadow, S., Vogel, E., & Casasanto, D. (2018). Unconscious number discrimination in the human visual system. Poster presented at the 25<sup>th</sup> annual meeting of the Cognitive Neuroscience Society, Boston, MA.
- Brookshire, G.** & Casasanto, D. (2018). Cortical phase-locking to predictable temporal sequences in the absence of periodicity. Poster presented at the 31<sup>st</sup> annual CUNY Sentence Processing Conference, Davis, CA.
- Yap, D. F., **Brookshire, G.**, & Casasanto, D. (2018). Beat gestures encode spatial semantics. Poster presented at the 31<sup>st</sup> annual CUNY Sentence Processing Conference, Davis, CA.

- Brookshire, G. & Casasanto, D. (2017).** Cortical entrainment depends on temporal predictability, not periodicity. Poster presented at the 9<sup>th</sup> annual meeting of the Society for the Neurobiology of Language, Baltimore, MD. (Selected for presentation as a poster slam.)
- Brookshire, G., Lu, J., Nusbaum, H., Goldin-Meadow, S., & Casasanto, D. (2017).** Visual cortex entrains to low-frequency amplitude variability in sign language. Poster presented at the 24<sup>th</sup> annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Brookshire, G., Turk-Browne, N.B., & Casasanto, D. (2016).** Top-down predictions in statistical learning carried by alpha oscillations. Poster presented at the 8<sup>th</sup> annual meeting for the Society for the Neurobiology of Language, London.
- Brookshire, G. & Casasanto, D. (2016).** Top-down predictions in statistical learning are carried by alpha oscillations. Poster presented at the 28<sup>th</sup> annual convention of the Association for Psychological Science, Chicago, IL.
- Brookshire, G. & Casasanto, D. (2015).** Associative networks learn grammatical categories from sequential order alone. Poster presented at the 56th annual meeting of the Psychonomic Society, Chicago, IL.
- Brookshire, G. & Casasanto, D. (2015).** Associative networks learn abstract grammatical categories. Poster presented at the 7th annual meeting of the Society for the Neurobiology of Language, Chicago, IL.
- Brookshire, G. & Casasanto, D. (2013).** Manual motor asymmetries predict hemispheric lateralization of emotion. Poster presented at the 3rd annual meeting of the Society for Social Neuroscience (S4SN), San Diego, CA.
- Brookshire, G. & Casasanto, D. (2013).** Brief Motor Experience Reverses Visual Hemifield Effects for Emotional Faces. Poster presented at the 25th annual convention of the Association for Psychological Science, Washington, DC.
- Brookshire, G. & Casasanto, D. (2013).** Manual motor asymmetries predict neural organization of emotion. Poster presented at the 20th annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Brookshire, G. & Casasanto, D. (2011).** Brief motor experience reverses visual hemifield effects. Poster presented at the 18th annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Brookshire, G. & Casasanto, D. (2010).** Motor Fluency Predicts Space-Valence Associations. Poster presented at The Embodied Mind: Perspectives & Limitations, Nijmegen, Netherlands.
- Brookshire, G., Ivry, R., & Casasanto, D. (2010).** Modulation of motor-meaning congruity effects for valenced words. Poster presented at the FENS Forum of European Neuroscience, Amsterdam, Netherlands.

## Service and memberships

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*Ad hoc reviewer:* Acta Psychologica; Attention, Perception & Psychophysics; Brain and Language; Cerebral Cortex; Cognition; Cognitive Processing; Cognitive Science; Cognitive Science Society conference proceedings; Emotion; European Journal of Neuroscience; Frontiers in Psychology; Journal of Cognitive Psychology; Journal of Neuroscience; Nature Neuroscience; NeuroImage; Proceedings of the National Academy of Sciences; Psychological Research; Psychological Science

*Memberships:* Association for Psychological Science, Cognitive Neuroscience Society, Cognitive Science Society, Psychonomic Society, Society for the Neurobiology of Language, Society for Neuroscience

*Departmental service:* Presented on applying for postdoctoral positions in the “What next?” Workshop on career advice after the PhD (2019); Co-organize cognitive neuroscience workshop between the University of Birmingham and Oxford University (2019); Organized PhD/postdoc symposium for visiting speaker Sabine Kastner (2018); Student mentor for a first-year PhD student (2014–2017); Host visiting prospective students (2014–2017); Committee to select departmental colloquium speakers (2014–2015)

*Outreach and community:* Popular-audience presentations at Brain Awareness Week, Birmingham (2019); Judge for the Chicago Area Undergraduate Research Symposium (2016–17); Presentations for the general public at the UChicago Humanities Day (2015) and Art, Science and Culture Initiative (2015); Cognitive science demonstrations for college students with the Think Tank (2015-16, [thinktank.uchicago.edu](http://thinktank.uchicago.edu))

## Teaching and supervision

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### Teaching

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| 2017 | Teaching assistant, Cognitive psychology (undergrad), UChicago<br>TA, Cognitive diversity (undergrad), UChicago<br>Guest lecture for Cognitive Diversity: Bodily relativity of affective motivation<br>Guest lectures Experimental Methods in Linguistics: Mixed effects models in R<br>Workshop: Cognitive science for American Sign Language interpreters |
| 2016 | TA, Biological psychology (undergrad), UChicago<br>TA, Sensation and perception (undergrad), UChicago   |
| 2012 | TA, Body and cognition (graduate), The New School   |

### Supervision

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| 2017-2018 | Cornell University: Research supervisor for undergraduates (Rachel Mattessich)   |
| 2014–2017 | University of Chicago: Research supervisor for masters students (Srishti Goel), undergraduates (Chelsea Rapoport, Amritpal Singh, Jahn Madlangbayan, Clara Sava-Segal, Varun Joshi), and high-schoolers (Ben Grobman, Juliana Berlin). |

2011–2013      The New School for Social Research: Research supervisor for undergraduates (Heila Paulino, Rose Hendricks, Tyler Alterman) and masters students (Cleve Graver, Daisy Burr; co-advised with Roberto Bottini & Daniel Casasanto)

## Research Experience

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2018–2019      The University of Birmingham  
PI: Ole Jensen

2013–2018      The University of Chicago  
PI: Daniel Casasanto

2011–2013      The New School for Social Research  
PI: Daniel Casasanto

2009–2011      Max Planck Institute for Psycholinguistics, Nijmegen, NL  
Research assistant  
PIs: Peter Hagoort, Jos van Berkum, and Daniel Casasanto

2007–2009      University of California - Berkeley  
Research assistant  
PI: Richard Ivry

2006            University of California - Berkeley  
Research assistant  
PI: Laura Sterponi

## Press

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NSF.gov, The Rhythms of Sign Language, July 14, 2017. Stanley Dambroski & Madeline Beal, [https://www.nsf.gov/discoveries/disc\\_summ.jsp?cntn\\_id=242300&WT.mc\\_id=USNSF\\_1](https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=242300&WT.mc_id=USNSF_1)

ScienceDaily.com, Human brain tunes into visual rhythms in sign language, June 8, 2017. Tina A. Cormier, <https://www.sciencedaily.com/releases/2017/06/170608145521.htm>

HuffingtonPost.com, How Left-Handed People Think And Feel Differently, November 30, 2016. Carolyn Gregoire, [http://www.huffingtonpost.com/entry/left-handed-personality-psychology\\_us\\_58331757e4b058ce7aac163a](http://www.huffingtonpost.com/entry/left-handed-personality-psychology_us_58331757e4b058ce7aac163a)

ScienceMag.com, *Brain-zapping therapies might be hitting lefties on the wrong side of the head*, February 29, 2016. Nala Rogers, <http://www.sciencemag.org/news/2016/02/brain-zapping-therapies-might-be-hitting-lefties-wrong-side-head>

PopularScience.com, *The Keyboard's Strange Impact On Your Baby's Name*, September 11, 2014. Kate Gammon, <http://www.popsci.com/blog-network/kinderlab/keyboard%E2%80%99s-strange-impact-your-baby%E2%80%99s-name>

Time.com, *Study: Keyboards Are Influencing What You Name Your Baby*, May 10, 2014. Katy Steinmetz. <http://time.com/94945/keyboards-baby-names/>

ScienceDaily.com, *Emotion reversed in left-handers' brains*, May 2, 2012. <http://www.sciencedaily.com/releases/2012/05/120502184836.htm>

PsychologyToday.com, *Emotion Is Reversed in Left-Handers' Brains*, May 3, 2012. Daniel Casasanto. <http://www.psychologytoday.com/blog/malleable-mind/201205/emotion-is-reversed-in-left-handers-brains>

## Technical skills

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Programming languages: Matlab, Python, R, Supercollider  
Designing, running, and analyzing experiments using MEG/EEG and behavioral methods  
Linear mixed-effects modeling  
Non-parametric statistics  
Multivariate pattern analyses (MVPA)  
Frequency-domain analyses and digital signal processing