

Hongjing Lu

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EDUCATION

PhD, 2005 Cognitive Psychology
University of California, Los Angeles

MA, 2002 Major: Cognitive Psychology; Minor: Quantitative Psychology
University of California, Los Angeles

MS, 2000 Mechatronic Engineering
Beijing Institute of Technology

BS, 1997 Mechatronic Engineering
Beijing Institute of Technology

EMPLOYMENT

2017 *Departments of Psychology & Statistics, University of California, Los Angeles*
Professor

2013 – 2017 *Departments of Psychology & Statistics, University of California, Los Angeles*
Associate Professor

2009 – 2013 *Departments of Psychology & Statistics, University of California, Los Angeles*
Assistant Professor

2008 *Departments of Psychology, University of California, Los Angeles*
Visiting Assistant Professor

2007 *Psychology Department, The University of Hong Kong*
Assistant Professor

2006 *Statistics Department, University of California, Los Angeles*
Postdoctoral Researcher

RESEARCH AREAS

Bayesian modeling of perception and cognition
Human vision: Action recognition, visual adaptation, perceptual learning
High-level cognition: Causal learning, intuitive physics, analogical reasoning

TEACHING EXPERIENCE

Advanced Statistics (graduate level), Bayesian Statistics, Computing Methods for Psychology
Cognitive Psychology, Quantitative Methods in Cognition, Sensation and Perception;
Director of PhD Specialization in Computational Cognition

HONORS and AWARDS

Fellow of Association for Psychological Science, 2019
 Google faculty research awards, 2018
 UCLA Psychology Department Service Award, 2018
 Computational modeling prize in perception/action, Cognitive Science Society, 2017
 UCLA Psychology Department Teaching Award, 2017
 The “Best Paper” award from the Journal of Attention, Perception & Psychophysics, 2014
 UCLA Faculty Career Development Award, 2010
 NSF Early Career Development (CAREER) Award, 2009
 International Fellowship from Association of American University Women (AAUW), 2004
 CESASC Scholarship, 2004
 Chinese National Advanced Science and Technology Award, 2001
 Excellent Master Thesis Award, Beijing Institute of Technology, 2000
 Chinese Academic Institute Fellowship, 1999

PROFESSIONAL SERVICE

Member

Vision Science Society, Cognitive Science Society, Association for Psychological Science

Editorial Board Member

Psychological Science (2012 – 2019)
 Psychological Review (2015 – present)

Ad Hoc Reviewer

Science, Psychological Review, Psychological Science, Trends in Cognitive Science, Psychological Bulletin & Review, Cognitive Psychology, Cognition, Cognitive Science, Journal of Experimental Psychology: Learning, Memory, and Cognition, Journal of Vision, Vision Research, Spatial Vision, Seeing and Perceiving, Developmental Psychology, Artificial Intelligence in Medicine, Behavioral Brain Research; iPerception; Frontiers in Psychology, Neural Computation; External Review for National Science Foundation (NSF), External review for Competitive Earmarked Research Grant (CERG) from Hong Kong Research Grants Council, External review for Chinese National Science Foundation (CNSF).

Professional Activities

Panelist, NSF Perception, Action and Cognition panel, NSF Science of Learning: collaborative Networks Panel, NSF graduate research fellowship panel
 Instructor, Graduate Summer School, Probabilistic Models of Cognition: The Mathematics of Mind (Institute for Pure and Applied Mathematics, UCLA, 2007, 2011)
 Organizer, Keck Vision Seminar Series (Department of Psychology, UCLA, 2006)
 Instructor, Computer Vision Graduate Summer School (Lotus Hill Institute, Ezhou, China, 2006)

GRANT SUPPORT

NSF BCS-1827374 (CO-PI)

Title: Achieving analogical reasoning via human and machine learning
 Dates: 8/15/18–7/31/21

Google faculty research awards (Co-PI)

Title: Human relational reasoning and creativity: experimental and computational studies
 Dates: 08/01/18 – 7/31/19

NSF BCS-1655300 (PI)

Title: Discovering hierarchical representations for action understanding
 Dates: 08/01/17 – 7/31/21

UCLA Faculty Research Grant (PI)

Title: From perception to abstraction: visual analogy as a mechanism for understanding

- Dates: 07/01/16 – 07/1/17
 NSF BCS-1353391 (PI)
 Title: Understanding biological motion
 Dates: 07/01/14 –6/31/17
 NSF BCS-0843880 (PI)
 Title: CAREER: A Computational investigation into biological motion perception
 Dates: 08/01/09 –7/31/14
 CART Pilot grant (Co-PI, Martin Monti)
 Title: Impact of autism on action perception
 Dates: 08/01/13 –7/31/14
 Office of Naval Research (Co-I; project PI Keith Holyoak, UCLA)
 Title: Analogical reasoning: Integration of neural, behavioral and computational approaches
 Dates: 03/01/08 – 12/31/12
 Competitive Earmarked Research Grant from Hong Kong Research Grants Council (Co-I; project PI Chia-Huei Tseng)
 Title: Investigation of attention-modulated learning
 Dates: 08/01/10 – 07/31/12
 UCLA Faculty Research Grant (PI)
 Title: Learning and generalization of abstract semantic relations
 Dates: 08/01/10 – 07/31/11
 Air Force Office of Scientific Research (Co-I; project PI Alan Yuille, UCLA)
 Title: Hidden causal structure for reasoning and learning: Human cognition, machine intelligence, and statistics
 Dates: 12/01/08 – 11/31/11
 National Science Foundation (Co-I; project PI Alan Yuille, UCLA)
 Title: A computational theory of motion perception
 Dates: 07/01/07 – 06/30/10
 UCLA Faculty Research Grant (PI)
 Title: Phantom motion aftereffects in global motion perception
 Dates: 08/01/09 – 07/31/10
 Seed Funding Program for Basic Research of the University of Hong Kong (PI)
 Title: Generic priors in Bayesian inference for causal learning
 Dates: 06/11/07 – 12/10/08
 Competitive Earmarked Research Grant from Hong Kong Research Grants Council (PI)
 Title: Probing the visual information used in human recognition of biological movements

PUBLICATIONS

(*student co-authors in italics*)

1. *Baker, N., Lu, H., Erlikhman, G., & Kellman, P. (in press). Local features and global shape information in object classification by deep convolutional neural networks. Vision Research.*
2. *Kadambi, A., Ichien, N., Qiu, S. & Lu, H. (2020). Understanding the visual perception of awkwardness: How greetings go awry. Attention, Perception, & Psychophysics. 1-14.*
3. *Ichien, N., Lu, H., & Holyoak, K. (2020). Verbal analogy problem sets: an inventory of testing materials. Behavior Research Methods. 1-14.*
4. *Peng, Y. Ichien, N., & Lu, H. (2019). Causal actions enhance perception of continuous body movements. Cognition, 194.*

5. Edmonds, M., Gao, F., Liu, H., Xie, X., Qi, S., Rothrock, B., Zhu, Y., Wu, Y. N., **Lu, H.**, & Zhu, S. C. (2019). A tale of two explanations: Enhancing human trust by explaining robot behavior. *Science Robotics*, 4(37).
6. Zhang, C., Jia, B., Gao, F., Zhu, Y., **Lu, H.**, & Zhu, S. C. (2019). Learning perceptual inference by contrasting. In *Advances in Neural Information Processing Systems*, 1073-1085.
7. Shu, T., Peng, Y., **Lu, H.** & Zhu, S. (2019). Partitioning the perception of physical and social events with a unified psychological space. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*. Montreal, Canada: Cognitive Science Society.
8. Edmonds, M., Qi, S., Zhu, Y., Kubricht, J., Zhu, S., & **Lu, H.** (2019). Decomposing human causal learning: bottom-up associative learning and top-down schema reasoning. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*. Montreal, Canada: Cognitive Science Society.
9. Kadambi, A. & **Lu, H.** (2019). Individual differences in self-recognition from body movements. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*. Montreal, Canada: Cognitive Science Society.
10. **Lu, H.**, Liu, Q., Ichien, N., Yuille, A., & Holyoak, K. (2019). Seeing the meaning: vision meets semantics in solving pictorial analogy problems. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*. Montreal, Canada: Cognitive Science Society.
11. Peng, Y., Ichien, N., & **Lu, H.** (2019). Perception of continuous movements from causal actions. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*. Montreal, Canada: Cognitive Science Society.
12. **Lu, H.**, Wu, Y., & Holyoak, K. J. (2019). Emergence of analogy from relation learning. *Proceedings of the National Academy of Sciences*, 116, 4176-4181.
13. Burling, J. M., Kadambi, A., Safari, T., & **Lu, H.** (2019). The impact of autistic traits on self-recognition of body movements. *Frontiers in Psychology*, 9: 2687.
14. Baker, N., **Lu, H.**, Erlikhman, G. & Kellman, P. J. (2018). Deep convolutional networks do not classify based on global object shape. *PLoS Computational Biology*, 14(12): e1006613.
15. Keane, B., Peng, Y., Demmin, D., Silverstein, S. M., & **Lu, H.** (2018). Intact perception of coherent motion, dynamic rigid form, and biological motion in chronic schizophrenia. *Psychiatry Research*, 268, 53-59.
16. Baker, N., Erlikhman, G., Kellman, P., & **Lu, H.** (2018). Deep convolutional networks do not perceive illusory contours. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*. Madison, WI: Cognitive Science Society.
17. Peng, Y., Javangula, R., **Lu, H.** & Holyoak, K. (2018). Behavioral oscillations in verification of relational role bindings. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*. Madison, WI: Cognitive Science Society.
18. Kubricht, J., & **Lu, H.** (2018). Physical and causal judgments for objects collisions depend on relative motion. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*. Madison, WI: Cognitive Science Society.
19. Edmonds, M., Kubricht, J., Summers, C., Zhu, Y., Rothrock, B., Zhu, S. C., & **Lu, H.** (2018). Human causal transfer: Challenges for deep reinforcement learning. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*. Madison, WI: Cognitive Science Society.
20. Wang, D., Kubricht, J., Zhu, Y., Liang, W., Zhu, S. C., Jiang, C., & **Lu, H.** (2018). Spatially Perturbed Collision Sounds Attenuate Perceived Causality in 3D Launching Events. In *IEEE Conference on Virtual Reality and 3D User Interfaces*.
21. Shu, T. *, Peng, Y. *, Fan, L., **Lu, H.**, & Zhu, S. C. (2018). Perception of Human Interaction Based on Motion Trajectories: From Aerial Videos to Decontextualized Animations. *Topics in cognitive science*, 10(1), 225-241. *Equal contributors.
22. Burling, J., & **Lu, H.** (2018). Categorizing coordination from the perception of joint actions. *Attention, Perception, & Psychophysics*.80: 7-13.
23. Su, J., & **Lu, H.** (2017). Flash-lag effects in biological motion interact with body orientation and action. *Vision Research*. 140, 13-24.

24. Kubricht, J. R., **Lu**, H., & Holyoak, K. J. (2017). Intuitive physics: current research and controversies. *Trends in cognitive sciences*. 21(10), 749-759.
25. **Lu**, H., Tjan, B. S., & Liu, Z. (2017). Human efficiency in detecting and discriminating biological motion. *Journal of Vision*. 17(6):4, 1-14.
26. Shu, T.*, Peng, Y.*, Fan, L., **Lu**, H. & Zhu, S., (2017). Inferring human interaction from motion trajectories in aerial videos. *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*. London, UK: Cognitive Science Society. *Equal contributors. **Computational modeling prize in Perception/Action from the Cognitive Science Society.**
27. Kubricht, J.*, Zhu, Y. *, Jiang, C. *, Terzopoulos, D., Zhu, S., & **Lu**, H. (2017). Consistent probabilistic simulation underlying human judgment in substance dynamics. *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*. London, UK: Cognitive Science Society. *Equal contributors.
28. Lin, J., Zhu, Y., Kubricht, J., Zhu, S., & **Lu**, H. (2017). Visuomotor adaptation and sensory recalibration in reversed hand movement task. *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*. London, UK: Cognitive Science Society.
29. Peng, Y., Thurman, S., & **Lu**, H. (2017). Causal action: a fundamental constraint on perception and inference with body movements. *Psychological Science*, 28(6), 789-807.
30. Ye, T., Qi, S., Kubricht, J., Zhu, Y., **Lu**, H., Zhu, SC. (2017). The Martian: examining human physical judgments across virtual gravity fields. *IEEE Transactions on Visualization and Computer Graphics*, 23(4), 1399-1408.
31. Kubricht, J., **Lu**, H., & Holyoak, K. J. (2017). Individual differences in spontaneous analogical transfer. *Memory & Cognition*, 45, 576-588.
32. van Boxtel, J., Peng, Y., Su, J., & **Lu**, H. (2017). Individual differences in high-level biological motion tasks. *Vision Research*. 141, 135-144
33. Chen, D., **Lu**, H., & Holyoak, K. J., (2017). Generative inferences based on learned relations. *Cognitive Science*, 41, 1062-1092.
34. Su, J., van Boxtel, J. A., & **Lu**, H. (2016). Social interactions receive priority to conscious perception. *PLoS ONE*, 11(8). doi: 10.1371/journal.pone.0160468
35. Cheng, P., & **Lu**, H. (2016). Causal invariance as a constraint necessary for creating a causal representation of the world: Generalizing invariance of causal power. In M. R. Waldmann (Ed.), *Oxford handbook of causal reasoning*. New York: Oxford University Press, 65-84.
36. Kubricht, J., Jiang, C., Zhu, Y., Zhu, S-C., Terzopoulos, D., & **Lu**, H. (2016). Probabilistic simulation predicts human performance on viscous water-pouring problem. *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
37. Shu, T., Thurman, S. M., Chen, D., Zhu, S-C, & **Lu**, H. (2016). Critical features of joint actions that signal human interaction. *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
38. Peng, Y., Thurman, S M. & **Lu**, H. (2016). Causal action: a fundamental constraint on perception of bodily movements. *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*. Philadelphia, Pennsylvania: Cognitive Science Society.
39. Thurman, S.M., van Boxtel, J. J. A, Monti, M. M., Chiang, J. N., & **Lu**, H. (2016). Neural adaptation in pSTS correlates with perceptual aftereffects to biological motion and with autistic traits. *NeuroImage*, 136: 146-61. doi: 10.1016/j.neuroimage.2016.05.015.
40. Powell, D., Merrick, A., **Lu**, H., & Holyoak, K. J. (2016). Causal competition based on generic priors. *Cognitive Psychology*, 86, 62-86.
41. van Boxtel, J., Dapretto, M., & **Lu**, H. (2016). Intact recognition, but attenuated adaptation, for biological motion in youth with autism spectrum disorder. *Autism Research*, 9(10), 1103-1113.
42. Thurman, S. & **Lu**, H. (2016). A comparison of form processing involved in the perception of biological and non-biological movements. *Journal of Vision*, 16(1):1, 1-16.
43. Thurman, S. & **Lu**, H. (2016). Revisiting the importance of common body motion in human action perception. *Attention, Perception & Psychophysics*, 78(1), 30-36.

44. Lu, H., Rojas, R. R., Beckers, T., & Yuille, A. L. (2016). A Bayesian theory of sequential causal learning and abstract transfer. *Cognitive Science*, 40, 404-439.
45. Kubricht, J., Lu, H., & Holyoak, K. J. (2015). Animation facilitates source understanding and spontaneous analogical transfer. In Noelle, D. C., Dale, R., Warlaumont, A. S., Yoshimi, J., Matlock, T., Jennings, C. D., & Maglio, P. P. (Eds.). *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
46. Chen, D., Lu, H., & Holyoak, K. J. (2015). Learning and generalizing cross-category relations using hierarchical distributed representations. In Noelle, D. C., Dale, R., Warlaumont, A. S., Yoshimi, J., Matlock, T., Jennings, C. D., & Maglio, P. P. (Eds.). *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
47. van Boxtel, J. & Lu, H. (2015). Understanding biological motion. In R. Scott and S. M. Kosslyn (Eds.), *Emerging Trends in the Social and Behavioral Sciences: An Interdisciplinary, Searchable, and Linkable Resource* (pp. 1-14). Hoboken, NJ: Wiley.
48. van Boxtel, J. & Lu, H. (2015). Joints and their relations as critical features in action discrimination: Evidence from a classification image method. *Journal of Vision*, 15(1), 1-17.
49. Thurman, S., & Lu, H. (2014). Perception of social interactions for spatially scrambled biological motion. *PLOS ONE*, 9(11), 1-12.
50. Powell, D., Merrick, M. A., Lu, H., & Holyoak, K. J. (2014). Generic priors yield competition between independently occurring preventive causes. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society* (pp. 2893-2798). Austin, TX: Cognitive Science Society.
51. Bye, J. K., Nguyen, B. D., Lu, H., & Johnson, S. P. (2014). Anticipating an effect from predictive visual sequences: Development of infants' causal inference from 9 to 18 months. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society* (pp. 1976-1981). Austin, TX: Cognitive Science Society.
52. Chen, D., Lu, H., & Holyoak, K. J. (2014). The discovery and comparison of symbolic magnitudes. *Cognitive Psychology*, 71, 27-54.
53. Thurman, S. M., & Lu, H. (2014). Bayesian integration of position and orientation cues in perception of biological and non-biological forms. *Frontiers in Human Neuroscience*, 8: 91, 1-21.
54. Lee, A. L. F., & Lu, H. (2014). Global-motion aftereffect does not depend on awareness of the adapting motion direction. *Attention, Perception, & Psychophysics*, 76(3), 766-779. **“Best paper” award.**
55. Lu, H. (2013). Modeling causal learning. In H. Pashler (Ed.), *Encyclopedia of the mind*. Thousand Oaks, CA: Sage.
56. van Boxtel, J., & Lu, H. (2013). A biological motion toolbox for reading, displaying and manipulating motion capture data in research settings. *Journal of Vision*, 13(12), 1-16.
57. Chen, D., Lu, H., & Holyoak, K. J. (2013). Generative inferences based on a discriminative Bayesian model of relation learning. *Proceedings of the Thirty-five Annual Conference of the Cognitive Science Society*.
58. Powell, D., Merrick, M. A., Lu, H., & Holyoak, K. J. (2013). Generic priors yield competition between independently-occurring causes. *Proceedings of the Thirty-five Annual Conference of the Cognitive Science Society*.
59. Van Boxtel, J. & Lu, H. (2013). Impaired global, and compensatory local, biological motion processing in people with high levels of autistic traits. *Frontiers in Psychology*, 4:209, 1-10.
60. Keane, B., Lu, H., Papathomas, T., Silverstein, S., & Kellman, P. (2013). Reinterpreting behavioral receptive fields: Lightness induction alters visually completed shape. *PLOS ONE*, 8(6), 1-11.
61. Carroll, C., Cheng, P., & Lu, H. (2013). Inferential dependencies in causal inference: A comparison of belief-distribution and associative approaches. *Journal of Experimental Psychology: General*, 142(3), 845-863.

62. Thurman, S. M., & Lu, H. (2013). Physical and biological constraints govern perceived animacy of scrambled human forms. *Psychological Science*, 24, 1133-1141.
63. van Boxtel, J., & Lu, H. (2013). General commentary: A predictive coding perspective on autism spectrum disorders. *Frontiers in Psychology*, 4:19. doi: 10.3389/fpsyg.2013.00019.
64. Thurman, S. M. & Lu, H. (2013). Complex interactions between spatial, orientation and motion cues for biological motion perception across visual space. *Journal of Vision*, 13(2), 1-18.
65. Lu, H., Chen, D., & Holyoak, K. J. (2012). Bayesian analogy with relational transformations. *Psychological Review*, 119(3), 617-648.
66. van Boxtel, J., & Lu, H. (2012). Signature movements lead to efficient search for threatening actions. *PLoS ONE*, 7(5): e37085, 1-6. doi:10.1371/journal.pone.0037085
67. Lee, A. L. F. & Lu, H. (2012). Two forms of aftereffects induced by transparent motion reveal multilevel adaptation. *Journal of Vision*, 12(4), 1-13.
68. Keane, B. P., Lu, H., Papatomas, T. V., Silverstein, S. M., & Kellman, P. J. (2012). Is interpolation cognitively encapsulated? Measuring the effects of belief on Kanizsa shape discrimination and illusory contour formation. *Cognition*, 123, 404-418.
69. van Boxtel, J., & Lu, H. (2011). Visual search by action category. *Journal of Vision*, 11(7), 1-14.
70. Holyoak, K. J., & Lu, H. (2011). What the Bayesian framework has contributed to understanding cognition: Causal learning as a case study. *Behavioral and Brain Sciences*, 34, 203-204.
71. Huang, X., Lu, H., Zhou, Y., & Liu, Z. (2011). General and specific perceptual learning in radial speed discrimination. *Journal of Vision*, 11(4), 1-11.
72. Carroll, C., Cheng, P., & Lu, H. (2011). Uncertainty and dependency in causal inference. In L. Carlson, C. Hölscher & T. F. Shipley (Eds.), *Proceedings of the Thirty-third Annual Conference of the Cognitive Science Society* (pp. 1418-1423). Boston, MA: Cognitive Science Society.
73. Lu, H. (2010). Structural processing in biological motion perception. *Journal of Vision*, 10(12), 1-13.
74. Lee, A., & Lu, H. (2010). A comparison of global motion perception using a multiple-aperture stimulus. *Journal of Vision*, 10(4), 1-16.
75. Holyoak*, K. J., Lee*, H. S., & Lu*, H. (2010). Analogical and category-based inference: A theoretical integration with Bayesian causal models. *Journal of Experimental Psychology: General*, 139(4), 702-727. *equal contribution.
76. Lu, H., Lin, T., Lee, A., Vese, L., & Yuille, A. L. (2010). Functional form of motion priors in human motion perception. *Advances in Neural Information Processing Systems*, 23, 1495-1503. Cambridge, MA: MIT Press.
77. Wu, S., He, X., Lu, H., & Yuille, A. L. (2010). A unified model of short-range and long-range motion perception. *Advances in Neural Information Processing Systems*, 23, 2478-2486. Cambridge, MA: MIT Press.
78. Chen, D., Lu, H., & Holyoak, K. J. (2010). Learning and generalization of abstract semantic relations: Preliminary investigation of Bayesian approaches. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the Thirty-second Annual Conference of the Cognitive Science Society* (pp. 866-871). Austin, TX: Cognitive Science Society.
79. Carroll, C. D., Cheng, P. W., & Lu, H. (2010). Uncertainty in causal inference: The case of retrospective reevaluation. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the Thirty-second Annual Conference of the Cognitive Science Society* (pp. 1076-1081). Austin, TX: Cognitive Science Society.
80. Lu, H., Weiden, M., & Yuille, A. L. (2010). Modeling the spacing effect in sequential category learning. In Y. Bengio, D. Schuurmans, J. Lafferty, C. K. I. Williams & A. Culotta (Eds.), *Advances in Neural Information Processing Systems*, 22, 1159-1167. Cambridge, MA: MIT Press.
81. Lu, H., & Liu, Z. (2009). When a never-seen but less-occluded image is better recognized: Evidence from same-different matching experiments and a model. *Journal of Vision*, 9(4), 1-12.
82. Lee, H. S., Holyoak, K. J., & Lu, H. (2009). Integrating analogical inference with Bayesian causal models. In B. Kokinov, D. Gentner, & K. J. Holyoak (Eds.), *New frontiers in analogy research:*

- Proceedings of the Second International Conference on Analogy* (pp. 300-309). Sofia, Bulgaria: New Bulgarian University.
83. Wu, S., **Lu**, H., Lee, A., & Yuille, A.L. (2009). Motion integration using competitive priors. In D. Cremers, B. Rosenhahn, A. L. Yuille & F. R. Schmidt (Eds.) *Statistical and geometrical approaches to visual motion analysis* (pp. 235-258). New York: Springer.
<http://www.springer.com/computer/computer+imaging/book/978-3-642-03060-4>
 84. **Lu**, H., & Liu, Z. (2008). When a never-seen but less-occluded image is better recognized: Evidence from old-new memory experiments. *Journal of Vision*, 8(7), 1-9.
 85. **Lu**, H., Yuille, A., Liljeholm, M., Cheng, P. W., & Holyoak, K. J. (2008). Bayesian generic priors for causal learning. *Psychological Review*, 115(4), 955-984.
 86. Wu, S., **Lu**, H., & Yuille, A. L. (2008). Model selection and parameter estimation in motion perception. In D. Koller, D. Schuurmans, Y. Bengio, & L. Bottou (Eds.), *Advances in neural information processing systems*, 21, 1793-1800. Cambridge, MA: MIT Press.
 87. **Lu**, H., Rojas, R. R., Beckers, T., & Yuille, A. L. (2008). Sequential causal learning in humans and rats. In B. C. Love, K. McRae & V. M. Sloutsky (Eds.), *Proceedings of the Thirtieth Annual Conference of the Cognitive Science Society* (pp. 188-195). Austin, TX: Cognitive Science Society.
 88. Yuille, A. L., & **Lu**, H. (2008). The noisy-logical distribution and its application to causal inference. *Advances in neural information processing systems*, 20, 1673-1680. Cambridge, MA: MIT Press.
 89. Keane, B., **Lu**, H., & Kellman, P. (2007). Classification images reveal spatiotemporal contour interpolation. *Vision Research*, 47, 3460-75.
 90. Huang, X., **Lu**, H., Tjan, B., Zhou, Y., & Liu, Z. (2007). Motion perceptual learning: When only task-relevant information is learned. *Journal of Vision*, 7(10), 1-10.
 91. **Lu**, H., Yuille, A., Liljeholm, M., Cheng, P. W., & Holyoak, K. J. (2007). Bayesian models of judgments of causal strength: A comparison. In D. S. McNamara & G. Trafton (Eds.), *Proceedings of the Twenty-ninth Annual Conference of the Cognitive Science Society* (pp. 1241-1246). Austin, TX: Cognitive Science Society.
 92. **Lu**, H., & Liu, Z. (2006). Computing dynamic classification images from correlation maps. *Journal of Vision*, 6(4), 475-483.
 93. **Lu**, H., Tjan, B., & Liu, Z. (2006). Shape recognition alters sensitivity in stereoscopic depth discrimination. *Journal of Vision*, 6(1), 75-86.
 94. **Lu**, H., Yuille, A., Liljeholm, M., Cheng, P. W., & Holyoak, K. J. (2006). Modeling causal learning using Bayesian generic priors on generative and preventive powers. In R. Sun & N. Miyake (Eds.), *Proceedings of the Twenty-eighth Annual Conference of the Cognitive Science Society* (pp. 519-524). Mahwah, NJ: Erlbaum.
 95. **Lu**, H., Morrison, R. G., Hummel, J. E., & Holyoak, K. J. (2006). Role of gamma-band synchronization in priming of form discrimination for multi-object displays. *Journal of Experimental Psychology: Human Perception and Performance*, 32, 610-617.
 96. **Lu**, H., & Yuille, A. L. (2006). Ideal observers for detecting motion: Correspondence noise. In B. Schölkopf, J. Platt, & T. Hofmann (Eds.), *Advances in neural information processing systems*, 18, 827-834. Cambridge, MA: MIT Press.
 97. Hou, F., **Lu**, H., Zhou, Y., & Liu, Z. (2006). Amodal completion impairs stereo acuity discrimination. *Vision Research*, 46(13), 2061-2068.
 98. **Lu**, H., Zavagno, D., & Liu, Z. (2006). The glare effect does not give rise to a longer lasting afterimage. *Perception*, 35(5), 701-707.
 99. **Lu**, H., Qian, N., & Liu, Z. (2004). Learning motion discrimination with suppressed MT. *Vision Research*, 44, 1817-1825.
 100. Jiar, Y., & **Lu**, H. (2000). Fish-eye lens camera calibration for high accuracy stereo vision system. *Proceedings of SPIE International Society for Optical Engineering*, 4117, 280-288.
 101. **Lu**, H., Jiar, Y., Liu, W., Zhu, Y., & Xu, A. (2000). Stereo vision using fish-eye lens cameras for dense depth imaging. *Proceedings of International Conference on Image and Graphics*.

102. Jiar, Y., **Lu**, H., Xu, A., & Liu, W. (2000). Fish-eye lens camera calibration for stereo vision system. *Chinese Journal of Computer Science*, 23, 1215-1219.
103. Jiar, Y., **Lu**, H., & Liu, W. (2000). Fish-eye lens camera stereo vision for dense depth map recovery. *Chinese Journal of Computer Science*, 23, 1332-1336.
104. **Lu**, H., & Jiar, Y. (2000). Dense depth image recovery using multi-baseline stereo system. *Journal of Beijing Institute of Technology*, 20, 69-72.
105. **Lu**, H., & Jiar, Y. (1998). High resolution depth image recovery using multi-baseline stereo system. *Chinese Journal of Robotics*, 20, 460-464.