

Tao Gao

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September 2012

Academic Appointment

2011-Present Postdoctoral Fellow Computational Cognitive Science Laboratory, MIT
(Sponsor : Joshua Tenenbaum)

Education

2006 - 2011 Yale University Ph.D. in cognitive psychology
(Advisor: Brian Scholl)
2004 - 2006 Zhejiang University M.A. in cognitive psychology
(Advisor: Mowei Shen)
2000 - 2004 Zhejiang University B.S. in psychology

Research Interests

- Perceptual roots of social cognition
- Neural bases of social perception
- Computational modeling of social perception
- Visual attention and working memory
- Perception/cognition interactions

Academic Awards and Honors

New Investigator Award, *APA Division 3* (2012)
(For best paper published in JEP:HPP)

Simons Postdoctoral Fellowship, *MIT* (2011-2012)

James Grossman Dissertation Award, *Yale* (2011)
(For best doctoral dissertation in psychology)

Vision Science Society Travel Award (2009)

Publications

Gao, T., Scholl, B. J., & McCarthy, G. (in press). Dissociating the detection of intentionality from animacy in the right posterior superior temporal sulcus. *Journal of Neuroscience*.

Scholl, B. J., & Gao, T. (in press). Perceiving animacy and intentionality: Visual processing or higher-level judgment? In M. D. Rutherford & V. A. Kuhlmeier (Eds.), *Social perception: Detection and interpretation of animacy, agency, and intention*. MIT press.

Lee, S. M., Gao, T., & McCarthy, G. (in press). Attributing intentions to random motion engages the posterior superior temporal sulcus. *Social Cognitive and Affective Neuroscience*.

Gao, T., Gao, Z., Li, J., Sun, Z., & Shen, M. (2011). The perceptual root of object-based storage: An interactive model of perception and visual working memory. *Journal of Experimental Psychology: Human Perception and Performance*, *37*, 1803-1823.

Gao, T., & Scholl, B. J. (2011). Chasing vs. Stalking: Interrupting the perception of animacy. *Journal of Experimental Psychology: Human Perception and Performance*, *37*, 669-684.

Gao, T., McCarthy, G., & Scholl, B. J. (2010). The wolfpack effect: Perception of animacy irresistibly influences interactive behavior. *Psychological Science*, *21*, 1845-1853.

Gao, T., & Scholl, B. J. (2010). Are objects required for object files?: Roles of segmentation and spatiotemporal continuity in computing object persistence. *Visual Cognition*, *18*, 82-100.

Gao, T., Newman, G. E., & Scholl, B. J. (2009). The psychophysics of chasing: A case study in the perception of animacy. *Cognitive Psychology*, *59*, 154-179.

Shen, M., Zhou, J., Gao, T., Liang, J., & Shui, R. (2007). The perceived position of a moving object is not the result of position integration. *Vision Research*, *47*, 3088-3099.

Gao, T., Shen, M., Shui, R., & Gao, Z. (2007). Task set reconfiguration has no effect on the slope of feature search. *Perception & Psychophysics*, *69*, 345-352.

Manuscripts

Gao, T., Scholl, B. J., & McCarthy, G. (invited resubmission). The perception of animacy pervades visual processing: Selective engagement of cortical regions associated with faces and motion. *Journal of Cognitive Neuroscience*.

Gao, T., New, J. J., & Scholl, B. J. (under review). The wavering wolf: Perceived intentionality controls attentive tracking.

Scholl, B. J., & Gao, T. (to appear). Perceiving animacy: Visual roots of social cognition. *Annual Review of Psychology*.

Conference Presentations

Gao, T. (2012). Modeling visual roots of social cognition. Talk given at the Simons Center Lunch Series, MIT, 8/16/2012, Cambridge, MA.

Gao, T. (2012). Visual roots of social cognition. Invited talk given at the Vanderbilt Agency Workshop, 8/8/12, Nashville, TE.

Gao, T., Baker, C, Tenenbaum, J. (2012). Modeling the psychophysics of chasing. Invited talk given at the *Workshop on Modeling the Perception of Intention, Cognitive Science Society*, 8/1/12, Sapporo, Japan.

Gao, T.(2011). Perceiving animacy and intentionality. Invited talk given at the Visual Attention Seminar, Harvard Medical School, Cambridge, 7/12/11, Cambridge, MA.

Gao, T., New, J. J., & Scholl, B. J. (2011). Perceived biological agency in a Slithering Snake animation. Poster presented at the annual meeting of the *Vision Sciences Society*, 5/10/11, Naples, FL.[Abstract published in *Journal of Vision*, 11(11), 217, [http://journalofvision.org/11/11/217/.](http://journalofvision.org/11/11/217/)]

Gao, T. (2011). Visual roots of social cognition: Perceiving animacy and intentionality. Invited talk given at the Department of Brain and Cognitive Sciences, MIT, 2/8/11, Cambridge, MA.

Gao, T., New, J. J., & Scholl, B. J. (2010). Perceived intentionality controls attentional tracking. Talk given at the annual *Object Perception Attention and Memory (OPAM)* meeting, 11/18/10, St. Louis, Mo.

Gao, T., Scholl, B. J., & McCarthy, G. (2010). Distinguishing intentionality from animacy in the posterior superior temporal sulcus. Poster presented at the annual meeting of the *Society for Neuroscience*, 11/16/10, San Diego, CA.

Gao, T. (2010). It's Alive! The perception of animate objects. Invited talk given at the Institute of Biophysics, Chinese Academy of Sciences, 8/27/10, Beijing, China.

Gao, T., McCarthy & Scholl, B. J. (2010). The wolfpack effect: Perception of animacy irresistibly influences interactive behavior. Talk given at the 7th *International Conference on Cognitive Science*, 8/20/2010, Beijing, China.

Gao, T., & Scholl, B. J. (2010). The temporal dynamics of perceived chasing. Talk given at the 6th annual *Harvard-Yale Workshop on Social Cognitive Development*, 5/14/2010, Boston, MA.

Gao, T., & Scholl, B. J. (2010). Chasing vs. stalking: Interrupting the perception of animacy. Talk given at the annual meeting of the *Vision Sciences Society*, 5/11/10, Naples, FL.[Abstract published in *Journal of Vision*, 10(7), 239, [http://journalofvision.org/10/7/239/.](http://journalofvision.org/10/7/239/)]

Gao, T., McCarthy, G., & Scholl, B. J. (2009). 'Directionality' as an especially powerful cue to perceived animacy: Evidence from 'wolfpack' manipulations. Talk given at the annual meeting of the *Vision Sciences Society*, 5/10/09, Naples, FL. [Abstract published in *Journal of Vision*, 9(8), 680a, [http://journalofvision.org/9/8/680/.](http://journalofvision.org/9/8/680/)]

McCarthy, G., Gao, T., & Scholl, B. J. (2009). Processing animacy in the posterior superior temporal sulcus. Poster presented at the annual meeting of the *Vision Sciences Society*, 5/13/09, Naples, FL. [Abstract published in *Journal of Vision*, 9(8), 775a, [http://journalofvision.org/9/8/775/.](http://journalofvision.org/9/8/775/)]

Gao, T., McCarthy, G., & Scholl, B. J. (2009). 'Directionality' as an especially powerful cue to perceived animacy: Evidence from 'wolfpack' manipulations. Talk given at the 5th annual *Harvard-Yale Workshop on Social Cognitive Development*, 4/19/2009, New Haven, CT.

Gao, T., Newman, G. E., & Scholl, B. J. (2008). The psychophysics of chasing. Poster presented at the annual meeting of the *Vision Sciences Society*, 5/10/08, Naples, FL. [Abstract published in *Journal of Vision*, 8(6), 314a, <http://journalofvision.org/8/6/314/>.]

Gao, T., & Scholl, B. J. (2008). It's alive! The psychophysics of chasing. Talk given at the 4th annual *Harvard-Yale Workshop on Social Cognitive Development*, 4/26/08, Boston, MA.

Gao, T., Shen, M., Gao Z., & Li, J. (2007). How representations are constructed in visual working memory. Talk given at the annual *Object Perception Attention and Memory (OPAM)* meeting, 11/15/2007, Long Beach, CA.

Gao, T., & Scholl, B. (2007). Are objects required for object-files? Poster presented at the annual meeting of the *Vision Sciences Society*, 5/15/07, Sarasota, FL. [Abstract published in *Journal of Vision*, 7(9), 916a, <http://journalofvision.org/7/9/916/>.]

Gao, T., & Shen, M. (2004). The efficiency of feature search under dual-task conditions. Poster presented at the 28th *International Congress of Psychology*, 8/09/04, Beijing, China.

Ad Hoc Reviewing

Attention, Perception & Psychophysics

Consciousness & Cognition

Experimental Psychology

Journal of Experimental Psychology: Human Perception and Performance

Visual Cognition

Teaching Fellow Positions

Introduction to Cognitive Science

(Fall 2007, Spring 2009)

Introduction to Psychology

(Fall 2008, Spring 2010)