# John D. Coley

Department of Psychology 125 Nightingale Hall, Northeastern University 360 Huntington Avenue Boston, MA 02115-5000

Phone: 617.373.3548 Fax: 617.373.8714 j.coley@northeastern.edu http://www.northeastern.edu/corelab/

## **Positions Held**

2004-	Associate Professor of Psychology, Northeastern University, Boston, Massachusetts
2008-2009	Director of Undergraduate Studies, Department of Psychology, Northeastern University, Boston, Massachusetts
2007-2008	Senior Visiting Fellow, School of Psychology, University of New South Wales, Sydney, Australia
1998- 2004	Assistant Professor of Psychology, Northeastern University, Boston, Massachusetts
Education	
1993-1998	Postdoctoral Research Associate in Cognitive Psychology, Northwestern University, Evanston, Illinois
1986-1993	Ph.D. in Developmental Psychology, University of Michigan, Ann Arbor, Michigan

# **Research Interests**

Intuitive Biology and Life Science Education **Essentialist Thinking about Social Categories Conceptual Structure & Inductive Reasoning Conceptual Development** Cultural and Environmental Differences in Human Cognition

# **Funding History**

2015-2018	Investigating the influence of informal understandings about biology on formal learning of biological concepts. (J.D. Coley, PI; K.D. Tanner, CoPI; 1535496, \$1,384,554). National Science Foundation, Division of Education and Human Resources, Education Core Research.
2005	Experience and the Development of Folk Biological Reasoning (Supplemental). (J.D. Coley, PI; BCS 0542021, \$15,000). National Science Foundation, Division of Behavioral and Cognitive Sciences, Program in Developmental and Learning Sciences/Children's Research Initiative.
2003-2009	Experience and the Development of Folk Biological Reasoning. (J.D. Coley, PI; BCS 0236338, \$466,228). National Science Foundation, Division of Behavioral and Cognitive Sciences, Program in Developmental and Learning Sciences/Children's Research Initiative.

# **Publications**

# **Refereed Journal Articles**

Richard, M., Coley, J.D. & Tanner, K.D. (2017). Investigating Undergraduate Students' Use of Intuitive Reasoning and Evolution Knowledge in Explanations of Antibiotic Resistance. CBE: Life Sciences Education. DOI:10.1187/cbe.16-11-0317

J. D. Coley Curriculum Vitae-2/12

Arenson, M. & Coley, J.D. (2017). Anthropocentric by Default? Attribution of Familiar and Novel Properties to Living Things. *Cognitive Science*. DOI: 10.1111/cogs.12501

- Smyth, K., Feeney, A., Eidson, R.C., & Coley, J.D. (2017). Development of essentialist thinking about religion categories in Northern Ireland (and the United States). *Developmental Psychology*, *53*(3), 475-496.
- Coley, J.D., Arenson, M.B., Xu, Y., & Tanner, K.D. (2017). Intuitive biological thought: Developmental changes and effects of biology education in late adolescence. *Cognitive Psychology*, *92*, 1-21.
- Coley, J.D. & Tanner, K.D. (2015). Relations between intuitive biological thinking and biological misconceptions in biology majors and non-majors. *CBE: Life Sciences Education*, *14*, 1-19.
- Eidson, R.C. & Coley, J.D. (2014). Not so fast: Gender essentialism in young adults. *Journal of Cognition and Development*, 15 (2), 382-292.
- Smith, J.I., Combs, E.D., Nagami, P.H., Alto, V.M., Goh, H.G., Gourdet, M.A.A., Hough, C.M., Nickell, A.E., Peer, A.G., Coley, J.D. & Tanner, K.D. (2013). Development of the Biology Card Sorting Task to Measure Conceptual Expertise in Biology. *CBE: Life Sciences Education*, 12, 628-644.
- Kutchukian, P.S., Vasilyeva, N.Y., Xu, J., Lindvall, M.K., Michael P. Dillon, M.P., Glick, M., Coley, J.D. & Brooijmans, N. (2012). Inside the mind of a medicinal chemist: The role of human bias in compound prioritization during drug discovery. *PLoS ONE* 7(11): e48476. doi:10.1371/journal.pone.0048476.
- Coley, J. D. & Tanner, K. D. (2012). Common origins of diverse misconceptions: Cognitive principles and the development of biological thinking. *CBE: Life Sciences Education, 11,* 1-7.
- Coley, J. D. (2012). Where the wild things are: Informal experience and ecological reasoning. *Child Development*, 83 (3), 992-1006.
- Feeney, A., Coley, J.D. & Crisp, A. (2010). The relevance framework for category-based induction: Evidence from garden-path arguments. *Journal of Experimental Psychology: Learning, Memory & Cognition*, *36*(4), 906-919.
- Shafto, P., Kemp, C., Bonawitz, L.B., Coley, J.D. & Tenenbaum, J.B. (2008). Inductive reasoning about causally transmitted properties. *Cognition*, 109, 175-192.
- Coley, J.D. (2007). The human animal: Developmental changes in judgments of taxonomic and psychological similarity among humans and other animals. *Cognition, Brain, Behavior, 11,* 733-756.
- Shafto, P., Coley, J.D. & Baldwin, D. (2007). Effects of time pressure on context-sensitive property induction. *Psychonomic Bulletin & Review, 14,* 890-894
- Medin, D.L., Ross, N.O., Atran, S., Cox, D., Coley, J.D., Proffitt, J.B. & Blok, S. (2006). Folkbiology of freshwater fish. *Cognition*, 99, 237-273.
- Coley, J.D., Hayes, B., Lawson, C., & Moloney, M. (2004). Knowledge, expectations, and inductive inferences within conceptual hierarchies. *Cognition*, 90, 217-253
- Medin, D., Coley, J.D., Storms, G. & Hayes, B. (2003). A relevance theory of induction. *Psychonomic Bulletin and Review, 10,* 517-532.
- Shafto, P. & Coley, J.D. (2003). Development of categorization and reasoning in the natural world: Novices to experts, naïve similarity to ecological knowledge. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 29, 641-649
- Ross, N., Medin, D.L., Coley, J.D. & Atran, S. (2003). Cultural and experiential differences in the development of biological induction. *Cognitive Development*, *18*, 25-47.

J. D. Coley Curriculum Vitae-3/12

Stepanova, O. & Coley, J.D. (2002). The green-eyed monster: Concepts of envy and jealousy in Russian and English. *Journal of Cognition & Culture, 2,* 235-262.

- Bailenson, J.B., Shum, M.S., Atran, S., Medin, D. & Coley, J.D. (2002). A bird's eye view: Biological categorization and reasoning within and across cultures. *Cognition*, *84*, 1-53.
- Atran, S., Medin, D., Ross, N., Lynch, E., Vapnarsky, V., Ucan Ek, E., Coley, J., Timura, C., & Baran, M. (2002). Folkecology, cultural epidemiology, and the spirit of the commons: A garden experiment in the Maya lowlands. *Current Anthropology*, 43(3), 421-450.
- Ahn, W., Kalish, C., Gelman, S.A., Medin, D.L., Luhmann, C., Atran, S., Coley, J.D. & Shafto, P. (2001). Why essences are essential in the psychology of concepts. *Cognition*, 82, 59-69.
- Proffitt, J.B., Coley, J.D. & Medin, D.L (2000). Expertise and category-based induction. *Journal of Experimental Psychology: Learning, Memory & Cognition, 26,* 811-828
- Coley, J.D. (2000). On the importance of comparative research: The case of folkbiology. Child Development, 71, 82-90.
- Lynch, E. B., Coley, J. D., & Medin, D. L. (2000). Tall is typical: Central tendency, ideal dimensions, and graded category structure among tree experts and novices. *Memory & Cognition*, 28, 41-50.
- Atran, S.; Medin, D.; Ross, N.; Lynch, E.; Coley, J.; Ucan Ek'; E.; & Vapnarsky, V. (1999). Folkecology and commons management in the Maya Lowlands. *Proceedings of the National Academy of Sciences U.S.A.*, *96*, 7598-7603.
- Gelman, S. A., Coley, J. D., Rosengren, K. R., Hartman, E. E., & Pappas, A. S. (1998). Beyond labeling: The role of parental input in the acquisition of richly-structured categories. *Monographs of the Society for Research in Child Development, 63*, Serial No. 253.
- Coley, J. D., Medin, D. L., & Atran, S. (1997). Does rank have its privilege? Inductive inferences within folkbiological taxonomies. *Cognition*, 64(1), 73-112.
- Atran, S., Estin, P., Coley, J. D., & Medin, D. L. (1997). Generic species and basic levels: Essence and appearance in folk biology. *Journal of Ethnobiology*, *17*(1), 22-45.
- López, A., Atran, S., Coley, J. D., Medin, D. & Smith, E.E. (1997). The tree of life: Universal and cultural features of folkbiological taxonomies and inductions. *Cognitive Psychology*, *32*, 251-295.
- Medin, D. L., Lynch, E. B., Coley, J. D, & Atran, S. (1997). Categorization and reasoning among tree experts: Do all roads lead to Rome? *Cognitive Psychology*, *32*, 49-96.
- Coley, J. D. (1995). Emerging differentiation of folkbiology and folkpsychology: Attributions of biological and psychological properties to living things. *Child Development*, *66*, 1856-1874.
- Gelman, S. A., & Coley, J.D. (1990). The importance of knowing a dodo is a bird: Categories and inferences in 2-year-old children. *Developmental Psychology*, *26*, 796-804.
- Coley, J. D., & Gelman, S.A. (1989). The effects of object orientation and object type on children's interpretation of the word "big." *Child Development, 60,* 372-380.

# Refereed Conference Proceedings

Swiney, L., Kelemen, D., Shtulman, A., Coley, J.D., Betz, N., & Blancke, S. (2017). Intuitive Biology and Global Challenges: Applying Theoretical Insights for Public Good [Abstract]. In G. Gunzelmann, A. Howes, T. Tenbrink, & E. J. Davelaar (Eds.), *Proceedings of the 39th Annual Conference of the Cognitive Science Society* (pp. 33-34). Austin TX: Cognitive Science Society.

J. D. Coley Curriculum Vitae-4/12

Vasilyeva, N. & Coley, J.D. (2013). Evaluating two mechanisms of flexible induction: Selective memory retrieval and evidence explanation. In M. Knauff, M. Pauen, N.Sebanz, & I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 3645-3651). Austin, TX: Cognitive Science Society.

- Smyth, K., Pendergrast, C., Feeney, A., Coley, J.D., Eidson, R.C., & Niens, U. (2012). The inductive potential of religion categories in Northern Ireland. In N. Miyake, D. Peebles, & R. P. Cooper (Eds.), *Proceedings of the 34th Annual Conference of the Cognitive Science Society* (pp. 2351-2356). Austin, TX: Cognitive Science Society.
- Vasilyeva, N., Coley, J.D. & Muratore, T. (2009). Interaction of Taxonomic and Contextual Knowledge in Categorization of Cross-Classified Instances. In N. Taatgen & H. van Rijn (Eds.), *Proceedings of the 31st Annual Conference of the Cognitive Science Society* (721-726). Cognitive Science Society Inc.
- Baker, A. & Coley, J.D. (2005). Taxonomic and ecological relations in open-ended induction. In B.G. Bara, L. Barsalou & M. Bucciarelli (Eds.), *Proceedings of the 27<sup>th</sup> Annual Conference of the Cognitive Science Society* (181-183). Mahwah NJ: Lawrence Erlbaum Associates.
- Coley, J.D., Vitkin, A.Z., Seaton, C.E. & Yopchick, J.E (2005). Effects of Experience on Relational Inferences in Children: The Case of Folk Biology. In B.G. Bara, L. Barsalou & M. Bucciarelli (Eds.), *Proceedings of the 27<sup>th</sup> Annual Conference of the Cognitive Science Society* (471-475). Mahwah NJ: Lawrence Erlbaum Associates.
- Shafto, P., Kemp, C., Baraff, E., Coley, J.D. & Tenenbaum, J.B. (2005). Context-sensitive Induction. In B.G. Bara, L. Barsalou & M. Bucciarelli (Eds.), *Proceedings of the 27<sup>th</sup> Annual Conference of the Cognitive Science Society* (2003-2008). Mahwah NJ: Lawrence Erlbaum Associates.
- Vitkin, A.Z., Coley, J.D. & Hu, R. (2005). Children's Use of Relevance in Open-Ended Induction in the Domain of Biology. In B.G. Bara, L. Barsalou & M. Bucciarelli (Eds.), *Proceedings of the 27th Annual Conference of the Cognitive Science Society* (2319-2324). Mahwah NJ: Lawrence Erlbaum Associates.

# **Chapters in Edited Volumes**

- Coley, J.D. & Betz, N.J. (in press). Expertise. In M.H. Bornstein, M.E. Arteberry, K.L. Fingerman, & J.E. Lansford (Eds.), *The Sage Encyclopedia of Lifespan Human Development*. Thousand Oaks, CA: Sage Publications Inc.
- Coley, J. D. & Muratore, T.M. (2012). Trees, Fish, and Other Fictions: Folk Biological Thought and its Implications for Understanding Evolutionary Biology. In K. S. Rosengren, S. Brem, E. M. Evans, & G. Sinatra (Eds.). *Evolution challenges: Integrating research and practice in teaching and learning about evolution* (22-46). Cambridge: Oxford University Press.
- Coley, J.D. & Vasilyeva, N.Y. (2010). Generating inductive inferences: Premise relations and property effects. In B.H. Ross (Ed.) *The Psychology of Learning and Motivation*, *53*, 183-226. Burlington MA: Academic Press.
- Shafto, P., Coley, J.D. & Vitkin, A. (2007). Availability in category-based induction. In A. Feeney & E. Heit (Eds.), *Inductive reasoning: Experimental, developmental, and computational approaches*. Cambridge University Press, 114-136.
- Sachs, O.S. & Coley, J.D. (2006). Envy and jealousy in Russian and English: Labeling and conceptualization of emotions by native speakers and bilinguals. In A. Pavlenko (Ed.), *Bilingual minds: Emotional experience, expression, and representation* (209-231). Clevedon: Multilingual Matters Ltd.
- Coley, J.D., Shafto, P., Stepanova, O, & Barraff, E. (2005). Knowledge and category-based induction. In Ahn, W., Goldstone, R. L., Love, B. C., Markman, A. B., & Wolff, P. (Eds.), *Categorization inside and outside the laboratory: Essays in honor of Douglas L. Medin* (69-85). Washington, DC: American Psychological Association.
- Coley, J.D., Solomon, G.E.A., & Shafto, P. (2002). The development of folkbiology: A cognitive science perspective on children's understanding of the biological world. In P. Kahn & S. Kellert (Eds.), *Children and nature: Psychological, sociocultural and evolutionary investigations* (65-91). Cambridge, MA: MIT Press.
- Coley, J. D., Medin, D. L., Proffitt, J. B, Lynch, E. B., & Atran, S. (1999). Inductive reasoning in folkbiological thought. In D.L. Medin, D. L. & S. Atran (Eds.), *Folkbiology* (205-232). Cambridge, MA: MIT Press.

J. D. Coley Curriculum Vitae-5/12

Medin, D. L. & Coley, J. D. (1998). Concepts and categorization. In Hochberg, J. & Cutting, J. E. (Eds.), *Handbook of Perception and Cognition (2nd Ed.): Perception and Cognition at Century's End* (403-440). San Diego: Academic Press.

- Gelman, S. A., Coley, J. D., & Gottfried, G. M. (1994). Essentialist beliefs in children: The acquisition of concepts and theories. In L. W. Hirschfeld & S. A. Gelman (Eds.), *Mapping the mind: Domain specificity in cognition and culture* (341-365). Cambridge: Cambridge University Press.
- Gelman, S. A., & Coley, J. D. (1991). Language and categorization: The acquisition of natural kind terms. In J. P. Byrnes & S. A. Gelman (Eds.), Perspectives on language and thought: Interrelations in development (pp. 146-196). Cambridge: Cambridge University Press.

#### **Presentations**

#### **Invited Presentations**

2017 Yale Current Works in Developmental Psychology Speaker Series, New Haven CT (October).

Warwick Integrative Synthetic Biology Centre Workshop, Venice, Italy (September).

Invited Discussant, *Cultural Variation in the Development of Folkecological Knowledge*. Symposium presented at the Biennial Meeting of the Society for Research in Child Development, Austin TX (April).

- 2016 Cognition & Development Group, Boston College (March).
- Invited Keynote (Co-presented with Kimberly Tanner), Meeting of the Society for the Advancement of Biology Education Research (SABER), Minneapolis (July).
- 2013 Center for Mind, Brain and Culture, Emory University
- 2012 Northeastern University Honors Program, First Pages Interdisciplinary Faculty Panel
- 2011 Boston College, Department of Psychology (Developmental Program)
- 2010 Boston University, Department of Psychology (Human Development Program)

Boston College, Department of Counseling & Applied Developmental Psychology

2009 Queen's University (Belfast, UK), School of Psychology

University of Connecticut, Department of Psychology (Developmental Area)

2008 University of Queensland (Brisbane, Australia), School of Psychology

University of New South Wales (Sydney, Australia), School of Psychology

- 2005 Eunice Kennedy Shriver Center, Belmont MA
- 2004 Boston College, Department of Applied Developmental Psychology
- 2003 Emory University, Department of Psychology

Yale University, Department of Psychology

Chicago Botanic Garden (Glencoe IL), Categorization Inside and Outside the Lab: Festschrift in Honor of Douglas L. Medin

J. D. Coley Curriculum Vitae-6/12

Invited Discussant, *Children's Reasoning about Psychological and Biological Properties*, Symposium presented at the International Society for the Study of Behavioral Development, Ottawa, Ontario.

Brown University, Center for the Study of Human Development, Department of Education

Smith College, Department of Psychology

- 2001 Boston University, Department of Psychology (Human Development Program)
- 2000 Miami University, Department of Psychology
- 1995 University of Illinois at Urbana-Champaign, Department of Horticulture

## **Conference Presentations**

- Leffers, J., Coats, S., Govan, T., & Coley, J.D. (2017). *Relations between intuitive beliefs about race and facial recognition memory*. Poster presented at the 58th Annual Meeting of the Psychonomic Society, Vancouver (November).
- Xu, Y., Luken, A., Kim, N., & Coley, J.D. (2017). *Mental disorder diagnosis and treatment decisions: Symptoms, beliefs, and stigma*. Poster presented at the 58th Annual Meeting of the Psychonomic Society, Vancouver (November).
- Coley, J.D., Betz, N., Leffers, J., Xu, Y., Fux, M., de Nesnera, K., & Tanner, K.D. (2017). *Relations Between Intuitive Biological Thought and Scientific Misconceptions.* Poster presented at the Annual Meeting of the Cognitive Science Society, London (July).
- Betz, N. & Coley, J.D. (2017). *Intuitive Thinking Impacts Understanding Causes and Effects of Global Climate Change*. Paper presented at the Annual Meeting of the Cognitive Science Society, London (July).
- Leffers, J., Fux, M., Pitt, M., Douglas, E., Hut, K., Luken, A., Wilkins, H., & Coley, J.D. (2017). *Cheetahs, Penguins and Salamanders, Oh My! Intuitive Thinking and Formal Biology Education: The Case of Evolution.* Paper presented at 11<sup>th</sup> Annual Northeastern Evolutionary Psychology Society Conference, Binghamton NY (June).
- Leffers, J., Douglas, E., Hut, K., Luken, A., Pitt, M., Wilkins, H., & Coley, J.D. (2017). *Relations between intuitive thinking and evolutionary understanding: Cheetahs, Penguins, and Salamanders, oh my!* Poster presented at the 29<sup>th</sup> Annual Convention of the Association for Psychological Science, Boston MA (May).
- Coley, J.D., Xu, Y., Eidson, C., Feeney, A., & Dautel, J. (2017). *Cultural Differences in Essentialist Thinking about Social Categories: The Role of Perceived Social Conflict.* Paper presented at the 29<sup>th</sup> Annual Convention of the Association for Psychological Science, Boston MA (May).
- Vasilyeva, N., Ruggeri, A., Coley, J.D., & Lombrozo, T. (2017). *Development of Coordination between Explanation and Generalization*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Austin TX (April).
- Coley, J.D., Betz, N., Xu, Y., Leffers, J., de Nesnera, K., & Tanner, K.D. (2017). *Relations Between Intuitive Biological Thought and Scientific Misconceptions in Undergraduate Biology Majors and Non-Majors*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Austin TX (April).
- Feeney, A., Smyth, K., & Coley, J.D. (2017). Essentialist reasoning about culturally salient social categories in Northern Ireland (and the US). Poster presented at the Biennial Meeting of the Society for Research in Child Development, Austin TX (April).
- Leffers, J., Alto, A., Douglas, E., Hut, K., Luken, A., Wilkins, H., & Coley, J.D. (2017). *Relations between intuitive thinking and evolutionary understanding in Middle Schoolers*. Poster presented at the Annual Meeting of the Eastern Psychological Association, Boston MA (March).
- Coley, J.D., Xu, Y., Eidson, R.C., Feeney, A., & Dautel, J. (2017). *Cultural Differences in Essentialist Thinking about Social Categories*. Society for Applied Research in Memory and Cognition, Sydney, Australia (January).
- Arenson, M.B. & Coley, J.D. (2016). *Anthropocentric Thinking About Familiar and Novel Properties*. Poster presented at the 28<sup>th</sup> Annual Convention of the Association for Psychological Science, Chicago (May).
- Betz., N., Barrett, L.F. & Coley, J.D. (2016). *Priming Essentialist Beliefs about Emotions Increases In-Lab Negative Emotional Experiences (but Only for Women*). Society for Affective Science Conference, Chicago, IL (March).
- Betz, N., Barrett, L.F., & Coley, J.D. (2016). *The Malleability and Consequences of Essentialist Beliefs about Emotions*. Poster presented at the 28th Annual Convention of the Association for Psychological Science, Chicago (May).
- Coley, J.D. & Tanner, K.D. (2016). *Developmental and Instructional Changes in Intuitive Biological Thought*. Paper presented at the International Meeting of the Psychonomic Society, Grenada, Spain (May).

J. D. Coley Curriculum Vitae-7/12

Coley, J.D. & Xu, Y. (2016). Perceived Social Conflict Predicts Essentialist Thinking about Social Categories in Adults: Experimental and Cross-Cultural Evidence. Paper presented at the British Psychological Society, Developmental Psychology Section Annual Conference, Belfast UK (September).

- Xu, Y. & Coley, J.D. (2016). Diversity in Conflict: How Perception of Social Environment Shapes Essentialist Thinking about Social Categories. Poster presented at the 31st International Congress of Psychology, Yokohama, Japan (July).
- Xu, Y. & Coley, J.D. (2016). How Perception of Social Environment Shapes Essentialist Thinking about Social Categories: A Cross-Cultural Comparison. Paper presented at the 23<sup>rd</sup> Congress of International Association for Cross-Cultural Psychology, Nagoya, Japan (July).
- Xu, Y., Penta, D., Hurley, J., Dowd, M., & Coley, J.D. (2016). Essentialist thinking predicts culpability and punishment judgments in crime scenarios. Poster presented at the Society of Judgment and Decision-Making Annual Meeting, Boston, MA (November).
- Xu, Y. & Coley, J.D. (2016). *Cognitive Construals in U.S and Chinese 8th Graders' Intuitive Biology Thinking.* 57<sup>th</sup> Annual Meeting of the Psychonomic Society, Boston MA (November).
- Coley, J.D. (2015). *Environment, experience, and the salience of ecological relations*. Talk presented at the Biennial Meetings of the Society for Research in Child Development, Philadelphia (March).
- Coley, J.D., Smyth, K., Feeney, A. & Eidson, R.C. (2015). *Development of Essentialist Thinking about Social Categories in Northern Ireland and the USA*. Talk presented at the Biennial Meetings of the Society for Research in Child Development, Philadelphia (March).
- Eidson, R. C. & Coley, J.D. (2015). *Young adults' essentialist beliefs about social change.* Poster presented at the Biennial Meetings of the Society for Research in Child Development, Philadelphia (March).
- Betz, N., Shang, J., Lindquist, K., Coley, J.D., & Barrett, L.F. (2015). *Psychological Essentialism of Emotions in Chinese Samples*. Poster presented at the Society for Affective Science, San Francisco, CA (April).
- Xu, Y. & Coley, J.D. (2015) *Cognitive construals in US and Chinese 8th graders' intuitive biological thinking.* Poster presented at the Cognitive Development Society, Columbus OH (October).
- Eidson, R.C. & Coley, J.D. (2015). *Reassessing adults' social essentialist beliefs: The case of social induction.* Poster presented at the Cognitive Development Society, Columbus OH (October).
- Arenson, M.B. & Coley, J.D. (2014). *Intuitive Biological Reasoning in Biology Majors and Non Majors.* Paper presented at the Annual Meeting of the Eastern Psychological Association, Boston (March).
- Vasilyeva, N.Y. & Coley, J.D. (2014). *Context Effects in Explanation Evaluation*. Paper presented at the 36th Annual Conference of the Cognitive Science Society, Quebec City, Canada (July).
- Coley, J.D., Harrigan, L.M., & Arenson, M.B. (2013). *Relations Between Folk Biological Thought and Evolutionary Understanding in Middle School.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Seattle (April).
- Coley, J.D. (2013). *Relations Between Intuitive Biology and Evolutionary Understanding in Middle School.* Paper presented at Cognitive Development Society VIII Biennial Meeting, Memphis (October).
- Eidson, R.C. & Coley, J.D. (2013). *Individual Differences in Young Adults' Essentialist Responding About Gender Categories.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Seattle (April).
- Eidson, R.C. & Coley, J.D. (2013). *Uncovering the Extent of Young Adults' Social Essentialism.* Paper presented at Cognitive Development Society VIII Biennial Meeting, Memphis (October).
- Feeney, A., Smyth, K.C., Coley, J.D., Pendergrast, C. & Niens, U. (2013). *The inductive potential of children's religious categories in Northern Ireland.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Seattle (April).
- Vasilyeva, N.Y. & Coley, J.D. (2013). *Explanation as a source of property effects in inductive inference*. Paper presented at the 7th London Reasoning Workshop, London, UK (July).
- Vasilyeva, N.Y. & Coley, J.D. (2013). *Psychological Mechanism of Constrained Knowledge Recruitment in Inductive Inference Generation.* Paper presented at the Meeting of the European Society for Philosophy and Psychology, Granada, Spain (July).
- Vasilyeva, N.Y. & Coley, J.D. (2013). *Evaluating Two Mechanisms of Flexible Induction: Selective Memory Retrieval and Evidence Explanation*. Paper presented at the 35<sup>th</sup> Annual Conference of the Cognitive Science Society, Berlin, Germany (August).
- Coley, J.D. & Silveira, S. (2012, July). *Executive function and selective inductive inference*. Paper presented at the International Conference on Thinking, London.
- Wastell, C., Feeney, A., Coley, J. & Weeks, N. (2012, July). *Processing disfluency relates to belief revision via a process of evidence reappraisal*. Paper presented at the International Conference on Thinking, London.
- Coley, J.D., Silveira, S. & Torressen, C. (2012, March). *Executive Function and Selective Inductive Reasoning in Late Adolescents*. Paper presented at the Biennial Meeting for the Society for Research in Adolescence, Vancouver, Canada.

J. D. Coley Curriculum Vitae-8/12

Eidson, R.C. & Coley, J.D. (2012, March). Reassessing the Development of Psychological Essentialism in the Social Category of Gender. Paper presented at the Biennial Meeting for the Society for Research in Adolescence, Vancouver, Canada.

- Vasilyeva, N.Y. & Coley, J.D. (2011). *Inductive Selectivity and Integration of Information from Multiple Sources.* Poster presented at the 33rd Annual Conference of the Cognitive Science Society, Boston, MA.
- Vasilyeva, N.Y. & Coley, J.D. (2011). *Inductive Selectivity and Knowledge Integration*. Poster presented at the 23rd Annual Convention of the Association for Psychological Science, Washington, DC.
- Coley, J.D. (2009). Folk biological induction: Environmental and developmental differences in the use of taxonomic and ecological knowledge. Paper presented at the International Conference on Biological Understanding and Theory of Mind: Core Knowledge and Naïve Conceptions in Children and Adults, Reims, France.
- Coley, J.D., Muratore, T.M., & Vasilyeva, N.Y. (2009). Folk Biological induction: Environmental and developmental differences in the use of taxonomic and ecological knowledge. Paper presented at the Biennial Meetings of the Society for Research in Child Development, Denver, CO.
- Feeney, A., Coley, J.D. & Crisp, A. (2009). *Belief updating in garden path arguments: A test of the relevance theory of category-based induction.* Paper presented at the 50th Annual Meeting of the Psychonomic Society, Boston.
- Muratore, T.M., & Coley, J.D. (2009). *The role of knowledge in folk biological induction.* Paper presented at the International Conference on Biological Understanding and Theory of Mind: Core Knowledge and Naïve Conceptions in Children and Adults, Reims, France.
- Muratore, T.M., & Coley, J.D. (2009). *Cognitive flexibility in folk biological induction.* Paper presented at the Biennial Meetings of the Society for Research in Child Development, Denver, CO.
- Vasilyeva, N. & Coley, J.D. & Muratore, T. (2009). Effects of development and experience on open-ended inductive reasoning about nature. Paper presented at the International Conference on Biological Understanding and Theory of Mind: Core Knowledge and Naïve Conceptions in Children and Adults, Reims, France.
- Vasilyeva, N. & Coley, J.D. & Muratore, T. (2009). *Interaction of taxonomic and contextual knowledge in categorization of cross-classified instances*. Paper presented at the 31st annual Conference of the Cognitive Science Society, Amsterdam, The Netherlands.
- Coley, J.D. (2008). Selective Use of Taxonomic, Relational and Causal Knowledge in Open-ended Categorical Induction. Paper presented at the Experimental Psychology Conference, Australasian Experimental Psychology Society, Fremantle, Western Australia.
- Muratore, T. & Coley, J.D. (2008). *Interactions Between Taxonomic and Contextual Knowledge in Folk Biology.* Paper presented at the Experimental Psychology Conference, Australasian Experimental Psychology Society, Fremantle, Western Australia.
- Vasilyeva, N.Y. & Coley, J.D. (2008). *Representation of Human Kinds and Individuals.* Paper presented at the Experimental Psychology Conference, Australasian Experimental Psychology Society, Fremantle, Western Australia.
- Muratore, T. & Coley, J.D. (2008). *Interactions Between Taxonomic and Contextual Knowledge in Folk Biology.* Paper presented at the Annual Meeting of the American Association for the Advancement of Science, Boston, Massachusetts.
- Vasilyeva, N.Y. & Coley, J.D. (2008). *Representation of Human Kinds and Individuals.* Paper presented at the Annual Meeting of the American Association for the Advancement of Science, Boston, Massachusetts.
- Coley, J.D. Vitkin, A.Z., Vasilyeva, N.Y. & Amato, K. (2007). Experience Increases Flexible Ecological Reasoning. Paper presented at the 15<sup>th</sup> Biennial Conference of the Australasian Human Development Association, University of New South Wales, Sydney, Australia.
- Vitkin, A.Z., Vasilyeva, N.Y., Coley, J.D., Baker, A. & Ciampanelli, N. (2007). *Biological Reasoning in Preschool Children: The Roles of Knowledge and Experience*. Paper presented at the Biennial Meetings of the Society for Research in Child Development, Boston, MA.
- Coley, J.D. & Vitkin, A.Z. (2007). Reasoning about Biology: Effects of Experience on Domain-General and Domain-Specific Principles. Paper presented at the Biennial Meetings of the Society for Research in Child Development, Boston, MA.
- Vitkin, A.Z., & Coley, J.D. (2007). *Ponds, Pets & PBS: Measuring Children's Experience with Nature.* Paper presented at the Biennial Meetings of the Society for Research in Child Development, Boston, MA.
- Coley, J.D., & Vitkin, A.Z. (2007). *Effects of Experience on Flexibility in Folk Biological Reasoning*. Paper presented at the Biennial Meetings of the Society for Research in Child Development, Boston, MA.
- Coley, J.D. (2006). Experiential Differences in the Development of Taxonomic and Relational Inductive Reasoning. Paper presented at the Meeting of the International Society for the Study of Behavioural Development, Melbourne, Australia.
- Coley, J.D., Shafto, P. & Baldwin, D. (2006). *Availability and Context-Sensitive Inductive Reasoning.* Paper presented at the 47<sup>th</sup> Annual Meeting of the Psychonomic Society, Houston.
- Feeney, A., Coley, J.D., Crisp, A. & Vitkin, A. (2006). *Relevance and Category-Based Induction*. Paper presented at the 47<sup>th</sup> Annual Meeting of the Psychonomic Society, Houston.

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Shafto, P., Coley, J.D. & Baldwin, D. (2005). *Availability in Inductive Reasoning*. Paper presented at the 46<sup>th</sup> Annual Meeting of the Psychonomic Society, Toronto.

- Vitkin, A., Coley, J.D. & Feigin, K. (2005). *Accessibility of Taxonomic and Script Knowledge in the Domain of Food.* Paper presented at the 46<sup>th</sup> Annual Meeting of the Psychonomic Society, Toronto.
- Coley, J.D., Vitkin, A. & Baker, A. (2005). *Experience and the Development of Folk Biological Reasoning*. Paper presented at the 4th Biennial Meeting of the Cognitive Development Society, San Diego, CA.
- Baker, A. & Coley, J.D. (2005). *Taxonomic and ecological relations in open-ended induction*. Paper presented at the 27<sup>th</sup> Annual Conference of the Cognitive Science Society, Stresa, Italy.
- Coley, J.D., Vitkin, A.Z., Seaton, C.E. & Yopchick, J.E (2005). *Effects of Experience on Relational Inferences in Children: The Case of Folk Biology.* Paper presented at the 27<sup>th</sup> Annual Conference of the Cognitive Science Society, Stresa, Italy.
- Shafto, P., Kemp, C., Baraff, E., Coley, J.D. & Tenenbaum, J.B. (2005). *Context-sensitive Induction*. Paper presented at the 27<sup>th</sup> Annual Conference of the Cognitive Science Society, Stresa, Italy.
- Vitkin, A.Z., Coley, J.D. & Hu, R. (2005). *Children's Use of Relevance in Open-Ended Induction in the Domain of Biology.* Paper presented at the 27<sup>th</sup> Annual Conference of the Cognitive Science Society, Stresa, Italy.
- Coley, J.D. (2005). *Relational Properties in Folk Biological Induction*. Paper presented at the Biennial Meetings of the Society for Research in Child Development, Atlanta, GA.
- Vitkin, A., Coley, J.D. & Kane, R. (2005). Salience of Taxonomic and Ecological Relations in Children's Biological Categorization. Paper presented at the Biennial Meetings of the Society for Research in Child Development, Atlanta, GA.
- Coley, J.D., Baker, A, & Kemp, C. (2004). *Taxonomic and Ecological Relations in Open-Ended Induction*. Paper presented at the 45<sup>th</sup> Annual Meeting of the Psychonomic Society, Minneapolis, MN.
- Vitkin, A., Coley, J.D. & Kane, R. (2004). *The Role of Experience in the Development of Biological Reasoning in Children.* Paper presented at the 45<sup>th</sup> Annual Meeting of the Psychonomic Society, Minneapolis, MN.
- Coley, J.D. & Baker, A. (2004). *Taxonomic and Ecological Relations in Open-Ended Folk Biological Induction.* Paper presented at the 5<sup>th</sup> Annual International Conference on Thinking, Leuven, Belgium.
- Hayes, B., Coley, J.D., Lawson, C., & Moloney, M. (2004). *Knowledge, Expectations, and Inductive Inferences Within Conceptual Hierarchies*. Paper presented at the 5<sup>th</sup> International Conference on Thinking, Leuven, Belgium.
- Shafto, P., Kemp, C., Baraff, E., Coley, J.D., & Tenenbaum, J. (2004). *Inductive Reasoning with Novel Diseases: Causal Generalizations over Food Web Relations.* Paper presented at the 5<sup>th</sup> International Conference on Thinking, Leuven, Belgium.
- Baraff, E. & Coley, J.D. (2003). *Thinking About Music: Novice and Expert Inductive Reasoning.* Paper presented at the 25<sup>th</sup> Annual Conference of the Cognitive Science Society, Boston, MA.
- Coley, J.D. & Baraff, E. (2003). *Effects of Time Pressure on Expert and Novice Category-Based Induction.* Paper presented at the 44th Annual Meeting of the Psychonomic Society, Vancouver, British Columbia.
- Coley, J.D. & Blaszczyk, K. (2003). *Salience of Taxonomic Versus Ecological Relations in Urban and Rural Children's Folk Biology.*Paper presented at the Biennial Meetings of the Society for Research in Child Development, Tampa, FL.
- Coley, J.D. & Freeman, A.C. (2003). Folk Biological Induction in Urban and Rural Children. Paper presented at the Biennial Meetings of the Society for Research in Child Development, Tampa, FL.
- Stepanova, O. & Coley, J.D. (2003). *Animals and Alcohol: The Role of Experience in Inductive Reasoning among College Students.*Paper presented at the 44<sup>th</sup> Annual Meeting of the Psychonomic Society, Vancouver, British Columbia.
- Coley, J.D., Medin, D.L., Ross, N. & Atran, S. (2001). *Anthropocentrism in folk biology: A comparison of urban, rural and Native American children.* Paper presented at the Biennial Meetings of the Society for Research in Child Development, Minneapolis, MN.
- Shafto, P. & Coley, J.D. (2001). From the depths of the sea to you and me: Expertise and adult conceptual development. Paper presented at the Biennial Meetings of the Society for Research in Child Development, Minneapolis, MN.
- Coley, J. D., Medin, D.L. & James, L.B. (1999). *Folk biological induction among Native American children.* Paper presented at the Biennial Meetings of the Society for Research in Child Development, Albuquerque, NM.
- Coley, J. D. (1997). *The acquisition of folkbiology: Conceptual change into what?* Paper presented at the Biennial Meetings of the Society for Research in Child Development, Washington DC.
- Medin, D. L., Coley, J. D., & Lynch, E. B. (1996). The basic level and privilege in relation to goals, *theories, and similarity*. Invited address presented at the Third International Workshop on Multi-strategy Learning, Harpers Ferry WV.
- Lynch, E., Coley, J. D., & Medin, D. L. (1995). *Determinants of typicality in tree experts.* Paper presented at the 27th Annual Meeting of the Psychonomic Society, Los Angeles.
- Gelman, S. A., Coley, J. D., Hartman, E. & Pappas, A. (1995). *Parent-child conversations about categories during picturebook reading.* Paper presented at the bienniel meeting of the Society for Research in Child Development, Indianapolis, IN.

Coley, J. D., Medin, D. L., & Lynch, E. B. (1994). Does rank have its privilege? Inductive inferences within folkbiological hierarchies. Paper presented at the Workshop on *Folkbiology: Cross-disciplinary perspectives on the organization of biological concepts*, Northwestern University, Evanston, IL.

- Coley, J. D. (1994). Emerging differentiation of folkbiology and folkpsychology: Attribution of biological and psychological properties to nonhuman living things. Paper presented at the Conference on Human Development, Pittsburgh, PA.
- Coley, J. D. (1993). *Parental feedback to child labeling as input to conceptual development*. Paper presented at the bienniel meeting of the Society for Research in Child Development, New Orleans, LA.
- Gutheil, D. G., Backscheider, A. G., & Coley, J. D. (1993). *The importance of behavioral properties in judgments of category membership*. Paper presented at the bienniel meeting of the Society for Research in Child Development, New Orleans, LA.
- Backscheider, A. G., Coley, J. D., & Gutheil, D. G. (1991). *Children's use of information about insides and behavior in predicting animals' appearances*. Paper presented at the bienniel meeting of the Society for Research in Child Development, Seattle. WA.
- Coley, J. D., Gelman, S. A., Rosengren, K. R., Hartman, E. E., & Pappas, A. S. (1991). *Parent-child talk about categorical, thematic, and similarity relations*. Paper presented at the bienniel meeting of the Society for Research in Child Development, Seattle, WA.
- Coley, J. D. (1989). *The effects of object orientation and object type on children's interpretation of the word "big."* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Kansas City, MO.
- Gelman, S. A., & Coley, J. D. (1989). *Relations between categorical and perceptual similarity*. Paper presented in symposium entitled *Perceptual Similarity and Relational Thought* at the Biennial Meeting of the Society for Research in Child Development, Kansas City, MO.
- Coley, J. D., & Shore, C. (1987). *Cognitive and linguistic correlates of verbal and gestural communicative intent at twenty months.*Paper presented at the Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.

#### **Awards and Honors**

2004 2005

2004-2005	Northeastern University Center for Work and Learning Faculty Research Fellowship
2000	Teaching Excellence Award, Department of Psychology, Northeastern University
1991-1992	Rackham Predoctoral Fellowship, University of Michigan
1990-1991	NICHD Training Fellowship, University of Michigan
1986-1990	University of Michigan Regents Graduate Fellowship
1986	Phi Beta Kappa, Miami University
1986	E.F. Patten Prize, Outstanding Senior Psychology Major, Miami University
1982-1986	Leroy S. Galvin Alumni Scholarship, Miami University
1982-1986	Ohio Regents Scholarship, Miami University

# **Professional Memberships**

Association for Psychological Science
Cognitive Development Society
Cognitive Science Society
Psychonomic Society
Society for the Advancement of Biology Education Research
Society for Applied Research in Memory and Cognition
Society for Research in Child Development

# **Teaching**

# **Undergraduate Courses Taught**

Cognition Cognitive Development Developmental Psychology Honors Cognition

Honors Interdisciplinary Seminar: Of Two Minds: Intuition and Deliberation in Human Decision Making

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Laboratory in Developmental Psychology

Laboratory in Cognition Research in Psychology

Seminar in Cognition: *Culture & Cognition*Seminar in Cognition: *Differences in Thinking*Seminar in Cognition: *The Psychology of Thinking* 

Seminar in Cognition: The Development of Social Thinking

Seminar in Cognition: Intuitive Theories, Scientific Theories, and How We Understand the World

# **Graduate Courses Taught**

Proseminar in Cognition Research Methodologies in Psychology Seminar in Cognition: *Reasoning* Seminar in Cognition: *Concepts* 

Seminar in Cognition: Essentialist Thinking

# **Graduate Students Supervised**

Emily Dahlgaard Thor (Ph.D. expected 2022)
Jessica Leffers (Ph.D. expected 2021)
Nicole Betz (Ph.D. expected 2019)
Yian Xu (Ph.D. expected 2019)
R. Cole Eidson (Ph.D. 2014)
Nadya Vasilyeva (Ph.D. 2010)
Tara Muratore (M.A. 2009)
Anna Vitkin (M.A. 2006)
Allison Baker (Ph.D. 2005)
Olga Stepanova Sachs (Ph.D. 2004)
Patrick Shafto (Ph.D. 2004)

# **Professional Activities**

2017	External tenure reviewer, Department of Educational Psychology, Special Education, and Communication Disorders, Georgia State University (August).
Symposia	
2017	Symposium Co-Chair, <i>Stereotypes and Essentialism Under Different Sociocultural Contexts</i> . 29 <sup>th</sup> Annual Convention of the Association for Psychological Science, Boston MA. (May)
2017	Symposium Chair, <i>Relations Between Intuitive Thinking and Scientific Understanding Across Development.</i> Biennial Meeting of the Society for Research in Child Development, Austin TX. (April)
2016	Symposium Co-Chair, <i>Categories and Conflict: The Development of Social Essentialism.</i> British Psychological Society, Developmental Psychology Section Annual Conference, Belfast UK. (September)
2013	Symposium Chair, <i>Intuitive Concepts Versus Biological Science: The Case of Evolution</i> . Biennial Meeting of the Society for Research in Child Development, Seattle WA.
2007	Symposium Chair, <i>Development of Flexibility in Categorization and Reasoning Within and Across Domains</i> , presented at the Biennial Meetings of the Society for Research in Child Development, Boston MA.
2005	Symposium Chair, <i>No Concept is an Island: Relational Properties in Conceptual Development</i> , presented at the Biennial Meetings of the Society for Research in Child Development, Atlanta GA.

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2002 Invited Discussant, Children's Reasoning about Psychological and Biological Properties, Symposium presented at the International Society for the Study of Behavioral Development, Ottawa, Ontario.

## Reviewing

# **Journal Reviewing**

Monitoring Editor, Life Science Education, 2017-2020 Editorial Board Member, Journal of Cognition and Development, 2009-2012

Ad Hoc Reviewer: American Journal of Psychology, British Journal of Developmental Psychology, Canadian Journal of Psychology, Child Development, Cognition, Cognition-Brain-Behavior, Cognitive Development, Cognitive Psychology, Cognitive Science, Developmental Psychology, European Journal of Developmental Psychology, International Journal of Behavioral Development, Journal of Applied Developmental Psychology, Journal of Cognition and Development, Journal of Experimental Child Psychology, Journal of Experimental Psychology: General; Journal of Experimental Psychology: Learning, Memory & Cognition; Memory & Cognition, Merrill-Palmer Quarterly, Monographs of the Society for Research in Child Development, Personality & Social Psychology Bulletin, Psychological Bulletin, Psychological Science, Psychonomic Bulletin & Review, Social Cognition, Thinking & Reasoning

# **Grant Reviewing**

2017-2018	Member, National Science Foundation Developmental Science Program College of Reviewers
2015	Panelist, NSF, Directorate for Education and Human Resources (EHR), Core Education Research Program
2012	Invited Outside Reviewer, Israel Science Foundation
2010	Panelist, NSF, Division of Research on Learning in Formal and Informal Science (DRL), Directorate for Education and Human Resources (EHR), Research on Education in Science and Engineering (REESE) Program
2007	Invited Outside Reviewer, NSF, Division of Behavioral & Cognitive Sciences, <i>Program on Developmental &amp; Learning Sciences</i>
2006	Invited Outside Reviewer, NS, Division of Behavioral & Cognitive Science, <i>Perception, Action &amp; Cognition Program</i>
2004	Invited Outside Reviewer, NSF, Division of Behavioral & Cognitive Sciences, <i>Program on Developmental &amp; Learning Sciences/Child Research Initiative</i>
2004	Panelist, NSF, Division of Education and Human Resources, <i>Research on Learning and Education (ROLE)</i> Program, National Science Foundation
2002	Panel Chair, Small Business Innovation Research (SBIR) Program, Office of Educational Research and Improvement, U.S. Department of Education

# **Conference Reviewing**

Annual Meeting of the Cognitive Science Society (2004, 2005, 2006, 2017) Biennial Meetings of the Society for Research in Child Development (1997, 1999, 2003, 2005, 2007, 2013, 2017) Conference on Human Development (1993)

## **Reviewing for Publishers**

McGraw-Hill Publishers, MIT Press, Psychology Press