

Curriculum Vitae

Lewis J. Baker **Postdoctoral Associate**

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EDUCATION

Ph.D., Psychological Sciences Summer 2016
Specialization in Cognition and Cognitive Neuroscience
Certification in Quantitative Methods and Evaluation
Certification in College Teaching
Vanderbilt University
Thesis: *Cognitive processes in the perception of actions and agents*
Committee: Dr. Megan Saylor, Dr. John Rieser, Dr. Brandon Ally
Advisor: Dr. Daniel T. Levin
Certificate advisor: Dr. Kristopher Preacher

B.S. with University Honors, Loyola University New Orleans 2010
Majors: Psychological Science, World Religious Studies
Minor: Theatre Arts
Thesis: *Linguistic and visuospatial bases of gestural communication*
Advisor: Dr. Lawrence B. Lewis
Summa cum laude

HONORS, AWARDS

National Science Foundation Graduate Research Fellowship	'13-'16
British Society of Aesthetics Early Career Travel Award	2015
Susan Gray Award for Excellence in Scholarly Writing	2015
Ignatian Scholar, Loyola New Orleans	'06-'10
Alpha Sigma Nu, Loyola New Orleans	2010
Outstanding Undergraduate in Psychology, Loyola New Orleans	2010
Outstanding Undergraduate Thesis, Loyola New Orleans	2010

ACADEMIC INTERESTS

Ecologically valid data science solutions for the cognitive sciences
Real-world applications of attention, working memory and visual search
Perception of visual and multimodal events, especially in digital media
Theory of mind, perspective taking and the perception of action
Attribution of animacy and agency to living and nonliving things

PUBLICATIONS

- Baker, L.J., Levin, D.T., Jaeger, C.B., & Saylor, M.M. (submitted). Automatic perspective taking does not account for multiple agents and is limited to attended sets.
- LoBue, V., Thrasher, C., & Baker, L.J. (in review). Through the eyes of a child: Variability in preschoolers' identification of emotional expressions from the Child Affective Facial Expression (CAFE) set.
- Baker, L.J., LoBue, V., Bonawitz, E., & Shafto, P. (in review). Towards automated classification of emotional facial expressions.
- Levin, D.T., & Baker, L.J. (in press). Bridging views in cinema: A review of the art and science of view integration. *WIREs Wiley Interdisciplinary Reviews Cognitive Science*.
- Baker, L.J., Hymel A.M. & Levin, D.T. (*online access*). Anthropomorphism and intentionality improve memory for events. *Discourse Processes*. 1-16
- Baker, L.J., & Levin, D.T. (2016). The face-race lightness illusion is not driven by low-level stimulus properties: An empirical reply to Firestone & Scholl. *Psychonomic Bulletin & Review*. 23(6), 1989-1995.
- Levin, D.T., Baker, L.J., Banaji, M. R. (2016). Cognition can affect perception: Restating the evidence of a top-down effect. Peer commentary on "Cognition does not affect perception: Evaluating the evidence for 'top-down' effects." by C. Firestone & B. Scholl. *Behavioral & Brain Sciences*. 39, 39-40.
- Baker, L.J., Levin, D.T., & Saylor, M.M. (2016). The extent of default visual perspective taking in complex layouts. *Journal of Experimental Psychology: Human Perception and Performance*, 42(4), 508-516
- Hymel, A.M., Levin, D.T., & Baker, L.J. (2016). Default processing of event sequences. *Journal of Experimental Psychology: Human Performance & Perception*, 42(2), 235-246

- Baker, L.J., & Levin, D.T. (2015). Event perception as a control process for visual awareness. *Visual Cognition*, 23(7), 1-4.
- Kives, C.R., Ware, S. G., & Baker, L.J. (2015). Evaluating the pairwise event salience hypothesis in Indexer. *Proceedings of the Eleventh AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE-15)*. ***conference paper**
- Levin, D.T., & Baker, L.J. (2015). Change blindness and inattention blindness: From theory to applications. In Fawcett, J., Risko, E.F. & Kingstone, A. (Eds.), *The Handbook of Attention*. Cambridge: MIT Press.
- Baker, L.J. & Levin, D.T. (2015). The role of relational triggers in event perception. *Cognition*, 136, 14-29.
- Levin, D.T., Hymel, A.M., & Baker L.J. (2013). Belief, desire, action and *other stuff*: Theory of mind in movies. In Shimamura (Ed.), *Psychocinematics: The Psychology of Motion Pictures*, 244-266.
- Baker, L.J. & Lewis, L.B. (2012). The relative comprehension of communicative gesture categories. *International Journal of Interdisciplinary Social Sciences*, 6(10), 7-20.

PRESENTATIONS

- Levin, Baker, Jaeger & Little (2016). Events Do Not Need to be Temporally Matched to Support Perceptual Continuity. Presentation given at the 57th annual meeting of the Psychonomic Society.
- Baker, Jaeger, Saylor, & Levin (2016). Default Visual Perspective-Taking for Multiple Agents and Attentional Sets. Poster presented at the 57th annual meeting of the Psychonomic Society.
- Baker, Levin, Little & Jaeger (2016). The Cognitive Roots of Continuity Editing: The Curious Case of Overlapping Edits. Presentation given to the 8th annual meeting of the Society for the Cognitive Study of the Moving Image (SCSMI).
- Baker & Levin (2015). Event perception as a control process for visual awareness. Presentation given to the 23rd Annual Workshop on Object Perception, Attention, and Memory (OPAM). **Presentation reprinted in *Visual Cognition*.**
- Baker & Levin (2015). The cognitive costs of parallel action. Presentation given to the 7th annual meeting of the Society for the Cognitive Study of the Moving Image (SCSMI). ***early career award**
- Levin & Baker (2015). Brain activity in response to cognitions about number and theory of mind while viewing cinema. Presentation given to the 7th annual meeting of the Society for the Cognitive Study of the Moving Image (SCSMI).

Baker & Levin (2014). New events increase change detection in short films. Poster presented at the 55th annual meeting of the Psychonomic Society.

Baker & Levin (2014). Rapid spatial perspective taking for obstructed views. Poster presented at the 14th annual meeting of the Vision Sciences Society (VSS).

Baker & Levin (2014). Increased awareness of scene properties following new events. Poster presented at the 26th annual meeting of the Association for Psychological Science (APS).

Baker & Levin (2013). Spatial Discontinuities in Film Increase Awareness of Scene Properties. Presentation given to the 5th annual meeting of the Society for the Cognitive Study of the Moving Image (SCSMI).

Baker & Levin (2013). Disruptions of spatial continuity increase awareness of scene properties. Poster presented at the 13th annual meeting of the Vision Sciences Society (VSS).

Baker & Levin (2012). Change detection is increased by disruptions of spatial continuity. Poster presented at the 20th annual meeting on Object Perception, Attention and Memory (OPAM).

Baker & Levin (2012). Perceptual consequences of continuity violations in dynamic scenes. Poster presented at the Vanderbilt conference on agency.

Baker & Lewis (2011). Attention goes to the movies: Impact of auditory components on film perception. Poster presented at the Association for Psychological Science annual convention.

Baker & Lewis (2011). The relative comprehension of communicative gesture categories. Presentation for the International Conference on Interdisciplinary Social Science.

Baker & Lewis (2010). The Relative Influence of Audio and Visual Components on Film Interpretation. Presentation for SCORE Loyola.

Baker & Lewis (2010). Linguistic and Visuospatial Bases of Gestural Interpretation. Presentation for the Louisiana Academy of Science (LAS). ***outstanding research award**

AFFILIATIONS & EDITORIAL SERVICE

Association for Psychological Science (APS)
Cognitive Science Society (CogSci)
Psychonomic Society
Society for the Cognitive Study of the Moving Image (SCSMI)
Society for the Study of Object Perception and Memory (OPAM)
Vision Sciences Society (VSS)

Ad hoc reviewer for the Cognitive Science Society
Ad hoc reviewer for the International Journal of Interdisciplinary Social Sciences

TEACHING EXPERIENCE

Certificate in College Teaching from the Vanderbilt Center for Teaching
(completed Fall 2015)

Instructor, *Memory*. Course taught through the Vanderbilt Summer Academy
(Summer 2016)

Instructor, *Sensation, Perception and the Science of Film*. Course taught through the
Vanderbilt Summer Academy (Summer 2014)

Co-Instructor, *Sensation, Perception and the Science of Film*. Course taught through the
Vanderbilt Summer Academy (Summer 2015)

Workshop Instructor, *Intro to Cognitive Neuroscience*, four-part lecture for Father
Ryan Academy, Nashville, TN. (Spring 2016)

Workshop Instructor, *Human Memory and Hitting the Beats*. Workshop given to the
Tennessee Thespian Conference (Thes-Con) (Spring 2015)

Workshop Instructor, *The Psychology of Narrative, Suspense and Meaningful
Characters*. Workshop given to the Tennessee Thespian Conference (Thes-Con)
(Spring 2015)

Co-Coordinator, *Research Capstone*. Weekly STEM outreach program through
Rutgers-Newark and North Star High School (Spring 2017)

Proctor, *Intro to Data Science*, Rutgers University. Reviewer for final projects and
presentations (Fall 2016)

Guest Lecturer, *Theory and Research in Psychology*, Weekend Academy at Vanderbilt
University. Topic: Replication and dissemination of research (Fall 2015)

Guest Lecturer, *Developmental Psychology*, Vanderbilt University. Topic: Infant perception & motor development (Fall 2015)

Guest Lecturer, *Psychology & Film*, Vanderbilt University. Topic: Research design and methods (Spring 2015)

Guest Lecturer, *Psychology & Film*, Vanderbilt University. Topic: Spatial cognition (Spring 2013)

Teaching Assistant, *Statistics & Methods*, Loyola New Orleans (2010), Instructor: Lawrence B. Lewis

Teaching Assistant, *Topics in Psychology*, Loyola New Orleans (2009), Instructors: Lawrence B. Lewis & Mary M. Brazier

ADVISING

Undergraduate mentorship

Anna Isaacs 2014
Project: Evaluations of theory of mind and audience engagement

Lionel Pomerantz 2014
Project: Gaze pragmatics in spatial cognition

Michael Schoenfield 2015
Project: Using eye-tracking to improve online STEM instruction

Anne Havard 2015
Project: Evaluating concepts of religion and agency

Jillian Allard 2015
Project: Understanding parallel events in film and the real world

Joshua Little 2016
Project: The perception of continuity in Hollywood editing

Deepak Jonnalagedda 2016
Project: Perceptual adaptation in immersive augmented reality

Undergraduate Honors committee member

Juliana Bednowski 2012
Haijing Wu 2012
Michael Geoghegan 2013
Rebecca Jacobson 2014
Matthew Girgis 2015
Taylor Halligan 2016

TEACHING INTERESTS

Courses I am qualified to teach and would enjoy teaching include:

Introductory-level courses:

Developmental Psychology

Film & Cognitive Science

Introduction to Psychology

Intro to Data Science

Research & Statistical Methods

***graduate level**

Upper-level courses/advanced seminars:

Cognition: Attention & Memory

Consciousness*

Scientific Computing for Cognitive Science

Sensation & Perception

Social Cognition*

PROFICIENCIES

Data Science: AWS, Bayesian analysis, computer vision, crowdsourcing, database queries, deep learning, eye tracking, machine learning, multivariate statistics, psychophysics, signal-detection, surveys

Programming: Bash, JavaScript, Python, MATLAB, R, SAS, SPSS

Presentation: HTML, Jupyter, GitHub, LaTeX, Markdown, Qualtrics, Tableau

Multimedia: Adobe Production Suite, Audacity, Blender, Final Cut Pro

Miscellaneous: Acting, criminal investigation

REFERENCES

Daniel T. Levin
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Additional references available upon request