

Tao Gao
Curriculum Vitae
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Contact Information

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Employments

2023-Present	Associate Professor	Department of Communication UCLA
2017-2023	Assistant Professor	Department of Communication UCLA
2019-2023	Assistant Professor (Joint Appointment)	Department of Psychology UCLA
2017-2023	Assistant Professor (Joint appointment)	Department of Statistics UCLA
2015-2017	Research Scientist	Computer Vision Lab GE Global Research
2013-2015	Research Scientist	Center of Brain, Mind & Machine MIT
2011-2013	Post-doctoral Fellow <i>Sponsor: Joshua Tenenbaum</i>	Computational Cognitive Science Group MIT

Education

2006-2011	Ph.D.	Cognitive Psychology, Yale University <i>Advisor: Brian Scholl</i>
2000-2006	B.S., M.S.	Psychology, Zhejiang University

Research Interests

- *Social Perception*
- *Communication*
- *Cooperation*
- *Cognitive Modeling*

Academic Honors and Awards

Co-Chair of Vision Meets Cognition Workshop at Computer Vision and Pattern Recognition	2014-2018
Program Chair of Human-Aware AI at the Intl. Joint Conference on Artificial Intelligence	2016
Chair of Physical and Social Scene Understanding Workshop at Cognitive Science Society	2015
New Investigator Award, American Psychological Association, Division 3	2012
James Grossman Dissertation Award, Yale (<i>For best doctoral dissertation in Psychology</i>)	2011
Vision Science Society Travel Award	2009

Grants

Artificial and Collaborative Agency, DARPA, \$300, 000	2023.7-2026.7
Vision-Language Integration, ONR, \$520, 000	2023.7-2026.7
Multi-agent Cooperation, GE research, \$50, 000	2019.11-2022.11
Context Reasoning for Autonomous Teaming DARPA, \$330,000	2019.11-2021.11
MIT Alumni Seed Grant, \$40,000	2019.8-2020.8
Visual Commonsense for Scene Understanding, ONR, \$200,000	2018.9-2021.9

Journal Articles

- Li, Z., Gong, S-Y., Tang, N., Zhang, J-Y., Zhou, J-F., Shen, M-W., & **Gao, T.** (Under review). From fog to focus: Limiting conflict by reducing intention uncertainty with territorial gestalts.
- Stacy, S., Li, C-F., Potter, M., Kleiman-Weiner, M., & **Gao, T.** (Under review). The Imagined We: A shared agency approach to modeling cooperative communication.
- Cheng, S-Z., Zhu, J-Y., Zhou, J-F., Shen, M-W., & **Gao, T.** (R&R). Spontaneous coordination with self-commitment: How the presence of others alters the strength, goal and timing of commitment. *Cognition*.
- Jiang, K-W., Jiang, B-X., Sadaghdar, A., Limb, R., & **Gao, T.** (R&R). A relevance model of human sparse communication in cooperation. *Frontiers in Robotics and AI*. Invited for the Special Issue on Theory of Mind in Robots and Intelligent Systems.
- Gong, S., Jiang, K-W., Li, J-G., Karadanaian, M., Meng, Z-Y., & **Gao, T.** (R&R). Communicating through acting: Affording communicative intention in pantomimes. *Cognitive Science*.

- Tang, N., Gong, S-Y., Zhao, M-L., Zhou, J-f., Shen, M-W., & **Gao, T.** (in press). Joint commitment in human cooperative hunting through an “Imagined We”. *Proceedings of the Royal Society B: Biological Sciences*.
- Stacy, S., Gong, S., Parab, A., Zhao, M., Jiang, K., & Gao, T. (2024). A Bayesian theory of mind approach to modeling cooperation and communication. *Wiley Interdisciplinary Reviews: Computational Statistics*, 16, e1631.
- Zhai, S-Y., Cheng, S-Z., Moskowitz, N., Shen, M., & **Gao, T.** (2024). The development of commitment: Attention for intention. *Child Development*, 95, 7-15.
- Cheng, S-Z., Zhao, M-L., Tang, N., Zhao, Y., Zhou, J-F., Shen, M-W., & **Gao T.** (2023). Intention beyond desire: Spontaneous intentional commitment regulates conflicting desires. *Cognition*, 238, 105513.
- Tang, N., Gong, S-Y., Zhou, J., Shen, M., & **Gao, T.** (2023). Generative vision as common sense: Testing analysis-by-synthesis on Mondrian- style image. *Journal of Experimental Psychology: General*, 152, 2713.
- Zhao, M-L., Tang, N., Dahmani, A., Perry, R., Federico, R., Zhu, Y., & **Gao, T.** (2022). Sharing rewards undermines coordinated hunting. *Journal of Computational Biology*, 29, 1022-1030.
- Langdon, R., Boulton, K., Connaughton, E., & **Gao, T.** (2020). Perceiving and attributing intentionality in schizophrenia. *Cognitive Neuropsychiatry*, 25, 269-280.
- Zhu, Y., **Gao, T.**, Fan, L., Huang, S., Edmondsa, M., Liua, H., Gao, F., Zhang, C., Qia, S., Wu, Y., Tenenbaum, J.B., Zhu. S.C. (2020). Dark, beyond deep: A paradigm shift to cognitive AI with humanlike common sense. *Engineering*, 6, 310-345.
- Gao, T.**, Baker, C. L., Tang, N., Xu, H. & Tenenbaum, J.B. (2019). The Cognitive architecture of intentionality perception: Animacy, attention and memory. *Cognitive Science*, 43, e12775.
- Xu, H., Tang, N., Zhou, J., Shen, M. & **Gao. T.** (2017). Seeing “what” through “why”: Probing the causal structure of hierarchical motion. *Journal of Experimental Psychology: General*, 146, 896-909.
- van Buren, B., **Gao, T.**, & Scholl, B. J. (2016). What are the underlying units of perceived animacy?: Chasing detection is intrinsically object-based. *Psychonomic Bulletin & Review*, 24, 1604-1610.
- Sun, Z., Wang, Y., Yu, W., Zhang, M., Shui, R., & **Gao, T.** (2015). How to break representations in visual working memory. *Journal of Experimental Psychology: Human Perception and Performance*, 41, 1247-1259.
- Langdon, R., McMillan, J., & **Gao, T.** (2014). Detecting motion signals of intent in schizophrenia. *Psychiatry Research*, 219, 700-702.
- Lee, S. M., **Gao, T.**, & McCarthy, G. (2014). Attributing intentions to random motion engages the posterior superior temporal sulcus. *Social Cognitive and Affective Neuroscience*, 9, 81-88.
- Gao, T.**, Scholl, B. J., & McCarthy, G. (2012). Dissociating the detection of intentionality from animacy in the right posterior superior temporal sulcus. *Journal of Neuroscience*, 32, 14276-14280.
- 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.

Book Chapters

- Gao, T.**, & Tang, N. (in press). A ladder of agency in perceived animacy. In S. P. Johnson (Ed.), *Handbook of perceptual development*. Oxford University Press.
- Scholl, B. J., & **Gao, T.** (2013). 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* (pp. 197–230). MIT Press.

Peer Reviewed Conference Proceeding Full Papers

- Li, Z., Gong, S-Y., Tang, N., Zhang, J-Y., Zhou, J-F., Shen, M-W., & **Gao, T.** (2025). Territorial Gestalt in the Strategy of Conflicts. *Proceedings of the 47rd Annual Conference of the Cognitive Science Society*. (Oral presentation with 14% acceptance rate)
- Gong, S., Jiang, K-W., Li, J-G., Karadanaian, M., Meng, Z-Y., & **Gao, T.** (2025). Communicating through Acting: The role of contextual affordance in intuitive pantomimetic gestural communication. *Proceedings of the 47rd Annual Conference of the Cognitive Science Society*. (57% acceptance rate)
- Long, Q., Li, R., Zhao, M., **Gao, T.**, & Terzopoulos, D. (2025). Inverse Attention Agents for Multi-Agent Systems. In *Proceedings of the 2025 International Conference on Learning Representations (ICLR)*. (32% acceptance rate)
- Cheng, S., Zhu, J., Zhou, J., Shen, M., & **Gao, T.** (2024). Intentional commitment as a spontaneous presentation of self. *Proceedings of the 46rd Annual Conference of the Cognitive Science Society*. (60% acceptance rate)
- Qiu, S-W., Xie, S-R., Fan, L-F., **Gao, T.**, Joo, J., Zhu, S-C., & Zhu, Y-X. (2022). Emergent Graphical Conventions in a Visual Communication Game. *Proceedings of the 35th Advances in Neural Information Processing Systems*. (33% acceptance rate)
- Cheng, S-Z., Zhao, M-L., Tang, N., Zhao, Y., Zhou, J-F., Shen, M-W., & **Gao T.** (2022). Intentional commitment through an internalized theory of mind: Acting in the eyes of an imagined observer. *Proceedings of the 44rd Annual Conference of the Cognitive Science Society*. (60% acceptance rate)

- Jiang, K., Dahmani, A., Stacy, S., Jiang, B., Rossano, R., Zhu, Y., & **Gao, T.** (2022). What Is the Point? A Theory of Mind Model of Relevance. *Proceedings of the 44rd Annual Conference of the Cognitive Science Society*. (60% acceptance rate)
- Stacy, S., Yun, Y., Potter, M., Moskowitz, N., & **Gao, T.** (2022). No Such Thing as the Average Listener: Belief-driven versus Action-driven Strategies in Signaling. *Proceedings of the 44rd Annual Conference of the Cognitive Science Society*. (Oral presentation with 25% acceptance rate) (also presented as a **spotlight** paper at <https://social-intelligence-human-ai.github.io>)
- Stacy, S., Parab, A., Kleiman-Weiner, M., & **Gao, T.** (2022). Overloaded Communication as Paternalistic Helping. *Proceedings of the 44rd Annual Conference of the Cognitive Science Society*. (60% acceptance rate)
- Tang, N., Gong, S-Y., Zhao, M-L., Gu, C-Y., Zhou, J-F., Shen, M-W., & **Gao, T.** (2022). Exploring an imagined "We" in human collective hunting: Joint commitment within shared intentionality. *Proceedings of the 44rd Annual Conference of the Cognitive Science Society*. (Oral presentation with 25% acceptance rate) (also presented as a **spotlight** paper at <https://social-intelligence-human-ai.github.io>)
- Fan, L., Qiu, S., Zheng, Z., **Gao, T.**, Zhu, S. C., & Zhu, Y. (2021). Learning Triadic Belief Dynamics in Nonverbal Communication from Videos. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*. (Oral presentation with 5% acceptance rate)
- Chen, Y., Li, Q., Kong, D., Kei, Y. L., Zhu, S. C., **Gao, T.**, Zhu, Y., & Huang, S. (2021). YouRefIt: Embodied Reference Understanding with Language and Gesture. *Proceedings of the IEEE/CVF International Conference on Computer Vision*. (Oral presentation with 5% acceptance rate)
- Stacy, S., Li, C., Zhao, M., Yun, Y., Zhao, Q., Kleiman-Weiner, M., & **Gao, T.** (2021). Modeling Communication to Coordinate Perspectives in Cooperation. *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. (60% acceptance rate). (also presented as a **spotlight** paper at [ICRA 2021 Workshop on Social Intelligence in Humans and Robots](https://icra2021workshoponsocialintelligenceinhumansandrobots.com))
- Jiang, K., Stacy, S., Wei, C., Chan, A., Federico, R., Zhu, Y., & **Gao, T.** (2021). Individual vs. Joint Perception: a Pragmatic Model of Pointing as Communicative Smithian Helping. *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. (60% acceptance rate)
- Tang, N., Gong, S-Y., Liao, Z-Q., Xu, H-K., Zhou, J-F., Shen, M-W., & **Gao, T.** (2021). Jointly perceiving physics and mind: Motion, force and intention. *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. (Oral presentation with 25% acceptance rate)
- Tang, N., Stacy, S., Zhao, M., Marquez, G., & **Gao, T.** (2020). Bootstrapping an Imagined We for cooperation. *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*. Toronto, Canada: Cognitive Science Society. (60% acceptance rate)
- Yuan, T., Liu, H., Fan, L., Zheng, Z., **Gao, T.**, Zhu, Y. & Zhu, S.C. (2020). Joint Inference of States, Robot Knowledge, and Human (False-) Beliefs. *Proceedings of the 37th IEEE International Conference on Robotics and Automation (ICRA)* (pp 5972-5978). Paris, France: RAS Society. (44% acceptance rate)

Holtzen, S., Zhao, Y., **Gao, T.**, Tenenbaum, J. B., & Zhu, S. C. (2016). Inferring human intent from video by sampling hierarchical plans. *In Intelligent Robots and Systems (IROS), IEEE.* (48% acceptance rate)

Conference Talks With Peer Reviewed Abstracts

- Cheng, S., Main, K., **Gao, T.**, & Kushnir, T. (2025). Children's Spontaneous Commitment and Intention Coordination in Individual and Social Decision-Making Contexts. Talk given at the Symposium of unravelling early and middle childhood decision-making: From individual characteristics to social influences, Society for Research in Child Development Biennial Meeting, 5/2/25, Minneapolis, MN.
- Gong, S., Tang, N., Zhao, M., Zhou, J., Shen, M., & **Gao, T.** (2024). Joint commitment in human cooperative hunting through an "imagined we". Talk given at the annual meeting of the Vision Sciences Society, 5/19/24, Tampa, FL.
- Zhai, S-Y., Cheng, S-Z., Moskowitz, N., Shen, M-W., & **Gao, T.** (2022). The development of commitment: Attention for intention. Proceedings of the 44rd Annual Conference of the Cognitive Science Society. (**Oral** presentation with 25% acceptance rate)
- Zhao, M., Tang, N., Dahmani, A., Perry, R., Federico, R., Zhu, Y., & **Gao, T.** (2021). Sharing is not Needed: Modeling Animal Coordinated Hunting with Reinforcement Learning. *Proceedings of the 43rd Annual Conference of the Cognitive Science Society.* (**Oral** presentation with 25% acceptance rate) (also presented as a **spotlight** paper at [ICRA 2021 Workshop on Social Intelligence in Humans and Robots](#))
- Tang, N., Xu, H., Baker, C. L., Tenenbaum, J. B., & **Gao, T.** (2019). The cognitive architecture of intentionality perception: Animacy, attention and memory. Talk given at the annual meeting of the Vision Sciences Society, 5/18/19, St. Pete Beach, FL.
- 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.**, 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/)]
- 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.**, & Scholl, B. J. (2008). It's alive! The psychophysics of chasing. Talk given at the 4th annual HarvardYale 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.

Conference Posters With Peer Reviewed Abstracts

- Wu, J-Y., Fu, S., Dale, R., **Gao, T.**, & Liang, J. (2025). Beyond emotion: Unraveling the limited role of sentiment in extended-format communication. Poster presented in Proceedings of the 47th Annual Meeting of the Cognitive Science Society. Cognitive Science Society.
- Tang, N., Xu, E., Zhou, J., Shen, M., & **Gao, T.** (2025). Perceiving Animacy 'Right Now': Online Perception as a Critical Foundation for Real-Time Agency Understanding. Poster presented at the annual meeting of the Vision Sciences Society, 5/18/25, St. Pete Beach, FL.
- Li, Z., Tang, N., Gong, S., Zhou, J., Shen, M., & **Gao, T.** (2025). Latent hierarchical perceptual structure bias coalition formation in the strategy of conflicts. Poster presented at the annual meeting of the Vision Sciences Society, 5/17/25, St. Pete Beach, FL.
- Cheng, S., Main, K., Kushnir, T., & **Gao, T.** (2025). Spontaneous social coordination through visually grounded theory-of-mind in children's and adults' decision-making. Poster presented at the Annual Meeting of the Vision Sciences Society, 5/18/25, St. Pete Beach, FL.
- Gong, S., Kreiss, E., & **Gao, T.** (2025). Conceptual Innovation through the lens of stories. Poster presented at the California Workshop On Evolutionary Social Science, 5/3/25, Santa Barbara, CA.
- Tang, N., Xu, E., Gong, S., Zhou, J., Shen, M., & **Gao, T.** (2024). Perceiving animacy through schematic intuitive physics: Shared conceptual structure of animacy between vision and language. Poster presented at the annual meeting of the Vision Sciences Society, 5/19/24, St. Pete Beach, FL.
- Cheng, S., Zhu, J., Zhou J., Shen, M., & **Gao T.** (2024). From attention capture to social coordination: "Abrupt onset" rallies joint planning. Poster presented at the Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL.
- Potter, M., **Gao, T.**, & Stacy, S. (2023). Simplifying Group Communication: A Shared Agency Modeling Approach. Poster presented at the Proceedings of the 45rd Annual Conference of the Cognitive Science Society.
- Cheng, S., Zhao, M., Zhu, J., Zhou J., Shen, M., & **Gao T.** (2022). Intentional commitment as goal perseverance in human planning [Workshop on Social Intelligence in Humans and Robots]. The annual meeting of the Robotics: Science and Systems 2022 (RSS 2022). Virtual: Robotics: Science and Systems.
- Li, Z., Tang, N., Zhang, J., Zhou, J., Shen, M., & **Gao, T.** (2022). Perceptual Grouping for War and Peace. Poster presented at the annual meeting of the Vision Sciences Society 2022 (V-VSS 2022). Virtual: Vision Sciences Society.
- Cheng, S-Z., Tang, N., An, W., Zhou, J-F., Shen, M-W., & **Gao, T.** (2021). Intention beyond desire: Humans spontaneously commit to future actions. Poster presented at the Proceedings of the 43rd Annual Conference of the Cognitive Science Society.

- Cheng, S., Tang, N., An, W., Zhao, Y., Zhou J., Shen, M., & **Gao T.** (2021). Intention beyond desire: Commitment in human action. Poster presented at the 47th annual meeting of the Society for Philosophy and Psychology (47th SPP). Virtual: Society for Philosophy and Psychology.
- Cheng, S., Tang, N., An, W., Zhao, Y., Zhou J., Shen, M., & **Gao T.** (2020). Intention beyond desire: Commitment in human action. Poster presented at the The annual meeting of the Vision Sciences Society 2020 (V-VSS 2020). Virtual: Vision Sciences Society.
- Stacy, S., Zhao, Q., Kleiman-Weiner, M., & **Gao, T.** (2020). Intuitive visual communication through physical-social commonsense. Poster presented at the annual meeting of the Vision Sciences Society, 6/19/20 – 6/24/20, Virtual-VSS.
- Stacy, S., Zhao, Q., Kleiman-Weiner, M., & **Gao, T.** (2020). Intuitive Signaling Through an "Imagined We". Poster presented at the annual meeting of the Cognitive Science Society, Virtual-Cognitive Science.
- Stacy, S., Zhao, Q., Kleiman-Weiner, M., & **Gao, T.** (2020). Intuitive Signaling through an "Imagined We". Poster accepted by the 46th annual meeting of the Society for Philosophy and Psychology (canceled due to the COVID-19).
- Cheng, S., Tang, N., An, W., Zhao, Y., Zhou J., Shen, M., & **Gao T.** (2020). Intention beyond desire: Commitment in human action. Poster presented at the annual meeting of the Vision Sciences Society, 6/19/20 – 6/24/20, Virtual-VSS.
- Cheng, S., Tang, N., An, W., Zhao, Y., Zhou J., Shen, M., & **Gao T.** (2020). Intention beyond desire: Commitment in human action. Poster accepted by the 46th annual meeting of the Society for Philosophy and Psychology (canceled due to the COVID-19).
- Tang, N., Xu, H., Shen, M., & **Gao, T.** (2019). Jointly perceiving physics and mind. Poster presented at the annual meeting of the Vision Sciences Society, 5/21/19, St. Pete Beach, FL. [Abstract published in Journal of Vision, 19(10), 280]
- Xu, H., Tang, N., Zhou, J., Shui, R., Shen, W., & **Gao, T.** (2018). Perceiving animacy with causal constraints: A "leash resistance" effect in chasing detection. Poster presented at the annual meeting of the Vision Sciences Society, 5/19/18, St. Pete Beach, FL. [Abstract published in Journal of Vision, 18(10), 57]
- Tang, N., Xu, H., Zhou, J., Shui, R., Shen, W., & **Gao, T.** (2018). A causal model of recursive scene parsing in human perception. Poster presented at the annual meeting of the Vision Sciences Society, 5/21/18, St. Pete Beach, FL. [Abstract published in Journal of Vision, 18(10), 750]
- Gao, T.**, Harari, D., Tenenbaum, J., & Kanwisher (2014). The acuity of joint attention. Poster presented at the annual meeting of the Vision Sciences Society, 5/19/14, St. Pete Beach, FL.
- Gao, T.**, Baker, C., & Tenenbaum, J. (2013). Attentive Tracking in the perception of animacy: A computational model of "Chasing" vs. "Stalking". Poster presented at the Annual meeting of Psychonomics, 1/14/2013, Toronto, Canada.
- 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/>.]
- 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.

- 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/>.]
- 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. (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.

Invited Talks

- Gao, T. Modeling an imagined “We” for cooperation and communication . Virtual talk given at Rockefeller University Physics Center Seminar Series, 10/26/2021.
- Gao, T. Modeling theory of mind for competition, cooperation and communication. Virtual talk given at the UCLA center for Behavior, Evolution and Culture, Los Angeles, CA., 5/11/2020.
- Gao, T., Modeling theory of mind for cooperation and communication. Guest lecture given at Psych 240A: Language and Cognitive Development, UCLA, CA., 4/26/2020
- Gao, T., Cognitive Artificial Intelligence. Guest lecture given at Psych194A: Internship Seminars: Psychology, UCLA, CA., 1/24/2020.
- Gao, T. Jointly perceiving physics and intention. Talk given at the 3th MURI workshop on Physical and Social Scene Understanding, White Mountain, NH, 9/26/2018.
- Gao, T. Visual roots of social cognition. Talk given at the Department of Cognitive Sciences, Rensselaer Polytechnic Institute, Troy, New York, 2/14/2018.
- Gao, T. Visual roots of social cognition. Talk given at the Department of Computer Science, The State University of New York, Albany, 2/13/2018.
- Gao, T. Human perception of recursive scene parsing. Talk given at the Computational Neuroscience series at UCLA, Los Angeles, 1/24/2018.
- Gao, T. Visual roots of social cognition. Talk given at the Cognitive Forum series at UCLA, Los Angeles, CA, 1/11/2018.
- Gao, T. The Cognitive architecture of social Perception. Talk given at the Social Brain Sciences talk series at Dartmouth College, Hanover, NH, 4/16/2015.
- Gao, T & Zhao, Y. Hierarchical “theory of mind” from videos. Talk given at the annual MURI workshop on Rich Scene Understanding, UCLA, Los Angeles, CA, 12/06/2014.
- Gao, T. Modeling human-like “theory of mind” from Videos. Talk given at the Computer Science Seminar series, University of Massachusetts, Boston, 12/05/2014.
- Gao, T. Theory of mind in real scenes. Talk given at the Vision Meets Cognition Workshop, Columbus, OH, 6/23/2014.
- Gao, T. Understanding social agency in real and artificial scenes. Talk given at the Department of Psychology, Brown University, Providence, RI, 12/6/2013.
- Gao, T. Modeling goals and intentions in real scenes. Talk given at the Center of Brain, Mind and Machine, Harvard University, Cambridge, MA, 10/4/2013.

- Gao, T & Tenenbaum. Simulation for social goal inference. Talk given at the annual MURI workshop on Rich Scene Understanding, UCLA, CA, 9/26/2013.
- Gao, T. Modeling the visual roots of social cognition. Talk given at the Department of Psychology, Rutgers University, New Brunswick, NJ, 4/6/2013.
- Gao, T & Ullman, T. Introducing computational modeling of social cognition. Simons Social Brain Coffee Social, MIT, Cambridge, MA, 3/13/2013.
- Gao, T. Modeling Visual roots of social cognition. Talk given at the Department of Psychology, Cornell University, Ithaca, NY, 12/03/2012.
- Gao, T. Visual roots of social cognition. Talk given at the Vanderbilt Agency Workshop, Nashville, TN, 8/8/2012.
- Gao, T., Baker, C, Tenenbaum, J. Modeling the psychophysics of chasing. Talk given at the Workshop on Modeling the Perception of Intention, Cognitive Science Society, Sapporo, Japan, 8/1/2012.
- Gao, T. (2011). Perceiving animacy and intentionality. Talk given at the Visual Attention Seminar, Harvard Medical School, Cambridge, MA, 7/12/2011.
- 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.

Ad Hoc Reviewing: Journals

- Attention, Perception & Psychophysics*
Scientific Reports
Cognition
Cognitive Science
Consciousness & Cognition
Experimental Psychology
Journal of Cognitive Neuroscience
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning Memory and Cognition
Journal of Vision
Philosophical Psychology
Psychonomic Bulletin & Review
Psychological Review
Trends in Cognitive Sciences
Visual Cognition

Ad Hoc Reviewing: Conferences

- Cognitive Science Society*
Computer Vision and Pattern Recognition
IEEE Virtual Reality

Ph.D Committee

- 2025 Dehong Xu (Statistics)
 2024 Yiling Yun (Psychology)
 2024 Mingle Zhao (Statistics)

2024 Tianyang Zhao (Statistics)
2024 Edouardo Honig (Statistics)
2023 Omar Moore (Statistics)
2023 Kaustubh Deshpande (Statistics)
2023 Jingbang Chen (Statistics)
2022 Deqian Kong (Statistics)
2022 Qing Li (Statistics)
2021 Xiaofeng Gao (Statistics)
2021 Ruiqi Gao (Statistics)
2021 Kaiwen Jiang (Statistics)
2020 Stephanie Stacy (Statistics)
2020 Nicholas Baker (Psychology)
2019 Tao Yuan (Statistics)
2019 Yang Liu (Statistics)
2018 Lifeng Fan (Statistics)
2018 Ruiqi Gao (Statistics)

Advising: Postdoctoral Fellows

2024 – Present	Shaozhe Cheng	Advisor
2018 – 2020	Ning Tang	Advisor
2018 – 2019	Haokui Xu	Advisor